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Oil Price Shocks, Exchange Rate Fluctuations, Foreign Direct Investment Inflows, and Macroeconomic Stability: Evidence from Kazakhstan Using a Vector Autoregressive Approach

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ABSTRACT

This study investigates the interplay between oil price shocks, exchange rate movements, foreign direct investment (FDI) inflows, and gross domestic product (GDP) in Kazakhstan. Using quarterly data for 2010Q1-2024Q4, a Vector Autoregression (VAR) model is employed to capture short- and medium-term dynamics among these variables. Stationarity tests confirm that all series are integrated of order one, while lag selection criteria support a VAR(3) specification. The empirical results indicate that GDP remains largely self-driven in the short run, but its long-term variability is increasingly influenced by exchange rate fluctuations and oil prices. FDI inflows are initially persistent yet strongly shaped by oil market volatility, while the real effective exchange rate (REER) proves highly sensitive to external energy shocks. Oil prices, by contrast, remain mostly exogenous. These findings underscore Kazakhstan's structural dependence on global oil markets and highlight the need for diversification, fiscal stabilization mechanisms, and improved exchange rate management to strengthen macroeconomic resilience.

Keywords: Oil Price Shocks, Real Effective Exchange Rate, Foreign Direct Investment, VAR Model, Kazakhstan
JEL Classifications: C32, E32, F21, F31

1. INTRODUCTION

Kazakhstan's economy remains fundamentally reliant on oil exports, which constitute the primary source of fiscal revenues, foreign exchange inflows, and investment attractiveness. This reliance, however, exposes the country to external energy shocks, as global oil price fluctuations directly shape exchange rate movements, FDI behavior, and broader macroeconomic stability. Understanding these interdependencies is therefore essential not only for advancing academic debates but also for informing policy measures aimed at mitigating volatility and safeguarding sustainable growth.

Existing literature consistently highlights the centrality of oil prices in influencing Kazakhstan's macroeconomic outcomes. Empirical analyses based on ARDL, NARDL, and Toda-Yamamoto frameworks show that oil shocks affect agricultural and industrial output, inflation, and overall growth, often producing asymmetric and nonlinear effects (Baisholanova et al., 2025; Talimova et al., 2025; Abdibekov et al., 2024). Other studies emphasize the link between energy dynamics and long-term development, demonstrating that energy consumption, trade openness, and oil exports remain pivotal drivers of output in Kazakhstan and comparable economies (Aidarova et al., 2024; Ibyzhanova et al.,

2024; Lukhmanova et al., 2025). Together, these findings suggest that oil shocks permeate the economy through both sectoral production structures and external trade channels.

Financial markets provide further evidence of such transmission. Research on the Kazakhstan Stock Exchange (KASE) reveals that returns of energy companies are highly correlated with oil and gold prices, exchange rate fluctuations, and domestic market indices, underscoring the strong influence of commodity cycles on financial volatility (Sultanova et al., 2024; Sabenova et al., 2024). Comparative studies across Central Asia also demonstrate that energy dependence is closely tied to FDI inflows, employment levels, and natural resource revenues, highlighting the fragility of growth and investment during downturns in global commodity markets (Baimagambetova et al., 2025; Pirmanova et al., 2025). Collectively, this body of evidence confirms that oil price shocks act as a major external driver of Kazakhstan's macroeconomic trajectory, with effects spanning real, financial, and policy dimensions.

Despite these advances, much of the existing research focuses on bilateral or sector-specific linkages and does not fully capture the joint dynamic interactions among oil prices, exchange rates, FDI inflows, and GDP. Addressing this gap, the present study applies a Vector Autoregression (VAR) framework to quarterly data spanning 2010Q1-2024Q4. By treating all variables as endogenous, the VAR model facilitates a comprehensive analysis of short- and medium-run dynamics. Incorporating both external (oil prices, REER) and domestic (GDP, FDI) indicators into a unified framework allows this study to generate new insights into the mechanisms through which oil shocks propagate within Kazakhstan's economy and to offer policy-relevant implications for strengthening macroeconomic resilience in the face of external volatility.

2. LITERATURE REVIEW

The academic literature offers extensive analyses of how oil price volatility and other external shocks propagate through exchange rate adjustments and foreign direct investment flows, thereby shaping macroeconomic stability. In this review, we concentrate on the most pertinent studies that provide direct empirical insights for Kazakhstan's economic context.

Nurmakhanova et al. (2019) analyze how fluctuations in global oil prices affect Kazakhstan's exchange rate and stock market, using econometric methods applied to quarterly data. Their findings demonstrate that oil price changes significantly shape the tenge's exchange rate, which then transmits shocks to domestic financial markets. This highlights the exchange rate as a key channel linking external energy shocks with internal financial dynamics. The study underscores the structural dependence of Kazakhstan's economy on oil markets and shows how volatility directly translates into financial instability. For research employing VAR methods, these results are particularly valuable, as they validate the treatment of oil prices as an exogenous driver of macroeconomic and financial fluctuations in Kazakhstan.

Moldabekova et al. (2022) explore the consequences of oil price volatility for Kazakhstan's GDP, investment, and exchange rate, with additional attention to social policy implications. By applying a system of simultaneous equations, they reveal that oil price collapses, such as those of 2009 and 2014, had sharp negative effects on growth and investment. Their work emphasizes the vulnerability of Kazakhstan's macroeconomic performance to external oil shocks and highlights the necessity of policy instruments that can cushion these impacts. Within the scope of VAR analysis, their findings reinforce the importance of accounting for oil price volatility as a central external force shaping economic stability.

Malik and Umar (2019) investigate the linkages between different types of oil shocks - demand, supply, and risk - and exchange rate dynamics in oil-dependent economies. Using connectedness measures, they show that demand- and risk-driven shocks strongly influence exchange rates, while supply shocks play a weaker role. They also demonstrate that these linkages intensified after the Global Financial Crisis, pointing to increased vulnerability over time.

Kilian (2009) decomposes oil price shocks into supply disruptions, global demand shifts, and oil-specific demand shocks, showing that each category produces different macroeconomic outcomes in the United States. Demand shocks are found to exert stronger effects on output and inflation than supply shocks, with results highly dependent on the underlying source of oil price change. This insight remains fundamental for VAR-based research, as it prevents misinterpretation of shock transmission.

Chatziantoniou et al. (2023) study oil price shocks and exchange rate dynamics through decomposed and partial connectedness measures across oil-exporting and importing economies. They find that oil shocks persist as net transmitters within global networks, with countries often receiving shocks from oil-risk factors rather than supply or demand components. Their evidence of cross-country spillovers highlights the complexity of oil-exchange rate linkages and supports the inclusion of oil-risk shocks in VAR frameworks.

Alfalih et al. (2024) assess the transmission of oil price shocks to FDI and GDP across emerging economies, considering how trade openness shapes the magnitude of these effects. Their analysis shows that positive oil price shocks generally boost investment and output, but the scale of this response depends heavily on external openness. They argue that omitting such conditions leads to biased conclusions about oil's role in economic growth.

Majenge (2025) compares traditional VAR models with structurally identified SVARs to evaluate oil-shock effects on exchange rates and consumer prices in South Africa. The results reveal robust short-term responses in both exchange rates and prices, but long-run outcomes vary depending on the identification scheme, illustrating the methodological sensitivity of such models.

Zhang et al. (2022) employ a time-varying parameter SVAR with stochastic volatility to analyze oil shock effects on exchange rates,

distinguishing between demand, supply, and risk shocks. They show that demand shocks dominate exchange rate dynamics, while supply shocks play a smaller role, and that responses shift across crisis periods, pointing to regime dependence. Their findings underline the importance of accounting for evolving relationships over time.

3. METHODS

To explore the dynamic interactions among oil prices, the exchange rate, foreign direct investment inflows, and GDP in Kazakhstan, this study applies a Vector Autoregression (VAR) framework. The VAR approach is well suited for this purpose because it allows each variable to depend not only on its own past values but also on the past values of all other variables in the system. This makes it possible to capture both feedback effects and short-run dynamics without imposing strict theoretical restrictions at the outset (Sims, 1980; Stock and Watson, 2001).

The system of endogenous variables is defined as:

$$Y_t = \begin{pmatrix} GDP_t \\ FDI_t \\ REER_t \\ OP_t \end{pmatrix} \quad (1)$$

where GDP_t denotes gross domestic product, FDI_t represents foreign direct investment inflows, $REER_t$ is the real effective exchange rate, and OP_t stands for oil prices. The general form of a VAR(p) model is:

$$Y_t = A_1 Y_{t-1} + A_2 Y_{t-2} + \cdots + A_p Y_{t-p} + u_t \quad (2)$$

where A_i are coefficient matrices, p is the chosen lag order, and u_t is a vector of innovations with covariance matrix Σ_u.

To choose the optimal lag length p, we use multiple information criteria: the Akaike Information Criterion (AIC), Schwarz Criterion (SC), Final Prediction Error (FPE), and the Likelihood Ratio (LR) test, as well as the Hannan-Quinn (HQ) criterion. These criteria balance goodness-of-fit and parsimony. In our analysis, consistent with standard practice (Kilian and Zhou, 2023; Montiel Olea et al., 2025), the majority of these criteria indicated p=3.

Stationarity of the variables is verified using the Augmented Dickey–Fuller (ADF) test, confirming that all series are integrated of order one, I(1). This property makes the VAR framework suitable for modeling the series in differences while still allowing for analysis of both short-run responses and long-run linkages (Enders, 2014).

Finally, Granger causality tests are employed to assess predictive causation among the variables. This step helps to determine whether one variable provides statistically significant information for forecasting another. Together, these tools provide a comprehensive picture of how oil price fluctuations, exchange rate movements, and investment inflows interact with GDP in Kazakhstan, highlighting the economy's sensitivity to external shocks.

4. DATA AND FINDINGS

Kazakhstan's economy is closely tied to global energy markets, making it highly exposed to fluctuations in oil prices and related external shocks. At the same time, factors such as exchange rate stability, foreign direct investment, and overall output performance play an important role in shaping the country's macroeconomic dynamics. Examining these relationships helps to better understand how external and internal forces interact in driving economic stability.

The key research variables and their sources are summarized using quarterly data for the period 2010Q1-2024Q4. Oil prices are represented by Brent crude, obtained from the International Energy Agency https://www.iea.org. The real effective exchange rate index (2016=100) and foreign direct investment inflows are taken from the National Bank of Kazakhstan https://nationalbank.kz. Data on gross domestic product are sourced from the Bureau of National Statistics of Kazakhstan https://stat.gov.kz (Access date: 25.08.2025), as shown in Table 1.

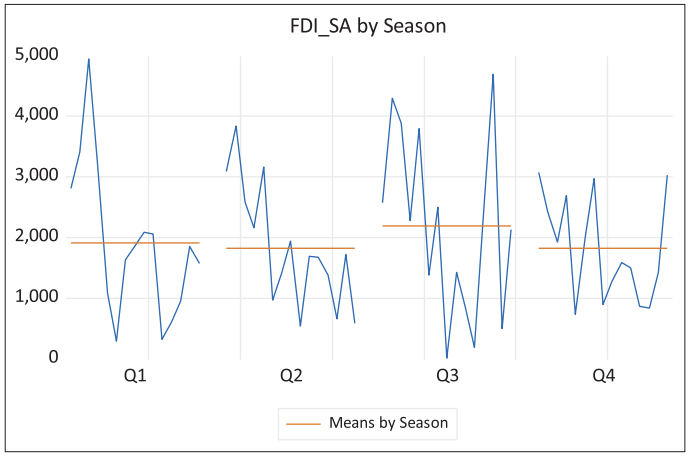
The selected variables allow for a comprehensive investigation of the dynamic interplay between oil price shocks, exchange rate movements, investment inflows, and economic performance. By integrating both external drivers (oil prices and the exchange rate) and domestic indicators (FDI and GDP) into the VAR framework, the study captures the complex ways in which global shocks affect Kazakhstan's economy.

The seasonally adjusted series of Foreign Direct Investment (FDI) in Kazakhstan, as illustrated in Graph 1, shows a clear pattern of

Table 1: Research variables and sources

Variable	Description	Source
OP	Oil Price Brent	https://www.iea.org
REER	Real effective exchange rate index (2016=100)	https://nationalbank.kz
FDI	Foreign Direct Investment	https://nationalbank.kz
GDP	Gross Domestic Product	https://stat.gov.kz

Graph 1: Seasonally adjusted FDI series



volatility, with noticeable spikes in the first and third quarters. Even after seasonal effects are removed, inflows remain uneven, and Q3 consistently emerges as the period with the strongest activity. These irregular peaks suggest that large-scale investment deals tend to arrive in concentrated episodes rather than following a steady flow. While FDI in Q2 and Q4 appears more stable and closer to the average, Q1 and Q3 combine higher means with wider variation. This distribution likely reflects the timing of major projects or government-driven initiatives that cluster in specific parts of the year. The persistence of such fluctuations underscores the influence of external shocks and large, non-recurrent inflows, making FDI a volatile but important factor for inclusion in the VAR analysis.

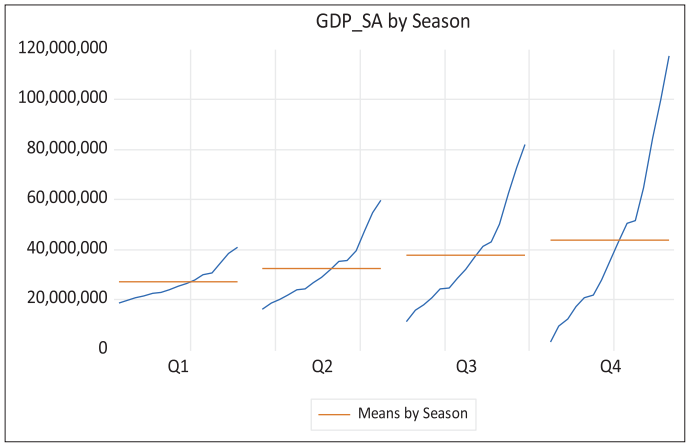
The seasonally adjusted Gross Domestic Product (GDP) series, as shown in Graph 2, points to a steady upward trend, confirming sustained growth in Kazakhstan's economy. The adjustment smooths recurring fluctuations, and the quarterly averages reveal a consistent rise over time. The increase is particularly steep in the third and fourth quarters, suggesting that the latter part of the year is associated with stronger momentum. This acceleration may be linked to fiscal spending cycles, production peaks, or shifts in external demand. By contrast, the first half of the year appears more moderate, with a gentler slope in Q1 and Q2. The relatively close clustering of values around the mean highlights GDP's stability, making it a reliable proxy for macroeconomic performance. For these reasons, GDP is a central variable in the VAR model, serving as a benchmark to assess how external shocks transmit through the economy.

The seasonally adjusted Real Effective Exchange Rate (REER) series, as illustrated in Graph 3, continues to display considerable volatility, alternating between episodes of appreciation and depreciation. Quarterly averages remain broadly steady in the 110-115 range, but the underlying movements deviate sharply from this level. The swings are most pronounced in Q1 and Q3, where the REER occasionally rises above 130 or drops below 100. Such fluctuations point to the exchange rate's sensitivity to external forces, including oil price shifts, capital flow volatility, and policy actions. The persistence of instability, even after seasonal effects are accounted for, underlines the REER's role as a transmission channel for global and domestic shocks. Its inclusion in the VAR framework is therefore essential to capture how external pressures interact with Kazakhstan's macroeconomic environment.

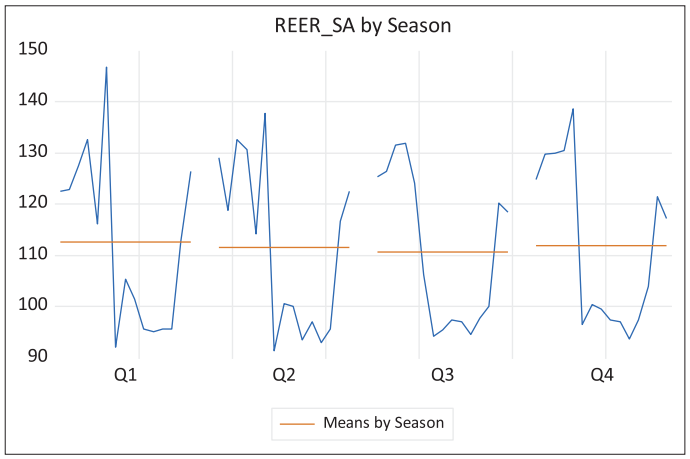
The quarterly oil price (OP) series, as shown in Graph 4, is dominated by recurrent volatility. Prices fluctuate between lows near 40 and highs above 120, with the average level clustering around 80 but with wide deviations. Rather than following a smooth trend, the data reveal repeated cycles of sharp increases and declines that reflect the instability of global oil markets. These dynamics highlight the influence of short-term supply-demand imbalances, geopolitical tensions, and speculative pressures. The irregularity is especially pronounced in the first half of the year, though volatility persists throughout the series. For Kazakhstan, where oil exports are a cornerstone of economic performance, these fluctuations act as a major external shock. This justifies the central role of OP in the VAR analysis, as they shape movements in GDP, REER, and FDI.

Table 2 reports the Augmented Dickey-Fuller (ADF) unit root tests. At levels, none of the series are stationary, as all P-values exceed conventional significance thresholds: GDP 0.9646, FDI 0.5605, REER 0.1151, and OP 0.2340. This confirms the presence of unit roots across all variables. In contrast, after first differencing, all series become stationary. The test statistics are significant, with P-values of 0.0000 for FDI, REER, and OP, and 0.0033 for GDP.

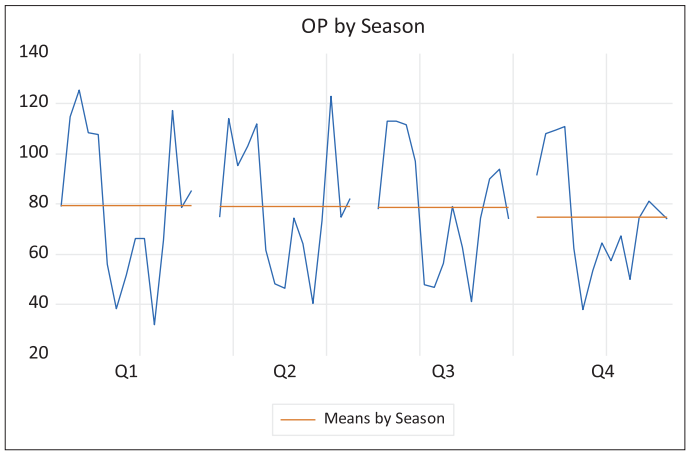
Graph 2: Seasonally adjusted GDP series



Graph 3: Seasonally adjusted REER series



Graph 4: Seasonally adjusted OP series



This indicates that all variables are integrated of order one, I(1). These findings show that the data are non-stationary in levels but stationary in first differences, making them suitable for VAR in differences or for cointegration analysis. This ensures both short-run dynamics and potential long-run linkages among GDP, FDI, REER, and OP can be properly investigated in the Kazakhstani context.

The lag order selection statistics for the VAR model are reported in Table 3 using several standard criteria: the Likelihood Ratio (LR) test, Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Criterion (SC), and the Hannan-Quinn Criterion (HQ). The results indicate that four out of five measures - LR, FPE, AIC, and HQ - converge on lag 3 as the most appropriate specification. At this lag, the LR test reaches its highest significant value, while FPE and AIC achieve their minimums, confirming that the model provides both stronger predictive power and a better overall fit. In contrast, the SC criterion favors a much more parsimonious specification at lag 0, consistent with its stronger penalty on model complexity.

On balance, the weight of the evidence supports the adoption of a VAR(3) specification. Choosing three lags ensures that the model captures short-run dynamics and interaction effects among OP, REER, FDI inflows, and GDP, while avoiding unnecessary overfitting. Although SC points to a simpler structure, the consensus across the other criteria justifies a more flexible model that better reflects the complexities of Kazakhstan's economic relationships.

The variance decomposition of GDP, as reported in Table 4, indicates that in the short run, fluctuations are almost entirely explained by GDP itself, confirming its persistence. By the tenth horizon, this share falls to about 85%, as external variables gradually account for a larger portion of the variance. Among these factors, the exchange rate is the most influential, contributing around 9.5%, followed by OP 3.1% and FDI 2.2%. This pattern suggests that while GDP is self-driven in the near term, shocks transmitted through exchange rates and energy markets play an increasingly important role over time.

The decomposition results for FDI, as reported in Table 5, show that investment inflows are initially explained almost entirely by their own dynamics 99% at period 1. Over time, this share declines steadily, reaching around 77% by period 10, as external factors begin to shape FDI fluctuations more strongly. OP emerge as the dominant driver, explaining over 17% of the variance, while the REER contributes around 4.6%. GDP plays only a minor role, with <1% influence. These results highlight Kazakhstan's reliance on energy markets in attracting investment flows.

In the short run, REER dynamics, as shown in Table 6, are almost fully explained by their own past values 99.9% at period 1. By the tenth horizon, this declines to about 82.5%, suggesting that external factors gradually become more relevant in driving REER fluctuations. OP account for the largest external share 12.1%, while FDI and GDP contribute around 4.6% and <1%, respectively. The findings confirm the sensitivity of Kazakhstan's REER to global oil markets, while domestic factors remain relatively less important.

OP variance decomposition, as presented in Table 7, shows that they remain largely self-determined, with their own dynamics explaining nearly 99% in the first period and around 92% even by the tenth horizon. This underlines the exogenous nature of global oil markets. Still, domestic factors exert modest influence: FDI explains about 5.6%, GDP about 1.2%, and the REER around 1.1% by period 10. While small compared to the dominance of oil itself, these contributions suggest limited but noticeable domestic feedback effects on OP variation.

The results of the pairwise Granger causality tests are presented in Table 8, using two lags and quarterly data for 2010Q1-2024Q4. The null hypothesis in each case is that one variable does not Granger-cause the other.

Most null hypotheses cannot be rejected, indicating limited short-run predictive causality among GDP, FDI, REER, and OP. Tests between GDP and REER, as well as between GDP and FDI or OP, show no significant effects (P-values above 0.37). Likewise, the relationships between REER and FDI, and between REER and OP, are insignificant.

The only exception is OP Granger-causing FDI, where the null is rejected at the 5% level (F-statistic=4.434, P=0.0167). This

Table 2: Results of augmented Dickey-Fuller unit root testing

Variable code	Level		1st difference	
	t-statistics	Probability	t-statistics	Probability
FDIW	−0.334141	0.5605	−8.966420	0.0000
REER	−2.524302	0.1151	−5.485897	0.0000
OP	−2.129928	0.2340	−8.102715	0.0000
GDP	0.124392	0.9646	−3.960931	0.0033

Table 3: VAR lag order selection criteria

Lag	LogL	LR: sequential modified LR test statistic (each test at 5% level)	FPE: Final prediction error	AIC: Akaike information criterion	SC: Schwarz information criterion	HQ: Hannan-Quinn Information criterion
0	−11.36338	NA	2.08e-05	0.563014	0.716346*	0.625834
1	9.613985	38.07004	1.73e-05	0.384667	1.121328	0.668768
2	28.75970	31.90953	1.56e-05	0.268159	1.594149	0.779541
3	82.39879	81.45195*	3.96e-06*	−1.125881*	0.789437	−0.387218*
4	91.16025	12.00645	5.45e-06	−0.857787	1.646859	0.108157
5	98.69593	9.210269	8.11e-06	−0.544294	2.549682	0.648931

Table 4: Variance decomposition of GDP

Period	Standard error	GDP	FDI	REER	OP
1	0.130755	100.0000	0.000000	0.000000	0.000000
2	0.180279	94.43691	0.627256	2.269970	2.665860
3	0.188354	86.81255	1.730059	8.968582	2.488806
4	0.189831	85.50438	1.727000	10.28506	2.483570
5	0.212801	86.96566	1.647939	8.228048	3.158357
6	0.227376	87.33815	1.500613	8.066132	3.095104
7	0.231267	84.75061	2.252182	9.947888	3.049323
8	0.231924	84.31758	2.327270	10.31266	3.042488
9	0.241045	84.97219	2.246472	9.551707	3.229630
10	0.246666	85.19986	2.164339	9.504442	3.131362

Table 5: Variance decomposition of FDI

Period	Standard error	GDP	FDI	REER	OP
1	0.982542	0.841474	99.15853	0.000000	0.000000
2	1.234033	0.820749	98.46565	0.075359	0.638242
3	1.303480	0.796109	89.59314	4.135096	5.475656
4	1.394192	0.727815	78.53805	4.536072	16.19807
5	1.403794	0.814623	77.51685	4.577444	17.09108
6	1.409683	0.807860	77.65904	4.546572	16.98653
7	1.413240	0.806800	77.61044	4.529656	17.05311
8	1.414214	0.913931	77.50538	4.550804	17.02989
9	1.416285	0.993783	77.28586	4.615695	17.10466
10	1.416531	0.996393	77.26043	4.621349	17.12183

Table 6: Variance decomposition of REER

Period	Standard error	GDP	FDI	REER	OP
1	0.047876	0.002715	0.014681	99.98260	0.000000
2	0.054201	0.302356	4.494369	95.08900	0.114277
3	0.055967	0.294717	4.215428	89.18060	6.309253
4	0.059164	0.558886	4.905452	84.23558	10.30009
5	0.060668	0.712221	4.673951	83.40575	11.20808
6	0.060906	0.709042	4.658024	83.51209	11.12085
7	0.061276	0.798681	4.605223	82.61412	11.98198
8	0.061441	0.794744	4.580425	82.51322	12.11161
9	0.061471	0.814714	4.578640	82.50653	12.10012
10	0.061475	0.815290	4.580744	82.49717	12.10680

Table 7: Variance decomposition of OP

Period	Standard error	GDP	FDI	REER	OP
1	0.204416	0.553914	0.451667	0.334954	98.65946
2	0.209834	0.689672	4.912210	0.478868	93.91925
3	0.210784	0.742641	5.627575	0.503297	93.12649
4	0.211288	0.742151	5.615651	0.664702	92.97750
5	0.211997	0.779704	5.578925	1.016203	92.62517
6	0.212312	1.009595	5.562463	1.013331	92.41461
7	0.212416	1.058917	5.562729	1.012340	92.36601
8	0.212498	1.060909	5.574311	1.068888	92.29589
9	0.212542	1.095493	5.572267	1.068521	92.26372
10	0.212684	1.215295	5.565308	1.071942	92.14746

confirms that OP fluctuations have predictive power for FDI inflows, while the reverse effect is absent (P=0.3476).

These findings suggest that Kazakhstan's macroeconomic interactions are shaped less by domestic linkages and more by external shocks. The unidirectional causality from OP to FDI underscores the central role of global energy markets in influencing investment dynamics and highlights the structural vulnerability of the economy to OP volatility.

Table 8: Granger causality test results

Null hypothesis	Observations	F-statistic	Probability
D_LREER_SA does not Grander Cause D_LGDP_SA	57	0.50730	0.6051
D_LGDP_SA does not Grander Cause D_LREER_SA		1.00393	0.3734
D_LFDI_SA does not Grander Cause D_LGDP_SA	57	0.08962	0.9144
D_LGDP_SA does not Grander Cause D_LFDI_SA		0.16918	0.8448
D_LOP does not Grander Cause D_LGDP_SA	57	0.84860	0.4339
D_LGDP_SA does not Grander Cause D_LOP		0.77438	0.4662
D_LFDI_SA does not Grander Cause D_LREER_SA	57	0.84892	0.4337
D_LREER_SA does not Grander Cause D_LFDI_SA		2.20390	0.1206
D_LOP does not Grander Cause D_LREER_SA	57	1.82197	0.1719
D_LREER_SA does not Grander Cause D_LOP		0.00631	0.9937
D_LOP does not Grander Cause D_LFDI_SA	57	4.43405	0.0167
D_LFDI_SA does not Grander Cause D_LOP		1.07854	0.3476

5. CONCLUSION AND RECOMMENDATIONS

The results of the analysis show that Kazakhstan's economy is highly exposed to external shocks, with global OP fluctuations playing the most decisive role. The variance decomposition indicates that while GDP is largely driven by its own dynamics in the short term, over the medium to long term it is increasingly shaped by REER movements and OP. FDI inflows, though initially explained by their own persistence, are strongly influenced by OP volatility, highlighting the sector's vulnerability. The REER also proves highly sensitive to oil market shifts, while OP themselves remain largely exogenous, reinforcing Kazakhstan's structural dependence on the global energy market. Granger causality tests further confirm this asymmetry, identifying a one-way causal link from OP to FDI inflows.

These findings carry important policy implications. Strengthening fiscal mechanisms, such as stabilization funds and countercyclical budget policies, could help soften the impact of OP shocks on the domestic economy. Reducing reliance on energy exports through economic diversification and encouraging FDI in non-oil sectors would further enhance resilience. In addition, improving exchange rate management and applying macroprudential tools can help reduce excessive volatility in the REER, supporting broader macroeconomic stability. Taken together, these measures would allow Kazakhstan to better withstand external shocks and gradually reduce its structural vulnerability to energy price fluctuations.

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