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Capital Structure and Earnings Volatility and Cash Flow Evidence from ASEAN Commercial Banks

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Abstract: This research aims to observe the impact of capital structure on earnings volatility and cash flow of commercial banking companies in ASEAN country. This research uses yearly secondary data of company's financial report from 2015-2024 period. The variables studied in this research are aspects of the capital structure of banking companies, included Debt to Equity Ratio, Debt to Assets Ratio, and Deposits to Equity ratio, and as well as Earnings Volatility, Operating Cash Flow, and Operating Cash Flow Volatility. The data was analyzed using panel data method, specifically using Driscoll Kraay robust standard error with Fixed Effect Model. The results of this research showed that Debt to Assets Ratio, Debt to Equity Ratio, and Deposits to Equity Ratio each had a significant impact on Earnings Volatility, Operating Cash Flow, and Operating Cash Flow Volatility.
Keywords: Capital Structure, Earnings Volatility, Operating Cash Flow

Abstrak: Penelitian ini bertujuan untuk mengetahui pengaruh struktur modal terhadap volatilitas laba dan cash flow pada perusahaan perbankan komersial di ASEAN. Penelitian ini mengambil data sekunder dari laporan keuangan perusahaan dari tahun 2015-2024. Adapun variabel-variabel yang diteliti yaitu aspek struktur modal perusahaan perbankan yakni Debt to Equity Ratio, Debt to Assets Ratio, dan Deposits to Equity Ratio, serta Volatilitas Laba, Operating Cash Flow, dan juga Volatilitas Operating Cash Flow. Data dianalisis menggunakan metode panel data, yakni menggunakan model Fixed Effect dengan robust standard error Driscoll Kraay. Hasil penelitian menunjukkan bahwa Debt to Assets Ratio, Debt to Equity Ratio, dan Deposits to Equity Ratio masing-masing memiliki pengaruh signifikan terhadap terhadap Earnings Volatility, Operating Cash Flow, dan Operating Cash Flow Volatility.
Kata Kunci: Struktur Modal, Earnings Volatility, Operating Cash Flow

INTRODUCTION

This study identifies the effect of capital structure decisions of commercial banking firms on earnings and cash flow volatility. In the corporate finance literature, the composition of business financing consisting of debt and equity is referred to as capital structure (Khan & Qasem, 2024). Capital structure plays a significant role in banking operations and in determining the level of income generated by banks. To build a sound bank, a balanced, diversified, and relatively stable capital structure is required, such as market factors and meeting capital adequacy requirements. Choosing the right capital structure composition in terms of cost, risk, stability, and return has a significant impact on investment efficiency, bank profits, and cash flows (Avezum et al., 2022). One of the most important indicators of successful bank management is its ability to determine the optimal capital structure mix to achieve the highest profits with the lowest possible risks (Alshehadeh et al., 2024).

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The capital structure of banks generally differs from that of other commercial firms due to stricter regulations. Determining capital structure is one of the most important strategic decisions made by bank management, as it influences key economic aspects of the firm, such as earnings volatility and stability, as well as operating cash flow volatility (Alshehadeh et al., 2024). The banking sector also differs from other industries in terms of external financing, which can account for up to 85% of total funding (Pham & Nguyen, 2023). Many studies have discussed corporate capital structure, but they primarily focus on non-banking commercial firms. Numerous theories state that capital structure significantly affects profitability and cash flow. However, this assertion has been debated, as it contradicts (Modigliani & Miller, 1958) well-known M&M Theory, which concludes that capital structure composition does not affect firm value.

Despite the vast body of research, findings still show inconsistent relationships between capital structure and corporate financial performance (Dao & Ta, 2020). (Haque & Varghese, 2023) found that long-term debt does not influence firm profitability. However, leverage ratios, a key aspect of capital structure, have a significant impact on bank profitability. (Khan et al., 2021) also found a significant relationship between profitability and bank leverage levels in Saudi Arabia. Highly profitable banks reduce their reliance on external financing to fund future investment opportunities. These findings align with the pecking order theory, which prioritizes internal funding sources for business financing.

Capital structure plays a crucial role in the profitability and existence of banks, and determining a capital structure that minimizes risk while maintaining competitiveness is an important responsibility of financial managers (Assfaw, 2020). One of the biggest decisions a company leader faces is choosing which funding sources to use. While capital structure choices are flexible, determining the most appropriate structure for a specific firm is the central issue. Since the capital structure chosen will shape the firm's future financial flow, financial planning becomes essential for banks (Jebril et al., 2023).

Furthermore, capital structure is also believed to have impact on banks' cash flows. Operating cash flows serve as an important factor in evaluating a firm's financial health, distinguishing between financially sound firms and those facing economic distress (Nguyen & Nguyen, 2020). Bank risk management suggests that shareholders benefit when banks maintain stable cash flows with minimal volatility (Iyer & Harper, 2017). Banks with steady cash flows are more attractive to stakeholders (Alshehadeh et al., 2024). Moreover, previous study (Huang & Ritter, 2009) show that in most firms, when funding needs arise in the short term, debt is preferred over equity as a financing option. Bank cash flows generally serve as a primary reference point for the public in assessing liquidity, as banks are required to maintain sufficient reserves to meet sudden bond redemption obligations.

(Harris & Roark, 2019) argued that corporate leverage levels affect cash flow and cash flow volatility, but only for firms with relatively low average cash flows. They ranked firms based on operating cash flows and found no significant impact of total debt on cash flows for firms in the top to middle tiers. In contrast, firms in the mid-to-lower tiers experienced increased cash flows and volatility as debt levels rose. Earnings and their stability, cash flows and their volatility, as well as capital structure, are considered among the most important variables in accounting and finance due to their direct and indirect impact on banks' economic conditions (Alshehadeh et al., 2024).

Although prior studies have examined capital structure in the banking industry, few have specifically addressed its relationship with cash flow and earnings volatility. A related study by (Alshehadeh et al., 2024) investigated the effect of capital structure on cash flow and earnings volatility in 15 Jordanian banks. Capital structure theories and prior research generally agree that debt financing is more practical than equity financing due to tax deductibility of interest. However, debt obligates firms to pay interest and principal installments, which may strain cash flows and reduce financing capacity for business expansion. Debt also impacts earnings volatility through increased operational expenses from interest payments. Equity financing, while more flexible as it avoids fixed interest obligations, can reduce shareholder value since it is often more expensive than debt financing (Alshehadeh et al., 2024).

This study will use a sample of commercial banks in ASEAN to strengthen the research output, considering that the Southeast Asian banking industry is largely dominated by developing countries. The banking industry in developing nations exhibits greater variability in terms of bank size and operating systems.

LITERATURE REVIEW

Agency Theory

Agency Theory is a theory that explains the relationship between capital owners and other parties with vested interests in a company's financial activities. Agency theory focuses on the misalignment of objectives that often arises between capital owners and external fund providers, such as third-party lenders or depositors in banks (Jensen & Meckling, 1976). Banks operate with a capital structure largely dominated by debt, which obligates them to repay the principal and interest within a predetermined period. This condition may create additional pressure on banks' financial performance, especially in the presence of fluctuations in recorded cash flows. Firms with higher levels of free cash flow are more prone to agency problems, as shareholders and management face greater conflicts of interest (Jensen C., 1986).

An imbalanced capital structure has the potential to create financial instability that reflects conflicts among stakeholders within the firm. Agency theory also stated that firms financed more heavily with debt tend to have management that is more disciplined in controlling expenditures (Jensen C., 1986). However, this often conflicts with capital owners, who are more focused on profit maximization. Prior research (Frank & Goyal, 2009) also indicates that conflicts of interest in corporate financing structures can lead to financial uncertainty, particularly when funding is not matched with the ability to maintain stable cash flows.

Capital Structure

In the banking industry, capital structure decisions involve more complex considerations compared to the non-financial sector, as they must balance financial system stability with the need for business expansion. Banks are financial institutions that collect deposits and provide loans to individuals, corporations, and governments for purposes of consumption, investment, and capital needs, thereby contributing to economic growth (Ozili & Outa, 2017). Since banks play a vital role in economic development, crises in the banking sector can cause serious disruptions to a country's economic activities (Hoggarth et al., 2002). Determining banks' capital composition is not only a matter of financing choices but also concerns public trust and credibility. As financial intermediaries, banks must maintain a capital structure that balances profitability maximization with liquidity preservation, thereby providing protection against market fluctuations and sudden withdrawals. Excessively high or low leverage ratios may increase bankruptcy risk and limiting banks' expansion capacity.

The banking sector worldwide is one of the most sensitive and important sectors in the global economy. Banks act as capital suppliers and play a crucial role in channeling funds to productive sectors. (Khan et al., 2023) emphasized the importance of banks in allocating capital to other sectors of the economy. Unlike firms in the manufacturing or service sectors, banks primarily rely on debt in the form of deposits as their main financing source. The banking industry operates with high leverage because of its strong association with cash, capital, and deposit-taking activities. Banks function as financial intermediaries by channeling funds collected from society in the form of deposits and redistributing them to investors and borrowers. In essence, loans provided by banks are funded by deposits, which themselves represent loans given to banks by depositors and can be withdrawn at any time (Hoque & Liu, 2022).

Capital structure in banking generally shares similar characteristics across countries, depending on national legal frameworks. Regulations issued by central banks, authorized by governments, are binding and must be fulfilled by banks as a prerequisite for establishment. In Indonesia, financial sector activities are regulated and supervised by the Financial Services Authority (OJK). Banks globally are also governed by Basel III regulations, which require them to maintain a minimum capital ratio to absorb operational losses and ensure stability. Minimum capital requirements also serve to protect depositor rights, which remain banks' liabilities.

Research by (Hoque & Liu, 2022) indicates that banks in countries with bankruptcy laws and deposit guarantees tend to have higher leverage, whereas banks in common-law countries generally exhibit lower average leverage. This aligns with (Bessler et al., 2013), who argued that institutional environments play an important role in determining financial firms' leverage. However, (Gropp &

Heider, 2010) found similarities between bank financial structures and those of non-financial firms. They argued that government regulation and deposit insurance are not the primary determinants of banks' capital structure. These findings were also supported by (Hassan et al., 2020), who concluded that bank capital structure decisions do not differ significantly from those of non-financial firms.

Despite extensive research, there is still no consensus on the optimal capital structure for banks. Many studies on capital structure exclude the banking industry (Fan et al., 2012), arguing that banks are fundamentally different from other firms due to their significantly higher leverage and their role as deposit-taking institutions. Banks operate with high leverage to recycle funds back into the economy. In other words, banks are highly leveraged firms whose business model facilitates leverage for other companies. While high leverage levels may theoretically lead to financial crises, for banks leverage is an essential condition for their operations (Khan et al., 2023).

The debt-to-equity ratio is thus a critical decision for management. Banks must carefully consider financing options in terms of interest rates, risks, expected returns, and maturities to achieve an optimal capital structure, while maximizing firm value, generating positive cash flows, and maintaining stable profits (Tran et al., 2016). The banking sector is particularly vulnerable to leverage changes, given its relatively low equity-to-assets ratio (Sivalingam & Kengatharan, 2018). Banks must therefore manage interest rates prudently, as even small fluctuations directly affect leverage levels. Maintaining leverage is also crucial for sustaining public trust in banks' performance. The use of debt can be beneficial if it remains within optimal levels. Thus, leverage is a highly sensitive factor that must be carefully managed by bank management.

Cash flow Volatility

Cash flow volatility refers to the degree of fluctuation or movement in a company's total cash flow from period to period. It represents the variability within a firm's operating cash flows during a given timeframe. Cash flow volatility can also be described as the level of dispersion of cash flows generated from operating activities. A high level of fluctuation indicates that the firm has failed to maintain stable revenues, operating expenses, or capital management. In conducting business activities, companies must be able to manage cash flow volatility as a symbol of their financial stability. Volatility is often considered a potential cause of bankruptcy (Bauer & Herz, 2004).

In the banking sector, high cash flow volatility can reduce public confidence in banks. This occurs because banks operate with high leverage, making fluctuating cash flows potentially lead to situations of default on short-term obligations. Previous studies (Alshehadeh et al., 2024; Shubita, 2023) found that banks with more stable cash flows tend to achieve better stock performance and are more attractive to investors. Unstable cash flow volatility suggests that firms have not been able to manage their cash inflows and outflows effectively. Firms experiencing fluctuating cash flows are also more likely to fail in managing their periodic cash flow. Fluctuations in a company's cash flow statement during a certain period signal uncertainty in future earnings.

Research conducted by (Keefe & Nguyen, 2023) on the relationship between cash flow volatility and bank risk management revealed that cash flow volatility has the potential to influence corporate investment decisions and debt financing structures. Banks with volatile cash flows tend to be more cautious in extending credit. Firms with high cash flow volatility may also be in a stage of expansion and deliberately avoid increasing their debt to preserve borrowing capacity for future investments (Keefe & Nguyen, 2023). Cash flow plays a critical role in driving investment interest and consumer confidence, particularly in the banking industry, and is often used as a benchmark for assessing firm stability.

Earnings volatility

Earnings volatility refers to the degree of instability in a company's profits, reflected by fluctuations in income from one period to another. In financial contexts, volatility is used to measure the risk of future earnings faced by firms. Banks must pay close attention to their recorded earnings volatility, as high volatility can lead to uncertainty regarding the amount of equity capital held and may deteriorate their financial health (de Haan & Poghosyan, 2012). Elevated earnings volatility is often associated with a company's inability to conduct long-term financial planning. In the banking context, profit

fluctuations can create a domino effect, which can lowering credibility, triggering declines in deposit volumes, and potentially reducing a bank's flexibility in managing investment activities. (Albertazzi & Gambacorta, 2009) also demonstrated that excessive earnings volatility in banks can result in unstable capital structures.

For banks, financial product diversification serves as a supporting factor that can enhance earnings stability. Banks that rely too heavily on non-interest income may experience more volatile earnings. To achieve profit stability, banks also need steady and consistent operating activities. The banking sector depends heavily on interest rates, loan volumes, and bonds as its main sources of income. When profits are unstable, these fluctuations may signal high operational risk, undermining public confidence in banks. (de Haan & Poghosyan, 2012) found that banks with fewer diversification opportunities often rely on borrowers with sufficient assets, thereby facing relatively lower credit risk.

Signaling Theory posits that stable profits provide a positive signal to investors and creditors regarding a firm's business prospects. Conversely, highly volatile earnings tend to raise doubts about managerial efficiency and financial strategy, thereby sending negative signals to external stakeholders about company performance. The implications of signaling theory in earnings volatility are increasingly relevant in today's era of financial transparency. Stable earnings serve not only as an indicator of financial health but also as a reflection of managerial quality. The higher the level of earnings volatility, the greater the uncertainty surrounding future profits, which ultimately may influence investors' perceptions of firm value (Dichev & Tang, 2009).

Hypothesis

The Effect of Capital Structure on Earnings Volatility

Capital structure refers to the financial aspect that explains how a company finances its assets and operational activities through a combination of equity and debt. Banks may choose several financing alternatives to form their capital structure, such as issuing shares, borrowing funds, and using retained earnings to finance their activities (Abeysekera & Fernando, 2020). Several studies have examined the relationship between capital structure and bank financial.

(Alshehadeh et al., 2024) found that capital structure has a significant effect on earnings volatility. The debt-to-assets ratio negatively affects earnings volatility because higher debt increases capital costs, which in turn reduces profitability. Banks that rely more heavily on debt financing may enjoy greater profits but face higher risks and unstable earnings due to inefficient debt allocation (Cho & Im, 2023). Debt also creates contractual obligations for firms to repay principal and interest, which can destabilize income streams and potentially drive firms into financial distress (Khan et al., 2021).

Agency theory further explains that imbalances in capital structure may create financial pressures that trigger instability in earnings and cash flows. In banking, this statement is particularly relevant given the sector's reliance on high leverage, which increases the risk of financial uncertainty through continuous external payment obligations.

Hypothesis 1 (H_1): The composition of capital structure has a significant effect on earnings volatility in commercial banks.

The Effect of Capital Structure on Operating Cash Flow

Financing business activities through higher debt proportions has both advantages and disadvantages. Debt financing may increase financial flexibility and enhance future profitability if the returns generated from debt-funded investments exceed the borrowing costs. Choosing the right financing mix by considering cost, risk, stability, and returns significantly impacts investment efficiency, earnings sustainability, and bank cash flows (Avezum et al., 2022). However, a capital structure heavily dominated by debt can raise financial risks and increase the likelihood of business failure. (Frank & Goyal, 2009) found that firms excessively dependent on debt with relatively small equity bases tend to experience lower financial flexibility and greater vulnerability to financial pressures.

The choice of financing sources for banks' operating activities is crucial as it significantly influences operating cash flows. Operational activities are core functions of firms, and the magnitude

of operating cash flow often reflects the success or failure of their strategies, business plans, and operational execution (Arifaj et al., 2023). When debt exceeds the optimal level, fixed interest payments and principal repayments must be made within specific periods, which affects both earnings and cash flows. Operating cash flows that should primarily reflect operational activities may instead become burdened with supplier payments, debt principal repayments, and interest payments.

(Alshehadeh et al., 2024) demonstrated that capital structure indicators, such as the debt-to-asset ratio, debt-to-equity ratio, and deposits-to-equity ratio positively influence banks' operating cash flows and their volatility. From the perspective of agency theory, over-reliance on debt financing restricts operating cash flows by prioritizing external obligations. When cash flows must first be allocated to debt servicing, they become more vulnerable to external fluctuations, creating additional risks for banks. Proper debt management is therefore essential for maintaining healthy corporate cash flows. Capital structure composition and its impact on earnings and cash flow volatility are also used by central banks as regulatory bodies to monitor risk levels in banking operations (Alshehadeh et al., 2024).

Hypothesis 2 (H_1): The composition of capital structure has a significant effect on operating cash flow in commercial banks.

The Effect of Capital Structure on Operating Cash Flow Volatility

In financial contexts, the term *volatility* often refers to instability. Cash flow volatility represents fluctuations in a firm's operating cash flows over a given period (Keefe & Nguyen, 2023). When a company's capital structure relies more heavily on debt or external financing, cash flow volatility tends to mirror repayment schedules and interest obligations. According to bank risk management theory, shareholders benefit more when banks maintain stable cash flows with low volatility (Iyer & Harper, 2017). High levels of debt can reduce cash flow due to recurring interest payments and principal obligations, which increase cash outflows.

While debt reliance may improve banks' liquidity ratios and credibility in the eyes of the public, excessive debt beyond optimal levels can destabilize cash flows. Operating cash flow fluctuations occur because highly leveraged banks are more vulnerable to market downturns and interest rate volatility. Although banks must operate with high leverage to sustain business activities, prudent management is required to allocate borrowed funds conservatively to safeguard cash flow stability. Cash flow volatility is often considered more influential than earnings when assessing firm value (Cho & Im, 2023).

Capital structure decisions may influence several economic aspects of banks, including their impact on both earnings volatility and operating cash flow volatility (Alshehadeh et al., 2024). A capital structure characterized by disproportionately low equity relative to external funding can disrupt firms by destabilizing both profits and cash flows. (Alshehadeh et al., 2024) further confirmed that capital structure significantly affects the volatility of operating cash flows. Operating cash flows and their volatility are among the most widely used measures of financial efficiency in the banking industry.

Agency theory again provides insights into how financial obligations can drive cash flow instability. When capital structure does not reflect a balanced mix of internal and external funding, firms may become trapped in conditions where meeting external obligations takes precedence in all financial situations. This over-dependence increases the potential for conflicts of interest in cash flow allocation, thereby amplifying fluctuations in operating cash flow.

Hypothesis 3 (H_1): The composition of capital structure has a significant effect on the volatility of operating cash flows in commercial banks.

RESEARCH METHODOLOGY

Data

This study employs a quantitative research method using secondary data obtained from the annual financial reports of commercial banking firms, which were collected from the Refinitiv database. The research examines the relationships between variables expressed in numerical form and interprets them in comparison with established financial theories. The independent variable of the study is the capital structure of banks, measured through the Debt-to-Assets Ratio, Debt-to-Equity Ratio, and Deposits-to-

Equity Ratio. The dependent variables consist of earnings volatility, operating cash flow, and operating cash flow volatility, which represent key indicators of banks' financial performance and stability.

The study applies a purposive sampling method to select banking firms that meet specific criteria relevant to the research objectives. The sample consists of commercial banks operating in ASEAN countries, namely Indonesia, Singapore, Thailand, Malaysia, the Philippines, and Vietnam with the period 2015 to 2024. Only banks with complete data on the required variables were included to ensure the accuracy and reliability of the analysis, while firms lacking sufficient data were excluded from the sample. This selection process ensures that the study focuses on banks that can provide consistent and comparable financial information for examining the impact of capital structure on earnings and cash flow dynamics.

Empirical Model

This study aims to examine the effect of capital structure on earnings volatility, cash flow, and cash flow volatility. The independent variables used in the data analysis are the Debt-to-Assets Ratio (DTA), Debt-to-Equity Ratio (DTE), and Deposits-to-Equity Ratio (DETE), which serve as proxies for banks' capital structure. The dependent variables are EBITDA-to-Total Assets Ratio (as a proxy for earnings volatility), Volatility of Operating Cash Flow-to-Total Assets Ratio, and Cash Flows-to-Total Assets Ratio. In addition, Firm Size and Liquidity Ratio are included as control variables to account for variations in bank characteristics.

The study employs three regression models to test the hypotheses, formulated as follows:

$$EV_{i,t} = \beta_0 + \beta_1 DTA_{i,t} + \beta_2 DTE_{i,t} + \beta_3 DETE_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 LIQ_{i,t} + \varepsilon_{i,t}$$

$$CF_{i,t} = \beta_0 + \beta_1 DTA_{i,t} + \beta_2 DTE_{i,t} + \beta_3 DETE_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 LIQ_{i,t} + \varepsilon_{i,t}$$

$$CFV_{i,t} = \beta_0 + \beta_1 DTA_{i,t} + \beta_2 DTE_{i,t} + \beta_3 DETE_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 LIQ_{i,t} + \varepsilon_{i,t}$$

Notes:

DTA	=	Debt to Total Assets Ratio
DTE	=	Debt to Equity Ratio
DETE	=	Deposits to Total Assets Ratio
SIZE	=	Firm Size
LIQ	=	Liquidity Ratio
EV	=	Earnings Volatility
CF	=	Cash Flows to Total Assets Ratio
CFV	=	Cash Flows Volatility to Total Assets ratio

To empirically test the relationship between capital structure and banks' financial performance, this study defines and operationalizes the research variables into measurable proxies. The dependent variables capture earnings and cash flow dynamics, while the independent variables represent capital structure strategies. In addition, two control variables—bank size and liquidity—are included to account for firm-specific characteristics that may influence the results. The operationalization of variables is presented in Table 1:

Table 1. Operationalization of Variables

Variable	Proxy	Formula
Dependent	Earnings Volatility	Standard deviation of Earnings Before Interest, Taxes, and Amortization (EBITDA) divided by Total Assets
	Operating Cash Flow Volatility	Standard deviation of Operating Cash Flow ratio divided by Total Assets

	Operating Cash Flow	Operating Cash Flow divided by Total Assets
Independent	Debt to Assets Ratio	Total Debt ÷ Total Assets
	Debt to Equity Ratio	Total Debt ÷ Total Equity
	Deposits to Equity Ratio	Total Customer Deposits ÷ Total Equity
	Bank Size	Measured by the natural logarithm of Total Assets
	Liquidity Ratio	Total Loans ÷ Total Deposits

RESULTS AND DISCUSSION

Descriptive Statistics

The descriptive statistics in this study present the total number of observations, mean values, standard deviations, minimum values, and maximum values from the overall sample. The results of the descriptive statistical analysis for the research variables are summarized in table 2. All variables were winsorized at 1% to minimize outlier effects.

The mean DTA is 0.134, indicating that on average 13.4% of bank assets are financed by debt. DTE has a mean of 0.774, showing higher reliance on debt relative to equity, consistent with the banking industry's liability-heavy structure. DETE averages 0.732, reflecting the critical role of deposits as a stable funding source. EV has a mean of 0.014, suggesting that ASEAN banks generally maintain consistent earnings stability. CF records a mean close to zero (0.006), implying that banks generate operating cash flows roughly in line with their assets, though slightly negative on average. CFV averages 0.076, indicating relatively stable cash flow fluctuations, which supports operational health.

Table 2. Descriptive Statistics

Variables	Obs	Mean	Std. Dev.	Min	Max
DTA	877	0.134	0.653	0	0.339
DTE	877	0.774	0.710	0	3.793
DETE	969	0.732	0.111	0	0.896
EV	577	0.014	0.145	0.001	0.113
CF	973	0.006	0.078	-0.369	0.318
CFV	573	0.076	0.480	0.007	0.346
SIZE	977	22.63	1.962	15.269	26.654
LIQ	970	0.909	0.245	0.127	2.008

Source: Author

Empirical Results and Discussion

Table 3. Empirical Results

	Dependent Variable		
	(1)	(2)	(3)
	Earnings Volatility	**Operating Cash Flow**	**Operating Cash Flow Volatility**
DTA	0.191	-0.075	-0.193***
	(0.014)	(0.207)	(0.041)
DTE	-0.003**	-0.003	0.003
	(-0.001)	(0.011)	(0.002)
DETE	-0.011***	0.274***	-0.179***
	(0.004)	(0.094)	(0.033)
Size	-0.005***	0.031***	0.018**
	(0.000)	(0.016)	(0.001)
LIQ	-0.009***	-0.119***	-0.036**
	(0.007)	(0.036)	(0.015)
N	551	865	547
Prob > F	0.0000	0.0000	0.0000
R^2	0.0526	0.1289	0.1506

Winsorization was applied to all variables at the 1% significance level. Standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: Authors

The regression results in Table 3 provide insights into the relationship between capital structure and financial performance in ASEAN commercial banks. For the first model on earnings volatility, the findings indicate that debt relative to assets does not significantly increase profit instability. This contrasts with (Alshehadeh et al., 2024), who found a negative and significant effect, suggesting that higher debt raises capital costs and reduces earnings stability. The results here are more consistent with (Lartey et al., 2022), showing that strong risk management practices in Southeast Asian banks help control earnings fluctuations. Deposits, on the other hand, play a stabilizing role, supporting prior evidence by (DeYoung & Torna, 2013) that deposit-based funding provides cheaper and more predictable financing. Thus, the first hypothesis (H1) is partially supported, with deposits strengthening stability while debt ratios show mixed effects.

In the second model, examining operating cash flow, the results reveal that debt ratios do not significantly drive changes in operating cash flow, diverging from (Alshehadeh et al., 2024), who reported a significant negative relationship in Jordanian banks. Instead, deposits show a positive and significant influence, aligning with (Allen et al., 2015), who emphasized the central role of deposits as dominant funding sources worldwide. Larger banks also report stronger operating cash flows, reflecting benefits of scale and diversification (Burke & Wieland, 2017), while liquidity shows a negative relationship, suggesting that excessive reserves reduce efficiency. These findings lend support to the second hypothesis (H2), especially through the role of deposits in enhancing banks' operating cash flows.

For the third model, focusing on operating cash flow volatility, the results suggest that higher debt relative to assets reduces cash flow volatility, as stable interest obligations encourage more disciplined cash flow management, consistent with (Jensen C., 1986) debt discipline theory. Deposits are also shown to reduce volatility, in line with (Berger & Bouwman, 2013), who highlight deposits as a stable and predictable source of financing. However, larger banks display higher volatility due to broader exposure and regulatory pressures, as suggested by (Khan et al., 2023). Liquidity has a stabilizing effect, reflecting its role as a buffer against shocks (Flannery & Rangan, 2008). These results support the third hypothesis (H3), confirming that capital structure composition significantly influences the volatility of banks' operating cash flows.

Overall, the empirical findings reinforce that capital structure affects both earnings stability and cash flow dynamics in ASEAN banks. Deposits emerge as the most critical stabilizing factor, while debt ratios require careful management to balance profitability and risk. The evidence is consistent with earlier studies (Berger & Bouwman, 2013; Dahiyat et al., 2021), underscoring the importance of bank-specific characteristics such as size and liquidity in shaping financial outcomes.

CONCLUSION

This study concludes that capital structure plays a critical role in shaping the stability of earnings, cash flow, and their volatility in ASEAN commercial banks. Unlike non-financial firms, banks rely heavily on third-party financing, particularly deposits, which serve both as a core financial product and as a cheaper, more stable funding alternative compared to conventional debt. The results show that the Debt-to-Assets Ratio does not significantly affect earnings volatility, while both the Debt-to-Equity Ratio and the Deposits-to-Equity Ratio have significant negative effects, suggesting that banks with higher proportions of external financing, especially deposits, are more likely to achieve stable earnings. For operating cash flow, debt-based ratios do not exhibit significant effects, but the Deposits-to-Equity Ratio has a positive and significant influence, indicating that deposit-dominated structures strengthen banks' ability to generate cash flow from their operations. Furthermore, all three capital structure indicators are shown to significantly affect the volatility of operating cash flows, which confirms that financing composition directly influences the stability of banks' financial performance.

From these findings, it is suggested that banks should maintain leverage at an optimal level to preserve financial stability and reduce the risks associated with excessive volatility. Future research could expand this study by investigating the effect of interest rate policies on earnings volatility in the banking sector or by examining reverse causality, where the behavior of earnings volatility and cash flow dynamics might in turn influence capital structure decisions.

The managerial implications of this study highlight the importance of prioritizing deposits as the main funding source because they provide predictable and cost-efficient liquidity that supports stability in both earnings and cash flows. At the same time, managers must carefully balance debt and equity to avoid the financial distress associated with excessive leverage, while ensuring that capital adequacy is sufficient to absorb potential risks. Effective liquidity management and interest rate monitoring are also crucial, as even small changes in deposit structures can directly affect financial outcomes. For regulators, the findings underscore the importance of capital adequacy and liquidity requirements in maintaining system-wide stability across ASEAN banks. Overall, the evidence shows that well-structured financing strategies, supported by disciplined risk management, can enhance banks' resilience and long-term value.

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