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Exploring the Nonlinear Impact of Credit Supply on Economic Security in the United Arab Emirates

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ABSTRACT

This study examines the asymmetric effect of credit supply on economic security in the UAE from 1990 to 2023 using the nonlinear autoregressive distributed lag method. The results confirm a significant cointegrating relationship between economic security and credit supply. Additionally, the results reveal that the effect of credit supply on economic security in the UAE is nonlinear. Particularly, though positive adjustments in credit supply impair long-run economic security, positive and negative adjustments in credit supply have short-run positive impacts on economic security. Essentially, while short-term increases in credit supply enhance economic security, prolonged expansions have a negative long-term impact. Also, lending interest rates, public expenditure, weak institutions, and nonperforming loans negatively affect economic security, whereas oil prices provide support. These findings highlight the need for stronger credit risk management, controlled credit growth, institutional reforms, and economic diversification.

INTRODUCTION

Credit supply plays a fundamental role in economic stability and security by facilitating investment, consumption, and overall economic growth (Ehigiamusoe et al., 2019). A well-functioning credit market ensures efficient capital allocation, enabling households, businesses, and governments to access essential goods and services, finance productive activities, and mitigate the effects of economic shocks (Sakanko et al., 2020). By smoothing consumption and investment cycles, credit enhances long-term economic resilience, particularly during downturns, by providing liquidity to businesses and individuals facing temporary financial constraints (Abu et al., 2022a; Sakanko et al., 2024). This, in turn, fosters entrepreneurship, employment growth, and infrastructure development. However, inefficiencies in the credit market—often characterized by excessive or mismanaged credit expansion and weak credit risk management—can have adverse consequences, including unsustainable debt accumulation, financial instability, and broader economic vulnerabilities. Rapid credit expansion without adequate regulatory oversight can fuel asset bubbles, inflationary pressures, and systemic financial crises. Historical evidence from the 2008/2009 global financial crisis and the Asian financial crisis underscores how unchecked credit growth and rising loan defaults can destabilize financial markets, erode consumer and business confidence, and trigger widespread economic insecurity (Khan et al., 2020).

Although some studies suggest that credit supply may not always contribute positively to economic growth and stability (Rousseau & Wachtel, 2011), this weakness is often attributed to factors such as excessive financial deepening, financial crises, widespread financial liberalization, and inadequate legal or regulatory infrastructure (Ehigiamusoe et al., 2019). Nonetheless, credit contractions—whether due to tighter lending regulations, declining investor confidence, or broader economic shocks—can be equally detrimental. They can restrict access to capital, exacerbate unemployment, and heighten financial distress among households and businesses. Therefore, while credit supply is a key driver of economic growth and stability, its impact on economic security is complex and may depends on the broader economic context and how credit dynamics evolve over time.

The existing literature on the relationship between credit supply and economic performance has predominantly focused on a linear perspective (e.g., Garcia-Escribano & Han, 2015; Korkmaz, 2015; Vieira & Silva, 2023; Ozili et al., 2022; Sassi, 2014). However, credit supply does not necessarily exert uniform effects on economic security. Increases and decreases in credit supply can have varying impacts depending on existing credit levels, institutional frameworks, and macroeconomic conditions (Ho & Saadaoui, 2022). This suggests that the relationship between credit supply and economic security is nonlinear, with positive and negative adjustments producing asymmetric effects. For instance, while short-term increases in credit availability may enhance economic security by stimulating investment and consumption, prolonged or excessive credit expansion can lead to financial fragility, higher default rates, and systemic risks. Conversely, credit contractions may initially reduce financial vulnerabilities by curbing excessive lending but could ultimately suppress economic activity if households and businesses face liquidity constraints. These dynamics highlights the potential of that nonlinear nature of the relationship between credit supply and economic security and stability in an economy.

Despite significant credit expansion, rising default rates, and financial disruptions in the UAE, little research has explored whether the relationship between credit supply and economic security is asymmetric. Most existing studies on the UAE have examined only the linear relationship between credit supply and economic performance (see Al-Malkawi et al., 2012; Shadab, 2021). Given the rapid credit expansion alongside increasing nonperforming loans, it is essential to investigate whether the effect of credit supply on economic security is asymmetric. Understanding this relationship is crucial for maintaining sustainable financial and economic stability. Like many emerging economies, the UAE has witnessed not only an expansion in credit growth and nonperforming loans in recent decades but also significant macroeconomic disruptions, including rising unemployment, increasing out-of-pocket health expenditures, and fluctuations in per capita income and aggregate economic activity (World Bank, 2024). External shocks, such as fluctuations in oil prices and global capital flows, further complicate the credit-economic security nexus, making it imperative to assess how credit supply influences economic security under different economic conditions.

Therefore, this study contributes to the literature by examining whether the relationship between credit supply and economic security in the UAE is asymmetric over the 1990–2023 period. It makes several significant contributions. First, this is the first known study to explicitly investigate the asymmetric effect of credit supply on economic security in the UAE. To the best of our knowledge, empirical research on this topic remains scarce despite mounting evidence suggesting such asymmetries. Second, the study develops a multidimensional economic security index (ESI) for the UAE following on Hacker et al. (2014), providing a more comprehensive measure of economic security than traditional macroeconomic indicators. Third, to ensure robust results, the study employs the nonlinear autoregressive distributed lag (NARDL) estimation technique, which is well-suited for capturing asymmetries in the short- and long-run effects of credit supply. Finally, by exploring the nonlinear effects of credit supply on economic security in the UAE, the study aims to provide valuable insights for policymakers, researchers, and relevant stakeholders both within the UAE and in other countries with similar economic structures.

The rest of this paper is arranged as follows. The research method and data are discussed in the second section. Section three presents and discusses the results. The conclusion and policy recommendations are taken up in section four.

1. Methodology and Data

1.1 Model specification

Gleaning from empirical studies which focuses on the linear relationship between credit supply and economic performance in the UAE (e.g., Al-Malkawi et al., 2012; Shadab, 2021), an econometric model illustrating a nonlinear relationship between economic security and the positive and negative adjustments and credit supply is specified as follows:

$$es_t = a + \pi_1 cs_t^+ + \pi_2 cs_t^- + \vartheta' Z_t + \mu_t \quad (1)$$

where es, the dependent variable, represent economic security. cs^+ and cs^- are the positive and negative adjustment in credit domestic supply, respectively. The process of decomposing the credit supply variable to positive and negative components is presented in the next subsection. Z is a set of control variables (nonperforming loans, lending interest rate, institutional quality, oil price, and public spending). t denotes time. a is the intercept. and π and ϑ are slope coefficients. μ_t is the error term, with zero mean and constant variance.

1.2 Estimation Technique

To examine the asymmetric relationship between credit supply and economic security in the UAE, this study employs the nonlinear autoregressive distributed lag (NARDL) model by Shin et al. (2014), an extension of the ARDL bounds-testing approach of Pesaran et al. (2001). The NARDL model is particularly advantageous as it captures short- and long-run asymmetries while retaining the ARDL method's ability to handle cointegration in finite samples, regardless of the series' order of integration (Abu et al., 2022b; Gamal et al., 2024, 2025; Ryoji et al., 2025). Additionally, it effectively models potential nonlinearity in economic relationships (Abu et al., 2022c; David et al., 2020).

The NARDL estimation begins with a simple regression incorporating the partial sums of the asymmetric variable, which can be expressed as a bivariate NARDL(p, q) model expressed as:

$$y_t = c + \beta^+ x_t^+ + \beta^- x_t^- + \chi' Z + \upsilon_t \quad (2)$$

where β^+ and β^- are the coefficients of the partial sums of x_t, the asymmetric variable. Z is the vector of variables entering the model symmetrically. υ_t is the residual. The asymmetric variable, x_t, is a $k \times 1$ vector of regressors. It is decomposed as:

$$x = x_0 + x_t^+ + x_t^- \quad (3)$$

where x_t^+ and x_t^- are the partial sum process of positive and negative adjustments in x_t. The partial sums of the asymmetric variable, x_t, are generated by computing:

$$x_t^+ = \sum_{i=1}^{t} \Delta x_i^+ = \sum_{i=1}^{t} \max(\Delta x_i, 0) \tag{4}$$

$$x_t^- = \sum_{i=1}^{t} \Delta x_i^- = \sum_{i=1}^{t} \min(\Delta x_i, 0) \tag{5}$$

Following Shin et al. (2014), the generalised NARDL(p, q) model in Equation (2) can be rewritten in an unrestricted form to illustrate an asymmetric relationship between series x_t and y_t. This can be expressed as follows:

$$\begin{aligned} y_t = \alpha + \rho y_{t-1} + \theta^+ x_{t-1}^+ + \theta^- x_{t-1}^- + \gamma' Z + \sum_{i=1}^{p-1} \sigma_i \Delta y_{t-i} + \sum_{i=0}^{q} (\omega_i^+ \Delta x_{t-i}^+ + \omega_i^- \Delta x_{t-i}^- \\ + \varphi' \Delta Z_{t-1}) + \sum_{j=1}^{r} \eta_j' D_{t,j} + \upsilon_t \end{aligned} \tag{6}$$

where Δ is the first difference operator. ρ is the coefficient of the lagged level dependent variable. $\theta^+ = -\rho\beta^+$, and $\theta^- = -\rho\beta^-$. ω_i^+ and ω_i^- are the short-run parameters of the decomposed partial sums. γ is the vector coefficient of the lagged level of covariates entering the model symmetrically. and φ is the vector coefficient of differenced symmetric variables. $D_{t,j}$ denote the structural break dummy variable. The optimal lag-length (p, q) are determined automatically by AIC.

Following Pesaran et al. (2001), the asymmetric relationship between the series is established by testing the null hypothesis of no cointegration in Equation (6). Specifically, the presence of cointegration between y_t and x_t is assessed by testing $H_0: \rho = \theta^+ = \theta^- = \gamma = 0$ against the alternative of cointegration $H_1: \rho \neq \theta^+ \neq \theta^- \neq \gamma \neq 0$. The null must be rejected for cointegration to hold. The Wald test-based F-statistic is compared with the critical bounds from Pesaran et al. (2001), confirming cointegration only if it exceeds the upper bound; results are inconclusive if it falls between bounds. Once cointegration is established, both long-run and short-run models are estimated. Additionally, symmetry relationships are tested using the Wald test. Long-run symmetry is assessed by testing the null of additive symmetry $H_0: -\theta^+/\rho = -\theta^-/\rho$ against its alternative. Similarly, short-run symmetry is examined by testing $H_0: \sum_{i=0}^{q} \pi_i^+ = \sum_{i=0}^{q} \pi_i^-$ against the corresponding alternative.

1.3 Data

This study utilises annual time-series data spanning from 1990 to 2023. The variables are measured as follows. Economic security is defined following Hacker et al.'s (2014) multidimentionals economic security index approach. cs is measured as the ratio of credit extended by banks and other financial institutions to the private sector and state-owned enterprises relative to GDP. npl represents bank nonperforming loans as a percentage of total gross loans, while lir is measured by the interest rate charged by banks or other financial institutions on loans. The variable iq is measured using a political corruption index that ranges from 0 to 1, with 0 indicating low corruption and 1 indicating high corruption. $oilp$ is defined as the annual average price of Murban crude oil per barrel in US dollars, and pex represents the aggregate public spending of the federal government in billions of dollars. The data used are obtained from various sources, including the UAE's Federal Competitiveness and Statistics Authority, the Central Bank of the UAE, the UAE Ministry of Economy, OPEC's annual statistics bulletin, Varieties of Democracy (V-Dem) Institute, and WDI database.

2. RESULTS AND DISCUSSION

2.1 Preliminary data analysis

Before estimating the NARDL model to examine the asymmetric relationship between credit supply and economic security in the UAE, we computed descriptive statistics and tested the stationarity of the variables. Table 1 presents the summary statistics. The UAE's economic security index averaged 0.0057 from 1990 to 2023. Domestic credit supply averaged US$301.56 billion, ranging from US$25.56 billion to US$690.55 billion. Nonperforming loans, as a percentage of gross loans, averaged 9.25%. Lending interest rates averaged 6.87%, fluctuating between 2.3% and 10.6%. The institutional quality index, measured by the political corruption perception index, had a mean of 0.1314 and ranged from 0.108 to 0.219. Murban crude oil prices averaged US$52.09 per barrel, exhibiting high volatility between US$12.67 and US$111.76. Lastly, public expenditure averaged US$61.39 billion, with values ranging from US$14.20 billion to US$121.02 billion.

Table 1 Descriptive statistics

	es	cs	npl	lir	iq	$oilp$	pex
Mean	0.005682	301.56	9.252717	6.868235	0.131353	52.09471	61387.5
SD	0.011328	250.11	4.337387	1.869611	0.031097	32.49169	43530.9
Min.	0	25.56	2.3	2.3	0.108	12.67	14201.28
Max.	0.027931	690.55	15.7	10.6	0.219	111.76	121022

Source: Author's computation using EViews 13

Furthermore, the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests, along with the Zivot-Andrews (ZA) test, are employed to assess the stationarity properties of the series. As summarised in Table 2, the ADF test finds the economic security index, lending interest rate, and institutional quality index stationary at levels (5 percent significance level), while the PP test confirms stationarity at levels only for the economic security index and institutional quality index. Both tests indicate that domestic credit supply, nonperforming loans, oil prices, and public expenditure become stationary after first differencing. Since ADF and PP tests do not account for structural breaks, the ZA test is applied for robustness. The ZA results show that only the economic security index and nonperforming loans are stationary at levels (1 percent significance level), while the remaining variables achieve stationarity after first differencing (5 percent significance level). This suggests that except for the economic security index and nonperforming loans, which are integrated at I(0), all other series are integrated at I(1). Despite variations in integration order across tests, the presence of both I(0) and I(1) variables supports the use of the NARDL bounds-testing approach for cointegration analysis.

Table 2. Results of Unit Root Tests

		esi	dcs	npl	lir	iq	$oilp$	pex
ADF	Level	-3.6061**	-1.3206	-1.4459	-3.2479**	-3.2703**	-1.4600	-0.694
	1st Diff.	-5.6471***	-1.6514*	-3.3071***	-3.3355***	-4.8968***	-5.2687***	-3.9240***
PP	Level	-3.7380***	-1.1922	-1.0662	-2.1751	-7.9469***	-1.3900	-0.694
	1st Diff.	-12.6316***	-1.6532*	-3.4028***	-4.5459***	-4.8906***	-5.2775***	-3.9428***
ZA	Level	-5.4066***	-3.532	-5.5279***	-3.6984	-2.4521	-4.5979*	-4.5632
	T_b	2011	2004	2005	2011	2018	2015	2008
	1st Diff.	-6.4458***	-5.4486***	-5.2717**	-5.0888**	-7.9413***	-6.3096***	-6.0491***
	T_b	2014	2009	2012	2000	1996	2014	2010

Notes: T_b is the structural break-date. ADF represents the Augmented Dickey-Fuller test, PP denotes Philips-Peron test, and ZA is the Zivot and Andrews (1992) test with one break. The ADF and PP unit root test tests the null hypothesis of unit root against the alternative hypothesis of a stationary process. ZA tests the null of unit root against the alternative hypothesis of a trend-stationary process with one-time structural break occurring at an unknown point in

time. The ZA unit root test is conducted based on Model A which represent structural change in the level shift or intercept. The optimal lag length selection in ADF, and ZA tests are based on the Schwarz Information Criteria (SIC), while the maximum lag-length is set to 8. For PP test, the bandwidth is automatically determined based on the Newey-West method using the Bartlett kernel spectra estimation method. MacKinnon's (1996) critical values (CV) for ADF and PP tests (no intercept and trend) are given as: -2.6471 (1%), -1.9529 (5%), -1.6100 (10%), at 1%, 5% and 10% levels, respectively. ZA's CV for structural change in the level shift are: -5.34 (1%), -4.93 (5%) and -4.58 (10%). Asterisks (***), (**) and (*) indicate significance at 1%, 5% and 10% level, respectively.
Source: Authors' computation using EViews 13

2.2 NARDL bounds-testing cointegration test

We apply the NARDL bounds-testing method to assess the nonlinear cointegrating relationship between economic security and adjustments in credit supply in the UAE. The bounds-testing results, based on the estimated NARDL(1,2,2,2,0,2,2) model selected by the Akaike Information Criterion (AIC), are summarised in Table 3. The computed F-statistic of 9.302 exceeds the upper critical bound value of 5.694 at the 1 percent significance level. This result indicates that there is sufficient evidence to reject the null hypothesis of no cointegration between the series. Therefore, we conclude that a significant nonlinear cointegrating relationship exists between the variables.

Table 3. NARDL bounds-testing result

Model	*Lag Length*		*F-statistic*
$esi = f(dcs^+, dcs^-, npl, lir, corr, oilp, pex, D_{2008})$	1,2,2,2,0,2,2		9.302**
	$K = 7$		$N = 31$
Critical values for Case II: restricted constant and no trend	10%	5%	1%
I(0)	2.277	2.730	3.864
I(1)	3.498	4.163	5.694

Notes: K is the number of explanatory variables, and N represents the sample size. Asterisk (**) denotes significance at 1% level based on critical values provided by Pesaran et al. (2001). The optimal lag-length is suggested by AIC.
Source: Authors' computation using EViews 13.

2.3 Estimation results of the NARDL model

Since the bounds test confirms cointegration between economic security and credit supply, both long-run and short-run NARDL models are estimated using the AIC-suggested lag length (1,2,2,2,0,2,2). Table 4 summarizes the results: Panel A and B present the long-run and short-run models, Panel C reports symmetry tests (performed using Wald restriction test), and Panel D provides post-estimation diagnostics. The long-run symmetry test (W_{LR}) rejects the null of additive symmetry at the 1% level, while the short-run test (W_{SR}) is insignificant. This suggests asymmetric long-term effects of credit supply adjustments on economic security, but no significant short-term asymmetry.

The long-run estimation results in Panel A of Table 4 show that both positive and negative adjustments in domestic credit supply negatively impact economic security. However, while the effect of positive credit shocks is statistically insignificant, negative shocks are significant at the 5 percent level, with a one percent decline in domestic credit supply reducing economic security by 0.00069 percentage points. These findings align with prior research indicating that rapid credit expansion can undermine economic security in developing and emerging economies (Balgova et al., 2016; Zhang et al., 2022). Thus, both credit supply increases and decreases exert long-term negative effects, though their magnitude and significance vary. In contrast, the short-run results in Panel B indicate that positive credit shocks initially enhance economic security but have a delayed negative effect. A one percent increase in credit supply leads to an immediate 0.00058 percentage point rise in economic security (significant at the 1 percent level), but a one-period lag results in a 0.00038 percentage point decline (significant at the 10 percent level). Meanwhile, the immediate effect of negative credit shocks is statistically insignificant, but when lagged by one period, a one percent decline in credit supply improves economic security by 0.00137 percentage points (significant at the 1 percent level).

Overall, these asymmetric effects suggest that while short-term credit expansions provide immediate liquidity and economic support, prolonged adjustments—whether positive or negative—can destabilize economic security. In the UAE, where financial stability and economic diversification are key priorities, these findings highlight the risks of over-reliance on credit expansion and emphasize the need for a balanced approach that maximizes short-term gains while mitigating long-term vulnerabilities.

Table 4 Results of NARDL Model

Panel A: NARDL(1,2,2,2,0,2,2) Long-run coefficient estimates–Dependent variable: es							
$Cons$	cs^+	cs^-	npl	lir	iq	$oilp$	pex
0.6219	-0.00011	-0.00069	-0.0034	-0.0037	-0.3162	0.0783	-0.1401
(3.2547)***	(-0.6921)	(-3.3353)**	(-2.4115)**	(-1.6349)*	(-1.874)*	(5.0057)***	(3.7571)***

Panel B: NARDL(1,2,2,2,0,2,2) Short-run coefficient estimates – Dependent variable: Δes		
Regressors	Lag order	
	0	1
Δcs^+	0.00058 (4.0774)***	-0.00038 (-1.9098)*
Δcs^-	0.000094 (0.6076)	0.00137 (6.4471)***
Δnpl	0.00875 (8.4171)***	0.01287 (9.7542)***
Δlir	0.00056 (0.5913)	0.0057 (5.2959)***
Δiq	0.0214 (0.2141)	0.6495 (5.9429)***
Δpex	-0.1308 (-4.8348)***	-0.1521 (-7.3905)***
D_{2008}	0.0115 (1.6533)*	

Panel C: Long- and short-run asymmetric tests	
W_{LR}	18.5914 [0.0020]***
W_{SR}	0.2532 [0. 2696]

Panel D: Diagnostic statistics tests					
ECT_{t-1}	$\chi^2_{SC}(3)$	$\chi^2_{FF}(1)$	χ^2_{HET}	χ^2_{NORM}	$Adj.R^2$
-1.617***(-12.575)	1.623 [0.121]	1.358 [0.277]	19.832 [0.301]	6.022 [0.049]	0.7609

Notes: Δ represent first difference operator. Asterisk (***), (**) and (*) denotes significance at 1%, 5% and 10% level, respectively. The superscripts "+" and "−" represents positive and negative partial sums, respectively. Values in parenthesis (.) in panel A and B are the t-ratio, and values in square parenthesis [.] in panel C and D are the probability values of test statistics. W_{LR} refers to the Wald test of long-run symmetry, defined by $-\hat{\theta}^+/\hat{\rho} = -\hat{\theta}^-/\hat{\rho}$, and W_{SR} is the short-run symmetry, defined by $\sum_{i=0}^{q}\pi_i^+ = \sum_{i=0}^{q}\pi_i^-$. ECT_{t-1} represent the error correction term. χ^2_{SC}, χ^2_{HET}, χ^2_N, and χ^2_{FF} denotes BG LM tests for serial correlation, BPG LM test heteroscedasticity, JB normality test and Ramsey RESET f-statistic, respectively. The model is estimated by setting the maximum lag to 4, while the optimal lag-length is suggested by AIC

Regarding the control variables, the long-run estimates show that nonperforming loans, lending interest rates, and weak institutional quality significantly reduce economic security at the 10 percent level, with a 1 percent increase lowering economic security by 0.0034, 0.0037, and 0.3162 percentage points, respectively. In contrast, short-run results indicate a positive effect at the 1 percent level, with a 1 percent rise in nonperforming loans (current and lagged) improving economic security by 0.00875 and 0.01287 percentage points, respectively. Similarly, a 1 percent increase in lending interest rates and weak institutional quality (lagged) raises economic security by 0.0057 and 0.6495 percentage points. Public expenditure, often seen as a stabilizer, significantly reduces economic security at the 1 percent level in both periods, with a 1 percent rise lowering economic security by 0.1401 percentage points in the long run and by 0.1308 and 0.1521 percentage points in the short run. Conversely, oil prices enhance long-run economic security at the 1 percent level, with a unit increase improving economic security by 0.0783 percentage points.

Essentially, the short-term positive effect of nonperforming loans, despite their long-run risks, suggests temporary liquidity measures mitigating credit risks, likely reflecting proactive financial institution interventions. Similarly, while higher lending interest rates weaken economic security over time, their short-run benefits may stem from improved resource allocation or financial stabilization. The temporary positive effect of weak institutional quality may arise from informal governance structures expediting transactions, though long-term inefficiencies distort resource allocation and weaken resilience (Aljassmi et al., 2024; David et al., 2024; Sakanko et al., 2024). The positive effect of oil prices underscores their role in UAE's

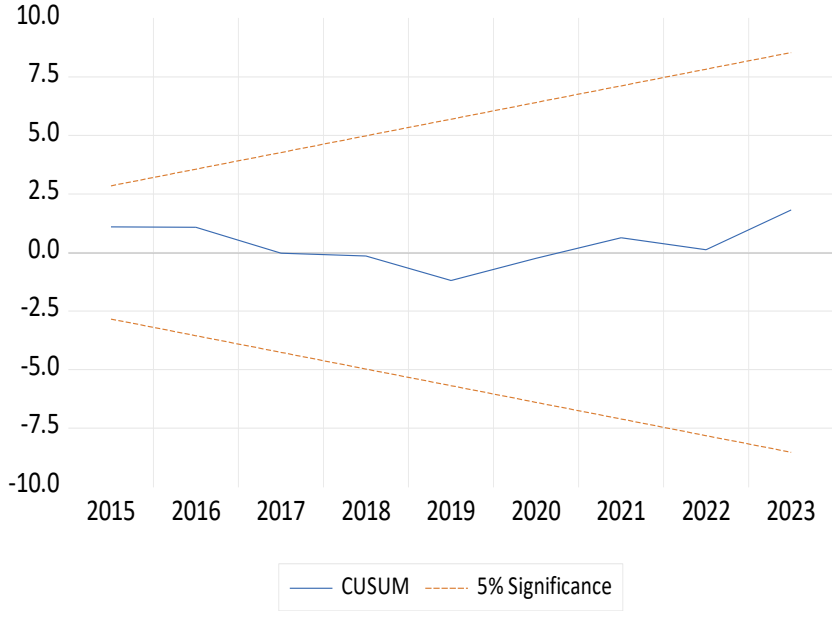
stability, as oil and gas revenues fund essential programs, enhancing economic security. However, reliance on oil exposes the economy to fiscal instability from price fluctuations. Lastly, the negative impact of public expenditure in both periods suggests inefficiencies or overreliance on fiscal stimulus, leading to economic distortions, inflation, and fiscal imbalances that undermine economic security.

The convergence coefficient, representing the error correction term lagged by one period, falls between -1 and -2 and is statistically significant at the 1 percent level. Though uncommon, this magnitude suggests an exceptionally rapid adjustment of economic security toward its long-run equilibrium, with a risk of overshooting (Abu et al., 2024; Narayan & Smyth, 2005). Specifically, a one-unit deviation from equilibrium triggers a 1.617-unit correction in the following period. Such rapid adjustment may cause oscillations as the system over-corrects before stabilizing. Instead of a smooth, direct return to equilibrium, the process involves dampened fluctuations around the long-run path. However, once these fluctuations subside, convergence accelerates, reinforcing long-term stability.

2.3 Results of diagnostics and model stability tests

To ensure the NARDL model's reliability for policymaking, several diagnostic tests were conducted: the Breusch-Godfrey test for serial correlation, the Breusch-Pagan-Godfrey test for heteroscedasticity, the Jarque-Bera test for normality, and the Ramsey RESET test for specification errors. These tests confirm compliance with key regression assumptions—no serial correlation, homoscedasticity, normal residuals, and correct specification. Results in Panel D of Table 4 show no issues of serial correlation, heteroscedasticity, or misspecification, with normally distributed errors. Additionally, the CUSUM and CUSUMSQ plots (Figures 1a & 1b) confirm the model's parameter stability over time.

(a)



(b)

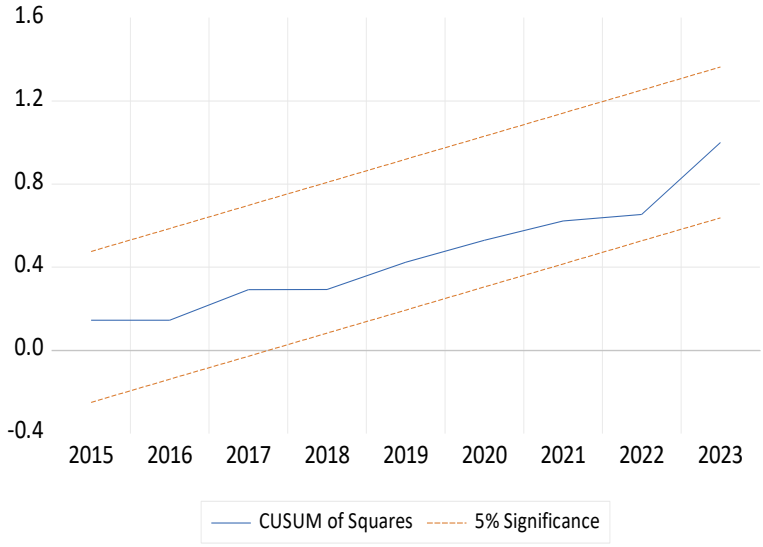


Figure 1. Plots of CUSUM (a) and CUSUMSQ (b)
Source: Authors' computation

CONCLUSION AND RECOMMENDATIONS

This study examines the nonlinear impact of credit supply on economic security in the UAE over the period 1990 to 2023 using the NARDL bounds-testing method. The bounds-testing procedure provides evidence of a cointegrating relationship between economic security and both the positive and negative components of credit supply, alongside control variables. The estimation results demonstrate that the effect of credit supply on economic security is asymmetric. Specifically, while positive adjustments in credit supply have a significant negative long-run effect on economic security, the short-run impacts of both positive and negative adjustments are positive and significant. Overall, the findings suggest that short-term increases in domestic credit supply may enhance economic security by providing immediate liquidity and supporting economic activities. However, prolonged adjustments, regardless of direction, could undermine long-term economic stability. Additionally, the results indicate that lending interest rates, public expenditure, weak institutional quality, and nonperforming loans exert a negative long-run effect on economic security, whereas their short-run effects are positive and significant. In contrast, oil prices contribute positively to economic security. Based on these outcomes, policy recommendations include stricter credit risk management to curb unchecked credit expansion and mitigate rising nonperforming loans. Additionally, reducing reliance on the oil and gas sector is crucial for long-term economic security.

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