

January 2023

Cooling

Overheating

02/23/2023

# Dashboard for assessing current economic activity





According to the dashboard results for December, **20 out of 30 factors show an overheating of the economy**. The analysis was carried out in 4 blocks: inflation, monetary, economic and external conditions. A semantic analysis of the National Bank of the Republic of Kazakhstan press release was also carried out.

Designations	Number of indicators	
	Current	Previous
Overheating 	20	17
Growth 	3	5
Cooling 	7	8
<b>Total</b>	<b>30</b>	<b>30</b>

Compared to the previous dashboard, 1 indicator in the monetary conditions block and 2 indicators in the economic environment block have moved to the overheating zone. Due to a significant acceleration of economic activity, while maintaining a positive increase in prices, there was an increase in overheating in the economy in January 2023. This development of the economy is mostly due to the recovery growth of the sectors affected last year.

We believe that the balance of current indicators corresponds to some softening of the inflationary background due to the easing of consumer demand pressure. Unstable and high inflation expectations, the continued growth of underlying inflationary pressure and the persistence of increased fiscal incentives that largely support consumer activity explain the predominance of pro-inflationary risks. In this regard, we expect the base rate to remain at the current level and the regulator to maintain hawkish rhetoric in general even after the reversal of the inflationary trend.



## Inflation block

Factors	Target indicator	Comment on the target indicator	Indicators			Estimated impact	
			Monthly data			Current	Previous
			Current value	Average for 3 months	Average since the beginning of the year		
Current inflation rate (YoY)	4-5%	The target indicator of the National Bank of Kazakhstan for 2023-2024	20.7	20.2	20.7	●	●
Current inflation rate (MoM)	0.6%	The average value this month 2019-2022 (2020 is exception)	0.9	1.2	0.9	●	●
Inflation expectations	5.0%	A cap on the target corridor of the National Bank of the Republic of Kazakhstan in a year	17.3	18.9	17.3	●	●
Real interest rate (difference between TONIA and inflation expectations for the year ahead)	3.6-3.7%	Research data of the National Bank of the Republic of Kazakhstan	-1.5	-3.1	-1.5	●	●
Housing prices (MoM)	1.9%	The average value of the change in the sale prices of new housing this month for 2019-2022 (2020 is exception)	0.7	0.6	0.7	●	●
	2.7%	The average value of the change in the resale prices of new housing this month for 2019-2022 (2020 is exception)	-0.3	-0.3	-0.3	●	●

Overheating ■ Growth ■ Cooling ■

Source: BNS, the National Bank of Kazakhstan, Jusan Analytics calculations

## Conclusions on the inflation block:

The growth rate of consumer prices continues to slow down. **The actual inflation in January 2023 reached a 20.7% level** (the growth of monthly inflation was 0.9%). The slowdown is due to the monetary conditions tightening in 2022 and the gradual weakening of external inflationary pressure.

**Household and business representatives' inflation expectations improved slightly in January.** They are usually below the last month's level and then return to the growth trajectory. Following the BNS statistics, there is a slight reduction in the volume of real transactions in retail trade, which is an indirect indicator of cooling consumer demand due to a reduction in household real incomes. All this with the continuance of the emerging trend in expectations and demand may contribute to a faster decline in inflation soon.

**At the same time, the continued growth of the underlying inflationary pressure is likely to force the NBK to keep the base rate at the current level.**



## Monetary terms block

Factors	Target indicator	Comment on the target indicator	Indicators			Estimated impact	
			Monthly data			Current	Previous
			Current value	Average for 3 months	Average since the beginning of the year		
Retail lending	<b>795 138 million tenge</b>	Average value for 2019-2022 (2020 is exception)	<b>1 190 313 million tenge</b>	<b>1 220 568 million tenge</b>	<b>1 032 205 million tenge</b>		
Lending to the trade and services sectors	<b>560 766 million tenge</b>	Average value for 2019-2022 (2020 is exception)	<b>743 461 million tenge</b>	<b>622 193 million tenge</b>	<b>595 238 million tenge</b>		
Loans/deposits	<b>100%</b>	Average value for 2019-2022 (2020 is exception)	<b>99%</b>	<b>102%</b>	<b>103%</b>		
Demand for currency in exchange offices	<b>164 289 million tenge</b>	Average value for 2019-2022 (2020 is exception)	<b>204 611 million tenge</b>	<b>201 546 million tenge</b>	<b>152 577 million tenge</b>		
Tenge deposits movement*	<b>Growth</b>		<b>8.9%</b>	<b>12.7%</b>	<b>22.0%</b>		
Foreign exchange deposits movement*	<b>Decline</b>		<b>-5.7</b>	<b>-8.4%</b>	<b>-2.6%</b>		
Dollarsation*	<b>Decline</b>		<b>-3.44 p.p</b>	<b>-4.88 p.p</b>	<b>-5.27 p.p</b>		
Monetary multiplier	<b>2.5</b>	Average value for 2019-2022 (2020 is exception)	<b>3.17</b>	<b>3.24</b>	<b>3.15</b>		
Credit multiplier	<b>2.1</b>	Average value for 2019-2022 (2020 is exception)	<b>2.71</b>	<b>2.84</b>	<b>2.76</b>		
Reserve multiplier	<b>0.3</b>	Average value for 2019-2022 (2020 is exception)	<b>0.18</b>	<b>0.17</b>	<b>0.17</b>		

\* changes for 3 months and since the beginning of the year are presented

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Source: NBK, Jusan Analytics calculations

## Conclusions on monetary terms block

We see a decrease in the volume of retail deposits issued despite the seasonal factor by the end of the year. However, the indicators of household lending are 50% higher than the optimal level. The seasonal factor influenced the growth of loans in trade and services, December figures are 25% higher than the average level of lending to this sector in 2022. In January we suppose a seasonal decrease in lending to both the retail sector and trade and services, so we cannot interpret **such a decrease as a decrease in the pace of demand**.

The seasonal factor also affected the funding indicators. We observed a flow from foreign currency to tenge deposits in December, which was reflected in the dollarization level. It is at a historically low level since the transition to a floating exchange rate regime and amounted to 31.6% at the end of 2022 (36.0% at the end of 2021).

The net demand for foreign currency in exchange offices increased by 15.0% during the month, but the indicator is still below last year's level. The relatively low demand level for foreign currency in exchange offices with the tenge exchange rate strengthening indicates low household devaluation expectations.

The indicators of the monetary and credit multiplier for the month decreased by 0.11 and 0.24 percentage points, respectively, and the reserve multiplier increased slightly by 0.02 percentage points. Despite the positive indicators of December, the values of all multipliers signal an overheating of the economy. Banks and other financial market participants are actively investing in government securities. Securities indexed to the TONIA rate (treasury bills indexed to the TONIA) are still of particular interest, the volume of which has increased by 25% over the month. Medium-term government securities also increased by 28%. In general, according to the exchange rate strengthening and the growth of government securities, we can assume that **most agents expect further tenge strengthening and the preservation of the base rate**.



## Economic terms block

Factors	Target indicator	Comment on the target indicator	Indicators				Estimated impact		
			Monthly data			Quarterly data		Current	Previous
			Current value	Average for 3 months	Average since the beginning of the year	Current value	Previous quarter		
Output gap*	0.0%	International practice				0.5%**	0.0%***		
Monetary conditions (RMI)	0.0%		Contractio-nary	Neutral	Contractio-nary				
Non-oil budget deficit/GDP	0.0%	Change in non-oil budget deficit				-8.6%	-7.7%		
Short-term economic indicator	104.3	Average value for 2019, 2021 and 2022	105.0	104.7	105.0				
Business Activity Index	50.0	Global practice	50.7	49.7	50.7				
"Hours" of the business cycle	0.0%	The NBK data	Growth	Increase	Growth				
Consumer expenditures	11.9%	The average value of changes in household consumption expenditures for 2019-2022 (2020 is exception)				13.8%	13.3%		
Volume of goods and services trade	4.9%	Average value retail trade change for 2019-2022 (2020 is exception)	20.8%	9.7%	20.8%				
	7.9%	Average value of wholesale trade change for 2019-2022 (2020 is exception)	18.8%	13.2%	18.8%				
Import of goods	14.3%	Average value of import change for 2019-2022 (2020 is exception)	33.8%	28.2%	19.5%				

\*Calculated using the Hodrick-Prescott filter

\*\* and \*\*\* based on the dynamics of GDP in average annual prices in 2005 and our forecasts

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Source: BNS, Ministry of Finance of the Republic of Kazakhstan, Jusan Analytics calculations

## Conclusions on economic terms block

**The output gap is about 0% according to GDP data in 2005 prices for the 3rd quarter of 2022, and according to our forecasts, it will again move into a positive zone and amount to 0.5% by the end of the year.** Over the 12 months of 2022, GDP grew by 3.2% in annualized terms (real growth in January 2023 was 5.6%) and according to preliminary data amounted to 101.5 trillion tenge.

**The state budget was summed up with a deficit of 2.2 trillion tenge (in 2021 -1.5 trillion tenge)** or -2.1% of GDP in 2022. The budget deficit in the 4th quarter of 2022 amounted to -5.1% of GDP (-4.5% in the 4th quarter of 2021). The budget deficit (non-oil) deepens to -8.2% of GDP (-9.6% in 2021) excluding transfers from the National Fund and customs duties on oil from the revenue part. According to the previous year's results, the expenditure part of the budget increased by +19.9% YoY, which led to an expansion of aggregate demand in the economy. This, in turn, leads to an **additional increase in inflation in the economy and hinders market adjustment.**

**By the end of 2022, the growth of the leading indicator of the economy** was 3.5%. After slowing growth in the summer-autumn period, it showed growing dynamics in November and December, when monthly growth compared to last year was 3.9% and 5.1%, respectively. **And January 2023 started with a good growth of 5.0%.** This accelerated development was provided by the growth of the real sector (+2.3%) and the service sector (+7.6%). Positive dynamics were observed in all major sectors of the economy, moreover wholesale and retail trade, the communications industry and construction made the main contribution to the economic growth. The development of the economy at this level in the future may hurt the growth and response of prices.

According to the 3rd quarter of 2022, **consumer demand** showed stable growth. Consumer spending, which accounts for more than 90% of all household spending, increased by 13.8% YoY (+13.3% in Q2 2022) and amounted to 219.1 thousand tenge on average per capita. 55% of them came for food products, and 27% for non-food products. The spending to market services is 18%.

**Retail trade at the end of last year by volume increased by 2.1% YoY and wholesale by 6.3%.** In terms of price pressure in the economy, the past year has changed trends within the industry, where there was not only a reorientation of the food market to the wholesale segment but also a reduction in demand for them. According to data for January 2023, the trading industry showed growth of 19.4%: retail trade grew by 20.8%, and wholesale trade by 18.8%. Such a significant increase is explained by the low base last year, which was due to the January events.



## External conditions block

Factors	Target indicator	Comment on the target indicator	Indicators			Estimated impact	
			Monthly data			Current	Previous
			Current value	Average for 3 months	Average since the beginning of the year		
The price of Brent crude oil	\$ 85.0 per barrel	The price for crude oil according to the amendments to the state budget, which were approved in November 2022 (the price of \$ 90 per barrel was previously set)	\$ 83.9 per barrel	\$ 83.1 per barrel	\$ 84.0 per barrel		
FAO Consumer Price Index	121.5	Average value for 2019-2022 (2020 is exception)	131.2	132.9	131.2		
Inflation in the main trading partner countries	5.2%	Russia, average price change for 2019-2022 (2020 is exception)	11.8	11.9	11.8		
	4.1%	China, average price change for 2019-2022 (2020 is exception)	2.1%	1.8%	2.1%		
	4.5%	The EU, average price change for 2019-2022 (2020 is exception)	10.4%	11.0%	10.4%		
	35.6%	Turkey, average price change for 2019-2022 (2020 is exception)	57.7%	68.8%	57.7%		
Dollar Index	97.9	Average value for 2019-2022 (2020 is exception)	103.3	103.5	103.3		

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Source: BNS, TradingEconomics.com, fao.org, Jusan Analytics calculations

## Conclusions on the external conditions block:

The downward trend in price pressure from global food and energy prices continued in December 2022.

**The FAO Food Price Index continues to have a disinflationary effect on the world market.** By the end of December, food prices have decreased as much as possible over the past 4 months and are now comparable with the results of 2021.

**The price of oil fell to \$81.6 per barrel** due to more favourable than expected weather conditions in the United States and the European Union. This has reduced the demand for energy sources, thereby reducing the likelihood of their future shortage due to the embargo imposed on Russian oil. At the same time, the unfavourable epidemiological situation, which constrains the further easing of quarantine measures in China, also worsens the prospects for global demand for commodities, including oil.

**Inflation in most of Kazakhstan's key trading partners continues to exceed their target values.** However, there is a gradual softening of the inflationary background in these countries. The inflation slowed from 11.5% to 11.1% in the EU, fell from 84.4% to 64.3% in Turkey, and it continues to decline and reached the level of 1.6% in China.

**The Dollar Index in December 2022 continues to gradually decline (an average value of 104.5 points), which is still significantly higher than the average for the last 3 years.** The Fed raised rates by a total of 425 bps in 2022 and began to slow down by the end of the year. Due to the observed decline in inflation, market participants assume that the cycle of tightening the monetary conditions of the Fed may be coming to an end, which in turn leads to a decline in the global dollar.



## Analysis of press releases

The keywords in the press release of the NBK "On the basic maintenance of the base rate at 16.75%" have not changed much since the last press release. The word "inflation" remains the leader as the most repeated word (25 times), the new keywords are the words: "base" - 9 times, "national" - 7 times, "expectation" - 7 times, "value" and "inflation expectations" 6 times each.

We can assume that the key factors in deciding on the rate are **price growth/inflation rates, the trajectory of changes in factors according to the baseline scenario and household inflation expectations.**

### Forward looking

In general, the National Bank of Kazakhstan in the latest press release declares the proximity of the end of the cycle of the base rate increase. The NBK is more likely to keep the current rate at 16.75%. based on the key factors influencing the decision on the base rate.

Phrase/word	Number	Frequency %
"inflation"	25	3.10
"base"	9	1.74
"growth"	9	1.74
"price"	8	1.55
"high"	7	1.36
"national"	7	1.36
"expectation"	7	1.36
"value"	6	1.16



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# Methodology

## we have used The Taylor Rule as a theoretical basis

**The Taylor Rule** is a monetary policy rule that determines how much it is necessary to change the interest rate in case of changes in GDP, inflation, and other economic terms. The rule was invented to scientifically and systematically determine which monetary policy should meet the task of maximum employment and price stability, as well as to make the monetary policy of the central bank more predictable.

**The Taylor Rule Formula is the following:**

$$i_t = \pi_t + r_t^* + a_\pi(\pi_t - \pi_t^*) + a_y(y_t - \bar{y}_t).$$

$i_t$  — interest rate

$\pi_t$  — level of actual inflation

$\pi_t^*$  — desired level of inflation, the target of the monetary regulator

$r_t^*$  — estimated level of equilibrium interest rates

$(y_t - \bar{y}_t)$  — the output gap, the difference between actual and potential GDP, determines the phase of the cycle relative to the long-term growth trajectory



## Our interpretation of the economic terms for the dashboard

**The dashboard we have built divides The Taylor Rule into three blocks**, either way corresponding to the factors that are used in the basic equation.

Moreover, we have increased the number of explanatory factors, and also added some of leading ones. The data on the relevant factors are evaluated, as a result of which the degree of their deviation from the optimal level is determined. **The deviation of the indicators in the negative direction indicates an overheating of the economy** or other problems requiring a tightening of fiscal and monetary terms. **The decrease indicates the need for additional incentives.**

1. **Inflation block** is the main indicator of the disequilibrium of economic policies, overheating of economic activity, and the presence of excess demand;
2. **Monetary terms block** are leading factors of inflation, interpretation, and replacement of the equilibrium rate factor in the basic Taylor equation;
3. **Economic terms block** gives a broader picture and interpretation of whether there is a positive or negative output gap.

**Important clarification of The Taylor Rule: several external conditions must be taken into account for small open economies.**

4. **External terms block** shows the most relevant external factors that can have a major impact on the phase of the current cycle.

A set of results for each indicator reflects the current state of the economy and the expected reaction of regulators within the cycles: **“overheating”, “growth”, and “cooling”**. At the same time, the lack of an appropriate response will cause further deterioration of indicators, exacerbating overheating or slowing down the economy.

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