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MONETARY POLICY AND CREDIT RISK IN AZERBAIJAN: AN ARDL BOUNDS-TESTING APPROACH

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ABSTRACT

This paper examines the long-run and short-run relationship between credit risk and monetary policy in Azerbaijan using quarterly data over 2005Q1–2025Q4. Credit risk is measured by the ratio of overdue loans – loans overdue by more than 30 calendar days, following the Central Bank of Azerbaijan (CBAR) definition – to total loans, while the monetary policy stance is proxied by broad money (M3), which is more informative than the policy rate under the country's de facto fixed exchange-rate regime. Applying the autoregressive distributed lag (ARDL) bounds-testing approach and its nonlinear (NARDL) extension, the study finds a stable long-run (cointegrating) relationship between credit risk and monetary aggregate. Monetary expansion is associated with lower credit risk in the long run, while the credit-to-money ratio emerges as a strong predictor of credit risk. The error-correction term is negative but small, reflecting the high persistence of problem loans. Short-run asymmetry is significant, capturing the sharp impact of the 2015 monetary contraction and devaluations. The findings carry macroprudential implications for monetary and financial stability policy.

Keywords: credit risk; overdue loans; monetary policy; ARDL bounds testing; Azerbaijan

JEL Classification: E51, E52, G21, C22

1. INTRODUCTION

Credit risk is a central concern for banking-sector soundness and financial stability, and its dynamics are tightly linked to the macroeconomic and monetary environment. In oil-exporting economies such as Azerbaijan, this linkage is particularly pronounced. The economy is dependent on hydrocarbon revenues, the banking system has historically operated under elevated dollarization, and the manat has been managed under a de facto fixed exchange-rate regime for most of the sample period. These features make the transmission from monetary conditions to loan quality both economically important and empirically distinctive.

The relevance of the question is sharply illustrated by the events of 2015–2017. The collapse in oil prices and the two manat devaluations of 2015 – in February and again in December, when the currency was floated – triggered a rapid deterioration in loan quality, culminating in the 2017 restructuring of the country's largest bank. The ratio of overdue loans to total loans rose from below 3% before 2008 to a historical peak near 15% in 2017, before declining again to below 2% by 2024. Understanding how the monetary environment shapes this trajectory is essential for both monetary and macroprudential policy.

Two measurement choices follow from the Azerbaijani context. First, credit risk is proxied by the ratio of overdue loans to total loans, where overdue loans are defined according to the Central Bank of Azerbaijan (CBAR, 2022) as loans overdue by more than 30 calendar days. This is a broader and earlier-warning measure of credit risk than the standard non-performing-loan (NPL) concept, which is typically based on 90+ days past due. Second, because the policy interest-rate channel is weak under a pegged exchange rate, the monetary policy stance is proxied by broad money (M3), which more reliably captures monetary conditions in this setting.

Despite a large international literature on the determinants of credit risk, single-country time-series evidence for Azerbaijan that explicitly links credit risk to the monetary aggregate – and that allows for asymmetric responses – remains scarce. This study addresses that gap. Its central hypothesis is that there exists a stable long-run relationship between the monetary stance and credit risk, and that the short-run response may be asymmetric across periods of monetary expansion and contraction. The empirical strategy combines the ARDL bounds-testing approach of Pesaran, Shin and Smith (2001) with the nonlinear ARDL (NARDL) framework of Shin, Yu and Greenwood-Nimmo (2014), supplemented by a battery of unit-root, diagnostic, and parameter-stability tests.

The remainder of the paper is organized as follows. Section 2 reviews the relevant literature. Section 3 describes the data and the econometric methodology. Section 4 presents empirical results, Section 5 discusses their economic interpretation and limitations, and Section 6 concludes with policy implications.

2. LITERATURE REVIEW

The most widely used empirical measure of credit risk is the ratio of non-performing loans (NPLs) to total loans, where NPLs are usually defined as loans 90 or more days past due. The present study instead employs the ratio of overdue loans – overdue by more than 30 calendar days, following the CBAR (2022) definition – to total loans. This is a broader, earlier-warning indicator that also captures the initial stages of repayment difficulty. Because international literature is built mainly around the NPL measure, the review below draws on NPL findings; subject to the definitional difference, these findings are expected to extend to the broader overdue measure.

The macroeconomic determinants of credit risk are well documented. Salas and Saurina (2002) show for Spanish banks that economic growth reduces problem loans, while rapid credit expansion raises future risk. Nkusu (2011) documents for advanced economies that adverse macroeconomic shocks — slower growth, rising unemployment, falling asset prices — increase NPLs, and that two-way feedback runs between credit risk and economic activity. Louzis, Vouldis and Metaxas (2012) find for Greece that NPLs are explained by both macroeconomic (GDP, unemployment, interest rates) and bank-specific (management quality) factors. Beck, Jakubik and Piloiu (2015), using a global sample of 75 countries, confirm real GDP growth, the exchange rate, the lending rate, and share prices as key determinants.

The exchange-rate and dollarization channel is especially important for transition and emerging economies. Tanasković and Jandrić (2015) show for Central and South-Eastern Europe that currency depreciation and weak growth raise credit risk, an effect that is stronger where the share of foreign-currency loans is high. Klein (2013) confirms for the CESEE region that NPLs are driven by both macroeconomic (GDP, unemployment, inflation, exchange rate) and bank-level factors. These results are directly relevant to Azerbaijan, where the 2015 twin devaluations and high dollarization sharply increased the local-currency burden of foreign-currency loans.

The link between monetary policy and credit risk is grounded in the *risk-taking channel* literature. Borio and Zhu (2012) conceptualize how monetary conditions affect banks' risk-taking behaviour, with easier conditions raising risk appetite. Dell'Ariccia, Laeven and Marquez (2014) show theoretically that lower real interest rates increase bank leverage and risk-taking, while Jiménez, Ongena, Peydró and Saurina (2014) provide micro evidence from the Spanish credit register that low short-term rates induce banks to grant riskier loans; Maddaloni and Peydró (2011) show that low rates soften lending standards. Notably, most of this literature uses the interest rate as the policy instrument. Under a de facto pegged regime with a weak rate channel — precisely the Azerbaijani case – monetary aggregates such as M3 are regarded as a more reliable gauge of the policy stance, which motivates the use of M3 in this study.

Studies of oil-exporting and resource-dependent economies provide the closest analogues for Azerbaijan. Espinoza and Prasad (2010) find for the Gulf Cooperation Council that weaker non-oil growth and higher interest rates raise NPLs — a result that underscores the relevance of non-oil activity and oil prices as credit-risk determinants in such economies. Because oil-price shocks affect fiscal and monetary conditions as well as borrowers' repayment capacity, the oil price is a natural exogenous factor in credit-risk models for these countries.

Methodologically, dynamic panel (GMM) approaches dominate the cross-country literature (Louzis et al., 2012; Klein, 2013; Espinoza and Prasad, 2010; Beck et al., 2015). For single-country time-series analysis, VAR, VECM, and ARDL bounds testing (Pesaran et al., 2001) are increasingly used, with the NARDL framework (Shin et al., 2014) employed to capture asymmetric effects. Single-country ARDL/NARDL evidence for Azerbaijan that links credit risk to the monetary aggregate is limited. The present study fills this gap by estimating the short- and long-run, symmetric and asymmetric, relationship between the overdue-loans ratio and the monetary stance for Azerbaijan.

Table 1 summarizes the studies reviewed above, reporting the main finding, the variables used, the methodology, and the country or region covered.

Table 1. Summary of the literature on credit risk and monetary policy.

Author (year)	Main finding	Variables	Methodology	Country / region
Salas & Saurina (2002)	Growth lowers problem loans; rapid credit growth raises future risk	Problem loans, GDP growth, credit growth, bank factors	Panel regression	Spain
Espinoza & Prasad (2010)	Weaker non-oil growth and higher interest rates raise NPLs	NPLs, non-oil GDP, interest rate, oil factors	Dynamic panel (GMM)	GCC countries
Nkusu (2011)	Adverse macro shocks raise NPLs; two-way feedback exists	NPLs, GDP, unemployment, inflation, asset prices	Panel VAR	26 advanced economies
Louzis, Vouldis & Metaxas (2012)	NPLs explained by both macro and bank-specific factors	NPLs, GDP, unemployment, interest rate, management	Dynamic panel (GMM)	Greece
Maddaloni & Peydró (2011)	Low short-term rates soften lending standards	Interest rate, lending standards	Empirical (bank lending survey)	Euro area & US
Borio & Zhu (2012)	Monetary conditions shape bank risk-taking (risk-taking channel)	Monetary stance, risk-taking	Conceptual / theoretical	—
Klein (2013)	NPLs driven by macro (GDP, unemployment, inflation, FX) and bank factors	NPLs, GDP, unemployment, inflation, exchange rate	Dynamic panel (GMM)	CESEE
Makri, Tsagkanos & Bellas (2014)	NPLs strongly linked to GDP, public debt and unemployment	NPLs, GDP, public debt, unemployment	Panel (GMM)	Euro area
Dell’Ariccia, Laeven & Marquez (2014)	Lower real rates raise leverage and bank risk-taking	Interest rate, leverage, bank risk	Theoretical model	—
Jiménez, Ongena, Peydró & Saurina (2014)	Low short-term rates induce riskier lending	Interest rate, credit risk (credit register)	Micro-econometric	Spain
Beck, Jakubik & Piloiu (2015)	Real GDP, FX, lending rate and share prices determine NPLs	NPLs, GDP, exchange rate, interest rate, share prices	Dynamic panel	75 countries
Tanasković & Jandrić (2015)	Depreciation and weak growth raise NPLs; dollarization amplifies	NPLs, GDP, exchange rate, inflation, dollarization	Panel	CEE / SEE
Ghosh (2015)	Regional economic conditions and bank factors determine NPLs	NPLs, macro and bank-specific factors	Panel (FE / GMM)	US states
Us (2017)	NPL dynamics show a structural shift after the global crisis	NPLs, macro and bank-specific factors	Dynamic panel	Turkey

Note: findings are reported at the level of qualitative direction.

3. DATA AND METHODOLOGY

3.1. Data and variables

The study uses quarterly data published by the Central Bank of Azerbaijan over 2005Q1–2025Q4, comprising 84 observations. The raw series are the banking system’s total loans (end of period, mln manat), M3 broad money (end of period, mln manat), and overdue loans (end of period, mln manat). The empirical design uses four variables. Credit risk is the overdue-loans ratio (ORL), defined as loans overdue by more than 30 calendar days (CBAR, 2022) divided by total loans, expressed in percent. The monetary policy stance is the natural logarithm of M3 (LM3). Credit volume is the logarithm of total loans (LLOAN). A composite credit-to-money ratio, LRATIO = ln(Loans/M3) = LLOAN − LM3, captures the imbalance between credit and liquidity.

The logarithmic transformation linearizes the exponential growth of the nominal aggregates, stabilizes the variance, and allows elasticity interpretation; the overdue-loans ratio is kept in level (percentage) form. Table 2 reports descriptive statistics.

Table 2. Descriptive statistics (2005Q1–2025Q4, N = 84).

Variable	Mean	Std. dev.	Minimum	Maximum
Overdue-loans ratio (%)	5.788	3.451	1.534	14.932

Variable	Mean	Std. dev.	Minimum	Maximum
M3 (mln manat)	21129.2	13790.1	1448.8	49860.3
Loans (mln manat)	13769.9	7704.4	1073.5	31946.7
LM3 = ln(M3)	9.652	0.909	7.278	10.817
LLOAN = ln(Loans)	9.291	0.822	6.979	10.372

The overdue-loans ratio averages 5.79% but ranges from 1.53% to 14.93%, reflecting the country's macro-financial cycle: the ratio stayed low (2–3%) before 2008, surged after the 2015 oil shock and twin devaluations to a peak of 14.93% in 2017Q3, and then declined gradually to 1.53% by 2024Q4 (Figure 1).

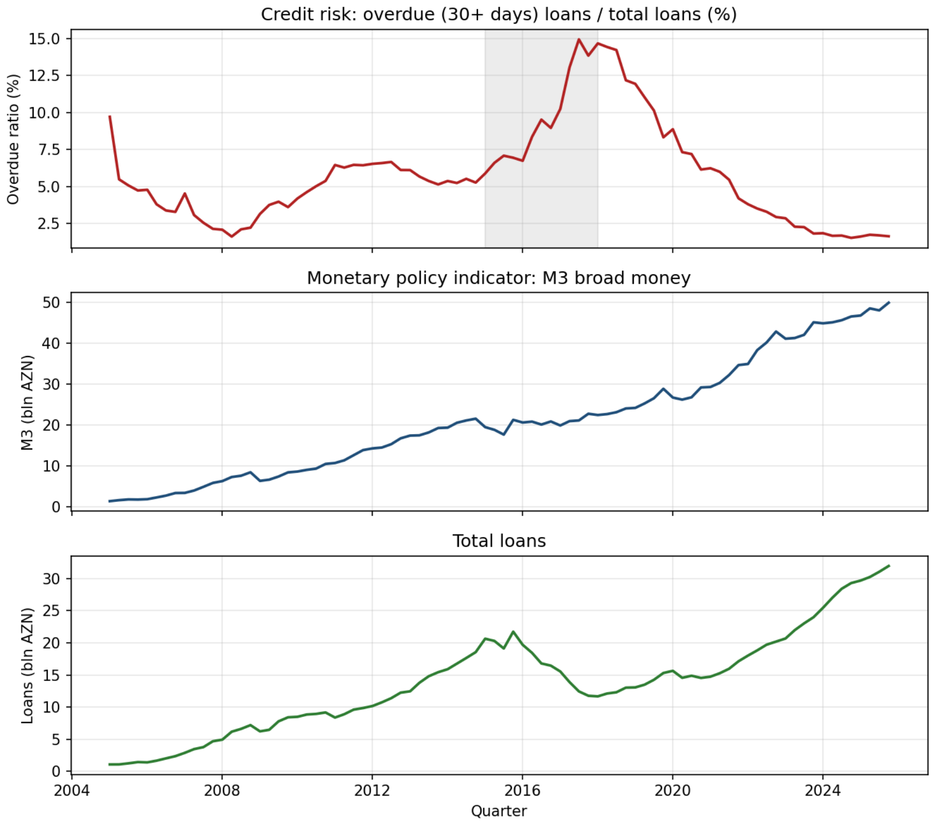

Figure 1. Overdue-loans ratio, M3 and total loans (shaded area: 2015–2017 stress period).

3.2. Methodology

To estimate the long-run (cointegrating) relationship, the study adopts the ARDL bounds-testing approach of Pesaran, Shin and Smith (2001). Three considerations motivate this choice. First, ARDL allows variables to be I(0), I(1), or mixed, requiring only that none be I(2). Second, it is more reliable than Johansen-type VECM in small samples. Third, it estimates long-run and short-run dynamics jointly in a single equation. Given the mixed integration orders found below and the moderate sample size, ARDL is preferred to VECM. Asymmetric effects are examined through the nonlinear ARDL (NARDL) framework of Shin, Yu and Greenwood-Nimmo (2014).

The conditional error-correction (UECM) form linking credit risk to the monetary stance is:

$$\Delta ORL_t = c + \varphi \cdot ORL_{t-1} + \theta \cdot LM3_{t-1} + \Sigma\, \psi_i \cdot \Delta ORL_{t-i} + \Sigma\, \beta_j \cdot \Delta LM3_{t-j} + \varepsilon_t \quad (1)$$

Here φ is the speed of adjustment to long-run equilibrium and θ is the level coefficient; the long-run coefficient is computed as $\beta = -\theta/\varphi$ with standard errors obtained by the delta method. Cointegration is tested through the joint hypothesis H_0: $\varphi = \theta = 0$ using the bounds F-test (Case III, unrestricted intercept): if the computed F-statistic exceeds the upper I(1) bound, cointegration is confirmed. In the NARDL specification, LM3 is decomposed into positive and negative partial sums:

$$LM3^{+}_{t} = \Sigma\, max(\Delta LM3_{s}, 0),\ \ LM3^{-}_{t} = \Sigma\, min(\Delta LM3_{s}, 0) \quad (2)$$

Long-run asymmetry is tested by H_0: $\beta^+ = \beta^-$ and short-run asymmetry by a Wald test on the corresponding difference terms. Lag lengths are selected by the Akaike information criterion (maximum of four lags). Because residuals may exhibit serial correlation and heteroskedasticity, all inference uses HAC (Newey–West) robust standard errors. Model adequacy is assessed through Breusch–Godfrey serial-correlation, ARCH heteroskedasticity, Jarque–Bera normality, and Ramsey RESET tests, and parameter stability through the CUSUM and CUSUM-of-squares tests.

4. EMPIRICAL RESULTS

4.1. Unit-root tests

Table 3 reports the ADF, Phillips–Perron (PP), and KPSS (Kwiatkowski et al., 1992) tests in levels and first differences.

Table 3. Unit-root tests.

Variable	ADF (lvl)	PP (lvl)	KPSS (lvl)	ADF (Δ)	PP (Δ)	KPSS (Δ)
ORL	-2.272	-1.917	0.240	-2.401	-8.781	0.185
LM3	-3.072	-3.843	0.290	-3.667	-8.145	0.844
LLOAN	-4.228	-2.757	0.270	-5.859	-7.059	0.569
LRATIO	-2.143	-2.068	0.148	-3.415	-8.342	0.102

Note: levels with constant and trend; first differences with constant. KPSS 5% critical values: 0.148 (levels), 0.461 (differences).

The integration orders are mixed. The overdue ratio is non-stationary in levels (ADF p=0.45, PP p=0.65) and stationary in first differences, i.e. I(1). LM3 also behaves as I(1), while LLOAN gives mixed signals at the I(0)/I(1) margin. Crucially, no variable is I(2), which validates the ARDL bounds approach. The elevated KPSS value on some differenced series (e.g. ΔLM3) reflects volatility clustering around the 2015 and 2020 episodes; the ADF and PP tests unambiguously confirm the I(1) classification. The Zivot–Andrews (Zivot & Andrews, 1992) test allowing one endogenous break does not reject a unit root in the overdue ratio (statistic -4.090, p=0.30), indicating that its I(1) property is robust to a structural break around 2015–2017.

4.2. Bounds test and cointegration

Table 4 summarizes the bounds-test results for three specifications.

Table 4. ARDL bounds test (Case III).

Model	F-stat.	5% bound I(0)–I(1)	Decision
M1: ORL ~ LM3	4.93	3.80 – 4.81	Cointegration at 5%
M2: ORL ~ $LM3^+$, $LM3^-$ (NARDL)	5.16	3.23 – 4.32	Cointegration at 5%
M3: ORL ~ ln(Loans/M3)	14.06	3.80 – 4.81	Strong cointegration at 1%

In all three specifications the computed F-statistic exceeds the 5% upper bound. The strongest result is for the credit-to-money model (F=14.06, above the 1% bound), indicating a tight long-run link between credit risk and the credit-to-money imbalance. It should be noted that the correlation between LM3 and LLOAN is very high (r=0.968); this severe collinearity makes it impossible to include both in levels, as the long-run coefficients become unstable and uninterpretable (large, mutually offsetting values). The baseline model is therefore kept bivariate (ORL–M3), and the credit channel is introduced through the credit-to-money ratio.

4.3. Long-run coefficients and error correction

Table 5 presents the long-run coefficients and the error-correction (adjustment) parameter.

Table 5. Long-run coefficients (delta method) and speed of adjustment.

Model / parameter	Coefficient	Std. error	t-stat.	Adjustment φ
M1: long-run LM3	-6.092	3.597	-1.694	-0.041
M3: long-run LRATIO	33.546	18.266	1.836	-0.046
M3 + D2015: long-run LRATIO	32.750***	7.888	4.152	-0.069***

*Note: *** denotes 1% significance; HAC standard errors. D2015 is a step dummy equal to 1 from 2015Q1.*

In M1, the long-run coefficient on LM3 is negative (β=-6.092): in the long run, broader money (an easier monetary stance) is associated with lower credit risk. Economically, a 10% rise in M3 lowers the overdue ratio by roughly 0.58 percentage points in the long run. In M3, the credit-to-money coefficient is positive (β=33.5): when credit grows faster than money (the imbalance widens), future credit risk rises.

The error-correction term is negative in all models but small (φ between about −0.04 and −0.07), implying that only 4–7% of any disequilibrium is corrected each quarter. This slow adjustment reflects the high persistence of overdue loans and the fact that problem loans remain on balance sheets for extended periods. When the 2015 devaluation dummy is added, the adjustment speed increases markedly (φ=-0.069, t=-4.606) and the long-run coefficient becomes strongly significant (t=4.152), showing that accounting for the 2015 break sharpens the relationship.

4.4. Asymmetric effects (NARDL)

The NARDL model (M2) tests whether monetary expansion ($LM3^{+}$) and contraction ($LM3^{-}$) affect credit risk symmetrically. The long-run asymmetry Wald test is insignificant (F=0.41, p=0.52): in the long run the effects of positive and negative monetary changes are statistically indistinguishable. However, short-run asymmetry is strongly significant (F=14.43, p<0.01): in the short run credit risk responds differently – more sharply – to monetary contraction than to expansion. This is economically meaningful: the abrupt contraction of broad money in 2015, driven by the oil shock and devaluations, was accompanied by a rapid rise in overdue loans, whereas the subsequent monetary expansion reduced risk more gradually. Asymmetry thus manifests primarily in the short-run adjustment dynamics.

4.5. Diagnostics and parameter stability

Table 6 reports the diagnostic tests for the main models (p-values, except DW).

Table 6. Diagnostic tests.

Model	DW	BG (serial)	ARCH	Jarque–Bera	RESET	R^2 (levels)
M1: ORL ~ LM3	2.15	0.008	0.043	0.000	0.028	0.966
M2: NARDL	2.12	0.048	0.060	0.000	0.559	0.969
M3: ORL ~ Loans/M3	1.94	0.012	0.045	0.000	0.063	0.967

The Durbin–Watson statistic is close to 2 in all models (M1: 2.15), indicating no first-order serial correlation. The Breusch–Godfrey and ARCH tests reveal mild higher-order serial correlation and heteroskedasticity (volatility clustering) associated with the 2015–2017 stress period, which justifies the use of HAC robust standard errors. The Jarque–Bera test rejects normality, again driven by the 2015–2017 outliers. The level-form explanatory power of the models is high ($R^2 \approx 0.97$).

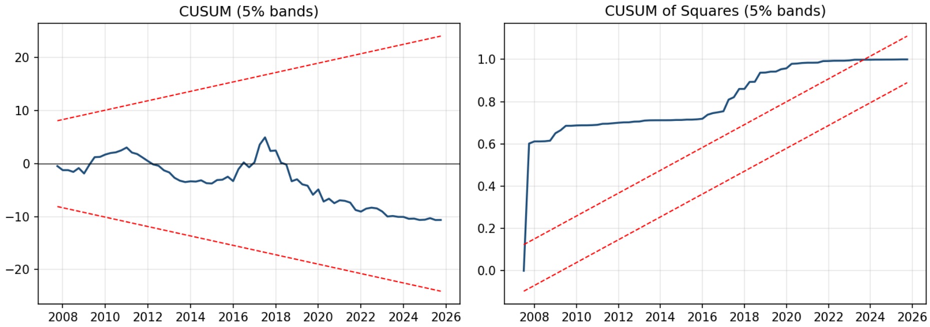

Figure 2. CUSUM and CUSUM-of-squares tests for model M1 (5% confidence bands).

The CUSUM statistic remains within the 5% confidence bands, confirming the stability of the estimated coefficients. The CUSUM-of-squares statistic, however, breaches the bands during 2015–2017, pointing to instability in the residual variance and again confirming the structural break and ARCH effects. Overall, the model parameters are stable, but the volatility regime shifted after the 2015 shock.

5. DISCUSSION

The results confirm a stable long-run relationship between credit risk and the monetary stance in Azerbaijan. The negative long-run coefficient indicates that monetary expansion lowers credit risk over the long run, consistent with the monetary-policy risk-taking channel (Borio and Zhu, 2012; Dell'Ariccia, Laeven and Marquez, 2014): easier monetary conditions raise liquidity, ease borrowers' debt-service burden, and reduce default probabilities. Conversely, monetary contraction – particularly against the backdrop of the 2015 oil-price shock – sharply increases credit risk.

The significant short-run asymmetry reflects Azerbaijan's specific macro-financial context. The 2015 twin devaluations (about 34% in February and a further sharp depreciation in December with the move to a float) and the high level of dollarization abruptly raised the local-currency burden of foreign-currency loans, leading to a rapid rise in overdue loans and the 2017 restructuring of the largest bank – the period that coincides with the historical peak of the overdue ratio near 15%. This abrupt, nonlinear effect of monetary contraction differs from the more gradual effect of expansion.

The strong cointegration of the credit-to-money model (F=14.06) is of macroprudential interest: when credit grows faster than the monetary (liquidity) base, financial imbalances widen and future credit risk increases. This suggests that the credit-to-money ratio can serve as an early-warning indicator. The slow error correction (4–7% per quarter) underscores the persistence of credit risk: shocks remain in the system for a long time, and the effect of monetary policy on loan quality materializes only gradually.

Several limitations should be acknowledged and point to future research. First, the credit-risk measure is the 30+ day overdue ratio, which is broader than the standard 90+ day NPL definition; results should be interpreted with this in mind. Second, the model is deliberately parsimonious; incorporating additional macro determinants – notably the oil price and non-oil GDP growth, which the literature identifies as key drivers in oil-exporting economies – is an important extension that would sharpen the identification of the monetary effect. Third, the potential endogeneity of the monetary aggregate and the single-break treatment of the 2015 regime change (versus formal break-cointegration methods) warrant further analysis. Finally, the non-normality of residuals suggests that explicit modelling of the 2015–2017 outliers, or bootstrap inference, could strengthen the results.

6. CONCLUSION

This paper examined the relationship between credit risk – measured by the overdue-loans ratio (overdue by more than 30 days; CBAR, 2022) – and the monetary policy stance, proxied by M3 broad money, in Azerbaijan over 2005Q1–2025Q4, using the ARDL bounds-testing approach and its nonlinear extension. The unit-root tests reveal a mixed I(0)/I(1) structure with no I(2) variable, validating the bounds approach. A stable long-run relationship is found between credit risk and the monetary aggregate, with monetary expansion lowering credit risk in the long run. The credit-to-money ratio exhibits the strongest cointegration and behaves as a robust predictor of credit risk. While long-run effects are symmetric, short-run effects are significantly asymmetric, capturing the sharp impact of the 2015 monetary contraction and devaluations. The error-correction term is small, reflecting the high persistence of problem loans.

From a policy perspective, the findings imply that preserving monetary stability and monitoring the credit-to-money imbalance are critical for banking-sector health, and that the effects of monetary policy on loan quality are slow to materialize.

Scientific novelty. To the best of the author's knowledge, this is among the first studies to model the relationship between credit risk — measured by the CBAR 30+ day overdue-loans ratio rather than the conventional 90+ day NPL — and the monetary aggregate (M3) for Azerbaijan within a combined ARDL/NARDL bounds-testing framework, jointly identifying long-run cointegration and short-run asymmetry.

Applied significance and economic effect. The results provide the central bank and banking supervisors with an empirically grounded early-warning tool: the credit-to-money ratio signals build-ups of credit risk, while the asymmetric short-run response highlights the heightened vulnerability of loan quality during monetary contractions and devaluation episodes. In economic terms, anticipating and smoothing such contractions can reduce the accumulation of overdue loans, lowering the fiscal and balance-sheet costs of banking-sector distress of the kind observed in 2015–2017.

Future work should augment the model with oil prices and non-oil GDP growth, address the endogeneity of the monetary aggregate, and model the 2015 structural break more formally, ideally complementing the analysis with the author's related work on capital adequacy and financial stability.

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AZƏRBAYCANDA KREDİT RİSKİ VƏ MONETAR SİYASƏT: ARDL SƏRHƏD TESTİ YANAŞMASI

Altay Mahmudov

XÜLASƏ

Bu məqalə Azərbaycanda kredit riski ilə monetar siyasət arasındakı qısa və uzunmüddətli əlaqəni 2005Q1–2025Q4 rüblük məlumatları əsasında araşdırır. Kredit riski göstəricisi kimi Azərbaycan Mərkəzi Bankının tərifinə uyğun olaraq vaxtı keçmiş (30 gündən artıq gecikmiş) kreditlərin cəmi kreditlərə nisbəti, monetar mövqe göstəricisi kimi isə M3 geniş pul kütləsi götürülür; sabit məzənnə rejimi şəraitində M3 faiz dərəcəsindən daha etibarlı göstəricidir. ARDL sərhəd testi və onun qeyri-xətti (NARDL) genişlənməsi tətbiq edilməklə, kredit riski ilə monetar aqreqat arasında sabit uzunmüddətli (kointeqrasiya) əlaqə aşkar olunur. Monetar genişlənmə uzunmüddətdə kredit riskini azaldır; kredit-pul nisbəti isə riskin güclü proqnozlaşdırıcısı kimi çıxış edir. Xəta düzəlişi əmsalı mənfi, lakin kiçikdir — bu, problemli kreditlərin yüksək davamlılığını əks etdirir. Qısamüddətli asimmetriya əhəmiyyətlidir və 2015-ci il monetar daralmasının təsirini əks etdirir. Nəticələr monetar və maliyyə sabitliyi siyasəti üçün makroprudensial əhəmiyyət daşıyır.

Açar sözlər: kredit riski; vaxtı keçmiş kreditlər; monetar siyasət; ARDL sərhəd testi; Azərbaycan

КРЕДИТНЫЙ РИСК И ДЕНЕЖНО-КРЕДИТНАЯ ПОЛИТИКА В АЗЕРБАЙДЖАНЕ: ПОДХОД ARDL

Алтай Махмудов

АННОТАЦИЯ

В статье исследуется долгосрочная и краткосрочная связь между кредитным риском и денежно-кредитной политикой в Азербайджане на квартальных данных за 2005Q1–2025Q4. Кредитный риск измеряется отношением просроченных кредитов (просрочка более 30 календарных дней, по определению ЦБАР) к общим кредитам, а денежно-кредитная позиция — широкой денежной массой (M3), которая в условиях фиксированного валютного режима более информативна, чем процентная ставка. Применение метода граничного тестирования ARDL и его нелинейного расширения (NARDL) выявляет устойчивую долгосрочную (коинтеграционную) связь. Денежная экспансия снижает кредитный риск в долгосрочном периоде; отношение кредитов к деньгам является сильным предиктором риска. Краткосрочная асимметрия значима и отражает резкое влияние денежного сжатия 2015 года. Результаты имеют макропруденциальное значение.

Ключевые слова: кредитный риск; просроченные кредиты; денежно-кредитная политика; граничный тест ARDL; Азербайджан

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