

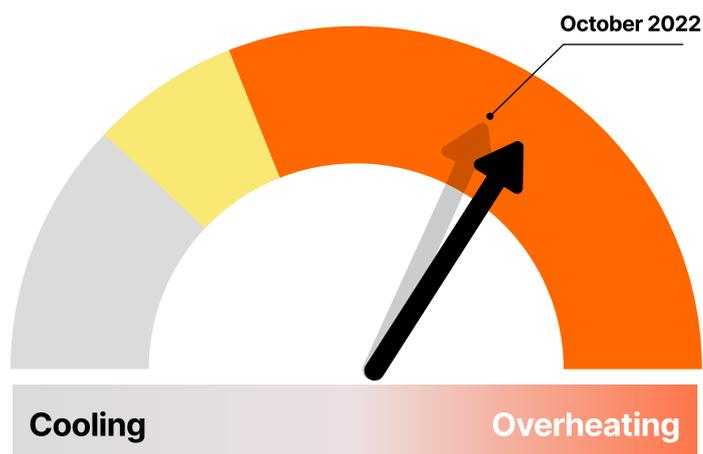
October 2022

Cooling

Overheating

November 2022

Dashboard for assessing current economic activity



According to the dashboard results for November, **20 out of 30 factors indicate an overheating of the economy**. The analysis was carried out in 4 blocks: inflation, monetary, economic and external terms. 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	19
Growth ■	3	4
Cooling ■	7	7
Total	30	30

1 indicator in the inflation block has moved into the overheating zone in comparison with the previous dashboard. The increase in price factors overheating is getting worse, while business activity and economic growth, on the contrary, show cooling. Increasing stagflation risks are likely to be a factor in maintaining budget spending at elevated levels.

In these circumstances, an excessive increase in interest rates may contribute to an additional expansion of the budget deficit, thereby complicating the ability to keep inflation under control. Given the growing risks regarding the prospects for the development of the domestic economy, the main issue in ensuring sustainable growth and stable inflation is a balanced approach to decision-making, as well as the consistency of budgetary and monetary policy measures.

Inflation block

Factors	Target indicator	Comments on the target	Indicators			Estimated impact	
			Monthly data			Current	Previous
			Current value	Average for 3 months	Average since the beginning of the year		
Current inflation rate (YoY)	4-6%	The target indicator of the National Bank of Kazakhstan for 2022	18.8	17.5	13.3	●	●
Current inflation rate (MoM)	0.6%	The average value in this month for 2019-2021	1.6	1.6	1.6	●	●
Inflation expectations	5.0%	A cap on the target corridor of the National Bank of the Republic of Kazakhstan in a year	19.0	17.2	13.6	●	●
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	-3.6	-2.1	0.4	●	●
Housing prices (MoM)	1.3%	The average value of the change in the sale prices of new housing in a given month for 2019-2021	0.9	0.4	1.3	●	●
	1.1%	The average value of the change in the resale prices of apartments in a given month for 2019-2021	2.1	1.2	2.1	●	●

Overheating Growth Cooling

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

Conclusions on the inflation block:

The rate of consumer inflation remains increased. **The actual inflation has reached the level of 19.6% in annualized terms (the growth of monthly inflation is 1.4%).** The past tightening of monetary conditions (5 times since the beginning of 2022) and the strident rhetoric of the National Bank of Kazakhstan, clearly noted in a press release in October 2022, allowed it to slow down somewhat, but not limit the further growth of consumer prices.

The increase in consumer inflation in November 2022 was mainly due to food inflation. It began to accelerate amid the depletion of the seasonal disinflationary effect. The growth rates of non-food and service inflation have slowed down. Core inflation at the end of October continues to exceed the value of the consumer inflation indicator entirely. This indicates that high rates of price growth have affected a wide range of consumer goods.

Business representatives and household inflation expectations have worsened by the end of October and exceeded the actual inflation rate, which largely reflects the high persistence of expectations and the long double-digit inflation. And we can conclude that according to economic agents, the current inflationary processes will continue to deviate from the goal at least for 1 year. Given the impact of the self-fulfilling nature of inflation expectations, this factor will exert pro-inflationary pressure on future consumer prices.

Monetary terms block

Factors	Target indicator	Comments on the target	Indicators			Estimated impact	
			Monthly data			Current	Previous
			Current value	Average for 3 months	Average since the beginning of the year		
Retail lending	657 419 million tenge	Average value for 2019-2021	1 083 279 million tenge	1 147 386 million tenge	969 417 million tenge	●	●
Lending to the trade and services sectors	543 660 million tenge	Average value for 2019-2021	647 417 million tenge	628 279 million tenge	586 253 million tenge	●	●
Loans/deposits	100%	Average value for 2019-2021	103%	104%	103%	●	●
Demand for currency in currency offices	169 729 million tenge	Average value of foreign currency sales for 2019-2021	113 688 million tenge	114 599 million tenge	136 254 million tenge	●	●
Tenge deposits movement*	Growth		+4.6%	+6.8%	+8.3%	●	●
Foreign exchange deposits movement*	Decline		0.7%	+8.4%	+6.4%	●	●
Dollarisation*	Decline		-0.8 p.p.	+1.01 p.p.	-1.01 p.p.	●	●
Monetary multiplier	2.2	Average value for 2019-2021	3.14	2.96	3.12	●	●
Credit multiplier	1.8	Average value for 2019-2021	2.75	2.16	3.12	●	●
Reserve multiplier	0.3	Average value for 2019-2021	0.17	0.20	0.17	●	●

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

Overheating ● Growth ● Cooling ●

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

Conclusions on monetary terms block

There is a slight decrease in issuance in the retail lending segment. Although the September issue rates are below the average values for the last 3 months, they exceed the optimal values (deviation of 65%). We can see an increase in the issuance of loans to the services and trade sector: the growth for the month was 7%. **If there are structural problems on the supply side, current indicators lead to an increase in excess consumer demand in the economy, which will put more pressure on inflation.**

The indicators are also reflected in the increase in funding. The ratio of loans to deposits decreased by 3 percentage points. The growth in the volume of deposits occurred against the background of an increase in tenge deposits (+4.6%). The outstripping growth of tenge funding led to a reduction in the dollarisation level in September by 0.88 percentage points. **In general, the increase in the level of tenge deposits favourably affected the funding indicators, despite the weak increase in foreign currency deposits.**

We have observed a **reduction in the balance of demand for foreign currency** by 23% to 113.7 billion tenge over the month. The current ones are 33% lower in comparison with the target indicators.

At the same time, we note an increase in the monetary and credit multiplier by 0.25 percentage points and 0.16 percentage points, respectively. The growth is due to the expansion of the total loan portfolio. The decrease is observed in the reserve multiplier (-0.02 percentage points) due to a reduction in bank reserves on the accounts of the National Bank of the Republic of Kazakhstan. Banks have actively started investing in mid-term treasury bills of the Ministry of Finance of the Republic of Kazakhstan and treasury bills indexed to the TONIA rate over the past 2 months. This trend indicates a refocus of banks from lending to obtaining a stable investment income. The indicators of all multipliers are in the red zone and signal the overheating of the economy and the need for measures to slow down significantly unsecured consumer lending. We expect an increase in consumer demand while maintaining current conditions, which will lead to even greater volumes of lending and an increase in household debt.

Economic terms block

Factors	Target indicator	Comments on the target	Indicators					Estimated impact	
			Monthly data			Quarterly data		Current	Previous
			Current	Average for 3 months	Average since the beginning of the year	Current value	Previous quarter		
Output gap*	0.0%	International practice				0.5%**	0.5%		
Monetary conditions	0.0%		Expansionary	Expansionary	Contractory				
Non-oil budget deficit/GDP	0.0%	Target: 0.0% (2022)				-6.8% (-7.7%)*	-8.5% (-10.8%)*		
Short-term economic indicator	103.3	Average value for 2019-2021	99.7	101.5	103.8				
Business activity index	50.0	Global practice	49.1	48.4	49.0				
Hours ^o of the business cycle	0.0%	the National Bank of the Republic of Kazakhstan data	Growth	Growth	Growth				
Consumer expenditures	2.8%	The average value of changes in household consumption expenditures for 2019-2021				13.3%	16.0%		
	3.0%	Average value retail trade change for 2019-2021	0.8%	-0.5%	1.4%				
Volume of goods and services trade	3.0%	Average value of wholesale trade change for 2019-2021	3.5%	0.8%	6.7%				
Import of goods	7.6%	Average value of import change for 2019-2021	23.8%	19.0%	17.1%				

*Calculated using the Hodrick-Prescott filter

**Based on the dynamics of GDP in average annual prices in 2005

***Calculations according to the methodology of the Ministry of Finance of the Republic of Kazakhstan

Overheating Growth Cooling

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

Conclusions on economic terms block

The output gap in the 3rd quarter of this year remains at 0.5%, which is due to the slowing growth of the industrial sector. GDP grew by 2.8% in annualized terms (real growth for 10 months – 2.5%) and amounted to 64.6 trillion tenge for 9 months of 2022.

According to data for 9 months of 2022, **the state budget has a deficit of 602.9 billion tenge** or -0.9% of GDP. The budget deficit in the 3rd quarter amounted to -1.2% of GDP (-5.6% in the 3rd quarter of 2021). With the exclusion of revenue transfers of the National Fund, the budget deficit (non-oil) deepens to -6.8% of GDP (-8.6%). And budget expenditures for the period continue to grow (+21.7% YoY) and have an impact on the increase in demand in the economy. This, in turn, causes **additional pressure on prices and hinders market construction, as well as contributes to a new round of price increases with a positive response from aggregate expenditures** (*signs of an inflationary spiral*).

The short-term economic indicator continued to slow down for 10 months and amounted to 3.1%. Growth for 9 months has reached 3.5%. The slowdown of the short-term economic indicator in October 2022 compared to last year occurred by 0.3%, which has not been observed since February 2021. The decline in growth rates is experienced in the sectors of production of goods and services, especially in the industrial sector (the mining industry fell by 1%). Thus, the short-term economic indicator for the fourth month is below the target, which may indicate a possible stabilization of economic growth close to the potential level. However, this carries more risks than benefits in the current conditions of a prolonged pro-inflationary background.

Consumer demand on average per capita following the data of the 2nd quarter is also **slowing down**. Consumer spending, which accounts for more than 90% of all household spending, increased by 13.3% YoY (+16.0% in Q1 2022) and amounted to 207.5 thousand tenge on average per capita. Of these, food products account for 56%, non-food products - 26%. The cost of paid services is 19%.

Retail trade in October increased by 20% YoY (+15% oY in September), and wholesale – by 17% YoY (+14%). Although nominal trade is growing significantly, **retail trade remains at the same level in physical volumes** in October. At the same time, there is an acceleration of sales in wholesale trade. This indicates a reorientation of the market to the wholesale segment and a continuing decline in the purchasing power of the population under inflationary pressure.

External terms block

Factors	Target indicator	Comments on the target	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	\$ 90.0 per barrel	According to the amendments to the state budget, which were approved in May 2022, the price of crude oil (the price of \$ 60 per barrel was previously set)	\$ 92.9 per barrel	\$ 93.5 per barrel	\$101.3 per barrel		
FAO Consumer Price Index	106.3	Average for 2019-2021	135.9	136.7	145.8		
Inflation in the main trading partner countries	4.8%	Russia, average price change in 2019-2021	12.6%	13.5%	14.1%		
	7.1%	China, average price change in 2019-2021	2.1%	2.5%	2.6%		
	1.7%	The EU, average price change in 2019-2021	11.5%	10.2%	8.7%		
	15.7%	Turkey, average price change in 2019-2021	85.5%	83.1%	71.5%		
Dollar Index	95.24	Average value for 2019-2021	111.9	109.9	103.5		

Overheating Growth Cooling

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

Conclusions on external terms block

There was a decrease in pressure from high world food and energy prices in October 2022. This was facilitated by the seasonal cheapening of some types of food and limited market demand.

The FAO Food Price Index still has a disinflationary effect on the world market for 7 months. At the same time, there are risks of the second wave of price increases because of the desire of countries to ensure their food security and a decrease in experts' estimates of the harvest and a deterioration in the prospects around the Grain Deal.

Oil prices for October rose by 2.5% and fluctuated on average at \$ 92.9 per barrel. A more significant decline in oil prices was restrained by the announced intention of OPEC+ to reduce oil production and expectations of a reduction in supply amid plans to embargo Russian energy resources.

Inflation in most of Kazakhstan's main trading partners continues to exceed their target values. In October, inflation in Russia was 12.6% (the official one is gradually decreasing due to the growth of suppressed inflation against the background of the emerging shortage of goods in particular markets), in the EU – 11.5%, in Turkey – 85.5%. Consumer inflation showed an increase of 2.1% in China. At the same time, the current inflation rate in China is approached as elevated by the Chinese authorities.

The Dollar Index in October 2022 continues its upward trend, it was quoted on average above the level of 111.9 points (in August – 110.7). Since the beginning of 2022, the average value of the Dollar Index is 103.5 points, which is significantly higher than the average for the last 3 years. **The prolonged strengthening of the global dollar's position on world markets is the result of the Fed's actual rate hike by 375 bps since the beginning of the year and expectations of continued aggressive tightening of conditions in the coming months.**

Analysis of press releases

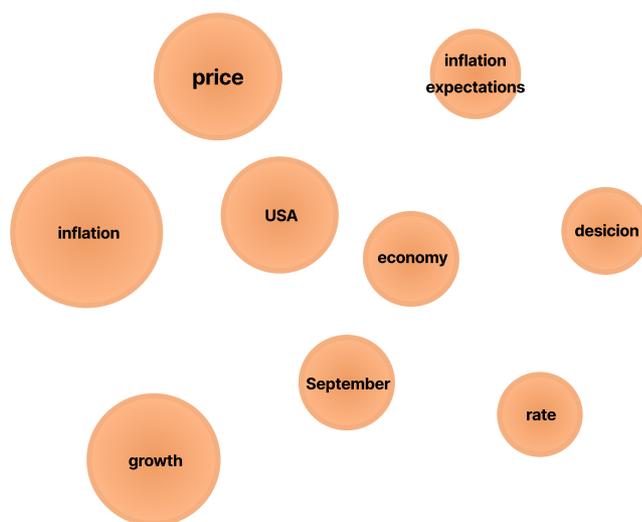
According to the semantic analysis of the National Bank of Kazakhstan "On raising the base rate to 16%" press release, the frequently repeated keywords have not changed much since the last one. The word "inflation" was repeated 24 times, and the word "growth" - 6 times more. The word "price" was repeated - 13 times, "USA" - 8, "September" and "economy" - 7, "inflation expectations", "decision" "rate" - 6.

Can be assumed **that household inflationary expectations have been added** to such key factors of deciding on the rate as **the rate of price growth/inflation, the US Federal Reserve rate.**

Forward looking

Actual inflation in October is more likely to deviate from the National Bank of Kazakhstan forecast trajectory. Macroeconomists' and household inflation expectations continue to grow. Given the current dynamics, the National Bank of Kazakhstan is likely to continue tightening monetary policy by raising the base rate.

Phrase/word	Number	Frequency %
"inflation"	24	2.95
"growth"	11	2.09
"price"	9	1.60
"USA"	7	0.98
"September"	7	0.86
"economy"	7	0.86
"inflation expectations"	6	0.74
"decision"	6	0.74
"rate"	6	0.74



Using <https://advego.com/text/seo/>

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

π_t — level of actual inflation

π_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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