

Dashboard for assessing current economic activity

October 12, 2022



According to the dashboard results for September, **18 out of 29 factors indicate an overheating of the economy**. The analysis was carried out in 4 blocks: inflation, monetary, economic and external terms.

Designations	Number of indicators	
	Current	Previous
Overheating ■	18	20
Growth ■	4	5
Cooling ■	7	4
Total	29	29

1 indicator in the inflation block and 2 in the economic conditions block have moved into the cooling zone compared to the previous dashboard. Price factors for the period under review show an increase in overheating, while indicators of business activity demonstrate cooling. Thus, there is an imbalance between supply and demand when the latter does not have time to respond to the corresponding fiscal and credit incentives. And in these conditions, it is necessary to focus on the point factors of excess demand: consumer lending and non-scalable fiscal motivation. Further monetary tightening may lead to an asymmetric and undesirable effect, when supply may shrink more, and demand does not react as appropriate.

[A semantic analysis of the National Bank of the Republic of Kazakhstan press release](#) was also carried out.

Inflation block

Factors	Target indicator	Comments 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)	4-6%	The target indicator of the National Bank of Kazakhstan for 2022	17.7	16.3	13.3	●	●
Current inflation rate (MoM)	0.6%	The average value in this month for 2019-2021	1.8	1.4	1.6	●	●
Inflation expectations	5.0%	A cap on the target corridor of the National Bank of the Republic of Kazakhstan in a year	16.0	15.5	12.4	●	●
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	-1.32	-1.46	1.38	●	●
Housing prices (MoM)	0.60%	The average value of the change in the sale prices of new housing in a given month for 2019-2021	-0.1	0.5	1.5	●	●
	1.2%	The average value of the change in the resale prices of apartments in a given month for 2019-2021	0.4	0.5	2.2	●	●

Overheating ■ Growth ■ Cooling ■

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

Conclusions on the inflation block:

We can see a significant acceleration in the price growth rate in the consumer market. **Actual inflation exceeded market expectations and reached the level of 17.7% in annualized terms** (monthly inflation growth is 1.8%). Consumer inflation has been growing continuously for 10 months and, is becoming much more stable according to the current dynamics.

The main factors of inflation growth are the cost increase of imported goods due to the high external inflationary background in the trading partner countries, the increase in the transportation cost due to the disruption of logistics chains, the tenge weakening against the dollar and ruble, along with the positive dynamics of consumer demand. **The acceleration of inflationary processes has become more widespread** in comparison with the previous months, this indicates an increase in consumer demand (mostly for services). In addition to the become already familiar credit and fiscal impulses, the observed increase in demand was caused by the influx of Russian citizens to Kazakhstan and the subsequent demand shock.

An additional, but no less significant, pro-inflationary factor is pessimistic inflation expectations. Following the National Bank of the Republic of Kazakhstan, the population expects an inflation rate of 16.5% in 12 months, which is an anti-record for this indicator. The growth of pessimism in inflation expectations without appropriate measures aimed at price stability will contribute to further strengthening of the internal inflationary background and its preservation over a longer horizon period.

Monetary terms block

Factors	Target indicator	Comments 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	657 419 million tenge	Среднее значение за 2019-2021	1 194 152 million tenge	1 144 912 million tenge	955 184 million tenge	●	●
Кредитование секторов торговли и услуг	543 660 million tenge	Среднее значение за 2019-2021	627 886 million tenge	587 527 million tenge	575 233 million tenge	●	●
Кредиты/депозиты	100%	Среднее значение за 2019-2021	106%	104%	103%	●	●
Спрос на валюту в обменниках	169 729 million tenge	Среднее значение продажи иностранной валюты за 2019-2021	147 933 million tenge	90 838 million tenge	139 075 million tenge	●	●
Динамика тенговых вкладов*	Increase		-1.01%	6.7%	3.5%	●	●
Динамика валютных вкладов*	Decrease		+4.1%	+22.7%	+5.7%	●	●
Долларизация*	Decrease		+1.15 p.p.	+3.18 p.p.	0.48 p.p.	●	●
Денежный мультипликатор	2.2	Average value for 2019-2021	2.89	2.96	3.12	●	●
Кредитный мультипликатор	1.8	Average value for 2019-2021	2.58	2.16	2.55	●	●
Резервный мультипликатор	0.3	Average value for 2019-2021	0.19	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:

The issuance of retail exposures exceeds the optimal values. Intermediary enterprises respond to demand most actively, this leads to an increase in lending to the service sector and trade. Over the month, lending to these sectors increased by 7.8%, which indicates an expansion of credit demand in the economy and negatively affects inflation. Such unproductive credit growth continues to influence the excess demand in the economy in the presence of several structural problems for the supply. **Such unproductive credit growth continues to influence the excess demand in the economy in the presence of some structural problems for the supply.**

The expansion of lending was not reflected in the increase of tenge funding. Over the month, there has been an increase in the ratio of loans to deposits by 3 percentage points, and it is connected with an increase in foreign currency deposits by 4.1% and a decrease in tenge deposits by 1%. Thus, dollarisation increased by 1.2 percentage points. The decline in tenge funding, the growth of lending and dollarisation in the economy warn us of a strong overheating. **The decline in tenge funding, the growth if lending and dollarisation in the economy warn us of a strong overheating.**

The market is **experiencing an increase in the demand balance** for cash currency in exchangers: +80% per month to 148 billion tenge. The indicators of August came closer to historical values. The net purchase in exchangers (*calculated as purchases minus the return to the supplier*) in previous months was strongly influenced by the financial transactions of citizens of the Russian Federation for the cash currency sale. At the same time, the effect of the holiday season, which usually increased the demand for cash, was insignificant. The restoration of the close-to-optimal demand value indicates the cessation of the influence of various factors. This parameter reflects a lesser extent the internal terms and the demand for currency among the population in the current conditions.

Reserve and credit multipliers were negatively affected by the expansion of lending and the decline in tenge funding. The indicators of the monetary multiplier also show negative dynamics. The indicators of all multipliers are deep in the red zone, which indicates the need to slow down credit activity and expand tenge funding of the banking system. Thus, the preservation of current conditions leads to an even greater expansion of credit demand and the creditworthiness of the economy.

Economic terms block

Factors	Target indicator	Comments 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%**	0.4%**		
Non-oil budget deficit/ GDP	0.0%					-8.7% (-11.1%***)	-4.3% (-6.3%***)		
Short-term economic indicator	103.3	Average value for 2019-2021	102.6	102.9	104.5				
Business activity index	50.0	Global practice	48.0	47.9	49.0				
"Hours" of the business cycle		the National Bank of the Republic of Kazakhstan data	Growth	Growth	Growth				
Consumer expenditures	9.7%	The average value of changes in household consumption expenditures for 2019-2021				13.3%	16.0%		
Volume of goods and services trade	2.8%	Average value retail trade change for 2019-2021	1.0%	0.1%	2.0%				
	3.0%	Average value of wholesale trade change for 2019-2021	-1.0%	-2.1%	7.9%				
Import of goods	7.6%	Average value of import change for 2019-2021	10.1%	15.2%	15.3%				

*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, TradingEconomics.com, fao.org, Jusan Analytics calculations

Conclusions on economic terms block:

A slight increase in the output gap in the 2nd quarter of this year (from 0.4% to 0.5%) was caused by the outpacing growth of the industrial sector, namely the manufacturing sector. The GDP grew by 3.4% in annualized terms and amounted to 39.6 trillion tenge. At the same time, the contribution of the manufacturing sector increased by 5.8%. Such a significant increase in the components of the sector is observed in the markets for the production of motor vehicles, other finished products and basic pharmaceutical products.

The state budget is **in a deficit zone** and amounts to -1.6% of GDP (-3.1% in the 2nd quarter of 2021). The non-oil budget, excluding transfers from the National Fund, deepens to -8.7% of GDP (-9.5%). At the same time, the expenditure budget is growing, which leads to excessive demand stimulation in the economy. This, in turn, **puts additional pressure on prices, hindering market adjustment and contributing to a new round of hikes with a positive response from aggregate expenditures** (signs of an inflationary spiral).

The short-term economic indicator continues to slow down from +6.5% at the end of the 1st quarter to +3.7% in 8 months of 2022 (+2.6% in August) due to a decrease in the growth rate in the industry from +5.8% to +2.5% and domestic trade from +6.2% to +5.2%. The short-term economic indicator for the second month is below the target, which may indicate a possible stabilization of economic growth close to the potential level. This, in the context of a significant increase in inflation, carries more risks than benefits.

Consumer demand on average per capita **began to slow down**. Consumer demand began to slow down. Consumer expenditures, which account for more than 90% of all household spending, increased by 13.3% YoY in the 2nd quarter of 2022 (+16.0% in the 1st quarter of 2022) and amounted to 207.5 thousand tenge on average per capita. Of these, food products account for 56%, non-food products - 26%. The spending on market services is 19%. Retail trade in August grew by 19% YoY (+22% YoY in July), and wholesale trade – by 14% YoY (+21%).

Although the growth of trade in monetary terms is only slightly slowing down, **retail and wholesale trade in physical quantity practically remains at the level of previous years**. This shows a decrease in consumer purchasing power as a result of a significant increase in prices since the beginning of the year.

External terms block

Factors	Target indicator	Comments 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	\$ 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)	\$ 90.6 per barrel	\$ 97.2 per barrel	\$ 102.2 per barrel	●	●
FAO Consumer Price Index	106.3	Average for 2019-2021	136.3	138.3	146.9	●	●
Inflation in the main trading partner countries	4.8%	Russia, average price change in 2019-2021	14.3%	15.1%	14.4%	●	●
	7.1%	China, average price change in 2019-2021	2.5%	2.8%	2.6%		
	1.7%	The EU, average price change in 2019-2021	10.0%	9.6%	8.3%		
	15.7%	Turkey, average price change in 2019-2021	83.5%	81.1%	70.0%		
Dollar Index	95.24	Average value for 2019-2021	110.7	108.23	102.65	●	●

Overheating ■ Growth ■ Cooling ■

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

Conclusions on external terms block:

In September 2022, world food and energy prices were less affected. The decline in world food prices was facilitated by seasonal growth in production, high crops for some types of products and limited market demand against the background of high energy costs together with weak prospects of the world economy development.

The FAO Food Price Index dropped by 1.5 points in September to 136.3. The decline in the Index was due to a drop in prices for vegetable oils and a moderate decline in prices for sugar, meat, and dairy products. At the same time, the cost of grain, as a key component of the food market, has increased over this period. This was stimulated by the growing uncertainty around the grain initiative and the deterioration of weather conditions in Argentina and the United States.

Due to the growing concern about recession, **the price of oil** fell by 8.8% and fluctuated on average at \$ 90.2 per barrel. A more significant decline in oil prices was held by OPEC+ restrictions on oil production.

Inflation in all partner countries of Kazakhstan exceeds the optimal values for these countries. In August, inflation in Russia and the EU amounted to 14.3% and 10.0%, respectively, and in September in Turkey – 83.45%. In China, consumer inflation showed an increase of 3.2%. At the same time, the current inflation rate in China is the highest for the last 2 years, which indicates an increase in inflationary processes, including the world's second economy.

The Dollar Index in September 2022 averaged above 110.7 points (in August – 107.1). Since the beginning of the year, the average value of the Dollar Index is 102.6, which is higher than the average for the last 3 years and **shows a continued increase in pressure from the dollar.**

Analysis of press releases

We have carried out a semantic analysis of the National Bank of the Republic of Kazakhstan "On maintaining the base rate at 14.5%" press release dated September 5, 2022. The word "inflation" is still a frequently repeated one, the frequency increased by 0.5 percentage points. Words "price", "growth" and "high" also remain among the most used ones. And this time, words "forecast" (9 times), "decline" (9), "crude" (8), "base" (7) and "external" (7) began to be used more often in the press release.

Thus, the key factors explaining the National Bank of the Republic of Kazakhstan decision are still **indicators of inflation and hikes, as well as forecasts for a decrease in external food inflation and oil prices.**

Phrase/word	Number	Frequency %
"inflation"	24	2.47
"price"	17	2.00
"growth"	14	1.65
"high"	12	1.41
"forecast"	9	1.06
"decline"	9	1.06
"oil"	8	0.82
"base"	7	0.82
"external"	7	0.82

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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