

Research Article

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ANALYSIS OF FOREIGN DIRECT INVESTMENT  
AND INFLATION DYNAMICS IN THE NATIONAL  
RESOURCE-BASED ECONOMY

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**Background.** This study empirically investigates the link between Foreign Direct Investment (FDI) and inflation in Azerbaijan, a resource-rich transitioning economy seeking to diversify and stabilise its economic structure. Although FDI is widely regarded as a crucial engine of economic growth, its influence on inflation remains ambiguous, particularly in developing and transitioning economies characterised by structural imbalances and external dependencies. This issue is particularly relevant given Azerbaijan's ongoing efforts to attract and retain foreign investment while gradually transitioning from an oil-dependent growth model to a more diversified and environmentally sustainable economic structure.

**Purpose.** This study aims to determine whether FDI inflows contribute to price stabilisation or exert inflationary pressure in the Azerbaijan economy.

**Findings.** This analysis employs yearly time-series data for 1993–2024, with INF as the dependent variable and FDI as the key independent variable. The official exchange rate is included as a control variable, given its significant influence on domestic prices and foreign investment dynamics. Prior to estimation, the series' stationarity was tested using the Augmented Dickey-Fuller and Phillips-Perron unit root tests. The Autoregressive Distributed Lag (ARDL) model was used to identify the short- and long-term associations among the series. The estimation results indicate that FDI has a negative, statistically significant impact on inflation in the short and long run. This finding suggests that FDI inflows contribute to lower inflation in Azerbaijan, implying a deflationary effect on the economy. Such supply-side effects may arise from FDI-driven technology transfer, efficiency gains, and capacity expansion, thereby alleviating cost-push inflationary pressure. In contrast, exchange rate depreciation has a positive and persistent influence on inflation, particularly in the long run.

**Implication.** The findings confirm that FDI acts as a key stabilising force against inflation in Azerbaijan, particularly through supply-side and productivity channels. Simultaneously, exchange rate movements remain a critical source of inflationary pressure that warrants close policy attention.

**Keywords:** ARDL Model, Azerbaijan Economy, Inflation, FDI, Unit Root Tests.

## **1. Introduction.**

As an emerging market, Azerbaijan depends on Foreign Direct Investment (FDI) as a key contributor to national growth. In addition to being a capital inflow, FDI seeks to transfer critical technology, managerial know-how, and market access, thereby upgrading productivity, improving competitiveness, and ensuring sustainable economic development (Belkania & Karimov, 2018).

The link between foreign direct investment and inflation is complicated and multidimensional. Therefore, a heterogeneous approach is necessary to assess the advantages and disadvantages of these relationships. Strategically investing in supply-side can help mitigate inflationary pressures. Conversely, if the capital inflow is substantial, it can generate demand-pull inflation by fuelling demand beyond capacity absorption or pushing prices up through surplus-driven inflation (Belkania & Karimov, 2018).

Various economic theories have been proposed to explain this complex relationship. Neoclassical growth theory posits that FDI enhances productivity and mitigates inflationary pressures by increasing output and facilitating the diffusion of technology (Karimov et al., 2024). The monetary transmission mechanism holds that large-scale FDI inflows may contribute to the money supply, thereby triggering inflation, particularly when output does not rise in step (Bulíř & Vlček, 2021).

The Balassa-Samuelson hypothesis further suggests that FDI in high-productivity tradable sectors can indirectly increase prices in the non-tradable sector through wage spillovers, thereby contributing to overall inflation (Wang et al., 2016). In contrast, the demand-driven inflation concept focuses on the higher aggregate demand generated by FDI, leading to price increases when domestic supply becomes inelastic (Shaikh et al., 2022).

Recognising the benefits of foreign direct investment, the government of Azerbaijan has undertaken extensive reforms to attract and retain foreign investors. These efforts include changes in laws and regulations, the creation of institutional support mechanisms, and measures to promote economic diversification.

Consequently, pivotal legislation has been adopted, including the Law on Investment Activity (The Milli Majlis of the Republic of Azerbaijan, 2022). These laws provide appropriate legal safeguards and equal treatment to foreign investors. The one-stop service has streamlined business registration processes, reduced bureaucratic inconveniences, and expedited enterprise establishment (Calal et al., 2023).

Additionally, the Azerbaijan Export and Investment Promotion Agency (AZPROMO) has played an important role in boosting investment in non-oil industries and increasing their export potential.

The geographical location of Azerbaijan has long been a strategic hub for trade between Europe and Asia. Improving its infrastructure and access to regional markets, along with an investor-friendly environment, are among the factors that make the country more attractive for FDI (Karimov et al., 2024).

Launching the Alat Free Economic Zone (AFEZ) – a beneficial case of tax incentives and a current scheme for a preferential legal framework – strengthens the argument for Azerbaijan's commitment to economic liberalisation and the diversification of hydrocarbons. These reforms have been major drivers of growth in the manufacturing, agriculture, ICT, and renewable energy sectors. From 2019 to 2023, it attracted foreign direct investments amounting to 6.2 billion USD in the non-oil sectors, while total foreign direct investment inflows amounted to 7 billion USD in 2024, with the UK, Türkiye, and Hungary being the top investors (Invest in Azerbaijan, 2025; State Statistical Committee of the Republic of Azerbaijan, 2025).

Azerbaijan is currently facing inflationary pressures exacerbated by global economic turmoil. In 2022, an inflation rate of 13.9% was recorded (State Statistical Committee of the Republic of Azerbaijan, 2025), primarily due to significant increases in food and energy prices and supply chain disruptions.

A tight monetary policy was then required; hence, the Central Bank of the Republic of Azerbaijan (CBAR) raised the benchmark interest rate to 8.75% in 2023.

These countermeasures and the development of local production helped keep inflation down to 8.8% by the end of 2023 and 4.4% by the end of 2024 (Central Bank of the Republic of Azerbaijan, 2025). Whether the effect is positive or negative depends on two factors: the sectoral distribution of foreign investment and the absorptive capacity of the local market. The evidence on FDI is vast, but the channels through which FDI affects inflation in Azerbaijan remain largely unexplored. FDI in Azerbaijan has primarily been studied from the perspective of price dynamics linked to economic diversification or the development of the non-oil sector rather than through a direct assessment of inflationary impacts.

A distinct empirical void was created. This study aims to fill this void by presenting statistical data on the link between foreign direct investment and inflation in Azerbaijan based on a recent suite of macroeconomic data and robust econometric methodologies. Due to the scarcity of studies on the subject, the outcomes will be regarded as a contribution to the ongoing debate among policymakers and a reference point for future studies on the implications of foreign capital for price stability in resource-rich transitional economies.

## **2. Literature Review.**

Given the limited studies on the pathways by which FDI affects inflation in resource-based countries, this study takes a significant step by providing objective evidence from the case of Azerbaijan. Numerous empirical studies have analysed the interaction between FDI, inflation, and other macroeconomic variables across different countries and time periods, employing a range of econometric techniques to uncover short- and long-term patterns.

Mishra (2016) examined the relationship between macroeconomic variables and FDI in India over the time span 1980-2013. The Autoregressive Distributed Lag (ARDL) technique and Toda-Yamamoto-Granger causality analysis were used for analysis. Causality analysis suggests that FDI is causally linked to all the economic indicators analysed, except for the real effective exchange rate.

The results reveal that FDI generates inflation, most likely because excess investment is not adequately absorbed, thereby expanding the money supply and increasing prices. Kostić and Radulović (2024) examined the impact of various aspects of globalisation, including economic, social, and political, on inflation in EMU member states, which are representative of developed economies, from 1970 to 2021. The ARDL co-integration test was used to accomplish the statistical analysis of this study. Since harmonisation is a process that leads to longer-term inflation, the results suggest an inflationary impact of globalisation in the short run. In contrast, the long-term effect is a reduction in inflation resulting from intense competition among firms. These results provide policymakers with valuable insights into how various forms of economic globalisation, such as trade and investment flows, influence inflation dynamics.

Jacob et al. (2021) and Pan et al. (2018) explored how foreign direct investment affects inflation in China. Statistical analysis was performed using co-integration and the Vector Error Correction Model (VECM). Empirical evidence shows that the Consumer Price Index (CPI) has maintained a continuous relationship with several endogenously driven series, including FDI, money supply, fixed asset investment, real effective exchange rates and trade openness.

The Granger causality study (Granger, 1969) found that FDI, money supply, exchange rate, and trade openness significantly influence CPI. In the long term, the principal drivers of inflation are FDI and the exchange rate, whereas in the short term, fixed asset investment has the most significant impact. In summary, these determinants contribute to the CPI's persistent, positive trend.

Korkmaz (2025) identified the key macroeconomic, demographic, and institutional factors influencing FDI in the E7 countries from 2002 to 2021 using a panel data statistical method. According to the study, inflation, the current account deficit, the exchange rate, and the external debt level have a statistically significant negative relationship with foreign direct investment.

Usanmaz (2022) examined the link between GDP, inflation, and foreign direct investment in Turkey during the period 1970 – 2019.

The Augmented Dickey-Fuller (ADF), Phillips-Perron, co-integration, dynamic OLS (DOLS), FMOLS, and Granger causality tests were applied in the empirical analysis. FDI positively affects GDP, suggesting that it is time to develop robust policy statements to promote and support increased FDI for regional economic growth. Additionally, the analysis demonstrates that FDI has no significant effect on inflation.

Hasan (2021) examined how FDI affects inflation and economic growth in Bangladesh from 1975 to 2020. The statistical portion of the study was completed using the Augmented Dickey-Fuller test, Engle-Granger co-integration tests, and the Vector Error Correction Model. This indicates that FDI hinders economic expansion in Bangladesh and emphasises the need for improved infrastructure, political stability, and skilled labour to make FDI more growth-influencing for policy-making objectives.

This demonstrates that while inflation has little short-term effect, it has an adverse long-term effect on FDI.

Conversely, the exchange rate significantly encourages FDI in the short and long runs. This finding further validates that FDI influences the real effective exchange rate and CPI in the long run. The control series incorporated into the research, namely economic growth and real interest rates, are expected to be evident in the long term with respect to FDI. Inflation is a significant obstacle to FDI. However, the emerging inflow of FDI reinforces Bangladesh’s exchange rate.

### 3. Methodology.

This study used annual data for Azerbaijan from 1993 to 2024. The variables used for the analysis are inflation (INF), foreign direct investment (FDI), and the exchange rate (EXCR). These variables were retrieved from the Central Bank of the Republic of Azerbaijan (CBAR) and the State Statistical Committee of the Republic of Azerbaijan (AZSTAT) databases and were used in various statistical tests. The variables are listed in Table 1.

**Table 1. Variables Used in the Analysis for Azerbaijan (1993–2024).**

Variables	Acronym	Data source
Inflation (annual % consumer prices) (dependent)	INF	CBAR
Foreign direct investment (GDP %) (independent)	FDI	AZSTAT
The official exchange rate (local currency per USD), period average	EXCR	CBAR

ARDL bounds testing procedure, developed by Pesaran (1997) and improved by Pesaran et al. (2001), has been employed to test the relationship between FDI inflows and inflation. The ARDL technique offers the advantage of handling variables integrated at  $I(0)$ ,  $I(1)$ , or a combination thereof, eliminating the need for preliminary unit root checks. The Augmented Dickey-Fuller and Phillips-Perron tests, developed by Dickey and Fuller (1979) and Phillips and Perron (1988) are among the most popular methods.

This procedure was conducted in two stages. In the first step, a regression is run between two non-stationary variables, and the residuals are tested for non-stationarity.

After ensuring that the time series dataset is stable, long-run relationships are estimated using the ARDL, followed by the development of an Error Correction Model (ECM) to clarify the long- and short-term dynamics of the series. However, this method has proven inefficient when applied to multivariate systems (Engle & Granger, 1987).

To further generalise the limitations of the Engle-Granger method, Johansen (1988, 1991) and Johansen and Juselius (1990) developed another co-integration technique well-suited for multivariate applications, allowing for more than one co-integration relationship within the system. Although these traditional approaches exist, the ARDL bounds testing approach has several advantages. First, it is not necessary for all series to have identical integration orders (Pesaran, 1997). Second, it provides more efficient and stable outcomes, even with small sample sizes. The empirical model is demonstrated as follows:

$$\Delta INF_t = \alpha_0 + \sum_{i=1}^m \alpha_{1i} \Delta INF_{t-i} + \sum_{i=0}^m \alpha_{2i} \Delta FDI_{t-i} + \sum_{i=0}^m \alpha_{3i} \Delta EXCR_{t-i} + \alpha_4 INF_{t-1} + \alpha_5 FDI_{t-1} + \alpha_6 EXCR_{t-1} \mu_t \quad (1)$$

where,  
 $\Delta$  – first difference operator;  
 $\mu_t$  – the error term;  
 $m$  – the optimal lag length.

#### 4. Results.

The summary statistics for the dataset, together with the correlation matrix presented in Table 2, were used to identify the initial relationships among the series. The correlation matrix results show a modest negative correlation between INF and FDI (-0.198). Similar to the previous relationship, the correlation between EXCR and INF was negative and modest. In addition, empirical methodologies will be used to comprehend the relationships among the analysed variables.

**Table 2. Descriptive Summary and Correlation Matrix (EXCR, FDI, INF).**

	EXCR	FDI	INF
Mean	1.054556	12.65779	105.5438
Median	0.894138	7.611294	5.063436
Max.	1.721155	55.07288	1662.216
Min.	0.019995	-5.677737	-8.525170
Stand. Dev.	0.445113	14.64250	352.4405
Skew.	0.229502	1.566096	3.624090
Kurt.	2.540751	5.064520	15.05668
Jarque-Bera	0.507924	14.49287	252.1789

Correlation Matrix			
INF	1		
FDI	-0.1988541625593039	1	
EXCR	-0.5030526037602046	-0.2063414604887753	1

#### 4.1. The Findings of the ADF and PP Unit Root Tests.

The ADF and Phillips-Perron analyses were applied to examine whether the variables exhibited stability over time (Table 3). The INF and FDI variables are stationary in their level forms. The test statistics were lower than the 5% significance threshold, yielding p-values of less than 0.05. This indicates that INF and FDI exhibit no unit roots and are  $I(0)$  processes. Nevertheless, EXCR was non-stationary at the level, as its test statistics remained below the 5% threshold.

The probability value was greater than 0.05, suggesting the existence of a unit root at the 5% significance level. After differencing, the variable became stationary. This was confirmed as the ADF test statistic exceeded the 5% critical value, and the corresponding probability value was less than 0.05. This suggests that EXCR is first-difference stationary (Table 3). Stationarity analysis revealed a mixed order of integration in the dataset, whereby EXCR required first differencing to become stationary. Simultaneously, INF and FDI were at a stationary level.

**Table 3. Augmented Dickey-Fuller and Phillips-Perron Unit Root Test Results.**

ADF Unit-root test results (Intercept and trend)					
Variable	Level t-Statistic	Level Probability	First Difference t-Statistic	First Difference Probability	Stationarity Conclusion
INF	-4.083280**	0.0172	-	-	Stationary at level
FDI	-4.725422**	0.0036	-	-	Stationary at level
EXCR	-2.768823	0.2188	-5.462198**	0.0006	Stationary at 1st Difference

Phillips-Perron Unit Root Test (with intercept and trend)					
Variable	Level t-Statistic	Level Probability	First Difference t-Statistic	First Difference Probability	Stationarity Conclusion
INF	-5.349129**	0.0007	-	-	Stationary at level
FDI	-4.067197**	0.0166	-	-	Stationary at level
EXCR	-3.068436	0.1312	-3.652266**	0.0420	Stationary at 1st Difference

Note: \*\* denotes significance at the 5% level (critical value: -3.574244).

**4.2. The Results of ARDL Approach.**

An estimated Autoregressive Distributed Lag (ARDL) model examines the relationship between INF and FDI, where INF is a function of FDI and EXCR. The co-integration test based on the bounds approach yields an F-statistic of 9.705774, exceeding the 5% upper critical value of 3.87, thus confirming that the variables are co-integrated (Table 4).

The estimation method accounted for approximately 84% of the variation in the dependent variable, indicating a good fit, with an R-squared of 0.836160. The F-statistic of 5.103508, with a corresponding p-value of 0.003018, confirms that the model is highly significant. With a Durbin-Watson statistic of 2.292595, the residuals exhibit no serial correlation, reinforcing the reliability of the estimated model.

**Table 4. ARDL Bound Test Findings.**

Estimated Equation	INF <sub>t</sub> = f(FDI <sub>t</sub> , EXCR <sub>t</sub> )				
Cointegration	Automatically selected lag structure: (1, 5, 5)			Critical values	
	F-statistics	Significance	Lower Bound I(0)	Upper Bound I(1)	
Yes	9.705774	10%	2.63	3.35	
		5%	3.1	3.87	
		1%	4.13	5	
	R-square		0.836160		
	F-statistic		5.103508		
	Probability (F-statistic)		0.003018		
	Durbin-Watson statistic		2.292595		

**4.3. The Results of the Long and Short Run Tests.**

A coefficient of -0.264831, along with a probability value of 0.0201, indicates that FDI significantly and negatively affects inflation (INF) in the long run. This indicates a reduction of 0.264831 units in the inflation rate for each unit increase in the FDI. An estimated value of 11.87891 for the exchange rate (EXCR) indicates a positive but statistically insignificant effect on inflation (INF) in the long run. The inflation rate increases by 11.87891 units for every unit increase in the exchange rate. The constant term is also statistically significant and negative (-9.896693,  $p = 0.0331$ ).

This indicates that it captures the baseline level of development when all the independent variables are set to zero. A one-unit increase in FDI reduces inflation by 0.367986 units, according to the short-term investigation, where D(FDI) negatively influences INF in a statistically significant manner ( $-0.367986 [p = 0.0069]$ ). In contrast, EXCR has a positive but statistically insignificant effect on INF (8.718214,  $p = 0.1860$ ). The term associated with error correction is significant and negative ( $-0.912110, p = 0.0000$ ), indicating that approximately 91.2% of the disequilibrium is corrected in a single period and verifying the presence of stable long-term links (Table 5).

**Table 5. Long-Run and Short-Run Estimation Outputs.**

Long-Run Series			Short-Run Series		
Series	Coefficient	t-Statistic [p-value]	Series	Coefficient	t-Statistic [p-value]
FDI	-0.264831	$[-2.742941]**$ (0.0201)	D(FDI)	-0.367986	$[-3.205965]**$ (0.0069)
EXCR	11.87891	$[1.120140]$ (0.2829)	D(EXCR)	8.718214	$[1.396313]$ (0.1860)
Constant	-9.896693	$[-2.355527]**$ (0.0331)	CointEq(-1)	-0.912110	$[-6.912472]**$ (0.0000)

*Note: \*\* denotes significance at the 5 per cent threshold, square brackets represent t-statistics, and parentheses indicate p-values.*

These results align with established theoretical and empirical arguments in Karimov et al. (2024) and Shaikh et al. (2022), who hypothesised that FDI may reduce inflationary pressures by enhancing productive capacity and improving supply-side dynamics. This theoretical expectation is supported by the present study, which finds that FDI has a statistically significant adverse effect on inflation in the short- and long-run. These outcomes support neoclassical growth theory and the supply-side view of FDI, confirming that FDI increases output and efficiency, thereby mitigating price pressures. These results also align with those of Bulř and Vlček (2021), who acknowledged the possibility of inflationary effects of FDI under particular monetary conditions.

However, the negative correlation found in Azerbaijan suggests that the monetary expansion channel was either too weak or counterbalanced by real-side gains.

**4.4. Diagnostic Tests Findings.**

This step involved performing diagnostic tests to validate the model. The outcomes indicated that all null hypotheses were not rejected, as the p-values exceeded the 0.05 threshold, thereby supporting the reliability of the model.

The Jarque supports normality–Bera statistic (0.380979) and a probability value of 0.82, which is well above the 5% threshold. Therefore, normality was accepted. The results from the Breusch–Godfrey LM procedure show the absence of serial dependence.

This is reflected by an Obs R-squared value of 3.014381 and an associated probability of 0.09, which exceeds the 5% threshold. The Breusch-Pagan-Godfrey results (Obs R-squared of 0.823018 and a p-value of 0.63) indicate the absence of heteroscedasticity. The Ramsey RESET test indicated model stability.

The test statistic was 0.234688, with a corresponding probability of 0.63, which exceeds the 0.05 threshold. Therefore, all these diagnostics support the model's classical assumptions, thereby significantly enhancing the confidence level of the estimated results (Table 6).

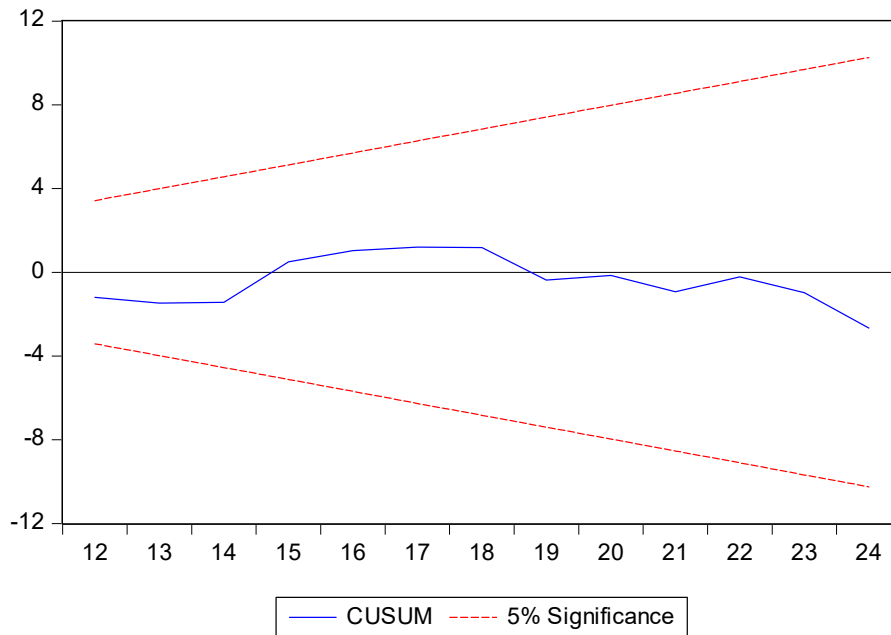
**Table 6. Diagnostic Analysis Outputs.**

Analysis	Test Statistic	Probability Value	Conclusion
Jarque-Bera (Normality)	0.380979	0.82	Residuals are normally distributed
Breusch-Godfrey (Serial Correlation)	3.014381	0.09	No serial correlation detected
Breusch-Pagan-Godfrey (Heteroskedasticity)	0.823018	0.63	No heteroskedasticity detected
Ramsey RESET Test (Functional Form)	0.234688	0.63	Model is correctly specified

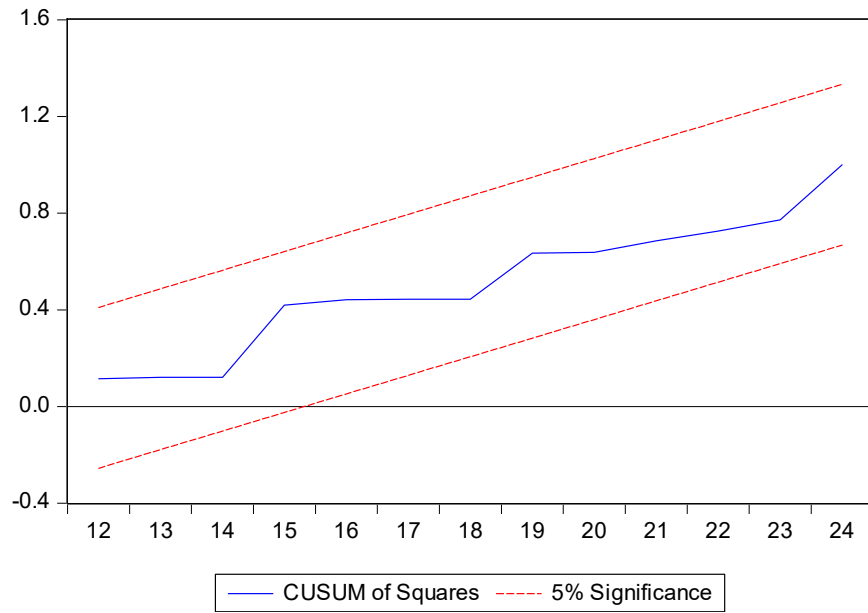
**4.5. CUSUM and CUSUM of Squares Tests Findings.**

Furthermore, the stability of the model was evaluated using the cumulative sum (CUSUM) and CUSUM of squares tests. The testing results thus far indicate that the CUSUM statistic remains within the 5% significance

bounds, implying parameter constancy over time. Likewise, the CUSUM of Squares statistic also remained within the critical limits, corroborating the stability of the variance. This implies that the model should not be subject to structural breaks, making it robust over the entire sample period.



**Fig.1. CUSUM Test Findings.**



**Fig.2. CUSUM of Squares Test Findings.**

### 5. Discussion.

The estimated long-run coefficient for FDI is -0.264831, indicating that an industrial capital inflow in the form of FDI equal to 1% of GDP would reduce inflation in Azerbaijan by approximately 0.26%. This impact is significant from an economic viewpoint.

Foreign capital inflows contribute to price stability by increasing productive capacity, enhancing technological efficiency and intensifying competition in domestic markets. For  $D(FDI)$ , the short-run coefficient is -0.367986, indicating that a 1% increase in FDI reduces inflation by 0.37%, exceeding the magnitude of the long-run effect.

This slightly stronger short-run response suggests that suppliers immediately improve performance by adjusting production methods, which leads to rapid price reductions. This may also lead to long-term structural adjustments, which eventually result in greater price stability.

The long-term exchange rate coefficient (11.87891) is positive, suggesting that currency depreciation may lead to increases in import prices, production costs, and, eventually, consumer prices, though the effect takes time. However, the coefficient is statistically insignificant ( $p = 0.2829$ ), indicating that this effect lacks robust empirical support and should be interpreted with caution.

However, the short-run exchange rate coefficient (8.718214) is statistically insignificant ( $p = 0.1860$ ). This difference clarifies the apparent contradiction: exchange rate movements gradually influence inflation in Azerbaijan rather than simultaneously. Several factors, including rigid short-term pricing, controlled prices, government subsidies, and gradual changes in import contracts, contribute to weaker immediate pass-through. In the long term, total depreciation is incorporated into domestic inflation.

The disparity between the short-term impact of national currency appreciation on the exchange rate and the long-run impact of incomplete and delayed exchange rate pass-through can be explained by the mechanisms of lagged exchange rate pass-through.

In the short run, many firms temporarily absorb exchange rate fluctuations through profit margins and/or inventory adjustments, thereby reducing the immediate impact on consumer prices. However, in the long run, continued depreciation increases production and import costs, which are gradually passed on to consumers, resulting in a positive long-run inflationary effect, although it was not statistically significant. The inflation-reducing effect of increased foreign direct investment (FDI) is evident in both the short- and long-run.

However, its impact on short-term inflation was more substantial. This suggests that FDI inflows offset the inflationary pressures from exchange rate fluctuations by improving (or expanding) supply conditions and reducing (or alleviating) structural constraints on supply, particularly in resource-rich and transitional economies such as Azerbaijan.

These results are in line with previous research, including that of Shaikh et al. (2022), who concluded that inflows of foreign direct investment into Azerbaijan contributed to expanding productive capacity (supply-side) and increased productivity, thereby reducing overall inflation. In contrast, FDI may lead to higher inflation due to the excess monetary supply resulting from associated demand pressures (Bulř & Vlček, 2021). This investigation suggests that FDI's impact on inflation is contrary to this view, as it leads to lower inflation in Azerbaijan than expected.

A significant distinction between this study and previous research lies in the following: the allocation of FDI by sector within Azerbaijan, the more closely controlled nature of the country's monetary regime, and the predominant investment focus on increasing efficiency rather than on consumption-based investment. Thus, the potential inflationary effects of money supply expansion are outweighed by the overall economic benefits that FDI provides to the country's economy.

Although the study's conclusions advance the discipline, it has several limitations.

First, the time frame of the analysis is short, which may limit the opportunity to assess any long-term changes in structure and reduce the power of the statistical analysis due to the limitations of small sample sizes in the ARDL model. Second, due to limited data availability in Azerbaijan, there is limited capacity to incorporate certain macroeconomic and institutional variables, such as financial development, sectoral FDI composition, and changes in the policy regime, which could help achieve a deeper understanding of how FDI and inflation interact.

## **6. Conclusions.**

### **6.1. Empirical Findings.**

This study provides an in-depth analysis of how FDI interacts with inflation in Azerbaijan. The results remain robust, indicating that FDI lowers inflation in the short and long runs.

In the long run, a 1-percentage-point increase in FDI as a percentage of GDP results in a decrease of approximately 0.26 percentage points in the inflation rate. The short-run effect is even more substantial at 0.37 units. This implies that FDI acts as an opposing force to inflation in Azerbaijan, possibly through supply-side channels, such as productivity gains, improved production efficiency, and increased market competition.

Additionally, the exchange rate (EXCR), included for control purposes, had a positive but statistically insignificant effect on inflation in both the short and long run.

All the above points provide a strong supporting argument for FDI acting as a stabiliser in the inflationary dynamics of resource-abundant and transition economies, such as Azerbaijan, when investment is distributed across the economy, and absorptive capacity is supportive.

The lower link between FDI and inflation is likely due to supply sources, as demonstrated from both empirical and theoretical perspectives. FDI creates new technologies, transfers them to the adopting country, and achieves a double benefit from the productivity gains, which consequently prevents inflation from rising.

This discovery also underscores the importance of closely monitoring exchange rate movements, as currency appreciation or depreciation significantly contributes to inflationary pressures.

### **6.2. Policy Recommendations.**

Based on the empirical and theoretical results, the set of policies proposed beyond this point represents the best use of FDI as a channel to fight inflationary pressures in Azerbaijan:

– Promoting the just sharing of foreign direct investment among leading sectors, such as manufacturing, renewable energy, agriculture, and information and communication technologies, is essential to combat inflationary pressures. Boosting investment will enable Azerbaijan to increase its output, alleviate supply-side constraints, and thereby help keep inflation low and stable, while also contributing to long-term economic growth.

– Develop sector-specific government incentives for productive and import-substitution-oriented industries to attract FDI, such as tax concessions or land grants. These industries could increase production, reduce dependence on imports, and stabilise prices.

– Build absorptive capability through better institutions and technical skills, upgrade the financial system, and focus on how productive foreign capital can be used.

– Development of public-private partnerships for upskilling the workforce and improving management practices. This may further enable domestic firms to integrate more effectively with foreign-invested enterprises, thereby boosting the productivity of enterprises.

– Maintain exchange rate stability through macroeconomic policies and increased foreign exchange reserves. Exchange rate volatility poses inflationary threats when the national currency depreciates. Expanding foreign exchange reserves helps mitigate threats.

– Enhancing the investment climate through simplified procedures and law enforcement. Foreign investors benefit from Azerbaijan's streamlined legal processes and transparent justice. Laws for investor protection must be strengthened to ensure investors feel safe and confident in investments.

– Introspection into performance-based incentives in the AFEZ related to productivity, employment, and technology transfer showed that any measure that would ensure the existence of the AFEZ should guarantee their implementation, tying benefits to key outcomes of increased productivity, job creation, and technology transfer for sustainable growth.

– The adoption of a forward-looking inflation-targeting framework, which encompasses FDI trends through scenario planning, can improve monetary policy quality. The sharing of FDI inflows as a significant factor in inflation prediction models will help the central bank identify when and where inflationary forces will emerge and utilise monetary policy tools beforehand to maintain price stability. Scenario-based analysis enables the government to tailor policy responses to anticipated shifts in FDI activity.

Therefore, this study provides a valuable guide for policymakers in Azerbaijan and other emerging economies competing to promote macroeconomic stability and attract foreign investment.

By capitalising on FDI not only as a source of funds but also as a tool for structural transformation, Azerbaijan can reduce inflationary risks while advancing toward inclusive and resilient economic growth.

#### **Conflict of Interest Statement.**

The authors declare that there is no conflict of interest.

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