NATIONAL BANK OF KAZAKHSTAN

MONETARY POLICY GUIDELINES
OF THE REPUBLIC OF KAZAKHSTAN
FOR 2019

Almaty
November 2018

FOREWORD

The main objective of the National Bank's monetary policy is to ensure the price stability in the Republic of Kazakhstan. Establishing a macroeconomic environment with a steadily low inflation is one of paramount prerequisites for a sustainable development of the economy. As part of the disinflation strategy, in 2018 inflation targets were set to follow a downward path by 2020 with the actual inflation being fixed at below 4%.

In the long term, the economic growth depends on external structural parameters that are beyond the scope of the central bank. The monetary policy, in essence, has a stabilizing nature and is aimed to smooth economic cycles.

Stabilization and normalizing of market interest rates, as a result of low inflation, development of the interest rate channel and a gradual de-emphasis of the exchange rate channel in the monetary transmission help to meet this objective. Therefore, the National Bank will continue to implement its monetary policy under the inflation targeting regime and it acknowledges the continuity of goals and principles of its policy. The base rate remains to be a key policy instrument. The monetary policy will be implemented in the environment of a floating exchange rate regime.

The inflation forecast and forecast of other macroeconomic variables still make the basis for the decision-making about the base rate. Forecasting of variables on a quarterly basis enables to obtain the up-to-date assessment of the future dynamics of variables and, thus, to respond to long-term changes in the market environment in a timely fashion. By doing so, the base rate reflects inflation expectations on a 12-month horizon, long-term neutral (in terms of inflation) economic growth rates, as well as a desired stance of the monetary policy (expansionary, neutral or contractionary).

The National Bank will continue to take measures to stabilize and anchor inflation expectations of economic entities. Anchoring inflation expectations and ensuring their gradual reduction will help to increase the sustainability of the economy to internal and external shocks; that, in turn, will have a positive impact on how effectively the monetary policy objectives will be achieved.

Stabilization of the financial sector still represents another important factor in encouraging economic growth. In 2017-2018, the Program for Increasing Financial Sustainability of the Banking Sector of the Republic of Kazakhstan was implemented; this enabled to clean up the banking sector from insolvent banks, to increase the asset quality as well as to build up capacity for the future growth of lending activity. In 2019, the National Bank is introducing a new supervisory practice – a risk-oriented approach, which is implemented based on the experience of the European Union member countries, USA, as well as the EAEU (Russia, Belarus). Rehabilitation of the banking sector and new approaches to regulation and supervision will allow reducing risks for bank depositors significantly.

The National Bank will ensure that transparency and predictability of its policy is enhanced further by improving communications both through timely information regarding its future actions and through the dissemination of required

statistical and analytical information. Increasing disclosure and transparency of information is a key factor for the growth of confidence of the economic entities in the implementing monetary policy.

I.   THE MONETARY POLICY
OF THE REPUBLIC OF KAZAKHSTAN IN 2018

In 2018, the monetary policy was premised upon the principles and approaches that were earlier specified by the National Bank in the prior "Monetary Policy Guidelines of the Republic of Kazakhstan" and was aimed to ensure achievement of the medium-term inflation target. The inflation targeting regime was dictating the decision-making that translates into the attainment of inflation targets. The target band for end of 2018 was set within 5-7%.

In 2018, the annual inflation was demonstrating a downward trend, reaching 5.3% in November (in December 2017 – 7.1%), which is close to the lower boundary of the target band (Figure 1). Till the year-end, inflation is expected to stay within the band.

Figure 1

**Dynamics of inflation and contribution of its components, %**
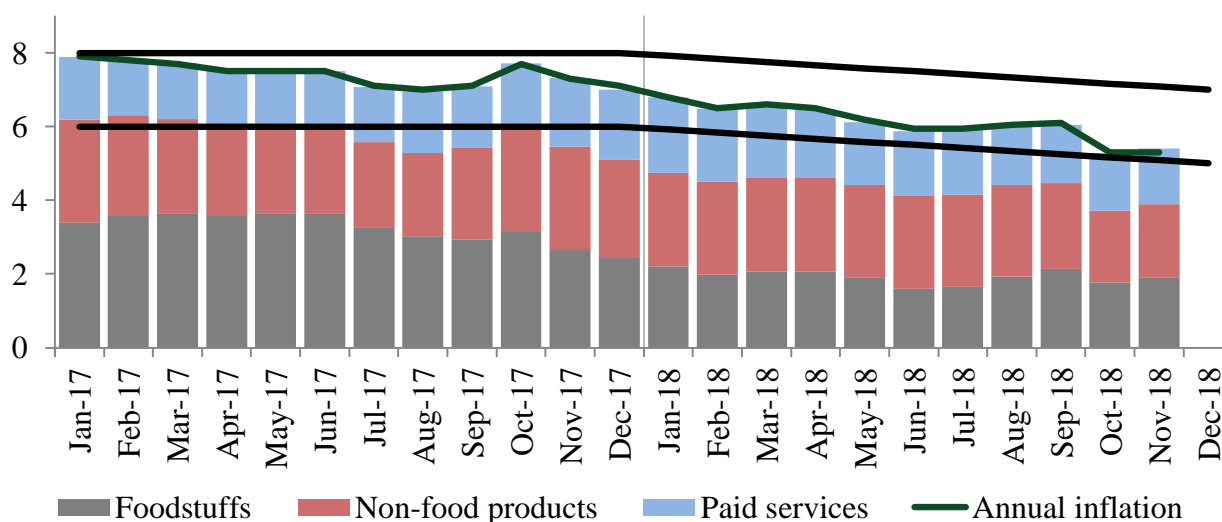
Maintaining monetary conditions at the level close to a neutral one as well as a limited import of inflation driven by a low inflation background in countries-main trading partners contributed to a gradual deceleration of inflation pressure. Besides, there was a sufficient supply in food markets and growth rates of prices of regulated services were slowing down. Expansion of aggregate demand, as a result of the recovering rise in real income of the population and positive growth rates of the consumer lending, served as a constraining factor for a faster deceleration of inflation.

In 2018, the correlation between the non-shock changes in the exchange rate of the tenge and domestic prices was weakening. The deceleration of inflation was occurring against depreciation of the tenge when over 11 months of 2018 the market exchange rate of the tenge had depreciated by 11.8% (throughout 2017 – by 0.3%). According to the National Bank, the public is getting accustomed to the exchange rate fluctuations in a sense that retail prices of consumer goods are becoming less elastic versus the exchange rate.

A perception of inflation and inflation expectations of households continued to follow their long-term downward trend. However, in the near term inflation expectations remain unstable and are prone to the detrimental effect of factors, especially on the supply side in certain commodity markets and on the part of the exchange rate. Given that the sample of responders selected for the poll characterizes an average citizen of the country but not professional economists or financiers, assessments are subjective and often overestimated. So, in November 2018 perceived households' inflation which was calculated on the base of quantitative question (respondents were asked to provide their own inflation measure for the last 12 months) made up 16.8%, which is more than three times larger than the actual inflation. Nonetheless, the dynamics of inflation expectations reflect the degree of inflation risks quite well. Therefore, it is one of the key indicators in the decision-making regarding the base rate level.

A quantitative assessment of inflation expected in 12 months reduced from 7.1% at the beginning of the year to 5.3% in November (Figure 2).

Figure 2

Estimation of households' perception of inflation, %
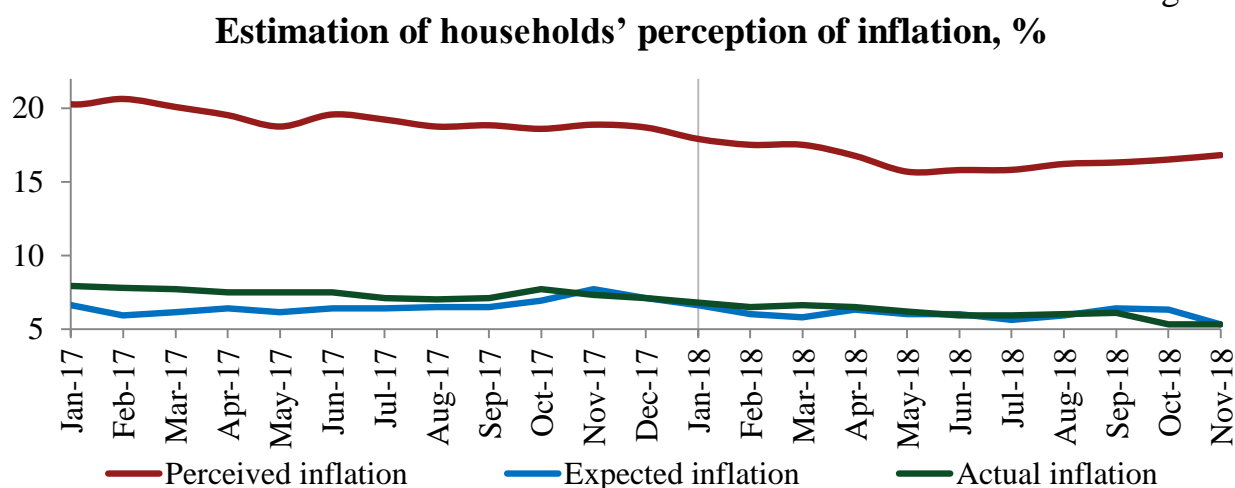
Given higher than expected earlier rates of inflation deceleration, during the first half of 2018 the National Bank was making decisions to consistently reduce the base rate consistently from 10.25% to 9.00% in June.

However, from August onwards, the situation in foreign markets has been characterized by an escalation of international trade conflicts between the USA and a number of countries, as well as by the US sanctions, that potentially have a constraining effect on the global economic growth. In addition, a persisting policy of increasing the US Fed's interest rates and, consequently, the growing attractiveness of assets denominated in the US currency give rise to the capital outflow from developing countries and depreciation of their domestic currencies.

Consequently, the uncertainty about the further dynamics of inflation factors intensified. Assessments made by the National Bank based on the outcomes of May-June and August-September forecast rounds demonstrate that pro-inflationary risks are increasing on the 1-2 year horizon. Hence, in October the National Bank raised the base rate to 9.25%.

In August and in September, amidst the news about tightening of sanctions against Russia, the Russian ruble had depreciated significantly and, as a consequence, volatility in the domestic foreign exchange market and therefore, pressure on the exchange rate of tenge had increased. In order to restore the balance between demand and supply, in September 2018 for the first time since October 2017, the National Bank conducted interventions totaling USD 520.6 million. Such interventions did not affect dynamics of exchange rate but had reduced the negative background, which led to the depreciation of the tenge not driven by the behavior of fundamental factors.

In 2018, a structural liquidity surplus of the tenge was persisting in the baking system (Figure 3). A bulk of liquidity was withdrawn by the National Bank by the means of short-term notes with maturities of 7 and 28 days. Issues of short-term notes with maturities of 3, 6 and 12 months were used to build up the yield curve in the financial market.

Figure 3

Exposure on the National Bank's operations in the money market, KZT bln.
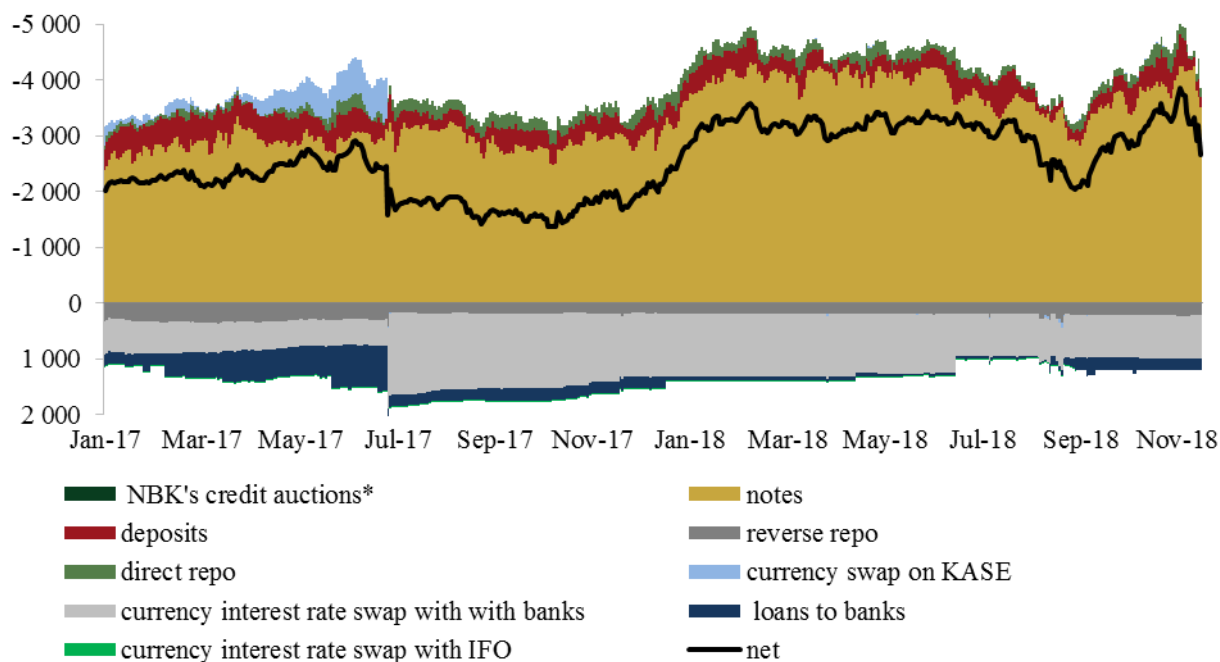
Operational monetary policy measures helped to retain the targeted TONIA rate within interest rate band of the the base rate. By doing so, the liquidity surplus ensured that the rate was maintained primarily at the lower boundary of the interest rate band. Sporadic interest rate surges up to the mid-point of the interest rate band were associated with the upturn in demand for the tenge liquidity in the face of depreciation of the tenge against the US Dollar (Figure 4).

Figure 4

Base rate band and TONIA, %
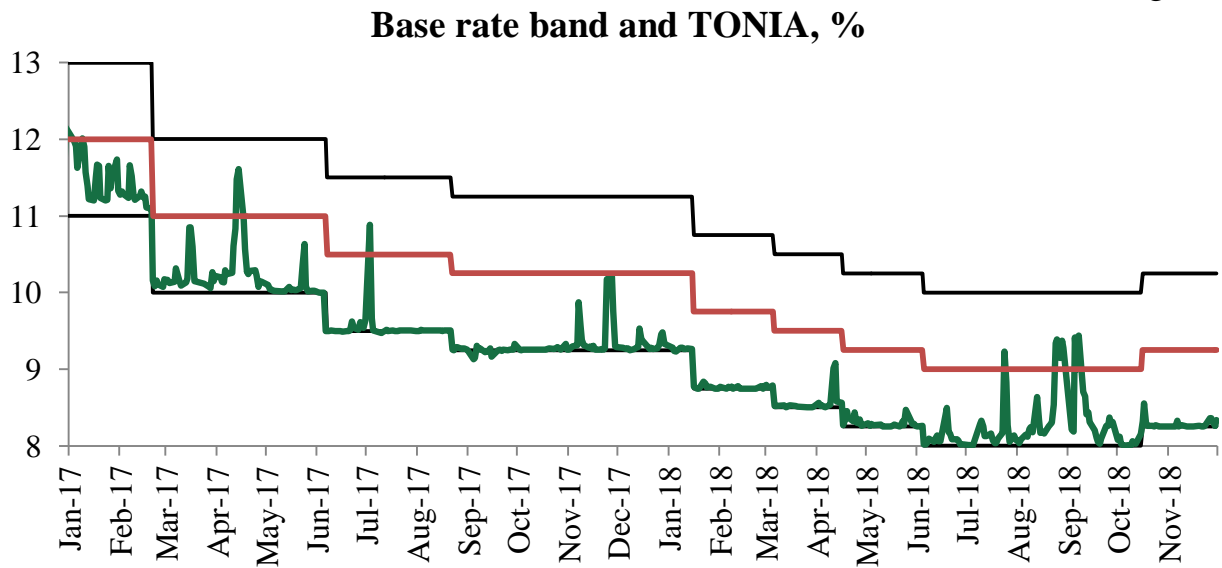
A gradual recovery of economic activity and the decelerating inflation pressure contributed to the growth of lending activity. Due to the reduced cost and risks of the deposit-based funding, more intense competition among banks and the improved liquidity ratios, as well as a gradual reduction of the base rate, lending terms for borrowers started to ease and interest rates on loans started to decrease (Figure 5).

Figure 5

Interest rate on corporate loans in the tenge, %
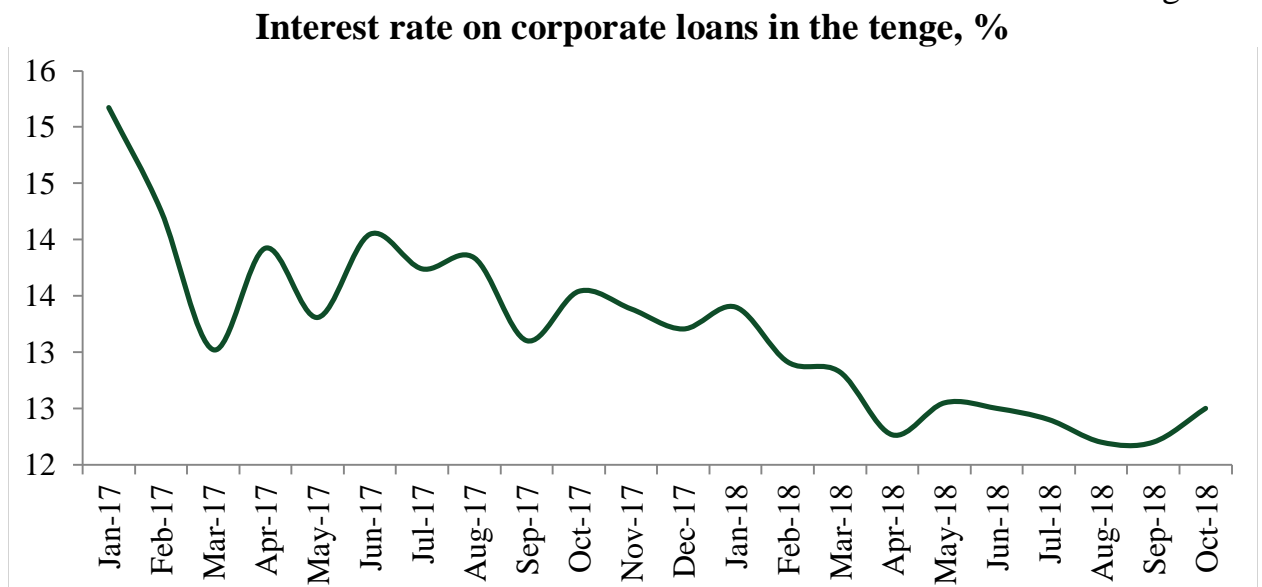
Mortgage lending started to recover given the launch of the "7-20-25" program. Over the last 12 months banks (except those, whose license was revoked or those, who is undergoing the restructuring process) have built up their loan portfolio by 8.3% or KZT 966.5 bln. at the end of October 2018.

The bank funding base, which is mostly represented by customer deposits, demonstrated a continuing trend of dedollarization – down to 46.9% at end-

October 2018 (Figure 6). Arbitrage between the tenge deposits and foreign currency deposits conduces to dedollarization.

Figure 6

Share of foreign currency deposits, %
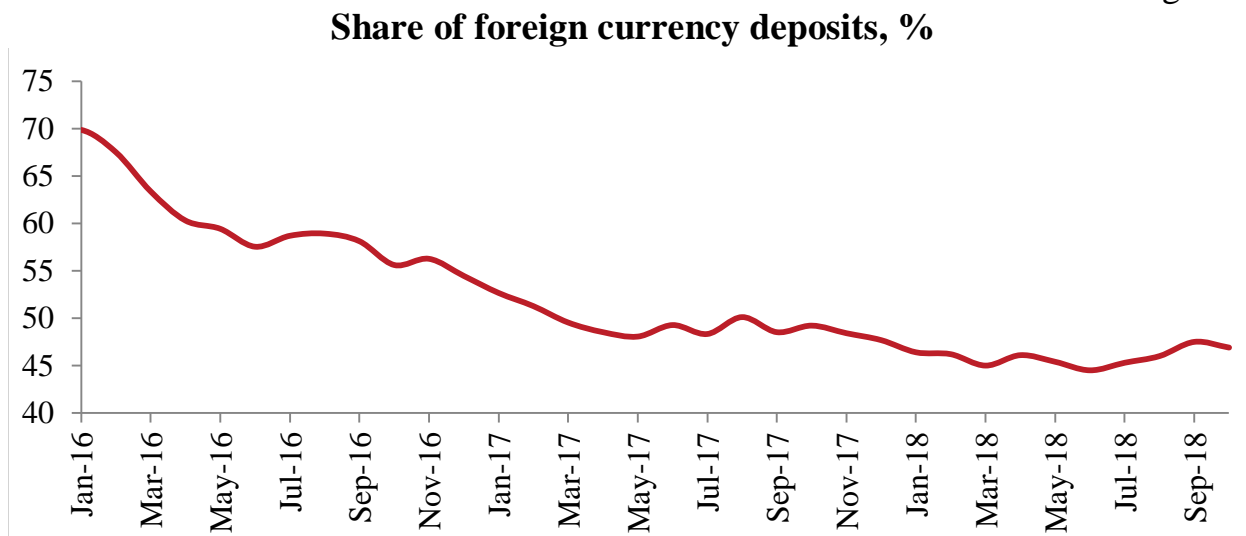
During 2018, the National Bank implemented a number of measures aimed to further develop the money market and domestic foreign exchange market, as well as the government securities market, and thus, to increase the effectiveness of the monetary policy (Box 1).

Box 1

**Improving the National Bank's Instruments System
in 2018**

1. Introducing the foreign currency swap

In April, with a view to make the monetary policy transmission mechanism more effective and to develop the financial derivatives market, the decision was made to proceed with overnight foreign currency swaps at the "Kazakhstan Stock Exchange" JSC, both for liquidity provision and withdrawal. A wider interest rate band on swap operations versus the interest rate band on the standing facilities is intended to discourage the use of foreign currency as collateral when borrowing the tenge liquidity. The liquidity in the domestic currency is provided via foreign currency swap at the base rate plus 2% per annum. A daily volume of the National Bank's operations on liquidity withdrawal via currency swap is limited to USD 500 mln.

When the tenge liquidity is withdrawn via overnight foreign currency swap operations at the "Kazakhstan Stock Exchange" JSC, the rate of interest is derived as follows:

$$\frac{(R\_KZT - R\_USD)}{(1 + R\_USD)}$$

where R_KZT – is the National Bank's base rate minus one percent, and
R_USD – is the overnight US Dollar LIBOR rate for the previous business day.

2. Inclusion of government securities of the Republic of Kazakhstan into the Clearstream List

In July, the National Bank had successfully implemented the project to include government securities of the Republic of Kazakhstan into the list of securities settled in Clearstream, an international clearing and settlement system. This measure implies a significant simplification for access of international investors to the Kazakh stock market and an increased demand for Kazakhstan's government bonds. Also, this initiative helps to expand the long-term funding sources, reduce the cost of borrowing for the government, thus making a positive effect on building up the yield curve and on the further development of the securities market in Kazakhstan.

3. Changing the due dates in the foreign exchange market and in the government securities market

From September 10, with a view to reduce volatility in the foreign exchange market, the official exchange rate of the tenge against the US Dollar is set on the basis of average rate on the stock exchange resulting from trading sessions with the due dates of T+1. The National Bank's foreign currency operations at the "Kazakhstan Stock Exchange" JSC got shifted to the T+1 sector.

From October 15, in order to ensure more effective liquidity management, the National Bank started to place its short-term notes under the T+2 system. Such system is in line with the international practice and is standard in transactions with securities in the global financial markets.

The implementation of settlement systems on deferred payments in the foreign exchange market and in the securities market helps to improve systems for forecasting the banking sector's liquidity and creates prerequisites for increasing the foreign capital inflow as part of the international channel launched with Clearstream.

4. Establishing the Central Counterparty Framework

From October 1, the "Kazakhstan Stock Exchange" JSC proceeded to function as the central counterparty in the foreign exchange market and now provides insurance coverage of such transactions. The establishment of the central counterparty enables to improve the credit risk management ensuring stability in the market and also increases its attractiveness for foreign participants.

The National Bank continued to adhere to information transparency principles. The National Bank's representatives conducted press conferences, meetings with the expert community and editors of the leading mass media; they grant interviews with foreign and local periodicals and participated in topic-based briefings. The National Bank's activities were publicized on the official Internet resource, across social media platforms, and in the mobile application. Explanations of decisions regarding the base rate and other activities of the National Bank, an extension of the published information as well as comments provided regarding developments in the financial markets help to develop rational expectations among economic entities.

From October 1, 2018, the approach for setting a recommended interest rate on retail deposits was changed; this became possible owing to the incorporation of a new type of deposit (saving deposit) into the legislation as well as of a regulatory concept of a "deposit, which complies/not complies with the terms of maturity" and a "minimum early withdrawal penalty". Instead of a pre-existing common level for all deposits, from October 1 maximum rates will be differentiated based on maturities (3, 6, 12 and 24 months) and types (depending on the terms of an early withdrawal – term deposits, non-term deposits and saving deposits) of a deposit, and the right to replenish. The rates on deposits as established by banks themselves will serve as the basis for calculation. The maximum rate will be calculated as an average market rate incremented by the spread amount.

This approach affects only deposits in the tenge. The marginal rate on foreign currency deposits will be retained at 1%.

The application of a differentiated approach in the interest rate setting will allow banks to align the interest rate risk and liquidity risk management when attracting funding via retail deposits and will help reduce risks driven by excessive costs. A new approach will also entail the strengthening of an interest rate channel of the monetary transmission since the change in the level of base rate and other instruments of the National Bank will have a direct influence on deposit rates.

Also, the upturn of the market of term deposits and saving deposits will increase soundness of the Kazakh banking sector and will expand opportunities for banks to attract medium- and long-term funding in the tenge.

In general, monetary conditions in Kazakhstan, according to the National Bank's assessment, remained neutral in 2018. The established level of base rate ensured that inflation target was achieved. The real interest rate remained at the level corresponding to the potential long-term growth of the economy.

II. THE MONETARY POLICY
OF THE REPUBLIC OF KAZAKHSTAN FOR 2019

2.1 Policy Principles and the Target for 2019

In 2019, the monetary policy will be implemented in accordance with the inflation targeting principles. Measures taken by the National Bank will be aimed to ensure progressive reduction of the inflation rate to the figure which is below but close to 4% in 2020 and to keep inflation at this rate in future. In accordance with the medium-term strategy, the National Bank is reducing the inflation target band in 2019 by one percentage point to 4-6% (Figure 7).

Figure 7

Inflation targets and dynamics
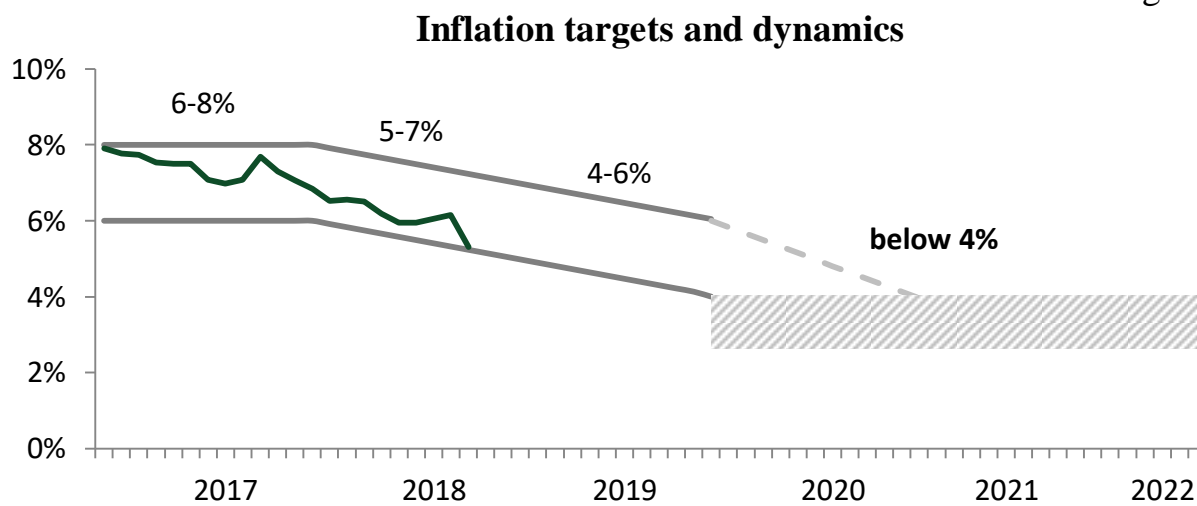
In 2019, decisions regarding the base rate will be made in line with the approved schedule (Annex 1). In the face of necessity to ensure a downward inflation trend to the level below 4% in 2020 the base rate in real terms which means the base rate level minus a forecasted inflation figure over a 12-month horizon will be maintained at the level of long-term economic growth rates. In the decision-making regarding the monetary policy, the National Bank will be performing risk assessments, both for the existing and future inflation and will be monitoring the dynamics of a broad range of external and internal factors. If risks of unfavorable shocks, which may translate into a significant deviation of forecasted inflation from the target, intensify, the National Bank is ready to implement a tighter monetary policy.

The forecast and policy analysis system will be further improved. A short-term block of measures includes implementing new approaches to forecasting macroeconomic variables; in the medium term, parameters of the quarterly projection model will be recalibrated and the coverage of other sectors of the economy by the model will be also extended. The existing design of the quarterly projection model is presented in Annex 2.

The exchange rate will be determined by free-floating principles. However, intervention in the foreign exchange market does not contradict the principles of inflation targeting regime. In order to smooth significant and destabilizing exchange rate movements, including those caused by the impact of non-

fundamental factors, the National Bank reserves the right to make foreign currency interventions. These measures will be undertaken exclusively to offset the adverse effects. At the same time, the National Bank will provide explanations of the reasons for conducting operations in the domestic foreign exchange market at the expense of international currency reserves and will also continue publishing information on the volumes of transactions.

2.2 Conditions for the Monetary Policy Implementation

In the environment of the Kazakh economy's reliance on raw materials, the existence of the National (Oil) Fund with a considerable part of the state budget spending being financed with transfers from this Fund, the monetary policy is influenced by the implemented fiscal policy and the status of the balance of payments.

There are two important channels that determine the influence of the fiscal policy. The first implies a gradual change in accents and prevalence of the social focus in the budget spending (regular indexation of retirement benefits and social security benefits, one-off revisions of approaches to the setting of the base retirement benefit (the 1.5 time increase in minimum wage, raising wages of employees working for the state-owned companies by 35% on average, introduction of additional social security benefits that are coming from January 1, 2019).

The second channel of influence is predicated by a significant state budget deficit. An active fiscal policy encouraging the economic growth is one of the key factors maintaining high liquidity of the banking sector. Along with that, the fiscal rule with a fixed amount of a guaranteed transfer obtains a potentially pro-cyclical nature, especially in the environment of favorable oil prices, thus limiting the capacities of the monetary and fiscal policies to manage macroeconomic risks during a phase of falling oil prices.

As a consequence, an expansion of aggregate demand intensifies the risks of acceleration (or less-than-prompt deceleration) of inflation and non-achievement of inflation target.

External shocks and changes in capital flows continue to establish an unsteady nature of the balance of payments and, as a consequence, have an impact on the formation of the exchange rate of the domestic currency in nominal and real terms. From 2016, the trend of a steady reduction in the current account deficit had been observed; however, its dynamics are determined by the recovering prices of key export commodities, the growing volumes of oil and gas condensate production, and by stable demand on the part of trading partner countries. Improvement of the current account is constrained by the increased imports of goods required to implement infrastructure projects in the oil and gas sector as well as by the growing payouts of returns to foreign direct investors. The outstripping expansion in the payouts, as compared to the growth in exports, even in a favorable external environment, may potentially put pressure on the current account towards its deficit and, other things being equal, determines a more contractionary monetary policy stance.

2.3 Developing the Monetary Policy Transmission Mechanism

The effectiveness of monetary policy instruments is to a large extent dependent on efficient channels of the transmission mechanism, through which signals of the National Bank's influence on the internal economic processes, including inflation, are transmitted. In each country, the monetary policy transmission mechanism has its particularities associated with the specifics and structure of the economy and the financial sector. For Kazakhstan, it would be fair to emphasize the following channels of the transmission mechanism: interest rate channel, credit channel, exchange rate channel, and inflation expectations channel.

Interest Channel (Interest Rate Channel)

In the inflation targeting regime, an important role is assigned to the functioning of the interest rate channel.

Decisions regarding the base rate represent a key instrument, which indicates the focus of the National Bank's monetary policy, and its level serves as a benchmark for the financial market participants in the context of the cost of borrowing in the tenge. Interest rates on monetary policy operations are changed automatically following the change in the base rate.

An initial element of the interest channel is the influence of the base rate on the money market rates. The National Bank conducts monetary policy operations on an on-going basis while guaranteeing the access to a short-term liquidity for banks. Therefore, the base rate pass-through onto the money market rates occurs almost immediately after the decision about its change is being made.

However, the achievement of a maximum pass-through effect in the interest rate channel that is expressed in maintaining the targeted rate around the base rate (in the mid-point of the interest rate band) is limited by the existence of structural liquidity surplus in the Kazakh financial market. Along with that, the National Bank's short-term notes, which are used at the moment, do not immobilize liquidity to the full extent since they tend to convert into cash quickly, given the fact they are highly-liquid financial instruments.

To that end, effective sterilization instruments of the monetary policy are required. In order to increase the effectiveness of the interest rate channel, in 2019 as part of the open market operations the National Bank will introduce deposit auctions instead of existing operations on 7-day short-term notes. Deposits do not tend to be quickly converted into cash, therefore, this feature will allow to immobilize the bank liquidity. At the first stage, deposit auctions will be conducted on a daily basis and the liquidity withdrawal term will be 7 days. In doing so, the National Bank will stop issuing 7-day short-term notes. Short-term notes with maturities of 1, 3, 6 and 12 months will be still issued. As for standing facilities, 7-day deposits will not be taken any more while 1-day deposits will be attracted as before.

Also, the National Bank is considering an establishment of a special platform in 2019, where additional standing facility operations (deposits, repos,

swaps) will be conducted after the closure of platforms in the money and foreign exchange markets at the "Kazakhstan Stock Exchange" JSC. Operations will be conducted solely between banks, on the one hand, and the National Bank, on the other hand. Such operations will be conducted at the rates of boundaries of the base rate and currency swap bands, respectively.

There are no plans to make essential changes to other monetary policy instruments (Table 1).

Table 1

A System of Monetary Policy Instruments

Purpose	Instrument Type	Instrument	Collateral
Liquidity provision	Standing facilities	Foreign currency swap at the KASE	USD
		Reverse repo at the KASE	Government securities
	Open market operations	NBRK's buy/sell back securities auction	Lombard list
Liquidity withdrawal		NBRK's notes auction	-
		Deposit auction	
	Standing facilities	Direct repo at the KASE	Government securities
		NBRK's deposits	-
		Foreign currency swap at the KASE	USD

In case of liquidity shortage in the financial market, the National Bank has a sufficient set of instruments with maturities of one day or more to satisfy the needs of the banking sector and to maintain the money market rates within the interest rate band of the base rate.

Based on the international practice, the National Bank is improving the lender of last resort framework that allows making this policy more comprehensible and transparent for the market participants. The main focus is made on providing loans to solvent banks and also on extending the list of eligible collateral.

With a view to further develop the money market, as an element of the first link of the interest rate channel of the transmission mechanism[1], from January 2019 a foreign currency swap will be launched at the platform of the Kazakhstan Stock Exchange (with a maturity of up to one year) using the central counterparty framework. A new instrument will enable banks to borrow funds for the term of up to one year and to hedge foreign exchange risks.

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[1] The explanation of links (phases) of the interest rate channel in the monetary transmission is presented in the Monetary Policy Guidelines of the Republic of Kazakhstan for 2018 (http://nationalbank.kz/?docid=223&switch=russian)

Via interest rates on short-term operations in the money market the National Bank influences interest rates on bank loans and deposits (the second link of transmission).

The National Bank's assessments show that the pass-through of the money market rates to a larger extent occurs in relation to interest rates on corporate loans. A positive interest rate shock (the increase of the overnight repo) leads to the growth of interest rates on corporate loans from 0.20 pp (on short-term loans) to 0.03 pp (on long-term loans). At present, the effectiveness of signal transmission from the base rate to interest rates on corporate loans is limited by the presence of large volumes of loans provided at prime (subsidized) interest rates. The outcome of the survey conducted among banks in October 2018 demonstrates a stronger competition for a limited number of good-quality borrowers.

Interest rates on retail loans are less sensitive to changes in monetary conditions; this is due to prevalence of unsecured consumer loans as well as mortgage loans provided through the housing construction savings systems (at certain pre-determined fixed rates), and government support programs (for instance, such as "Nurly Zher" or "7-20-25").

A transmission of the money market rates on the cost of lending also occurs through deposit rates – a key component of the bank funding base. The interest rate analysis[2] shows that a reduction of an overnight repo rate leads to a corresponding change in the rates on corporate deposits in the domestic currency; this, in turn, results in reduction of interest rates on short-term loans in the domestic currency provided to corporate entities.

Regulation of interest rates on retail deposits is an effective instrument of the macroprudential policy to restrict an aggressive policy of banks in the deposit-taking from the population; however, it partially limits the efficiency of the monetary policy transmission mechanism. The change in regulation approach of retail deposits' interest rates will ease the constraining effect and will improve transmission of the monetary policy's interest rate channel.

The second link of the transmission includes also the impact made by the money market rates on the cost of capital mobilization in the securities market. The revitalization of the National Bank in the issuance of short-term notes after the transition to the inflation targeting enabled to build a short-term segment of the yield curve. This had a positive effect on the formation of market expectations up to one year and resulted in stabilization of interest rates and a growing interest from non-residents.

The launch of government securities in Clearstream settlement system via will intensify the transmission of monetary policy impulses in the securities market. Thus, capital mobility will be increasing.

In coordination with the Ministry of Finance, arrangements will be made to create conditions to build the yield curve. Where necessary, the National Bank will continue its operations of purchase and sale of government securities in the

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[2] Over the period of 2016-2017

secondary market. The issuance of notes with longer maturities (over one month) will be used to regulate interest rates in the short-term segment.

Credit Channel

A weak impact of the bank lending channel is related to the fact that the central bank has a limited influence on the factors that determine the demand for credits in the economy. The demand side is characterized by a low quality of borrowers, insufficient awareness of a business community about lending as an option of the project financing. In the retail segment, the income of the population is in a sluggish growth zone; this, coupled with the scarcity of a collateral, reduces creditworthiness of the population. Own funds still represent the main source of enterprise financing and investments. In this view, the increase of lending has a weak influence on economic activity.

On the loan supply side, constraining factors include unsteady funding, reliance on resources of quasi-government entities, low capitalization of banks, lack of proper credit risk assessments, related-party lending. These factors do not enable banks to respond adequately to the changing monetary conditions. At present, the functioning of the credit channel is also distorted as a result of lending of government resources to the real sector of the economy at non-market rates.

Stability and development and enhancement of the financial system are important for improving the functioning of the credit channel. In this regard, the National Bank will continue to safeguard financial stability in 2019. The Program for Increasing Financial Sustainability of the Banking Sector of the Republic of Kazakhstan implemented in 2017-2018 helped to recapitalize large banks and to write off loss portfolios, which limited assumption of credit risks.

From January 1, 2019, a risk-oriented approach will be introduced in the supervisory process and the transition to the Recovery and Resolution tools will be undertaken; this approach implies mechanisms of a forced restructuring of bank liabilities. A risk-oriented approach with the possibility of a motivated judgment will be used both to tighten the supervisory process for high-risk banks and to ease requirements to those banks, which apply appropriate procedures and risk management systems. Therefore, a full set of measures will be introduced that will allow for the efficient resolution of an insolvent bank with minimization of systemic consequences and the government support.

The buildup of a long-term segment of the deposit market that is supported by the introduction of saving deposits and by improvement of the mechanism of maximum interest rate setting on retail deposits will help to enhance the intermediary function of the banking sector.

The rehabilitation of the banking sector, which is close to completion, and adoption of new regulatory approaches and guidance enable to design a reliable infrastructure for expansion of credit to the economy and promotes enhanced capability of the credit channel of monetary policy.

As a result, there is an expectation that the demand for credit resources from the real sector and the supply of credit by banks will approximate and the growth

rates of lending will rise. In 2019, the growth rate of the loan portfolio is expected to be above the growth rates of nominal GDP (more than 10%).

Exchange Rate Channel

Empirical assessments show that a greater effect from the exchange rate pass-through on consumer prices in Kazakhstan is observed in the exchange rate channel, although certain structural improvements have been observed over the recent years, as a result of measures taken by the National Bank to strengthen the interest rate channel.

In general, the impact created by the exchange rate on inflation is not symmetrical, i.e. depreciation, contrary to appreciation, has a great influence on consumer prices. The largest reaction to exchange rate shock is observed in the group of non-food products, which is related to a larger portion of imported non-food products in the structure of consumption. A reaction of food prices to the depreciation of the tenge was twice less on average.

Along with that, the National Bank's assessments reflect gradual reduction of the effect of the exchange rate pass-through on inflation. Thus, in 12 months the accumulated effect from a 1% depreciation of the nominal exchange rate of the tenge against the US Dollar on annual inflation was 0.15 pp for the period of 2011-2017, whereas the pass-through effect for the period covering 2018 went down to 0.12 pp.

The National Bank will preserve the free-floating exchange rate regime of the tenge. Moreover, the scope for the use of foreign currency in settlements and pricing within the country will continue to narrow. Also, cooperation with other central banks of countries-trading partners related to the transition to the use of their local currencies in international operations will proceed.

Inflation Expectation Channel

Inflation expectations affect the formation of demand and supply in the goods and services market. Maintaining inflation expectations at a low and stable level makes the economy more sustainable to adverse shocks and enables the pricing mechanism to function in a more efficient manner and allows a central bank not to react by changing its base rate.

A central bank influences the dynamics of inflation expectations by achieving a desired inflation target as well as through an efficient and transparent communication policy. However, it's important to secure anchoring inflation expectations to the stated inflation target. In 2019, the National Bank will continue taking measures to anchor inflation expectations of households.

The National Bank is paying attention not to specific value but to the overall dynamics of inflation expectations of households that show the change in the households' opinion regarding a future price level. In order to obtain a more comprehensive view of inflation expectations, it is necessary to conduct a survey among other economic entities. Consequently, in 2019 the National Bank plans to conduct surveys among the financial market participants in order to get a more professional assessment of expected inflation. Professional market participants

possess a greater amount of information and knowledge of the processes occurring in the economy; they use forecasting models. A more reliable assessment of future inflation will allow the National Bank to make more informed balanced decisions about the monetary policy.

In addition, in order to get a better insight into price indicators and inflation expectations in the real sector, as well as assessments by enterprises, the National Bank will continue to monitor enterprises in the real sector. To strengthen the analytic capacity, the composition of questionnaires will be reviewed so that the outcome of surveys is focused on the evaluation of the pricing policy and pricing factors of enterprises.

The predictability of the monetary policy and its active media support help to anchor inflation expectations of households. With that in mind, an effort to improve communications will be continued enabling to increase effectiveness of inflation expectations management among economic entities.

Schedule of Monetary Policy Decisions to be made

In 2019, decisions regarding the base rate will be made 8 times, in line with the following schedule:
January 14
March 4
April 15
June 3
July 15
September 9
October 28
December 9
Each decision regarding the base rate will be announced at 5.00 p.m., Astana time.

In 2019, four decisions regarding the base rate taken on March 4, June 3, September 9 and December 9 will be based on the outcomes of forecast rounds as part of the Forecasting and Policy Analysis System. These decisions will be accompanied by the publishing of the Inflation Report, the National Bank's quarterly publication, press conferences of the National Bank's Governor and meetings with experts.

Quarterly Projection Model of the Republic of Kazakhstan Applied at the National Bank as part of the Forecasting and Policy Analysis System (FPAS)

Within the framework of transition to the floating exchange rate and implementation of inflation targeting, the Forecasting and Policy Analysis System (FPAS) was designed and implemented at the National Bank with technical support of the IMF Mission and the staff of the Czech National Bank. FPAS serves for the purposes of information and analytical support in the decision-making regarding the monetary policy and consists of all elements required to target the inflation: data collection and processing; monitoring of the current economic situation; design and upgrade of the models; the decision-making regarding the monetary policy, as well as a transparent communication policy.

One of the building blocks of the forecasting and policy analysis system of the National Bank of the Republic of Kazakhstan is the Quarterly Projection Model (the "QPM"), which allows forecasting the dynamics of key macroeconomic variables for a medium-term horizon with the assessment of economic relationships at the structural level. The model has an advantage of analyzing potential actions of the National Bank of the Republic of Kazakhstan depending on the domestic and external economic situation, enabling it to make decisions regarding the base rate based on the projected inflation rate and other macroeconomic indicators.

The QPM represents a simplified version of the structure of the Kazakh economy. All equations in the model have a log-linearized form. In turn, variables in the model are presented as gaps, i.e. deviations of actual values from their potential levels. The QPM includes three blocks: inflation process block, output gap block, and monetary policy block.

Inflation processes in the QPM reflect the consumer price index (the "CPI") which, in its turn, is presented in the form of weighted values of food and non-food components of inflation (includes inflation of services).

Each component is forecasted separately. The food inflation in the model is explained via inflation expectations, lagged food inflation, GDP gap in the previous period as well as deviations of the real exchange rate using food inflation from the equilibrium value. Inflation expectations are forming within the model and are assumed to be rational. The non-food inflation equation together with services is estimated in the same way, except for the fact that the real exchange rate is calculated with the use of non-food inflation approximated by the weighted inflation of Kazakhstan's main trading partners (Europe, Russia, and China).

Additionally, each equation contains a shock variable that is not explained by independent variables.

The output gap is assessed by using the basic macroeconomic identity which reflects a calculation of GDP by the final use method

$$Y = C + G + I + NX$$

where: Y – is GDP by the final use method; C – household consumption, G – general government consumption, I – gross investments; NX – net exports.

In the above equation, each GDP component contains its own explanatory variables. It should be noted that consumer and investment demand components in the QPM are combined and presented by the domestic demand indicator.

The **monetary policy** block reflects the reaction of the monetary policy to the change in external and internal macroeconomic variables. This block sets the monetary policy rules – exchange rate rule and interest rate rule.

 The first exchange rate equation suggests its fundamental dependence on the trade balance. A negative situation in terms of trade, which is observed against the backdrop of falling oil prices, results in deterioration of the country's trade balance and, as a consequence, depreciation of the nominal exchange rate of the tenge. The second exchange rate equation characterizes it as a function of uncovered parity of interest rate and risk premium. The excess of the domestic interest rate over the external rate of interest in the short term will lead to the appreciation of the exchange rate, and vice versa. When a country's risk premium increases, the domestic currency depreciates reflecting a risky nature of investments into Kazakhstani assets by foreign investors. These equations are weighted based on the assumption of capital mobility[3].

The targeted interest rate also consists of two equations. The first equation reflects the dependence of a short-term interest rate on movement in the exchange rate and an equilibrium interest rate value. When the nominal exchange rate of the tenge is depreciating in order to ensure the attractiveness of the tenge assets the interest rate responds by going up with a view to reducing a speculative pressure on the domestic currency. The second equation is an augmented Taylor rule with a deviation of expected inflation in 4 quarters from its medium-term target, an existing level of output gap and an equilibrium interest rate, which is the sum of an equilibrium real interest rate and inflation target.

Such specification of the monetary block in the QPM enabled to take into account a short history of the floating exchange rate and the inflation targeting regime given features of the Kazakh economy at the present moment.

The three main QPM blocks described above were designed based on the best practice of central banks, which adhere to the inflation targeting regime. Nonetheless, the model is expected to be further fine-tuned in terms of its calibration and respecification, with an incorporation of additional explanatory indicators, which reflect the behavior of dependent variables.

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[3] In a narrow sense, capital mobility means the absence of any restrictions for the capital movement and the lack of concern among investors regarding risk in Kazakhstan. Based on the expert approach, there is an assumption that the movement in the exchange rate of the tenge is by 80% explained by such fundamental factor as the trade balance