Dashboard for assessing current economic activity
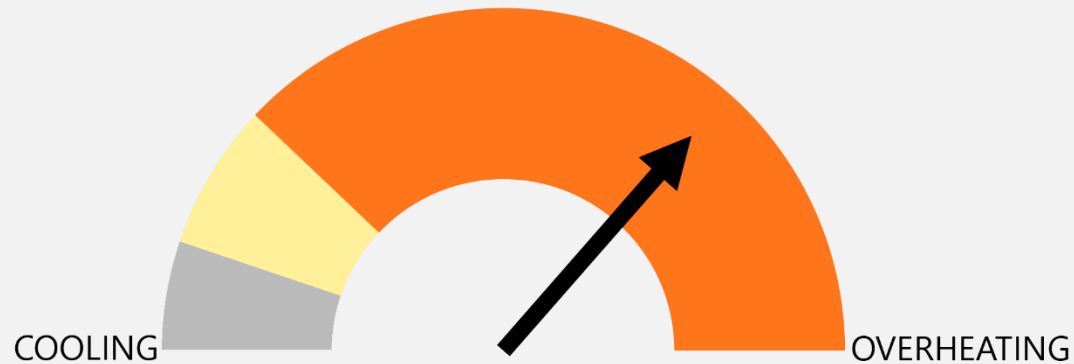
Jusan Analytics team has developed a dashboard for assessing current economic activity. The dashboard allows you to understand what phase of the short-term cycle the economy is in, as well as predict the likely actions of economic agents (inflation, exchange rate, business activity, rate).

COOLING   OVERHEATING

According to the results of the developed dashboard, 22 out of 29 factors indicate a steady overheating of the economy. The analysis was carried out in 4 blocks: inflation, monetary, economic and external terms. A semantic analysis of the press release of the National Bank of Kazakhstan was also carried out. Methodology.

Designation		Number of indicators
Overheating		22
Growth		4
Cooling		3
Total		29

It is necessary to take appropriate measures to stabilize the situation. We expect an increase in the base rate at the next meeting of the National Bank of the Republic of Kazakhstan Monetary Policy Committee. At the same time, the number and stability of the overheating areas indicate the need for a more drastic increase in the rate.

JUSAN ANALYTICS

Inflation block

Factors	Target indicator	Comments on the target indicator	Indicators			Estimated impact
			Monthly data			
			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	14.5%	13.9%	11.8%	●
Current inflation rate (MoM)	0.6%	The average value in this month for 2019-2021	1.6%	1.7%	1.7%	●
Inflation expectations	5.0%	A cap on the target corridor of the National Bank of the Republic of Kazakhstan in a year	14.8%	12.6%	11.1%	●
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	-1.4%	1.6%	3.1%	●
Housing prices	0.40%	The average value of the change in the sale prices of new housing in a given month for 2019-2021	1.1%	1.2%	1.9%	●
	0.8%	The average value of the change in the resale prices of apartments in a given month for 2019-2021	0.4%	1.1%	2.7%	●

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

Designation	
Overheating	
Growth	
Cooling	

Conclusions on the inflation block:

Contrary to expectations for inflation slowdown due to the effect of the high base of last year, statistics on inflation in June 2022, indicates a further increase in inflationary pressure. Annual inflation has reached the level of 14.5% (in May – 14.0%). Prices of food and non-food products have increased by 19.2% and 13.2%, respectively. Service inflation has risen to 9.2%.

The rise in the price of the consumer basket is caused by the continuing pressure from world food prices, the weakening of the tenge, and the increase in the cost of supplying imported goods. According to the results of the National Bank of the Republic of Kazakhstan survey, household inflation expectations for the year ahead, have become more pessimistic and reflect concern about the continued weakening of the national currency and the deterioration of the global pro-inflationary background. The estimate in June was 14.8% (in May – 11.7%).

Taking into account the level of inflation and the National Bank of the Republic of Kazakhstan base rate in June 2022, there is a negative value of the real interest rate. This is a direct signal of the existence of a soft monetary policy with a high level of inflation.

JUSAN ANALYTICS

Monetary terms block

| Factors | Target indicator | Comments on the target indicator | Indicators | | | Estimated impact |
| | | | Monthly data | | | |
			Current value	Average for 3 months	Average since the beginning of the year	
Retail lending	657 419 billion tenge	Average value for 2019-2021	945 701 billion tenge	891 127 billion tenge	841 347 billion tenge	🟠
Lending to the trade and services sectors	543 660 billion tenge	Average value for 2019-2021	538 711 billion tenge	585 803 billion tenge	567 856 billion tenge	🟠
Loans/deposits	100%	Average value for 2019-2021	106%	105%	102%	🟠
Demand for currency in currency offices	169 729 billion tenge	Average value of foreign currency sales for 2019-2021	209 342 billion tenge	154 482 billion tenge	168 018 billion tenge	🟡
Tenge deposits movement*	Increase		0.3%	0.8%	-2.9%	🟡
Foreign exchange deposits movement*	Decrease		-7.6%	-13.8%	-13.8%	⚪
Dollarisation*	Decrease		-1.85 п.п.	-3.55 п.п.	-2.70 п.п.	⚪
Monetary multiplier	2.2	Average value for 2019-2021	2.92	3.10	3.21	🟠
Credit multiplier	1.8	Average value for 2019-2021	2.63	2.75	2.78	🟠
Reserve multiplier	0.3	Average value for 2019-2021	0.19	0.17	0.16	🟠

changes for 3 months and since the beginning of the year are presented
Source: National Bank of the Republic of Kazakhstan, Jusan Analytics calculations

Designation	
Overheating	🟧
Growth	🟨
Cooling	⬜

Conclusions on monetary terms block:

Despite the increase in the base rate, retail lending is showing quite aggressive growth. According to our assessment, almost all indicators exceed the optimal values. The growth in lending to the trade and services sectors also indicates overheating. Such unproductive credit growth leads to the formation of excessive demand in the economy, puts pressure on the exchange rate, and contributes to the growth of consumer inflation.

The ratio of tenge loans and deposits is increasingly shifting into the "overheating" zone: retail lending is growing, but there is no significant increase in household tenge deposits. At the same time, tenge funding in the banking system is not expanding.

The market has a relatively low household demand for currency in exchange offices, but in May there was a sharp increase exceeding the average.

Since the beginning of the year, tenge deposits have decreased by 2.9%. Despite the increase in the rate on tenge deposits, their volume has not returned to the level of the end of 2021. Foreign currency deposits are steadily declining. This has a positive effect on the level of dollarisation. However, a record level of de-dollarisation is achieved due to the outflow of foreign currency deposits from the system, which is not reflected in the growth of tenge deposits of either individuals or legal entities. Therefore, this decrease cannot be interpreted as an improvement in economic terms. On the contrary, such a пconstant outflow of foreign currency deposits indicates the presence of certain systemic problems in the economy.

Almost all monetary multipliers are located deep in the "red" zone, yindicating the need to slow down credit activity at the current parameters of funding the banking system and available reserves. Any additional external injections, including those of an emission nature, will lead to an even greater increase in excess credit demand and the debt load of the economy.

Economics terms block

Factors	Target indicator	Comments on the target indicator	Indicators					Estimated impact
			Monthly data			Quaterly data		
			Current value	Average for 3 months	Average since the beginning of the year	Current value	Previous quarter	
Non-oil budget deficit/GDP	0.0%					-4.3%	-6.8%	🔴
Short-term economic indicator	103.3	Average value for 2019-2021	105.4	105.3	105.4			🔴
Business activity index	50.0	Global practice	49.0	49.1	49.3			🔴
"Hours" of the business cycle		the National Bank of the Republic of Kazakhstan data	Growth	Rise	Rise			🟡
Consumer expenditures	9.7%	The average value of changes in household consumption expenditures for 2019-2021				16.0%	12.2%	🔴
Volume of goods and services trade	10.3%	Average retail trade change for 2019-2021	7.9%	22.1%	14.3%			🔴
	9.0%	Average value of wholesale trade change for 2019-2021	2.0%	21.8%	25.2%			🔴
Import of goods	7.6%	Average value of wholesale trade change for 2019-2021	16.6%	11.5%	15.3%			🔴

Source: BNS, Jusan Analytics calculations

Designation	
Overheating	🟧
Growth	🟨
Cooling	⬜

Conclusions on economic terms block:

As its well-known, Kazakhstan's budget has historically been in deficit. At the same time, the reduction of the budget deficit is largely ensured by transfers from the National Fund of the Republic of Kazakhstan. In the 1st quarter of 2022, the state budget was formed with a surplus of +1% of GDP (in quarter 1, 2021 – a deficit of -4%). However, the non-oil budget (minus transfers from the National Fund of the Republic of Kazakhstan) has developed a deficit of -4.3% of GDP (in quarter 1, 2021 -10.7%).

The short-term economic indicator is based on changes in output indices for basic industries, which account for over 60% of GDP. Over the 5 months of 2022, the short-term economic indicator has grown by 5.9% (5.4% in May) due to the growth of all basic industries (in annual terms: trade +10.8%, construction +8.9%, transport +8.1%, communications +7.2%, industry +4.4% and agriculture +1.3%). This growth is higher than the levels of the past (+2%) and pre-crisis 2019 (+3.7%), which indicates the cgrowth of the economy of Kazakhstan.

Consumer demand continues to grow and exceeds the levels of previous years. Consumer demand continues to grow and exceeds the levels of previous years. Consumer expenditures, which account for more than 90% of all household expenditures in the 1st quarter of 2022 increased year-on-year by 16.0% (in quarter 1, 2021 by 6.4%) and amounted to 201.8 thousand tenge on average per capita. Food products account for 54% of them, non–food products - 26%. Market services amount to 19%.

Trade is experiencing a slowdown. Retail trade in June grew by 8% YoY (in May by 29% YoY), and wholesale trade practically remained at the level of last year by +2% YoY (in May +32 YoY). At the same time, despite several limiting geopolitical factor, imports of goods in May increased by 16.6% and amounted to 9.5 billion US dollars.

External terms block

Factors	Target indicator	Comments on the target indicator	Indicators Monthly data			Estimated impact
			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)	$ 104.6 per barrel	$ 110.8 per barrel	$ 104.5 per barrel	🟡
FAO Consumer Price Index	106.3	Average for 2019-2021	154.2	156.8	151.1	🟠
Inflation in the main trading partner countries	4.8%	Russia, average price change in 2019-2021	15.9%	16.9%	14.2%	
	7.1%	China, average price change in 2019-2021	2.7%	2.8%	2.5%	🟠
	1.7%	The EU, average price change in 2019-2021	9.6%	8.8%	7.7%	
	15.7%	Turkey, average price change in 2019-2021	78.6%	74.0%	64.4%	
Dollar index	95.2	Average value for 2019-2021	103.9	104.2	100.6	🟠

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

Designation	
Overheating	🟧
Growth	🟨
Cooling	⬜

Conclusions on external terms block:

In June 2022, mounting concerns over a global downturn in economic growth have led to a decline in aggregate demand. This puts downward pressure on oil quotes as well. The price of Brent crude oil for June decreased by 5.7% to $ 109.0 per barrel. It should be noted that for 2022 the state budget was formed at an average price of $ 60 per barrel. In May, during the revision of the budget for the current year, the price of oil was adjusted to $ 90 per barrel. At the same time, the average price for the past 6 months of 2022 was 104.5 dollars.

Despite the continued decline, the FAO Food Price Index remains at levels close to record values and is 154.2 points in June this year. The reduction in global demand and the seasonal increase in agricultural products in the markets have affected the decline in prices of some types of food (cereals, oils, and sugar).

Inflation in almost all of Kazakhstan's partner countries, except for China, has significantly accelerated and exceeded optimal values since the beginning of the year. In June, inflation in Russia was 15.9%, in the EU – 9.6%, and Turkey – 78.6%. At the same time, only in China, inflation has slowed down and amounted to 2.7%.

The dollar index is the ratio of the US currency to a basket of six other major currencies. On average, since the beginning of the year, the dollar index has been 100.6, which is higher than the average for the last 3 years, and indicated an increase in the pressure from the dollar.

Analysis of press releases

We have carried out a semantic analysis of press release No. 15 of the National Bank of the Republic of Kazakhstan "On maintaining the base rate at 14%" and noticed that the word "growth" was used 26 times, "inflation" - 21, "price" – 20, "economy" – 15, "level", "high" "forecast" and "background" - 10 times.

Thus, it can be assumed that the key factors in approving the base rate are the growth rates of inflation, prices, and GDP.

Phrase/word	Number	Frequency %
"growth"	26	2.27
"inflation"	21	1.83
"price"	20	1.75
"economy"	15	1.31
"level"	11	0.96
"high"	10	0.87
"forecast"	10	0.87
"background"	10	0.87

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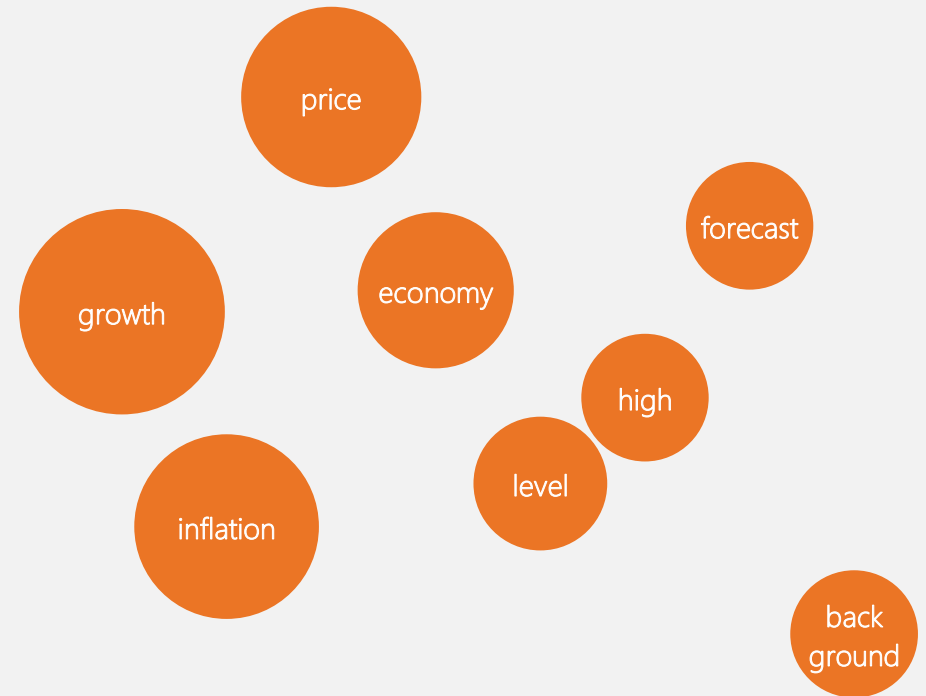
Methodology

As a theoretical basis, we have used The Taylor Rule

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 conditionally 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 f 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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