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Nexus Among Financial Stability and Financial Performance

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Abstract
The study finds how Pakistani commercial banks' financial performance is impacted by financial stability, specifically non-performing loans (NPL). It employs economic value-added (EVA) and return on assets (ROA) as performance measurements, taking into account macroeconomic data like gross domestic product (GDP), inflation, and monetary policy rates in addition to internal aspects like bank age and size. NPL and both financial performance metrics are negatively correlated, according to an analysis of panel data from 15 banks between 2020 and 2025. Furthermore, although the monetary policy rate has a negative impact on performance, its effect on EVA is considered negligible. On the other hand, variables like GDP, bank age, and size have a strong positive impact, especially on ROA. The study suggests that banks adopt more stringent financial stability guidelines, update these guidelines frequently to improve loan procedures, and evaluate the depreciated asset values used as collateral on an annual basis in order to improve financial performance. Notably, this study creatively uses EVA to investigate the relationship between financial stability and financial performance—a metric that was frequently disregarded in earlier research.

Keywords: Financial Stability; Financial Performance; **Non-Performing Loans;** Pakistan

Introduction

Banks act as profit-driven mediators among lenders and borrowers in economies (Saeed & Donkoh, 2026; Sang Tang My, 2022). As financial mediator, commercial banks make sure that money is allocated to initiatives that will provide profits (Almaqtari, Al-Homaidi, Tabash, & Farhan, 2019). It is impossible to overstate the crucial role that commercial banks play in economies. This is due to the fact that governments use commercial banks to issue Treasury notes in order to link the general public and carry out monetary policies (Bozic & Bozic, 2025). Additionally, commercial banks provide money to businesses so they can grow. When businesses grow financially, the government's tax revenue rises, all other factors being equal. In

Volume 5 Issue No 2 (2026)
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general, when the financial sector is strong and active, economies and industries function better (Maryem Naili & Younes Lahrichi, 2022; Ogundele & Nzama, 2025). Borrowing and deposit collection are the main functions of commercial banks; this is their primary business and a substantial source of revenue (Kwashie, Baidoo, & Ayesu, 2022). However, in executing these vital tasks as financial intermediaries, commercial banks confront numerous sorts of risks. Since risks are unlikely to completely disappear from banks' daily operations, effective risk management strategies should be created or included into their business plans.

The probability of a borrower failing to meet commitments under agreed terms is referred to as financial stability. According to Ozili and Iorember (2024), this risk is the most costly in commercial banking and significantly impacts the banks' soundness compared to other risks. From 2017 to 2019, Pakistan's banking industry had severe difficulties, which resulted in the cancellation of several financial institutions' licenses. Inadequate corporate governance and a rise in NPL were two major causes of the subpar performance. Hunjra, Mehmood, Nguyen, and Tayachi (2022) attributed high loan default rates in commercial banks' records to a number of factors, including inadequate or nonexistent collateral, poor credit processing, and outside interference in the credit process (Maryem Naili & Younès Lahrichi, 2022). Commercial banks' inability to monitor their financial stability has an impact on their financial performance (Antwi, Kong, & Gyimah, 2024).

Pakistan has experienced a notable increase in loan defaults as commercial banks issued loans that they were unable to recover (Iqbal, Rao, & Akram, 2026; Puri, Fang, Wongchoti, & Hao, 2026). The period of 2024 to 2025 has drawn significant attention regarding these defaults, with trends indicating variability in NPL (NPLs). By December 2024, the NPL ratio in the banking sector fell to a low of 6.3%, down from 7.6% previously recorded. However, by June 2025, this ratio increased to 7.4%, influenced by a contraction in the total loan portfolio, before falling again to 6.6% in September 2025. Overall, the banking sector is moving towards stability. In July 2024, the State Bank of Pakistan (SBP) issued new guidelines for NPL management, and in July 2025, it introduced regulatory recovery planning to further address these issues (Emonena, 2025; Syed, Lee, Waheed, & Saleh, 2025).

In addition to credit facility fees, commercial banks risk losing all or a portion of the loans that are disbursed. The banks' capital and net income will subsequently be impacted by this. Inadequate financial stability has an impact on banks' operational capacity and can result in customer mistrust (Bozic & Bozic, 2025). Given the magnitude of financial stability, it is therefore the responsibility of stakeholders to guarantee the implementation of effective financial stability rules and to keep an eye on them throughout the loan's origination and recovery phases. Furthermore, in order to mitigate the negative effects of financial stability on their financial performance, commercial banks must implement strict risk control procedures (Fareed & Makki, 2025). The current work is essential because empirical research must guide these.

The study enhances understanding of the bank`s financial performance and stability, particularly following the implementation of Pillar-I of Basel-I and Basel-II by the Banks of Pakistan, which addresses credit, market, and operational risks. It

Volume 5 Issue No 2 (2026)
Online ISSN: 3006-2047
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emphasizes the requirement for banks in Pakistan to adopt International Financial Reporting Standards (IFRS) 9 for credit loss provisioning and impairment. The findings are significant for policymakers, bank personnel, executives, board members, and financial investors as they provide guidance to mitigate financial instability and improve the banking sector's performance. Policymakers can use the results to develop frameworks that ensure the banking sector remains robust and vital for economic growth. Furthermore, the study introduces EVA as a key metric of financial performance, which has been overlooked in previous research on financial stability and performance relationships.

The paper is structured as follows: it begins with a literature review, followed by an empirical methodology. Than section is about results and their discussion, and the last section concludes with the study's conclusions and policy implications.

Literature Review

This section reviews the theoretical and empirical literature relevant to the investigation, focusing on loan pricing theory, agency theory, moral hazard and adverse selection theory, and information asymmetry theory, followed by an overview of related empirical studies.

Information asymmetry is the state in which one side to an economic transaction has more information than the other (Dasgupta, 2023). Daisy (2026) supports the notion of asymmetric information with a more grounded premise. According to him, one party frequently knows more about a contract than the other. When it comes to their capacity to repay a loan, borrowers frequently have more information than lenders (Harb, El Khoury, Mansour, & Daou, 2023). In a similar vein, the vendor of a product knows more about its quality than the consumer does. Directors are better informed about a company's real performance than shareholders. Policyholders also have a greater awareness of their exposure than the insurance company (Felle & Santioso, 2024). A bank gains insights into a borrower's qualities primarily by extending more loans rather than relying solely on personal information. Analyzing past data helps banks assess default risk more effectively (Harb et al., 2023). Asymmetric information can lead to the issuance of poor loans early in the lending process and may eventually compromise banks' financial performance and stability (Dasgupta, 2023).

Adverse selection and moral hazard are concepts linked to information asymmetry in risk management and finance, where one party has less information than the other. Moral hazard specifically refers to a change in behavior by one party after a contract is signed, resulting from this unequal information (Emonena, 2025). On the other hand, asymmetric information between the two parties is either nonexistent or only available to one party when there is adverse selection (Basu, 2025). It is challenging for the parties to decide on the appropriate level of risk associated with the possible contract when there is asymmetric information available.

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Volume 5 Issue No 2 (2026)
Online ISSN: 3006-2047
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is signed, resulting from this unequal information (Basu, 2025; Korneev, Dziubliuk, Tymkiv, Antkiv, & Kucherenko, 2023). According to Lutsyk, Solovarov, and Paliukh (2022), Due to information asymmetry, which also causes adverse selection, moral hazard occurs when one party assumes risk knowing that another would be held accountable if the results are unfavorable. According to Antwi et al. (2024), banks are significantly impacted by the theories of moral hazard and adverse selection, which may result in decreased profitability, decreased liquidity, and increased loan prices. Due to moral hazard and adverse selection, borrowers may default on their loans, which can significantly raise financial stability and have an effect on a bank's bottom line (Dasgupta, 2023; Fathi, Mohammadin, & Azarbayjani, 2025).

Loan pricing is influenced by its real cost, profit, and risk premium. Stiglitz and Weiss (1981) suggest that banks often set high lending rates to maximize interest revenue, which must consider moral hazard, adverse selection, and asymmetric knowledge .According to Emonena (2025) borrowers tend to engage in riskier activities post-loan, leading to moral hazard. Loan pricing affects the total number of loans disbursed; inadequate assessment of moral hazard can result in risky loans being underpriced, increasing financial stability risks in defaults (Bozic & Bozic, 2025). High loan rates may attract only risk-averse borrowers, create adverse selection and potentially reduce portfolio diversity, which could harm financial stability (Giraldo, Giraldo, Gomez-Gonzalez, & Uribe, 2024).

The agency theory implies that there are conflicting interests among management of bank and their shareholders (Kaur & Kaur, 2025). However, these conflicts of interest result in agency fees for the bank. When shareholders participate in the financing of ventures, the financial stability among banks and their borrowers increases (Damane & Ho, 2024). Banks stand to gain a great deal if these risky financial endeavors succeed. Though, the banks are merely to blame for the loss of these investments' financial stability, which has later effect financial performance (Antwi et al., 2024).

Rahman, Yousaf, and Tabassum (2020) investigate the relationship between financial stability and bank profitability in Pakistan, identifying a significant positive correlation driven by variables such as the NPL rate, net-charge-off rate, and pre-provision profit in relation to new loans. Their findings also underscore favorable connections between bank size, capital depth, bank expansion, and profitability. Similarly, Basu (2025) report a strong positive link between profitability and financial stability in Pakistan, utilizing ROE and ROA as proxies for financial performance, along with capital adequacy ratios (CAD) and NPL as financial stability indicators. Furthermore, Kwashie et al. (2022) explore the performance of select Nigerian banks, revealing a positive relationship between overall bank performance and the ratio of NPL to loan advances. Financial stability adversely impacts the financial performance of Bangladeshi banks (Robin, Salim, & Bloch, 2018). While CADs, loan loss ratios to gross-loans, NPL ratios to gross-loans, and loan-loss ratios to NPL are used to measure financial stability, net income margin, ROE, and ROA are used to evaluate financial success.

Le (2020) investigates the relationship between bank profitability and financial stability, revealing that NPL positively affect profitability, particularly ROA.

Volume 5 Issue No 2 (2026)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

Furthermore, a positive correlation between bank size and profitability is observed. Islam (2021) examine UK commercial banks and find that profitability indicators (ROE and ROA) are positively correlated with financial stability metrics (impairments and NPL). Conversely, Almaqtari et al. (2019) show that profitability, assessed through net profit margin, ROE, and ROA, is negatively impacted by financial stability indicators such as CAD and loan loss provisions. Additionally, macroeconomic factors like the consumer price index, GDP, and interest rates adversely affect profitability (Basu, 2025).

According to various studies, there is a negative correlation between NPL and both ROE and ROA in banking industries across Sri Lanka, India, and Bangladesh. Bhowmik and Sarker (2024) highlight this negative impact, while Sang Tang My (2022) state that the debt-to-deposit and net-charge-off ratios have little effect on profitability, but there is a positive correlation between ROA and the CAD. Almaqtari et al. (2019) note a significant negative correlation between NPLs and ROE in Indian banks, while Khan, Siddique, and Sarwar (2020) reiterate the detrimental effect of NPLs on ROA. Bhuiya, Miah, and Chowdhury (2023) also reports a significant negative correlation between CAD and NPLs affecting the financial performance of Bangladesh's commercial banks, although a positive correlation exists between the loans-to-deposit ratio and financial performance.

In the literature, bank financial performance has historically been assessed using ROE, ROA, and net-interest margin (NIM). The primary financial stability metrics are the CAD and the NPL ratio. Bank success has been evaluated using a variety of factors, including bank size, managerial effectiveness, and macroeconomic variables like GDP and inflation. Studies conducted in Pakistan, however, are scarce and produce inconsistent findings. This study is noteworthy because it presents EVA, a crucial financial performance metric that has received less attention in other studies.

The study investigates the following hypothesis in light of the theoretical and empirical reviews:

H1: NPL have a negative impact on the commercial banks` financial performance.

Methodology

This part concentrates on the techniques employed to accomplish the study's goal, which is to examine how financial stability affects Pakistani commercial banks' financial performance. In particular, the model specification, variable description, and estimation approach are presented.

Data Collection

The study utilizes secondary data from Pakistan`s fifteen commercial banks, covering the period from 2020 to 2025. The selection of banks and the timeframe for the research were determined based on the availability of data. The chosen of banks` annual financial statements include bank-level information, including ROA, EVA, NPL ratio, CAD, loans and advances ratio, size, and banks` age. The Pakistan banks` database offers information on monetary policy rates, whereas the Pakistan Statistical Service database provides information on inflation and GDP. Furthermore, as

Volume 5 Issue No 2 (2026)
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Print ISSN: 3006-2039

previously mentioned in section 1, Pakistan is the focus of this study due to the difficulties the country's financial industry has faced over the years.

Empirical Model

A panel model for estimation is specified based on Kwashie et al. (2022), considering variability among different banks. The panel estimation technique is suitable due to the panel nature of the data. The following is the specification of the equation:

$FPR_{it} = \beta_0 + \beta_1 NOP_{it} + \beta_2 CAD_{it} + \beta_3 LAR_{it} + \beta_4 BSZ_{it} + \beta_5 BAG_{it} + \beta_6 GDP_{it} + \beta_7 INFL_{it} + \beta_8 MPR_{it} + u_i + \varepsilon_{it}$,

where NOP, CAD, and LAR represent NPL, CAD, and loans and advances ratio, and FPR represents financial performance as measured by ROA and EVA. Additionally, bank size, age (years of operation), GDP, inflation, and monetary policy rate are represented by BSZ, BAG, GDP, INFL, and MPR, respectively. The intercept is denoted by β_0, the error term by ε, and I and t stand for the with bank in year t.

Variables Descriptions:

The study assesses financial performance through EVA and ROA, highlighting their advantages over traditional metrics such as ROE and NIM (Emonena, 2025). Critics argue that ROE and NIM do not adequately reflect management effectiveness in maximizing shareholder value (Shahriar, Mehzabin, Ahmed, Döngül, & Azad, 2023). In contrast, ROA is preferred for its objectivity and ability to reduce the effects of financial leverage, providing a clearer picture of how efficiently a bank generates earnings from its assets over time. According to Zeidan (2025), EVA, introduced by Stern Stewart Corporation, is linked to shareholder capital formation and is found to be nearly 50% more effective than traditional accounting measures. It is calculated as net operating profit after tax (NOPAT) minus the opportunity cost of invested capital, making it a strong indicator of a bank's asset-building performance, as it offers valuable insights for management decisions focused on enhancing shareholder wealth (Emonena, 2025; Ogundele & Nzama, 2025).

NPL are a significant indicator of financial stability in commercial banks, calculated as the percentage of loan defaults relative to total loans (Basu, 2025) . Higher NPLs negatively impact banks' financial performance due to the implication of increased loan defaults (Atisu, Mensah, Alipoe, & Rahman, 2024; Siddique, Khan, & Khan, 2022) . The CAD, which represents a bank's accessible funds against its risk-based liabilities, is monitored to assess financial stability (Basu, 2025). According to SBP regulation, the Basel Committee on Banking Supervision mandates a minimum CAD for Pakistan's central bank requires 10.25 to 11.5% including capital conversion buffers for commercial banks, while microfinance banks must have to maintain 15% CAD. A strong CAD leads to better financial performance and safeguards against bankruptcy (Atisu et al., 2024; Aziz & Ahmad, 2025; Emonena, 2025; Saeed & Donkoh, 2026). The loans and advances ratio compares total-borrowings to total-deposits, reflecting a liquidity pf banks and aptitude to satisfy client needs. A higher ratio indicates better management and a lower risk of insolvency, aligning with the commercial loan theory that associates high liquidity with improved financial

Volume 5 Issue No 2 (2026)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

performance (Almaqtari et al., 2019). Positive correlations with banks' performance have also been noted in research by Kwashie et al. (2022) and Korankye, Bright, and Dunyoh (2022). Overall, NPL, CAD, and liquidity ratios are crucial for assessing the financial health of commercial banks (Chand, 2023; Putra, Manurung, & Machdar, 2024).

Bank size is determined by taking the natural log of a bank's total-assets, which is connected to possible economies of scale or dis economies in the financial industry. larger banks typically do better financially because of these chances for diversification and economies of scale (Ayoub, Hanif, & Iqbal, 2024; Emonena, 2025). The age of a bank, determined by the length of its operation, indicates its experience and is believed to be positively correlated with financial performance. Research suggests older banks have greater stability due to their extensive historical data on borrowers, which can reduce loan failures linked to adverse selection and moral hazard theories (Chand, 2023; Giraldo et al., 2024).

The GDP reflects the entire financial value of products and services generated in a country. It is expected that GDP positively influences banks' financial performance (Shahriar et al., 2023). Mostly, banks thrive during economic growth; an increase in GDP typically boosts demand for loans and deposits, enhancing banks' financial outcomes (Korneev et al., 2023). Another variable is inflation i.e defined as the continual rise in the avg price of products and services, measured by the consumer-price-index (Antwi et al., 2024; Basu, 2025). It suggests a positive correlation between inflation and bank financial success, as increased inflation may lead to higher interest rates. Consequently, banks are likely to provide more loan facilities at elevated interest rates, anticipating improved financial performance (Basu, 2025; Shahriar et al., 2023). The monetary policy rate is the rate at which the central bank lends to commercial banks, influencing interest rates offered by these banks (Kaur & Kaur, 2025). A high monetary policy rate negatively affects financial performance due to increased loan losses and decreased loan demand. However, high lending rates may enhance financial stability by attracting risk-averse borrowers, leading to adverse selection (Felle & Santioso, 2024).

Estimation Approach

The study uses the Hausman specification test to select between the fixed-effect and random-effect for estimating Equation (1). In the Hausman test, the alternative hypothesis proposes that the fixed-effect is suitable, while the null-hypothesis asserts that the random-effect is suitable. Thus, if the test statistic is significant at the (5%), suggesting that a fixed-effect estimator is suitable, the null-hypothesis is rejected. However, the null-hypothesis is not rejected if the test statistic is insignificant, demonstrating the appropriateness of the random-effect estimator.

It is vital to assume that econometric problems like autocorrelation and heteroscedasticity are absent for accurate estimation results. This need stems from the recognition that most financial and economic statistics are volatile and likely to change over time. When the variation in the error term is not constant across time, panel datasets exhibit heteroscedasticity. However, when the correlation among the

Volume 5 Issue No 2 (2026)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

error-terms in several years is not 0, auto correlation is present. The Breusch-Pagan and Breusch-Godfrey tests are used to determine whether auto correlation and heteroscedasticity are present in order to address these problems. These tests compare the alternative hypothesis, which indicates the existence of autocorrelation and heteroscedasticity, against the null hypothesis, which asserts their absence. At the 5% level, if the test statistics are significant (or insignificant), the null-hypothesis is then rejected (selected).

Results and Discussion

The empirical results, findings and their discussions are presented in this section, which is further broken down into four subsections. The descriptive analysis is in the first section, The Hausman specification test and regression findings are shown in the second and third sections, respectively. The findings of the diagnostic tests are given in the last section.

Descriptive Analysis

Table 1 presents an overview of the descriptive statistics of the variables employed in the research. Additionally, the correlation analysis between the independent factors and the two dependent variables (EVA and ROA) is investigated in order to make sure that the results are not impacted by multi Collinearity issues. The findings are presented in Table 2.

Table 1: Descriptive Statistics

Variable	Mean	Median	Max	Min	St. Dev
ROA	0.047145	0.051345	0.1155	-0.03864	0.03087
EVA	5.991825	11.95131	19.93415	-17.9321	12.69681
NOP	0.17955	0.147	0.756	0.0231	0.12999
LAR	0.59094	0.576345	1.28898	0.197505	0.237615
CAD	0.24339	0.22071	1.99857	0.08673	0.203385
BSZ	18.39863	16.36929	23.56316	14.49714	3.21216
BAG	3.516135	3.337005	5.061315	2.517795	0.79758
GDP	0.052815	0.050925	0.08505	0.0231	0.02415
INFL	0.147105	0.14679	0.18333	0.1029	0.305235
MPR	0.216825	0.216825	0.273	0.168	0.03801

Note: Estimated by Authors

Table 2: Correlation

EVA									
Variables	-1	-2	-3	-4	-5	-6	-7	-8	-9
(1)	1								

Volume 5 Issue No 2 (2026)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

EVA									
(2) NOP	-0.20293	1							
(3) LAR	0.11569	-0.27026	1						
(4) CAD	-0.10526	-0.07776	-0.28259	1					
(5) BSZ	0.22	-0.03414	-0.23897	0.180172	1				
(6) BAG	0.185862	0.165	0.13181	-0.05216	-0.36888	1			
(7) GDP	-0.01897	0.046466	-0.21621	0.149828	0.058793	0.017069	1		
(8) INFL	0.014224	-0.01138	0.183966	-0.24181	-0.055	0.004741	-0.42293	1	
(9) MPR	-0.07397	0.177328	-0.09862	-0.12043	0.00569	0.066379	-0.45422	0.359397	1

				ROA					
Variables	-1	-2	-3	-4	-5	-6	-7	-8	-9
(1) ROA	1								
(2) NOP	-0.1944	1							
(3) LAR	0.017069	-0.27026	1						
(4) CAD	0.004741	-0.07776	-0.28259	1					
(5) BSZ	0.066379	-0.03414	-0.23897	0.180172	1				
(6)	0.1820	0.165	0.1318	-	-	1			

Volume 5 Issue No 2 (2026)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

BAG	69		1	0.05216	0.36888				
(7) GDP	0.092931	0.046466	-0.21621	0.149828	0.058793	0.125	1		
(8) INFL	-0.08914	-0.01138	0.183966	-0.24181	-0.055	0.001	-0.42293	1	
(9) MPR	-0.19534	0.177328	-0.09862	-0.12043	0.00569	0.042	-0.45422	0.359397	1

Note: Estimated by Authors

Table 1 shows that, in comparison to ROA, the EVA measure has greater mean, median, maximum, and standard deviation values, suggesting a greater variability and overall higher performance of the EVA over ROA. This is a great step forward for shareholders and investors alike. This indicates that Pakistani banks generate real value for shareholders and investors. This naturally impacts the market value of their shares and results in higher dividend payments. The CAD, NPL ratio, and loans and advances ratio have mean values of 0.24, 0.171 and 0.591, respectively, and maximum (minimum) values of 1.998 (0.086), 0.756(0.023) and 1.289 (0.197) . Additionally, Table 2 shows that there is no existance of multi collinearity. The reason for this is that every correlation coefficient is below 0.5. Additionally, these values fall below the 0.8 threshold, which denotes a serious multi col linearity issue.

Test of Hausman Specifications

To assess the suitability of fixed effect versus random effect estimators, the Hausman specification test was conducted. The results in Tables 3 about (ROA Model) and (EVA Model) indicate statistically insignificant chi-square statistics with probability values of 0.887 and 0.816, respectively. Consequently, the null hypothesis is not rejected, suggesting that the random effect estimator is appropriate for this investigation.

Table 3.Hausman Specification Test Results

Test Summary	ROA Model			EVA Model		
	Chi-sq Stats	Chi-sq d.f	Prob	Chi-sq Stats	Chi-sq d.f	Prob
Cross-section	1.8273	7	0.887	1.0345	7	0.8168

Note: Estimated by Authors

Volume 5 Issue No 2 (2026)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

Table 4.Regression Results

Variable	ROA Model			EVA Model		
	Coefficient	Std. Error	Prob.	Coefficient	Std. Error	Prob.
Constant	-0.04843	0.055657	0.380686	-9.1942	0.213616	0.065461
NOP	-0.02813	0.024758	0.155186	-17.3096	0.828616	0.036345
LAR	0.011983	0.016242	0.457041	3.4747	0.555481	0.526464
CAD	0.002476	0.013667	0.843867	-11.4617	0.44892	0.010597
BSZ	0.001585	0.001684	0.232432	0.430401	0.619357	0.048229
BAG	0.010101	0.008715	0.024164	3.952737	0.389104	0.306708
GDP	0.453278	0.204307	0.026244	15.36054	0.31879	0.8098
INFL	0.521809	0.262242	0.046249	22.37461	0.695911	0.789002
MPR	-0.32721	0.136171	0.016143	-29.6589	0.795341	0.508242
R-Sq	0.748399			0.677094		
Adj. R-Sq	0.701457			0.611039		
Chi-Sq	22.06404		0.004357	23.11073		0.002872

Note: Estimated by Authors

Results from Table 4 describe the ROA and EVA models, highlight the random effect assessment regarding the influence of NPL on the financial performance of commercial banks, confirmed by the Hausman test. The findings indicate that NPL negatively affect both EVA and ROA (Sang Tang My, 2022); however, this impact is statistically significant only for ROA, aligning with prior expectations. Specifically, a 1% increase in NPL results in a 0.03% decrease in ROA and a 17.48% increase in EVA. The adverse effects are primarily attributed to high interest rates imposed by banks on loans, which discourage customer repayments and compel banks to bolster their provisions for bad loans, ultimately detrimentally impacting their financial performance and profit margins (Felle & Santioso, 2024; Sang Tang My, 2022).

Additionally, the research indicates a positive but minimal correlation between the loans and advances ratio and financial performance metrics such as EVA and ROA. Notably, the ROA and EVA are shown to increase by 0.01% and decrease by 3.51%, respectively, with each 1% change in the loans and advances ratio. While these effects are slight, they suggest that a higher loans and advances ratio reflects a bank's ability to maintain sufficient liquidity, enabling the swift conversion of assets into cash (Antwi et al., 2024). This liquidity reduces the likelihood of bankruptcy and consequently helps maintain positive financial performance (Almaqtari et al., 2019; Fareed & Makki, 2025).

The CAD exhibits a strong negative correlation with EVA and a positive yet negligible link with ROA. Specifically, a 1% rise in the CAD correlates with a 0.003% increase in ROA and an 11.57% decrease in EVA. Although the positive association between the CAD and ROA lacks statistical significance, it aligns with existing

Volume 5 Issue No 2 (2026)
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literature suggesting that banks with higher CADs tend to demonstrate better financial performance (Fareed & Makki, 2025; Putra et al., 2024). The unexpected significant inverse relationship between EVA and the CAD may stem from commercial banks' dependence on equity capital as a funding source (Ayoub et al., 2024; Giraldo et al., 2024).

Regarding the control variables, the results of the ROA and EVA computations are consistent. The study found a favorable correlation between bank size, age, GDP, and inflation and the financial performance indicators of ROA and EVA. EVA and ROA are negatively impacted by monetary policy rates. These findings also corroborate the a priori expectation.

The study reveals that in Pakistani commercial banks, a 1% increase in bank size correlates with a 0.002% rise in ROA and a 0.43% increase in EVA, though the impact on ROA is considered negligible. Larger banks demonstrate enhanced financial performance due to better resource availability, which enables them to make informed lending decisions, ultimately contributing to improved financial stability (Kwashie et al., 2022). Additionally, a1% variation in bank age affects ROA and EVA by improving and decreasing them by 0.01% and 3.99%, respectively, although the change in EVA is minimal. The results suggest that older banks leverage their experience to better manage financial stability, thereby enhancing their performance (Robin et al., 2018).

Additionally, a 1% growth in GDP correlates with a 0.46% increase in ROA and a 15.51% increase in EVA for Pakistani banks, indicating that these banks perform poorly in recessions and better during economic expansions. Higher GDP generally correlates with increased customer demand for loans and deposits, positively impacting banks' financial performance (Zeidan, 2025). Furthermore, a 1% increase in inflation leads to a 0.53% rise in ROA and a 22.59% rise in EVA, as increasing inflation typically raises interest rates. This situation allows banks to expect improved financial performance as they offer more loan facilities at higher rates. The analysis further reveals that a 1% increase in the monetary policy rate results in a 0.33% decrease in ROA and a 29.95% increase in EVA. An elevated monetary policy rate may boost interest rates charged by commercial banks, potentially leading to increased loan defaults and reduced loan demand, adversely affecting banks' financial outcomes (Ayoub et al., 2024).

Diagnostic Tests:

Diagnostic tests were conducted, with results summarized in Table 5. The Breusch–Godfrey test indicates that both the ROA and EVA models do not exhibit autocorrelation, while the Breusch–Pagan test shows no evidence of heteroscedasticity. This is because the null hypotheses for both tests, which posit no serial correlation or heteroscedasticity issues, are not rejected due to insignificant test statistics at the 5% level (Sang Tang My, 2022).

Volume 5 Issue No 2 (2026)
Online ISSN: 3006-2047
Print ISSN: 3006-2039

Table 5. Diagnostic test

	Breusch-Godfrey test for serial correlation			Breusch-Pagan test for heteroscedasticity		
Model	Chi-square	Df	*p*-value	BP	df	*p*-value
ROA	5.261494	6	0.480584	17.70584	8	0.194123
EVA	9.843506	6	0.117175	19.08994	8	0.116494

Note: Estimated by Authors

Conclusions and Policy Recommendations

This study examines how financial stability affects commercial banks' financial performance, with a particular emphasis on NPL. It evaluates financial performance using panel data from 15 Pakistani banks between 2020 and 2025 using ROA and EVA. The monetary policy rate, GDP, inflation, bank size, and age are control variables. After the Hausman specification test, a random effect estimator is used (Emonena, 2025).

Research indicates that NPL adversely affect the financial performance of commercial banks, while the CAD has a variable impact on the ROA metric. Although minimal, the loans to advances ratio enhances financial performance metrics. Control variables such as monetary policy rates negatively impact performance, whereas bank size, age, GDP, and inflation have positive effects. The study confirms the reliability of its findings through diagnostic tests, emphasizing that NPL are significant drivers of commercial banks' financial performance (Islam, 2021).

The study highlights crucial policy implications for Pakistan's financial sector, particularly for commercial banks. It recommends that banks adopt rigorous and frequently updated financial stability policies that include clear guidelines for monitoring stability, given the adverse effects of NPL on financial performance (Basu, 2025). Furthermore, the value of collateral assets should be reassessed annually to reflect their depreciation. Banks must ensure that all collateral documentation is accurately collected and verified before loan disbursement. Additionally, it is essential for top management in commercial banks to provide training in risk management for staff involved in loan processes. Implementing these strategies is expected to enhance financial performance and reduce NPL significantly.

Given the positive correlation between bank size and financial performance, commercial bank management should develop innovative products to generate fees and improve their financial results. Managers are encouraged to expand operations by opening new branches and investing in advanced technologies. Additionally, rebuilding trust with the Pakistani public is crucial for attracting new clients, which will subsequently increase deposits and enhance overall financial performance.

Volume 5 Issue No 2 (2026)
Online ISSN: 3006-2047
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