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DOES THE TENGE FALL WITH OIL BUT NOT RISE WITH IT? MONTHLY EVIDENCE FROM KAZAKHSTAN, 2010-2026

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Abstract: This paper tests a hypothesis the author wrote down before the analysis: that the tenge weakens at once when oil prices fall but does not recover when they rise. It uses the official daily exchange rate of the National Bank of Kazakhstan from January 2010 to October 2026, averaged to 202 months, and the Brent oil price. In three oil falls since 2013 the dollar became 140.1% (a period that includes the one-day jumps of the official rate in 2014 and 2015), 17.9% and 15.5% dearer in tenge. In the oil rises of 2016-2018 and 2020-2022 the tenge first recovered part of its loss, with the dollar 13.5% and 7.2% cheaper at the low point, and then gave the gain back, so both rises ended with the dollar about 2% dearer than at their start. In monthly data from October 2015, a 10% fall in oil goes with a 0.85% dearer dollar within three months ($p = 0.067$) and a 10% rise with a 0.49% cheaper one, but the difference is not statistically significant, and when the sample starts in February 2016 the effect of a fall shrinks to 0.44% ($p = 0.286$). No long-run relation between oil and the tenge is found. Between 2016 and 2022 the dollar became 34.8% dearer in tenge while the ratio of Kazakh to US consumer prices rose 30.7%, so faster inflation in Kazakhstan accounts, in an accounting sense, for most of the nominal weakening. From December 2025 to October 2026 oil rose from 62.5 to 123.9 dollars a barrel and the dollar became 11.9% cheaper in tenge, while the National Bank's base rate, raised to 18.00% in October 2025, was being cut step by step to 15.75%. The asymmetry is visible at the end points of the episodes but is not established by the monthly statistics.

Keywords: tenge; oil prices; exchange rate; asymmetry; nonlinear ARDL; Kazakhstan; inflation

1. Introduction

In 2014 a barrel of Brent oil cost on average 99.0 dollars and a dollar cost 179.1 tenge. In 2016 oil averaged 43.5 dollars and the dollar 341.8 tenge. By 2022 oil was back at 100.8 dollars, but the dollar cost 460.6 tenge, and in 2025 it cost 521.3 [6, 7]. For an oil exporter this looks strange: if cheaper oil makes the currency weaker, dearer oil should make it stronger again.

The author's mentor offered this puzzle, why the tenge falls together with oil but does not rise together with it, as one of two possible research directions on 21 October 2026, together with the annual figures above. The author chose it and, on 22 October 2026, before any analysis for this paper had been done, wrote down his own explanation. His words, translated from Russian, were:

"I think that when oil falls, panic starts at once in our country and the [tenge's] rate instantly flies down, and when oil rises, the tenge does not strengthen because of constant inflation and the high purchases of the oil itself. On top of that, our state and the companies that sell oil simply take all the currency into their own stash at such moments, instead of letting it onto the market to lift the tenge. As a result, we sink at once on anything negative, and on anything positive we just get stuck at the same weak level."

This paper turns the parts of that statement that public data can reach into three questions. Does the tenge react more strongly to falls in the oil price than to rises of the same size? Is part of the "missing recovery" the result of faster inflation in Kazakhstan than in the United States? And what was different in 2026, when oil rose and the tenge did strengthen? The third question was added after the first results were seen; the author's own answer to it is reported in Section 6. Two mechanisms in his statement, the "purchases of the oil itself" and the holding back of currency by the state and exporters, need data that this paper does not have, and they are not tested.

2. Previous studies

Earlier work on Kazakhstan does not agree. Abubakirova and co-authors studied monthly data for January 2010 to December 2020 with the asymmetric causality test of Hatemi-J and Roca and found a causal link from negative oil price shocks to negative shocks in the real effective exchange rate, while positive oil shocks showed no such link [1]. On 24 October 2026 the author's mentor sent him one-line summaries of three earlier studies, describing this one as almost identical to his idea, and asked which was closest. The author replied on 25 October: *"Probably paper 1 is closest, because it shows exactly the same thing directly on Kazakhstani data for 2010-2020. When oil falls the tenge rate collapses at once, and when oil rises it does not really firm up"* (translated from Russian). Sanusi, using a nonlinear ARDL model on annual data for 25 developing oil exporters from 1995 to 2018, found that oil price decreases significantly affect exchange rate volatility, while increases do not [2].

The closest study in method is less clear-cut. Syzdykova and Azretbergenova estimated a nonlinear ARDL model of monthly returns for January 2010 to February 2024 and found that both positive and negative changes in oil prices affect the USD/KZT rate in the long run. Their long-run coefficients are almost the same size, -0.093875 for increases and -0.092918 for decreases, and the authors note that they are "quite close to each other", but they read their Wald test as showing that the rate "gave different reactions to positive or negative shocks in the oil price" [3]. Czech and Niftiyev, using a structural VAR, found that a rise in the oil price is associated with an appreciation of the tenge against the dollar, but that the response of Kazakhstan's foreign exchange reserves to oil prices is insignificant [4]. For the period 2004-2013, Hasanov and co-authors found oil prices to be a main driver of real exchange rate appreciation in Azerbaijan, Kazakhstan and Russia [5].

Two things are missing from this literature. The samples of the studies whose periods could be checked end in 2013 [5], 2018 [2], 2020 [1] and February 2024 [3], so none of them covers the oil rise of 2026; the sample period of [4] could not be checked. And [1] uses one sample that pools the years before and after the large one-day jumps of the official rate in 2014 and 2015 (Section 3), while [3] adds a single break dummy for November 2012 to July 2015, which ends before the jumps of August and September 2015. This paper uses data to October 2026 and treats the two periods separately.

3. Data

Exchange rates. The official daily rates of the US dollar and the Russian rouble in tenge were taken from the exchange rate report of the National Bank of Kazakhstan for 1 January 2010 to 10 November 2026, 6,124 days [6]. The downloaded report has no rate for 34 calendar days in this period, 27 of them in August 2023, and for the August 2023 days that were checked the National Bank's daily rate service also returned no rate, so the August 2023 average rests on four days. Daily rates were averaged over all days in the report in each calendar month; October 2026 is the last complete month, which gives 202 months. The dollar-rouble rate was computed as the ratio of the two tenge rates.

Oil. The Brent spot price in US dollars per barrel is the daily series DCOILBRENTEU from the FRED database of the Federal Reserve Bank of St. Louis, which takes it from the US Energy Information Administration [7]. It was averaged over the trading days of each month.

Prices and the base rate. Annual consumer price indices for Kazakhstan and the United States (2010 = 100) are from the World Development Indicators of the World Bank [8]; the United States value for 2025 was empty when the data were downloaded, so the comparison ends in 2024.

The base rate of the National Bank is taken from its table of decisions for 2015-2026 [9] and its description of the instrument [10].

Two periods. The largest one-day moves in the official dollar rate are 21 August 2015 (188.38 to 255.26 tenge, +35.5%), 25 August 2015 (-13.4%), 13 February 2014 (163.90 to 184.50, +12.6%) and 15 September 2015 (+8.5%). Moves of this size in one day are not reactions to the oil price of that day, so the main tests use the later period from October 2015 to October 2026, after the last of these jumps, and the earlier period from January 2010 to July 2015 is shown separately. The two periods are defined by these jumps in the data; the paper does not rely on official statements about the exchange rate regime.

4. Method

In the regressions, changes are 100 times the change in the natural logarithm (log points), which is close to a percentage change for small moves. Tables 1 and 4 and the episode figures in the text use simple percentage changes. A higher USD/KZT rate means a weaker tenge, and "the dollar became X% dearer (cheaper) in tenge" describes the change in USD/KZT.

Episodes. Within fixed windows (2013-2014, 2015-2016, 2017-2019, 2020, 2021-2022, 2023-2025 and January-October 2026) the month with the highest or lowest average Brent price was taken as a turning point, and the change in the exchange rate between turning points was measured, together with its lowest and highest monthly value in between.

Short-run asymmetry. The monthly change in USD/KZT was regressed on the positive and the negative parts of the monthly change in the Brent price, each entered for the current month and two previous months. The effect of a 10% rise in oil is 10 times the sum of the three coefficients on rises, and the effect of a 10% fall is minus 10 times the sum of the coefficients on falls. The hypothesis of symmetry, that the two sums are equal, was tested with a Wald test. Standard errors are of the Newey-West type with six lags, which allows for autocorrelation and heteroskedasticity [11]; p-values and 95% confidence intervals use the normal approximation.

Long-run asymmetry. Following Shin, Yu and Greenwood-Nimmo [12], the log of USD/KZT was modelled in a nonlinear ARDL with the positive and negative partial sums of changes in the log Brent price. Lag lengths up to four were chosen by the Akaike criterion. A long-run relation was tested with the bounds F-test of Pesaran, Shin and Smith [13], without a trend (their case III) and with a restricted trend (case IV), and serial correlation in the residuals with the Breusch-Godfrey test with 12 lags [14, 15]. Unit roots were checked with the augmented Dickey-Fuller test [16].

Inflation. A real exchange rate was computed as USD/KZT multiplied by the US price index and divided by the Kazakh price index, with 2010 = 100. A rise in this index means a weaker tenge in real terms.

The episode windows, the short-run regression, the long-run model on the later period and the inflation comparison were chosen before any regression result was seen, when the analysis was first run on 10 November 2026. They were not pre-registered, the windows were set by people who knew the history of oil prices, and the 2026 window could only be set after the 2026 data had been seen. The following were added on 12 November, after the first results had been seen: the Breusch-Godfrey test, the t-test on the error-correction term, the 10% critical values, the long-run model on the 2010-2024 sample, the restricted-trend bounds test, the robustness checks in Section 5.5, the samples starting in February 2016, the confidence intervals, the adjusted R^2, the lowest and highest months inside each episode, and the base-rate comparison in Section 6, which was redone against the previous year's inflation after a second review.

5. Results

5.1 Episodes

Table 1. Oil price episodes and the dollar rate in tenge (monthly averages, simple percentage changes). A positive change in USD/KZT means a weaker tenge. The last period ends with the last month of data, so the true peak of oil may come later.

Period	Oil	Brent, USD	USD/KZT,	Lowest	Highest

		(change)	start to end (change)	USD/KZT inside (month; vs start)	USD/KZT inside (month; vs start)
2013-02 to 2016-01	fall	116.1 to 30.7 (-73.5%)	150.5 to 361.4 (+140.1%)	150.5 (2013-02; 0.0%)	361.4 (2016-01; +140.1%)
2016-01 to 2018-10	rise	30.7 to 81.0 (+164.0%)	361.4 to 367.8 (+1.8%)	312.5 (2017-04; -13.5%)	367.8 (2018-10; +1.8%)
2018-10 to 2020-04	fall	81.0 to 18.4 (-77.3%)	367.8 to 433.6 (+17.9%)	367.8 (2018-10; 0.0%)	433.6 (2020-04; +17.9%)
2020-04 to 2022-06	rise	18.4 to 122.7 (+567.7%)	433.6 to 443.4 (+2.3%)	402.4 (2020-06; -7.2%)	499.7 (2022-03; +15.3%)
2022-06 to 2025-12	fall	122.7 to 62.5 (-49.0%)	443.4 to 511.9 (+15.5%)	441.9 (2024-05; -0.4%)	540.7 (2025-09; +21.9%)
2025-12 to 2026-10	rise	62.5 to 123.9 (+98.1%)	511.9 to 450.9 (-11.9%)	449.5 (2026-09; -12.2%)	511.9 (2025-12; 0.0%)

Table 1 shows why the rule looks convincing and also where it fails. Measured between the turning points, each of the three oil falls left the dollar dearer in tenge, and each of the first two oil rises left it about where it was (+1.8% and +2.3%). Inside those rises, however, the tenge did recover for a time. From January 2016 to April 2017 the dollar became 13.5% cheaper in tenge, more than in 2026, and from April to June 2020 it became 7.2% cheaper. Both gains were then lost: from April 2017 to October 2018 the dollar became 17.7% dearer in tenge, while it also became 16.7% dearer in roubles, and from June 2020 to March 2022 it became 24.2% dearer in tenge and 53.5% dearer in roubles. So in the earlier rises the tenge did not simply stay weak; it recovered part of its loss and then gave the recovery back.

The falls also differ. The first contains the one-day jumps of 2014 and 2015 (Section 3), so its size is not a pure reaction to oil. In the third fall the dollar was no dearer in May 2024 (441.9 tenge) than at the start of the fall, although Brent had already dropped from 122.7 to 81.7 dollars; the dollar peaked at 540.7 tenge in September 2025. The last row does not fit the rule: from December 2025 to October 2026 oil almost doubled and the dollar became 11.9% cheaper in tenge. This period is cut off by the end of the data.

5.2 Monthly asymmetry

Table 2. Cumulative change in USD/KZT (log points, close to per cent) over the month of a 10% change in the Brent price and the two following months. Expected signs: negative after a rise, positive after a fall. Newey-West standard errors; "p (symmetry)" tests that rises and falls have effects of the same size.

Sample	n	10% oil rise	p	10% oil fall	p	p (symmetry)
A. 2010-04 to 2026-10	199	-0.82%	0.222	+0.96%	0.079	0.744
B. Later period, 2015-10 to 2026-10	133	-0.49%	0.450	+0.85%	0.067	0.439
C. B with the dollar-rouble rate	133	-0.36%	0.458	+0.78%	0.021	0.244
D. B without 2023-07 to 2023-09	130	-0.54%	0.413	+0.92%	0.046	0.404
E. Earlier period, 2010-04 to 2015-07	64	-1.27%	0.155	+0.02%	0.938	0.289
F. 2016-02 to 2026-10	129	-0.15%	0.805	+0.44%	0.286	0.615
G. 2016-02 to	119	+0.35%	0.665	+0.17%	0.731	0.407

2025-12						

In the later period (row B) a 10% fall in oil goes with a 0.85% dearer dollar in tenge within three months (95% confidence interval -0.06% to 1.77%, p = 0.067), and a 10% rise with a 0.49% cheaper one (interval -1.78% to 0.79%). The difference between the two effects is 0.36 percentage points, with an interval from -0.55 to 1.27, and the test of symmetry gives p = 0.439.

The fall effect is borderline and not robust. Row B starts in October 2015, when the dollar was still rising in tenge month after month after the jumps of August and September 2015 (by 6.4, 9.5, 6.4 and 11.2 log points from October 2015 to January 2016) while oil was falling in three of those four months. When the sample starts in February 2016 (row F), the fall effect shrinks to 0.44% (p = 0.286); when it also ends in December 2025, before the 2026 rise (row G), the effects are 0.17% for a fall and +0.35% for a rise, which has the wrong sign. Row C adds the dollar-rouble rate; because the rouble itself reacts to oil, this row removes part of the oil effect and is shown only for comparison. Row D shows that the months around the missing data of August 2023 do not drive the results. The test of symmetry is not significant in any sample (p between 0.244 and 0.744). The data therefore do not show that the tenge reacts differently to oil falls and rises, and because the intervals are wide they also do not show that the reactions are equal. In the earlier period (row E) there is no detectable monthly effect of oil falls (0.02%, p = 0.938); in that period the rate moved mainly in the one-day jump of February 2014, and the next jumps came in August 2015, after the end of this sample.

5.3 The long run

Table 3. Nonlinear ARDL bounds tests for a long-run relation between USD/KZT and oil price increases and decreases. Asymptotic 10% lower bounds for two regressors: 3.17 without trend (case III) and 3.38 with a restricted trend (case IV) [13]. Breusch-Godfrey test with 12 lags for the model without trend (with trend: 0.599 and 0.349).

Sample	n	Lags (p, q)	F, no trend	F, restricted trend	Breusch-Godfrey p
2015-10 to 2026-10	128	3, 1	1.48	1.10	0.593
2010-01 to 2024-02	165	2, 1	2.06	2.44	0.395

In both samples the bounds statistic is below the lower 10% critical value, with and without a trend, so no long-run relation between the level of USD/KZT and the oil price is found. The t-statistic on the error-correction term in the main model, -1.82, is also above the 10% lower bound of -2.57 [13]. The residuals show no serial correlation. The augmented Dickey-Fuller statistics for the later period are -1.21 for the log exchange rate and -2.33 for log Brent in levels, and -9.69 and -8.15 in first differences, against a 5% critical value of -2.86; with a trend the level statistics are -1.59 and -2.92 against -3.41 [13, 16]. Both series therefore behave as integrated of order one. With 128 monthly observations over eleven years the bounds test has little power, so this is an absence of evidence for a long-run relation, not evidence that none exists, and the long-run coefficients are not reported as findings. The 2010-2024 model uses the same months as Syzdykova and Azretbergenova [3] but not their model: it is in levels, while [3] models monthly returns of USD/KZT, and it has no dummy variables for the jumps of 2014 and 2015 ([3] uses one break dummy), which can bias the test. The difference from [3] may therefore come from the specification.

5.4 Inflation and the real exchange rate

Table 4. Change in the nominal and real dollar rate and in the ratio of consumer prices, annual averages. A negative real change means a stronger tenge in real terms.

Years	USD/KZT, nominal	Ratio of Kazakh to US prices	USD/KZT, real
2014 to 2016	+90.8%	+20.3%	+58.6%
2016 to 2022	+34.8%	+30.7%	+3.1%

2016 to 2024	+37.2%	+51.7%	-9.6%
2014 to 2024	+161.9%	+82.6%	+43.4%

Between 2016 and 2022, a span that contains both earlier oil rises and also the oil fall of 2018-2020, the dollar became 34.8% dearer in tenge, while the ratio of Kazakh to US consumer prices rose 30.7% (Kazakh prices rose 59.3% and US prices 21.9%). The real dollar rate therefore rose only 3.1%: faster inflation in Kazakhstan accounts, in an accounting sense, for most of the nominal weakening. Within the first rise the tenge did gain in real terms (real index 162.1 in 2016, 147.0 in 2017 and 150.0 in 2018), but by 2022 that gain was gone. Between 2016 and 2024 the price ratio rose 51.7% (Kazakh prices +98.3%, US prices +30.7%), more than the dollar rate (+37.2%), so the real dollar rate was 9.6% lower in 2024 than in 2016. The net real gain from 2016 to 2024 came between 2022 and 2024, when the real index fell from 167.2 to 146.6 while oil fell from 100.8 to 80.5 dollars. The comparison is an identity, not a cause: a weaker tenge also raises prices in Kazakhstan, and inflation was highest in 2016 (14.4%) and in 2022-2023 (15.0% and 14.5%), years that followed or included the sharpest rises of the dollar [8]. Measured from 2014, before the oil collapse, the real dollar rate was still 43.4% higher in 2024.

5.5 Robustness

With one or three lags instead of two, the later-period results keep the same shape: a 10% fall goes with a 0.83% or 1.18% dearer dollar ($p = 0.019$ and 0.027), a 10% rise with a 0.66% or 0.91% cheaper one ($p = 0.133$ and 0.174), and symmetry is not rejected ($p = 0.660$ and 0.544). These two specifications start in October 2015, like row B, and share its dependence on the first months. Dropping only January 2016 from row B moves the fall effect to 0.60% ($p = 0.13$). When the sample ends in December 2025, before the 2026 rise, neither effect is significant (rise -0.15%, $p = 0.873$; fall +0.71%, $p = 0.266$), and symmetry is not rejected ($p = 0.300$).

The dollar-rouble rate co-moves with the tenge from month to month. Alone it explains 39% of the monthly variation in USD/KZT in the later period (adjusted R^2 0.386), against 16% for the six oil terms (adjusted R^2 0.116), and a 1% rise of the dollar against the rouble goes with a 0.33% rise against the tenge in the same month. This is a co-movement, not an explanation of the episodes: in both earlier oil rises the rouble gained against the dollar (USD/RUB -14.1% and -24.3%) while the tenge did not, and in 2026 the rouble lost (+5.7%) while the tenge gained.

6. Discussion: what was different in 2026

After seeing a short summary of the first results, the author was asked why the tenge strengthened in 2026 when it had not in 2018 and 2022. His answer, written on 12 November 2026 and translated from Russian, was:

"This time oil jumped so strongly and for so long that the foreign currency earnings were really enough to cover all the demand and calm the market. In the previous cases, in 2018 and 2022, all this inflow was immediately eaten up by high inflation and panic, while now the National Bank kept rates high, and that is why the dollars finally outweighed [the demand]."

Three parts of this answer can be set against published data, although this paper cannot test any of them as a cause.

The base rate. During the 2026 rise the base rate was between 15.75% and 18.00%, with a time average of 17.40% [9]. The National Bank had raised it from 16.50% to 18.00% on 13 October 2025, and from 8 June 2026 it cut it four times, to 15.75% on 27 October 2026 [9]. In June, as Brent fell from 107.1 to 85.4 dollars, the dollar became 4.0% dearer in tenge; from June to October it became 7.6% cheaper while oil rose again to 123.9 dollars and the rate was being cut. The tenge also began to gain before oil rose: from September to December 2025 the dollar became 5.3% cheaper in tenge while Brent fell from 68.0 to 62.5 dollars (the dollar also became 5.2% cheaper in roubles). The earlier rises give a mixed picture. In 2016-2018 the rate averaged 11.65% and fell from 16.00% to 9.25%, after a peak of 17.00% in February 2016. In the first part of that rise, January 2016 to April 2017, the rate was between 11.00% and 17.00% (average 13.72%), and the dollar became 13.5% cheaper in tenge and 26.4% cheaper in roubles. In 2020-2022 the rate averaged 9.99% and rose to 14.00% by June 2022 [9]. As a rough comparison with inflation, the rate can be set against the previous year's inflation, which is the latest full-year figure known while

a year runs. On that basis the rate was on average 5.94 points above inflation in January-October 2026 (between 4.35 and 6.60), against 3.43 points during the 2020-2022 rise (between 1.75 and 6.70) and 2.02 points during the 2016-2018 rise (between -4.15 and 10.30) [8, 9]. So the 2026 rate was higher in real terms on average, but not at its peak. The National Bank itself states that raising the base rate helps to strengthen the national currency [10].

Inflation. The idea that the inflow was "eaten up by high inflation" fits 2022, when consumer prices rose 15.0%, but not 2017-2018, when inflation was 7.4% and 6.2% [8]. In 2017-2018 the tenge's loss came at the same time as a loss of the rouble against the dollar (Section 5.1), which is a co-movement, not a cause (Section 5.5).

The size and length of the rise. The 2026 rise does not clearly differ in size from that of 2020-2022: Brent peaked at similar monthly levels (123.9 and 122.7 dollars) and was above 100 dollars in five months of 2026 against four months of 2020-2022. The 2026 rise started from a higher level (62.5 against 18.4 dollars), and it had not ended when the data stop, so its length is not yet known. Size alone therefore does not obviously separate the two cases.

The other part of the author's first hypothesis, that the state and oil exporters keep the extra currency instead of selling it, was not tested here. It needs monthly data on the National Fund and the currency sales of exporters. One earlier study found the reaction of Kazakhstan's foreign exchange reserves to oil prices to be insignificant [4], which is a reason to treat this mechanism with caution.

7. Limitations

The study uses monthly averages, so reactions within a month are hidden. The exchange rate is averaged over all days in the report and Brent over trading days, and averaging itself makes monthly changes autocorrelated (the Working effect), which the Newey-West errors only partly address. The paper uses the nominal dollar rate rather than a trade-weighted real exchange rate. The monthly tests have low power: 133 months give wide intervals, so neither an asymmetry nor its absence is shown, and the main fall effect depends on the starting month. The episode windows were set by hand by people who knew the history of oil prices, and the 2026 episode is cut off by the end of the data; recent Brent values can still be revised by the source. The rouble, inflation and the base rate are shown next to the oil effect but not modelled jointly with it, and the rouble itself reacts to oil, so none of the comparisons in Sections 5.5 and 6 shows a cause. The 2010-2024 long-run model has no dummy variables for the jumps of 2014 and 2015. The official rate is missing for most of August 2023; removing July to September 2023 does not change the results (Table 2, row D). The real exchange rate uses annual price indices and stops in 2024.

8. Conclusion

The rule that the tenge falls with oil but does not rise with it describes the end points of the oil episodes since 2013: three oil falls left the dollar dearer in tenge, and two oil rises left it about where it was. Inside those rises, however, the tenge did recover for a time, with the dollar 13.5% cheaper in tenge in 2016-2017 and 7.2% cheaper in 2020, and then lost the gain again. Monthly statistics do not confirm the rule. In the main sample the estimated reaction to oil falls is larger than to rises, but the difference is not significant, and the effect of falls shrinks and loses significance when the sample starts in February 2016; no long-run relation between oil and the tenge is found. Between 2016 and 2022 faster inflation in Kazakhstan accounts, in an accounting sense, for most of the nominal weakening of the tenge. In 2026 the pattern broke: oil almost doubled and the dollar became 11.9% cheaper in tenge, at a high but falling base rate, and the tenge had begun to gain in late 2025, before oil rose. Whether the base rate explains this can only be tested with a model that includes it, and the author's idea that the state and exporters hold back currency needs monthly data on the National Fund and on exporters' currency sales.

Data availability

All data are public. The official exchange rates [6], the Brent price [7], the price indices [8] and the base rate decisions [9] were downloaded on 10 and 12 November 2026. The analysis code, the monthly data set and the full output of every test reported here are available from the author on request.

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Author contributions and use of AI tools

The research direction, including the question why the tenge falls with oil but does not rise with it, was one of two prepared and offered by the author's mentor; the author chose it. He wrote the hypothesis quoted in Section 1 on 22 October 2026, the day after the mentor had sent him the annual figures quoted at the start of that section and before any analysis was done. On 24 October the mentor sent him one-line summaries of three earlier studies, describing the first as almost identical to his idea, and the author then named that study as the closest. After seeing the results he wrote, in answer to a question from the mentor, the explanation of the 2026 episode quoted in Section 6. The mentoring team formulated the three research questions, chose the method, found the earlier studies, downloaded the data, wrote and ran the analysis code, interpreted the results and wrote the discussion and the English text, using a generative AI tool (Claude, Anthropic) for this work. The author's own statements are quoted in translation and marked as his. Every number in the paper comes from the analysis code run on the public files listed in the references, and every reference was checked against the publisher's record.

Conflicts of interest

The author declares no conflicts of interest.

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