

Portfolio Financialization and Bank Performance: Panel Evidence from Listed Banks in Palestine (PEX).

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Abstract: The study examines whether the financialization of banks' portfolios affects the financial performance and risk profile of listed banks in Palestine. Financialization is operationalized as the ratio of investment portfolio to total assets, representing the extent to which banks allocate balance sheet resources to other markets-based assets and securities rather than traditional lending, which is their historical classic core business model. Using a balanced panel of six banks listed on the Palestine Exchange (PEX) from 2016 to 2024 (54 banks-years observations) and audited annual financial statements, the study estimates heteroscedasticity-robust pooled OLS models for three outcomes: return on assets (ROA), Tobin's Q, and three-year rolling ROA volatility. The results show that financialization is positive, but not significantly so, with ROA, suggesting that the allocation of the portfolio does not provide robust evidence of higher accounting profitability. By contrast, financialization is negatively associated with Tobin's Q, which indicates that the investors in the equity market could penalize banks which are heavily exposed to securities in the context of Palestinian's frontier market. Furthermore and most significantly, financialization is positively associated with volatility of earnings which suggest that investment earnings could intensify responses of firms' cash flows to market shocks and to macroeconomic variables. Overall, our finding of profitability-stability trade-off adds value to the literature of financialization and to that on financial development in restricted conflict affected financial sector. Our results shed lights for Palestinian Monetary Authority, Boards of Directors, Banks, and Investors concerning to concentrated portfolios, to disclose risks at capital markets, and stress tests.

Keywords: financialization, bank performance, Palestine, listed banks, Tobin's Q, earnings, volatility, panel data

1. Introduction

As the banks become financially motivated entities, then the entire banks get the feature of financial institution in nature. In fact, some might even become one itself! These sort of institutions make financialization, the banking-oriented one.

Broadly, financialization is the rise in the importance of financial motives, financial markets, financial institutions and market-based assets in the operation of an economy or as a decision-making process in corporations or states.

Financialization refers to the process of incorporating financial markets into other areas of the economic system; it is one of the most significant of a series of structural transformation that affect the world economies (Epstein, 2005; Krippner, 2005; Sawyer, 2013; Epstein, 2021). Banking Financialization means moving from what traditionally had been termed financial intermediation toward relying more on the development of securities, investment portfolios,



trading operations and financial assets that are sensible in the markets. While historically banks provide lending by providing loans to borrowers by first mobilizing the deposits of savers (Diamond, 1984), new evidence suggests that banks in the developed economies allocated increasing portion of their total assets to financial market instrument rather than on loan(s) (Beck, 2022; Petry, 2022). As result, investment portfolio growth suggests significant process of bank's Financialization.

Due to such financialization process there is a considerable amount of academic debates that exist among researchers whether bank's expansion into financial market improve the performance.

On one side, portfolio Financialization might improve the bank's performance, because expanding beyond traditional lending activities can help banks to diversify the sources of income thereby making them less susceptible to specific lending sector business cycles and lending activities per se. For example, DeYoung & Roland (2001), Demirg-Kunt & Huizinga (2010) and Nguyen (2019), suggests that additional sources of income that are not perfectly correlated to interest income can help banks to be profitable. Similarly, Markowitz's (1952) modern portfolio theory supports an idea that diversification of asset classes within banks can help increase risk/return profile.

Therefore, in this context, banks might invest more on financial instruments as portfolio management techniques, to hold more liquidity, which is beneficial in a period of credit tightening. However, expanding into investment portfolios in the banks is not automatically beneficial to them; and several research points the other way. For instance, empirical studies demonstrate that increased engagement in the non-traditional Banking activities may increase volatility of earnings without contributing for improvement of risk-adjusted performance (DeYoung & Roland, 2001; Stiroh, 2004).

The evidence also showed that the impact of diversification of sources of income on banks' profitability and performance depend on factors such as business strategy of a bank, market structure, country's institution quality, and circumstances of financial crisis (Demirg-Kunt & Huizinga, 2010; Nguyen, 2019; Li et al., 2021).

As result, portfolio Financialization might results in higher income, but it could expose banks to several financial risks (e.g., fair value fluctuations risk, interest-rate risk, liquidity risk and evaluation uncertainty), and market volatility, particularly during stressed market conditions. Up until now, few empirical studies examine financialization of banks in the frontier and politically unstable financial markets. Palestinian banks represent unique financial markets that operates under political constrains like less Monetary sovereignty, no National currency, control loss over Interest rate policy, recurring political shock and relative less financial market deepness, compared to mature developed countries. All these, could stimulate listed Banks in Palestine to allocate more resources in investment portfolios as a strategy to cope with uncertainties and to be ready with liquid asset during times of instability or constrained lending activity.

Nonetheless, similar Palestinian conditions can limit Financialization benefits that banks gain through increasing their portfolio investment.

Therefore, this research aims to answer whether increased investment portfolio size increases the profitability and performance or has adverse effect on Palestinian listed banks. The study provides four main contributions to existing literature. Firstly, this paper explores and analyzes an understudied region – Palestinian financial system, which belongs to frontier, politically affected region – in the Financialization of Banking literature.

Secondly, we focus on how the peculiar Palestinian environment influences Banking Financialization that is shaped through defensive balance-sheet strategies driven by institutional constraints rather than by purely shareholders' value motivation. Third, the study analyses the impact of portfolio Financialization on bank's performance through assessing three proxies of bank performance: accounting profitability, stock performance, and earnings volatility. Fourth, this research makes some practical implications and policy recommendations to Palestinian Bank Boards, Investors, and the Palestine Monetary Authority with regard to portfolio concentration, market risk disclosure requirements, stress-testing and other bank related regulations.

1.1 Problem Statement

This study's main concern is to test the impact of financialization on the financial performance of listed banks in Palestine and its channel through which the financialization impacts on its financial performance, defining financialization as: "The ratio of banks' investment assets to banks' total assets. Financialization is the increased share of financial intermediaries in a variety of fields of activity and their increasing significance not only in money market but also in real sector and its impacting in terms of its effects on banks' profitability and stock market values and banks' risk exposure particularly in macro financial uncertainty". Therefore, the aim of this study is to address an important lacuna: The study provides limited systematic panel evidence on the relationship between financialization and multiple performance outcomes over time.

1.2 Research Question

The main question of this study is: What is the impact of financialization of the portfolios of listed banks in Palestine on their financial performance? The ratio of the bank's investment portfolio to its total assets (FIN_RATIO) is used to operate financialization. The effects of financialization are analyzed in relation to three accounting and market-based performance indicators—ROA, Tobin's Q, and earnings volatility. The study also examines the impact of bank size (log of total assets) on performance dispersion and examines whether deterioration in performance measures and credit quality (e.g., rise in NPL ratio) is due to the geopolitical shock of October 2023.

1.3 Research Objectives

This study aims to investigate the relationship between financialization and three accounting and market-based financial performance indicators (ROA, Tobin's Q), as well as to examine the effect of the geopolitical shock in October 2023 on the financialized balance sheets of Palestinian banks. The study aims to assess this effect on the list of banks (N = 54 observations of bank-years) from 2016 to 2024.

2. Theoretical framework

Financialization refers to the growing influence of financial motives, financial markets, and financial institutions on economic activities and decision-making processes (Epstein, 2021). (Epstein, 2021). Within the banking sector, financialization reflects the increasing reliance of commercial banks on investment portfolios, securities holdings, and other market-based financial activities rather than on traditional lending. Krippner (2024) asserts that banks are turning to activities on the financial markets rather than productive financial intermediation to earn profits and McArthur (2024) reports that banking enterprises actively adopt financialization to boost the portfolio diversification and to boost their financial returns. Based on this description, financialization is proxied by the ratio of investment portfolio over the total assets (FIN_RATIO). To measure financial performance, I examine accounting profitability (Return on Assets), market valuation (Tobin's Q), and earning stability (earning volatility).

ROA measures the efficiency with which banks utilize their assets to generate profits, whereas Tobin's Q reflects investors' valuation of the bank relative to its book value (de Oliveira & Basso, 2023). Earnings volatility captures the stability of bank profitability over time (Phua et al., 2021).

2.1 Financialization theory and transformation of the bank's balance sheets

Financialization theory provides the broad macro -institutional foundation for this study.

In its original political -economy formulation, financialization refers to the increasing importance

Of financial markets, financial institutions, financial motives, and financial elites in the operation of economies and corporations (Epstein, 2005; Krippner, 2005). In the banking sector, this process is reflected not only in revenue diversification, but also in a structural shift in the assets side of the balance sheet: banks gradually allocate a larger proportion of resources to securities,

Incensement portfolios and marketable financial assets instead of conventional relationships- based lending. Thus, in this paper, we used the ratio investment portfolio / total assets as an approximation to an observable balance sheet manifestation of this transformation. Based on this theoretic framework, Palestinian listed banks are attempting to respond to their limited institution environment not just to maximize their short-term returns. Limited mon. Sovereignty, pol uncertainty, frequent fiscal shocks, and shallow capital Markets make traditional Financial Instruments Less Attractive and Therefore less predictable (A Defensive posture).

However, Financialization theory also cautioned against the over-assertion of financial motives at the expense of traditional role banks: that of channeling funds between agents.

This argument is especially valid in Palestinian case whereby banks were expected to play a crucial role for private sector growth while at the same time maintain liquidity and Capital Adequacy in such high-risk context.

2.2 Financial intermediation and delegated monitoring theory

Financial intermediation theory provides a rich rationale for existence of banking firms and for why allocation of assets affects real economy. According to Diamond (1984) banks work as delegated monitors: “by reducing information asymmetry between the savers and borrowers, they screen, monitor and exert enforcement. Thus, banks provide valuable loan monitoring and loan screening that direct credit to worthy projects.

The fundamental business to banks value is, therefore, not related to an amount of financial asset that is kept and managed rather than the information that is generated and monitoring that is provided to allocate credits in efficient way (Diamond, 1984).

For example, if a bank allocates an amount of its assets to its portfolio more, then its main function will be to management of portfolio that implies reduction in credit delegation monitoring business. This creates a contradiction in relation to the given problem study. On one hand, financial investment reduces some financial risk and liquidity of management system that is very useful. On the other hand, portfolio management implies decreasing the profit that depends on private financial advantage of bank.

This theory is also effective on frontier market, example, Palestine, where the relationship between borrowers and their lender is very significant, where financialization might also be negative result in economic development, and is very useful to confirm the indirect link between financialization and ROA that we already found because loan management and monitoring also contribute to increase bank revenue more than financial investment does.

2.3 Modern Portfolio Theory and the Risk-Return Trade-Off

Diversification itself is at the center of modern Portfolio theory (MPT). 24 Using Portfolio theory Markowitz (1952) suggests that the risk of a portfolio is derived not from that of individual instruments but also from the interrelationships or covariances between them. A bank logically builds better risk-return characteristics for its portfolio on the basis of the loan and securities composition and the interrelationship in the yield between loans and securities or loans and investment accounts or other types of risk which may on their balance sheet, especially in turbulent economies, be a liquidity provider, and income generator where lending cannot grow efficiently. 25 The MPT would not recommend a general increase in the size of the investment assets; it is efficient, rather than automatic, addition that drives the gains from financialization, and where there are highly volatile returns on those investments, a volatile currency or interest rate environment, or no appropriate market-risk management there is a greater likelihood the opposite would occur. This point supports the logic of H3 (hypothesis 3): a higher FIN-RATIO may raise earnings volatility because returns from securities portfolios are more sensitive to market shocks than traditional interest income. Thus, MPT supports a non -linear interpretation: moderate diversification may be beneficial, while excessive financialization may undermine earnings stability.

2.4 Income diversification hypothesis

The income diversification hypothesis is widely used in banking research to explain why banks expand into non-lending activities. (DeYoung & Roland, 2001; Widyatini & Sasmita, 2021) It is a financial and economic theory that suggests diversifying the funding sources and revenue streams. It is used at three levels: individuals, companies, and even countries, and is used mainly to reduce risk and continue the flow of cash in different scenarios. It is the relationship between the amount of risk an organization is willing to take and the returns that it can achieve based on the risk-return trade-off theory (RRTT) (Chappe, 2025). The basic principle is that risk and reward are directly correlated. According to this view, banks can reduce dependence on interest income by generating revenues from fees, securities, trading, and other non-interest income. If the additional income streams are weakly correlated with lending income, diversification should increase profitability and reduce risk. This theoretical expectation provides the foundation for H1, which predicts a positive association between financialization and ROA.

2.5 Agency theory and managerial risk-taking

Agency theory offers a governance reason why the tendency for portfolio financialization to rise with portfolio risk is observed in the banks even where such a strategy does not seem to maximize shareholder value. From the agency theory of Jensen and Meckling (1976), the costs due to agency arise when managers are controlling owners' resources and tend to act in their own self-interest, which could be managerial utility-maximization. In banks, managers might prefer to expand the portfolio of investment assets, since they offer to managers several benefits: including short-term improvements in income statement, greater flexibility of financial structure, and signal sophistication to both regulators and market, which would result in potential loss of value to shareholders if appropriate risk governance has not been put in place.

For Palestinian banks, agency theory is particularly relevant because equity markets are relatively illiquid and may not provide strong external discipline. Where market discipline is weak, managers may have greater discretion in determining portfolio composition. The negative or insignificant response of Tobin's Q to financialization as clear value creation. Instead, the market may discount financialization when it perceives that portfolio income is less sustainable than core banking income or that the associated risk is not transparent.

2.6 The market valuation theory (MVT)

(Szczepankowski, 2017; Leonardo et al., 2022), or as it is called, the market approach, which is a method of determining the value of an asset by considering similar assets that have been sold recently.

Moreover, Çalışkan (2025) states that the financialization ratio of the financial institutions that are involved in investment can be considered as a proxy for the degree of structural transformation of traditional financial banking systems towards market financial banking systems. Zhao et al. (2025) discovered that corporate financialization hurts internal governance, reduces debt usage, and raises the amount of risk taking, particularly at high levels of external monitoring.

3. Literature review

Early empirical evidence questions the automatic profitability benefits of nontraditional banking activities. DeYoung and Roland (2001) show that shifts toward fee-based and nontraditional activities may increase earnings volatility because such activities often involve higher operating leverage and less stable revenue structures (2004), the U.S. Bank use of noninterest income do not necessarily improve the risk-adjusted earnings. Demirg-Kunt and Huizinga (2010), in the European context, show that banking activities and funding strategy affect profit and risk so that diversification will enhance profitability under some conditions and lead to additional risks under others (DeYoung & Roland, 2001; Stiroh, 2004; Demirg-Kunt & Huizinga, 2010). Other studies provide further but mixed evidence.

Nguyen (2019) found that revenue diversification in Vietnam is associated with risk and performance.

But the magnitude and the direction of relationship will depend on the income sources characteristics. Li et al. (2021) suggest that revenue diversification affected during the crisis context of COVID-19. They found that the outcomes of diversification will be affected by condition of crisis and resilience of bank. In emerging countries, Alouane (2026) reported a double-edge effect of bank revenue diversification: bank diversification may support bank performance but may undermine bank stability.

In a Palestinian environment, the profitability effect is likely influenced by constraints of the economy, characterized by limited monetary sovereignty, public finance deficit, political unrest, and thin capital market.

Hence investment portfolios may appear attractive because of constrained lending, but simultaneously the local market can hinder profits from financial assets. Thus, existing studies lead us to suspect that there is a potentially positive effect on ROA, but we test a weaker, or even null relationship (Abadi & Abu Rub, 2012; Nguyen, 2019; Li et al., 2021). The diversification and market valuation literature leads us to question this presumption.

Studies from Laeven and Levine (2007) indicate that financial conglomeration may create a discount since increased complexity and agency problems have negative effects on the valuation of the conglomerate. Berger et al. (2010) noted that diversification effect is dependent on its quality and dimension, which will create better performance or not. Elyasiani and Wang (2012) find an interdependence between diversification, the efficiency and the performance of bank holding companies.

Valuation based-data such as Tobin'sQ and firm level market valuations reveal investor's sensitivity to profit, risk, transparency, firm governance and forecast stability of profit.

According to Szczepankowski (2017) financialization can affect the market value because financial investment and profit have become strategic for firms. Similarly, Zhang and Malikov (2022) show that non-traditional banking activities can give rise to economy of scope, but such processes are related with institution context. In a more recent context of bank performance, evaluation factors are linked to risk and governance characteristics (Szczepankowski, 2017; Zhang & Malikov, 2022; Azzabi & Lahrichi, 2023). As for Palestinian listed banks, financialization effects would be probably impacted by fragile environment.

On the one side, banks may leverage investment and financial activities during lull in commercial loan originations as an efficient liquid management strategy and it may be perceived positively by investors.

On the other hand, they may suffer loss of value from additional risk-taking behavior, poor loan quality that push financial assets to alternative source of profit, and information asymmetry about the risk of financial assets. So, as previously studies, the present one support the empirical examination for H2 instead of a straightforward positive association (Laeven & Levine, 2007; Elyasiani & Wang, 2012; Zhang & Malikov, 2022). With regards to financialization risk effects, the literature finds that the increase of non-interest income increases volatility (DeYoung & Roland, 2001; Stiroh & Rumble, 2006).

Also, to the diversification at financial institutions it could increase systemic risk, while it could reduce idiosyncratic risk (Wagner, 2010). Recent studies offer conflicting results regarding the relationship between financialization risk and institution's features. In Vietnam, Le (2022) find that income diversification will decrease the risk of failure, especially on certain days during COVID-19 period.

In MENA countries, Bogari (2024) show the double effects of bank income diversification and the threshold effects to have efficiency.

Balaylar (2025) showed a positive impact on profitability but a negative impact on risk for Turkish Banks when non-interest income increases but depending on the nature and the period studied. As for Palestine, financialization risk would be further enhanced by country political situation, institutional weakness, fiscal pressures, exchange rate volatility, as well as market illiquidity. Portfolio financialization could support income in periods of weak lending but could create a higher risk of capital loss from change in price value, market volatility and interest rate movements. Thus, as demonstrated in the prior studies, higher financialization can enhance the volatility in ROA in Palestinian

listed Banks particularly since financial activities may be used to compensate falling retail bank business, and the inherent fragility of the Palestine economy (Stiroh & Rumble, 2006; Li et al., 2021; Bogari, 2024).

3.1 Hypotheses development

Drawing from literature review and prior research, we formulated the following hypotheses: Both theoretical and empirical literature suggests that a bank's portfolio financialization neither benefits it entirely nor disadvantages it totally. From the viewpoint of income diversification, an investment portfolio may act as one avenue for bank income diversification, particularly when lending opportunities dry out. Nevertheless, the perspective of financial-intermediation, with excessive moves toward securities investment, may hinder banking's traditional value creation through the function of credit monitoring. Thus, based on Diamond (1984); Stiroh (2004); Li et al. (2021), the first hypotheses suggest positive relationship between portfolio financialization and profitability measures on accounting performance, acknowledging the extent to which relationship depends on the environment.

H1: Portfolio financialization is positively associated with bank profitability, measured by return on assets (ROA).

The review also shows that investors may interpret portfolio financialization in different ways. If higher investment portfolios signal prudent liquidity management, efficient asset allocation, and stronger resilience, financialization may increase Tobin's Q. However, if investors associate financialization with weak lending opportunities, earnings opacity, or higher exposure to market shocks, the valuation effect may be negative or insignificant. Therefore, the second hypothesis is stated in associative form to allow for either a positive or negative market response (Laeven & Levine, 2007; Berger et al., 2010; Azzabi & Lahrichi, 2023).

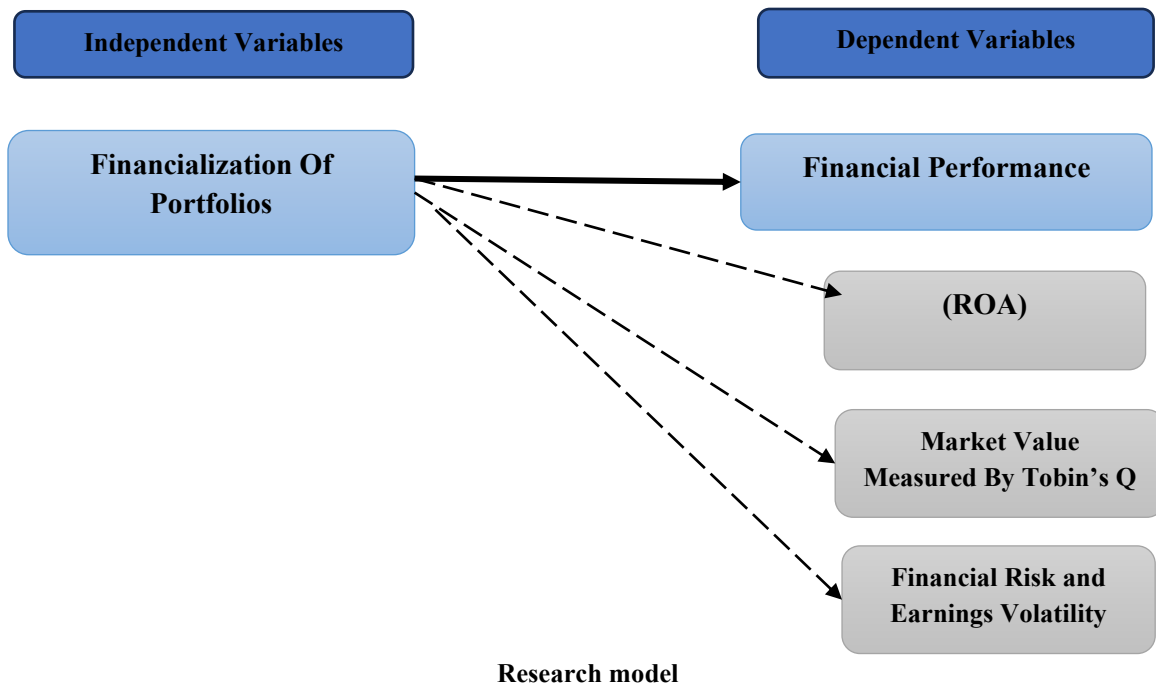
H2: Portfolio financialization is significantly associated with bank market valuation, measured by Tobin's Q.

Finally, the reviewed literature suggests that market-based activities may increase earnings volatility when income depends more heavily on securities returns, trading gains, fair-value adjustments, or market-sensitive instruments. In unstable and frontier-market conditions, this risk channel may be stronger because asset values are more sensitive to liquidity, interest-rate, currency, and political shocks. Therefore, the third hypothesis predicts that higher portfolio financialization increases the volatility of bank earnings (DeYoung & Roland, 2001; Stiroh & Rumble, 2006; Balaylar, 2025).

H3: Portfolio financialization is positively associated with earnings volatility, measured by the standard deviation of ROA.

3.2 Conceptual Framework

The conceptual framework relates portfolio financialization and three financial performance dimensions: accounting profit, valuation of market, and income stability. Financial institution sizes and their credit risk status act as control variables, and the Palestinian frontier economy's conditions as the contextual institution moderates their effects on bank's performance.



4. Methodology:

4.1 Data and Sample

This study is based on balanced panel data of six banks listed on the Palestine Exchange (PEX) as the end of 2024, namely: Bank of Palestine (BOP), Palestine Islamic Bank (ISBK), Al Quds Bank (QUDS), Palestine Investment Bank (PIBC), The National Bank (TNB), and Arab Islamic Bank (AIB). There are 54 bank-years of observation in the sample period 2016–2024. Financial information on the bank level was obtained from: (i) audited annual financial statements submitted to the PMA; and (ii) annual disclosure documents submitted by PEX. The sample includes two Islamic banks (ISBK, AIB) and four conventional banks (BOP, QUDS, PIBC, and TNB). All monetary amounts are in \$ thousands. Data variation across cross-sections and through time yields panel variation, including the COVID-19 shock (2020), the recovery following the COVID-19 shock (2021–2022), and the geopolitical shock in October 2023.

4.2 Variable Measurement

This section presents the independent, dependent, and control variables, clarifying the measurement and calculation methods, which are summarized as shown in Table 1.

Table 1: variable summary and measurement

Variable	Role	Measurement	Key Prior Studies
FIN_RATIO	Independent variable	Investment portfolio / Total assets	Çalışkan (2025); Szczepankowski (2017)
ROA	Dependent variable	Net income / Total assets	Rahmansyah et al. (2022); Fajriati et al. (2021); Nguyen et al. (2023)
Tobin's Q	Dependent variable	Market capitalization / Book value of equity	Szczepankowski (2017); Leonardo et al. (2022)
ROA volatility	Dependent variable	Standard deviation of the three-year rolling ROA volatility	DeYoung & Roland (2001); Chappe (2025); Zhao et al. (2025)

LN_ASSETS	Control variable	Natural log of total assets	Nguyen et al. (2023); Lassala et al. (2021)
NPL_RATIO	Control variable	Non-performing loans / Gross loans	Rahmansyah et al. (2022); Hao et al. (2023); PMA (2023)

4.2 Empirical models

The baseline empirical model is estimated as follows:

$$Y_{it} = \alpha + \beta_1 \text{FIN_RATIO}_{it} + \beta_2 \text{LN_ASSETS}_{it} + \beta_3 \text{NPL_RATIO}_{it} + \varepsilon_{it}$$

where Y_{it} represents ROA, Tobin's Q, or ROA volatility for bank i in year t . Heteroscedasticity-robust standard errors are reported. Given the small population of listed Palestinian banks, the analysis is interpreted as associational rather than causal.

5. Data Analysis and Results

5.1 Descriptive statistics

From descriptive statistics, listed Palestinian banks on average held 21.49% of their total assets in their portfolios through the 2016-2024 period. ROA on average hovered around 1%, while the Q ratio was less than 1, suggesting that market valuations are often less than book equity.

Table 2. Descriptive statistics, 2016–2024

Variable	N	Mean	Std. Dev.	Min	Median	Max
FIN_RATIO	54	21.486	2.296	16.752	20.968	26.667
ROA	54	1.003	0.155	0.690	1.000	1.441
TOBINS_Q	54	0.808	0.139	0.653	0.757	1.159
LN_ASSETS	54	13.944	0.843	12.698	13.746	15.829
NPL_RATIO	54	3.432	0.705	2.278	3.341	5.000

5.2 Diagnostic Test Results

Table 3: diagnostic Test result

Diagnostic test	Statistic	p-value/threshold
VIF - FIN_RATIO	1.019	< 5
VIF - LN_ASSETS	1.019	< 5
Breusch-Pagan heteroscedasticity	5.130	0.077
White heteroscedasticity	8.025	0.155
Jarque-Bera residual normality	0.615	0.735
Durbin-Watson	1.397	Near 2 preferred
Residual AR (1) screen	-	0.004

Diagnostic procedures lending added support to the credibility of the estimation. All the VIF are near 1 which implies that multicollinearity doesn't pose a serious concern. The heteroscedasticity results don't offer the strong indication of serious concern in the variance instability and robust standard error are preferable. The residuals test for normality passes. However, the series-correlation detection points to using robust or panel-corrected standard error.

5.3 Regression and Robustness Results

Table 4: robustness specifications

Model	Dependent variable	FIN_RATIO coefficient	LN_ASSETS coefficient
Pooled OLS - HC1	ROA	0.0080 (p = 0.569)	-0.1033 (p = 0.228)
Fixed effects - HC1	ROA	0.0028 (p = 0.840)	-0.8160 (p < 0.001)
Fixed effects - clustered by bank	ROA	0.0028 (p = 0.897)	-0.8160 (p = 0.007)
Pooled OLS - HC1	ROA_VOL_3Y	-0.0070 (p = 0.146)	0.0934 (p = 0.005)

3.5 Additional robustness checks and the robustness checks conducted above strongly support the main conclusion that there is no statistically robust evidence to conclude that the financialization of the portfolio of banks is associated with higher accounting profitability. The coefficient for FIN_RATIO is still positive in pooled and fixed effects analyses. This enhances the argument that banks may hold an investment portfolio for reasons of liquidity management and/or risk diversification without them generating additional value and higher ROA for banks.

The volatility of reported earnings, according to the screen test, varies according to model specification and coverage of existing variable.

Thus, the discussion regarding volatility should be approached with prudence and preferably validated with additional disclosures on market risk (where available)

5.4 Correlation analysis

The correlation matrix indicates that FIN_RATIO is positively correlated with ROA and NPL_RATIO but negatively correlated with Tobin's Q and bank size. These Patterns suggest that higher investment-portfolio shares may be associated with a short-term profitability signal while also reflecting credit quality stress or weaker market valuation.

Table 5. Pearson correlation matrix

Variable	FIN_RATIO	ROA	ROE	NIM	TOBINS_Q	LN_ASSETS	NPL_RATIO
FIN_RATIO	1.0	0.403	-0.331	0.585	-0.645	-0.587	0.873
ROA	0.403	1.0	0.128	0.696	-0.463	-0.443	0.337
TOBINS_Q	-0.645	-0.463	0.732	-0.85	1.0	0.851	-0.624
LN_ASSETS	-0.587	-0.443	0.694	-0.893	0.851	1.0	-0.637
NPL_RATIO	0.873	0.337	-0.358	0.588	-0.624	-0.637	1.0

5.5 Regression Result

Table 6. Heteroscedasticity-robust pooled OLS results NPL_RATIO

Variable	ROA	Tobin's Q	ROA volatility
Constant	1.5288*** (0.4863)	-0.5791*** (0.1966)	-1.5244*** (0.1484)
FIN_RATIO	0.0278 (0.0201)	-0.0196** (0.0094)	0.0329*** (0.0069)
LN_ASSETS	-0.0668*** (0.0241)	0.1232*** (0.0125)	0.0656*** (0.0081)
NPL_RATIO	-0.0556 (0.0627)	0.0263 (0.0318)	-0.0060 (0.0239)

Observations	54	54	54
R-squared	0.241	0.760	0.589
F-statistic p-value	0.000	0.000	0.000

5.6 Fixed =-effect, random-effect, and Hausman test

The Hausman statistics are significant at the 1% level, indicating that the random -effects assumption is not supported by the ROA model. Therefore, the fixed-effects estimator is preferred. This result suggests that unobservable bank-specific characteristics are correlated with the explanatory variables and should be controlled when interpreting the relationship between portfolio financialization and accounting profitability. Under the FE specification, FIN_RATIO remains statistically insignificant, reinforcing the conclusion that portfolio financialization does not provide robust evidence of improved ROA.

Table 7. Fixed-effect, Random-effect, and Hausman test for the ROA model

Variable / Diagnostic	Fixed effects (FE)	Random effects (RE)
FIN_RATIO	0.0029 (0.0132)	0.0133 (0.0155)
LN_ASSETS	-0.8160*** (0.1693)	-0.2143* (0.1170)
Constant	Included through bank effects	3.2536** (1.5445)
Observations	54	54
Hausman chi-square	20.204	-
Hausman p-value	0.00004	-
Preferred estimator	Fixed effects	-

Note(s): This diagnostic supports the fixed-effects specification for the ROA model when the Hausman null is rejected

5.7 Hypothesis evaluation

Table 8: Hypothesis Testing Summary

Hypothesis	Expected relationship	Empirical result	Decision
H1	FIN_RATIO → ROA	Positive but statistically insignificant	Not supported
H2	FIN_RATIO → Tobin's Q	Negative and significant at 5%	Supported in the opposite direction
H3	FIN_RATIO → ROA volatility	Positive and statistically significant at 1%	Supported

6. Discussion

The results indicate that portfolio financialization is no assurance of profitable expansion for Palestinian listed banks. While the economic logic for financialization-related diversification suggests a potential income benefit, the present empirical results do not find statistically robust ROA effects associated with the increased income channel. Such results are consistent with the notion that the value of diversification for nontraditional activities diminishes in the face of shallow markets, volatile income, and a limited capacity for risk management (DeYoung & Roland, 2001; Stiroh, 2004).

From the delegated-monitoring viewpoint, the profitability effect of portfolio investment also has clear theoretical interpretation. Palestinian financial institutions operate within a framework that values relationships with borrowers and intensive screening and monitoring. Thus, although a growing investment portfolio might mitigate credit risk, a larger portfolio would potentially enhance its weight relative to information-intensive lending. Accordingly, a portfolio could cushion the balance sheet but need not enhance profitability to a significant extent.

The market-valuation mechanism is critical for Palestine. Investors might interpret the expanding investment portfolio as sensible liquidity management and reflect this in banks' Q. However, if a growing financial portfolio is interpreted as an indicator of restricted lending opportunities, opaque income, and potential exposure to market stress, banks might face a discount (DeJong et al., 2011). Palestinian banks thus need clear disclosure of how these holdings are composed and valued, as well as risks around their duration, currency, and stress-testing framework.

Finally, the volatility channel requires a risk governance lens. Portfolios could add value when lending opportunities contracts because credit demand falls or when shocks such as political crises inhibit the banking sector. Market-based portfolios, however, can transmit externalities directly to income. Thus, the pragmatic concern for Palestinian institutions is not whether to hold such a portfolio but how large a concentration is reasonable, how it's monitored, and what risk boards and audit committees require on portfolio risk.

7. Theoretical, Practical, and Policy Implications

So far, the literature has shown that in a banking system operating in a frontier country financialization is different in substance and practice. Portfolio financialization may be motivated by defensive liquidity buffers and limited opportunities for lending rather than speculation. On the other hand, bank boards need to view portfolio deepening not as an alternative of intermediation but as one among others for balancing risk and return and in the policy dimension Palestinian Monetary Authority may consider tougher standards on exposure limits, risk-sensitive reporting for markets risk, stress testing, and fair value and liquidity disclosures.

8. Limitations and Future Research

This study has several limitations. First, the sample is small because the population of listed Palestinian banks is limited. Second, some market-based and credit-quality variables require complete and verified data before being used in publication-level robustness tests. Third, the study is associational and does not claim strict causality. Future research may extend the sample to non-listed banks, compare Palestine with Jordan or other MENA frontier markets, apply dynamic panel models, include portfolio composition by asset class, and examine whether geopolitical shocks moderate the financialization-performance relationship.

9. Conclusion

Our results provided insight into portfolio financialization effects on the performance of listed banks in the Palestinian context. Data was based on audited annual financial data from 2016 to 2024; it reveals a no statistically profitable effect of financialization, a negative association of portfolio financialization with the banks' market valuations and a positive significant link with profitability volatility. The robustness results from the additional FE/RE test and Hausman diagnostic for the ROA model confirm preference to use fixed-effects technique, emphasizing the requirement to account for bank-specific heterogeneous conditions while generalizing the profitability result.

The financialization context within Palestinian banks, in light of its risk-return characteristics rather than as an automatic value-enhancement activity, should be understood from this angle.

Our study adds value to existing literature on financialization effects in frontiers economies, and includes meaningful implications for bankers, boards, and regulators.

10. Declarations :

- **ACKNOWLEDGMENT**

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- **ETHICS APPROVAL AND CONSENT TO PARTICIPATE**

This study is based exclusively on publicly available audited financial statements and secondary financial data. It did not involve human participants, personal data, clinical investigations, or experimental procedures. Therefore, ethics approval and informed consent were not required.

- **FUNDING**

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- **INSTITUTIONAL REVIEW BOARD STATEMENT**

Not applicable. This study relied solely on publicly available secondary financial data and did not involve human subjects or identifiable personal information requiring Institutional Review Board approval.

- **TRANSPARENCY**

The author affirms that this manuscript is an honest, accurate, and transparent account of the research conducted. All relevant aspects of the study have been fully reported, and no significant information has been intentionally omitted.

- **COMPETING INTERESTS**

The author declares that there are no competing financial or non-financial interests that could have influenced the research, analysis, or interpretation of the findings.

- **AUTHORS' CONTRIBUTIONS**

Mohammad Faraj Alawneh solely contributed to the conceptualization of the study, research design, data collection, statistical analysis, interpretation of results, manuscript preparation, revision, and final approval of the submitted version.

- **Data Availability Statement**

The data supporting the findings of this study are publicly available from the audited annual financial statements of banks listed on the Palestine Exchange (PEX). Additional processed data used in the analysis are available from the corresponding author upon reasonable request.

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