

# Exchange Market Pressure Index

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# Interpretation of results

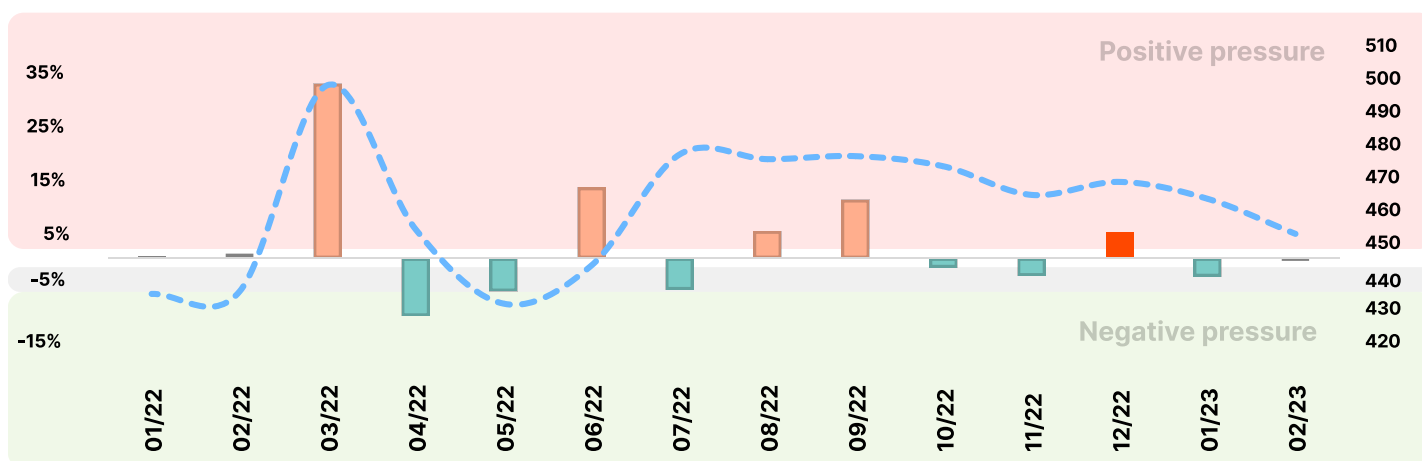
**The Exchange Market Pressure Index (EMPI)** is applied to measure the impact of the dynamics of international reserves and the key rate on the exchange rate.

**A high Index level** indicates a likely weakening of the exchange rate and intervention in the foreign exchange market to counteract a sharp increase in demand by using reserves and monetary instruments.

**A low Index level** indicates the absence of pressure and interference in the exchange rate by the state, the strengthening of the exchange rate for the selected period, as well as the availability of an expanded supply of currency on the market.

The Exchange Market Pressure Index increased by 2.9 percentage points in February, but its value still indicates the absence of excessive pressure on the exchange rate. Now, the exchange rate dynamics reflect the balance of market factors to the greatest extent. The chart below shows an abnormally high growth of the Index in March 2022 (+31.6 p.p.), which occurred due to a decrease in international reserves and a sharp increase in the base rate. The surges were observed in June (a decrease in reserves by 3%), in August, September (the impact of an increase in the base rate) and December (an increase in TONIA rate). Such a change in the Index indicates a certain degree of interference in the foreign exchange market.

## Dynamics of the Exchange Market Pressure Index and the tenge exchange rate



■ Exchange Market Pressure Index    — weighted average exchange rate

The amount of gross international reserves and the National Fund assets decreased by 2.6% in February. At the same time, the National Fund assets remained practically unchanged (-0.4% for the month), the volume of gold reserves decreased to \$ 19.9 billion (-8.5% for the month), and assets in freely convertible currencies decreased by 2.5% to \$ 14.6 billion.

The average TONIA Index was 16.1% (+0.3 percentage points for the month), and the National Bank of Kazakhstan kept the base rate at 16.75%. Most market participants expect the rate to remain at the current level. Given the withdrawal of uncertainty in the economy and the high yield on tenge-denominated investment instruments, there is a certain equilibrium among the participants of the foreign exchange market about the current exchange rate, which is reflected by the increased demand for short- and medium-term treasury bonds.



# Interpretation of results

The tenge strengthened to 442 tenge per dollar in February, which is considered a record strengthening of the exchange rate since June 2022. As a result, the weighted average exchange rate was 451.9 tenge per dollar. Internal factors also played an important role, including the tax week at the end of February. The relatively low demand for foreign currency in exchange offices, as well as the outflow of deposits in foreign currency of individuals, show us low household devaluation expectations.

According to the Index value in February, we observed a relatively balanced exchange rate, which strengthened without interference from economic regulators. However, certain risks in the external economy began to appear in March. Thus, the tenge exchange rate was rather affected by the emotional factors of the participants due to the growth of pessimism and concerns in the global financial markets. At the same time, the current exchange rate formation depends more on the interpretation of both internal and external macro factors by the economic agents.



# Calculation Methodology

EMPI is calculated by the following formula:

$$EMPI = \frac{\Delta e}{e} - \frac{\sigma e}{\sigma r} * \frac{\Delta r}{r} + \frac{\sigma e}{\sigma i} * \Delta i$$

$e$  – weighted average KZTUSD exchange rate for the period;

$\Delta e$  – dynamics of the weighted average KZTUSD exchange rate for the period;

$\sigma e$  – standard exchange rate gap ( $\Delta e/e$ );

$r$  – international reserves and National Fund assets for the period;

$\Delta r$  – dynamics of the international reserves for the period;

$\sigma r$  – standard deviation of the dynamics of the international reserves ( $\Delta r/r$ );

$\Delta i$  – change in the average TONIA rate for the month;

$\sigma i$  – standard deviation of the change in the average TONIA rate ( $\Delta i$ ).



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