CHAPTER 2
LITERATURE REVIEW

2.1   INTRODUCTION

Bank capital is the driving force behind the bank's operations, so the amount of the bank's capital has a significant impact on the bank's ability to conduct its business. If the capital is low, the bank's ability to conduct business is limited. In determining the capital structure, the decision is influenced by several factors. The analysis of these factors leads to the conclusion that the bank will be able to maximize its capital structure so that in the end, the value of the bank in question is maximized.

Researchers have proposed several capital structure theories that take into account the various associated costs and benefits of financing options. Each approach underscores reasonable assumptions about the optimal combination of debt and equity. In their seminal work, Modigliani and Miller (1958) posited the irrelevance of debt. Researchers have also provided empirical evidence on various aspects of capital structure, such as the determinants of capital structure (Titman & Wessels, 1988; Rajan & Zingales, 1995; Wald, 1999; Booth et al., 2001; Frank & Goyal, 2009; Sheikh and Wang, 2013; Oztekin, 2015). Several studies examined the relationship between ownership structure and capital structure (Grossman & Hart, 1982; Friend and Lang, 1988; Brailsford et al., 2003; Shoaib & Yasushi, 2016). In addition, several studies examined the relationship between capital structure and firm performance (Margaritis & Psillaki, 2010; Sheikh & Wang, 2013).

2.2   THEORITICAL LITERATURE

2.2.1   TRADE OFF THEORY
Capital structure theory has evolved to include Modigliani and Miller's

theory, the net income approach, Balanced Theory and Pecking Order Theory. The Balanced Theory approach evolved into the Trade-Off Theory, which explains that capital structure policy is a trade-off between risk and returns, with the incurrence of debt increasing the expected return. "Trade-off theory supports debt as a financing option, considering its costs and benefits" (Kraus & Litzenberger, 1973).

2.2.2   PECKING ORDER THEORY

"Pecking Order Theory explains that companies that have adequate internal funds (retained earnings) will tend to use them first to fulfill their operations, then use debt or equity" (Siregar, 2005). "The pecking order theory assumes that if information asymmetries relate primarily to firm value rather than risk, managers will prefer debt financing to equity financing when debt is required." (Myers and Majluf, 1984).

2.2.3   AGENCY THEORY

"Banks have particular factors that other companies do not have, namely protection against the risk of non-payment of loans (such as deposit insurance schemes, payment guarantees, liability reserves and others)" (Asarkaya & Serkan, 2007). Another factor that distinguishes banks from other firms is government regulations on the minimum capital of banks (CAR). In the context of agency theory, there is a relationship between capital structure protection. "The principal-agent relationship in agency theory and identified the agency costs associated with each financing mechanism" (Jensen & Meckling, 1976).

2.3   DEPENDENT VARIABLE : LEVERAGE

Banks can obtain funding from two sources, internal funds (in the form of retained earnings) and external funds (in the form of equity and funds from third

parties, such as savings deposits, demand deposits, deposits and other financial institutions). In this study, the leverage ratio is used to measure the capital structure of a bank. It is calculated by dividing total debt by total equity. The higher the leverage ratio, the more the company relies on debt financing instead of equity financing. On the other hand, if the leverage ratio is lower, this means that the company is using more equity.

2.4   INDEPENDENT VARIABLE : SIZE, PROFITABILITY, BUSINESS RISK

2.4.1   SIZE

Bank size measures the amount of assets owned by the bank. In this study, bank size is measured by the bank's total assets. Assets show the assets used for the bank's operating activities. An increase in assets leads to an increase in returns. Operating activities increase the confidence of the public to leave their funds in the bank or may also increase the interest of investors to invest their funds in the bank.

2.4.2   PROFITABILITY

The profitability of a bank is measured by the Return on Assets (ROA) ratio. The purpose of profitability is to determine how much profit is made on all of its own assets. The profit generated by this business can be related to income, total assets and equity. The main activity of banks is to on-lend money to debtors, so the amount of loans disbursed determines the bank's profit. "To maintain the capital structure, according to the trade-off theory, banks must be able to balance the risk of lending and the benefits or profits obtained from the loan" (Siringoringo, 2012).

2.4.3 RISK

The business risk that banks face is credit risk, which is the risk that arises from counterparty's failure to fulfil its obligations. The financial metric that can measure the value of credit risk is the value of non-performing loans (NPL). High NPL value affects the bank's decline in CAR. Customers will be reluctant to invest their funds in a bank that is not performing well and may be impaired in the future.

2.5   EMPIRICAL STUDY

2.5.1   CAPITAL   STRUCTURE   OF   ISLAMIC   BANKS :   HOW DIFFERENT ARE THEY FROM CONVENTIONAL BANKS?

The aim of this study is to compare the capital structure of Islamic banks (IB) and conventional banks (CB) from other ways. This paper uses comprehensive data from 112 Islamic banks and 709 conventional banks from 23 countries from 1995-to 2015. It turns out that Islamic banks and traditional banks face different cost pressures in adapting to the desired capital structure. Asset growth is a significant driver of changes in the capital structure, and central banks favor borrowing. This study suggests that Islamic banks have a disadvantage in managing their capital structure than central banks. The conclusion suggests that Islamic banks need to expand their funding instruments and sources to reduce adjustment costs and improve their ability to manage asset risks.

a. Size Variable as a Determinant of Bank Capital Structure

b. Profitability Variable as a Determinant of Bank Capital Structure

c. Risk Variable as a Determinant of Bank Capital Structure

2.5.2 DETERMINAN STRUKTUR MODAL BANK

The purpose of this study is to investigate what factors affect the capital structure of a bank. The population of this study is commercial banks in Indonesia from 2006 to 2011, including state-owned banks, national private foreign exchange commercial banks, non-foreign national private commercial banks, regional development banks, joint venture banks, and foreign banks. Data collection is based on secondary data from annual financial reports published by each bank. The variables are leverage ratio, profitability, liquidity, business risk, dividends, management ownership, institutional ownership, and firm age.

This study examines the effects of profitability (ROA) and liquidity. (LDR), business risk (NPL), dividends (DPR), managerial ownership, institutional ownership, and firm age on the capital structure of banks (DER) in Indonesia from 2006 to 2011. The test results show that liquidity, institutional ownership, and firm age determine the capital structure of banks, while profitability, business risk, dividends, and managerial ownership do not determine the capital structure of banks.

a. Profitability Variable as a Determinant of Bank Capital Structure

The hypothesis tests show that return on equity as a measure of profitability is not a determinant of bank capital structure. Based on these results, profitability cannot be used to explain changes in capital structure. The increase in profitability does not affect the capital structure of banks, which rely on the ability of their equity to form a capital structure. Studies that show a negative impact of profitability on capital structure include Joni and Lina (2010), Solfida and Maryani (2007), Suko (2006), Andry (2010), Suprantiningrum (2010), Erkaningrum (2010), and Dian (2012). Yuhasril (2006), Tri (2007), and Mas'ud (2008) found that higher profitability increases corporate debt, but this is not consistent with the research of Putri and Ratih (2009), Supratiningrum (2009), and Joni and Lina (2010).

b. Liquidity Variable as a Determinant of Bank Capital Structure

LDR as a measure of liquidity is a significant determinant of a bank's capital structure with a negative impact. The LDR ratio measures a bank's ability to repay withdrawals from depositors by relying on loans as a source of liquidity (Gagah, 2009). This study supports the research conducted by Margaretha & Aditya (2010), and Masidonda et al. (2013), but not the research conducted by Seftianne & Ratih.

c. Business Risk Variable as a Determinant of Bank's Capital Structure

The results of the hypothesis tests indicate that NPL as a measure of business risk is not a determinant of DER as a measure of bank capital structure. The higher the business risk measured by NPL and the lower the business risk of a bank, the less influence it has on the bank's funding decisions.

The results of this study are not consistent with the research conducted by Tri (2007) but support the results of the research conducted by Sri (2009), Joni and Lina (2010), and Seftianne and Ratih (2011), which state that business risk is not a determining factor in corporate financing decisions.

d. Dividend Variable as a Determinant of Bank Capital Structure

The variable dividend, as measured by the payout ratio, is not a determinant of the bank's capital structure. If the bank earns a profit and distributes cash dividends to shareholders, the distributed profit is the current year's profit and not retained earnings, so it does not reduce the bank's capital structure.

This study is not consistent with Erkaningrum (2008) research and Saktiawan and Emrinaldi (2012), who find an effect of dividend policy on capital structure. However, this study supports the research of Yuhasril (2006), Putri and Ratih (2009) and Joni and Lina (2010).

e. Managerial Ownership Variable as a Determinant of Bank Capital Structure

Managerial ownership is not a determining factor in a bank's capital structure. Banks whose shares are or are not owned by the bank's management in

question do not affect the ratio of the bank's capital structure since the primary purpose of managerial ownership by management is to reduce agency costs resulting from the different interests of management and owners.

The results of this study are not consistent with the research conducted by Tri (2007) and at the same time, refute the agency theory which states that managerial ownership increases management's control over the financing decisions it makes and reduces agency costs. This study supports the research conducted by Putri and Ratih (2009) and Saktiawan and Emrinaldi (2012), which state that managerial ownership is not determined by management ownership.

f. Institutional Ownership Variables as Determinants of Bank Capital Structure

Institutional ownership is a significantly positive determinant of bank capital structure. It shows the results support the theory that more significant the proportion of shares owned by institutional owners, the more effective the supervisory efforts become because it can control the opportunistic behaviour of managers (Putri & Ratih, 2009).

This study supports the research conducted by Putri and Ratih (2009) and Saktiawan and Emrinaldi (2012) that the firm's capital structure is determined by institutional ownership.

g. Bank Age Variable as a Determinant of Bank Capital Structure

The results show that age of the bank is a determinant of the bank's capital structure. This means that the longer the bank has been operating in Indonesia, the more influence it has on the DER because a bank that has been operating for a long time must have had many customers and earned the public's trust.

This research supports the research of Bhaduri (2002), Ramlall (2009), and Margaretha and Aditya (2010).

2.5.3 CAPITAL STRUCTURE DECISION OF ISLAMIC AND CONVENTIONAL BANKS: EMPIRICAL EVIDENCE FROM MALAYSIA

This paper aims to investigate how Malaysian Islamic Banks (IB) and Traditional Banks (CB) choose their capital structure and what factors influence their capital structure decisions. In this study, the autoregressive distribution lag (ARDL) approach is applied to a sample of 54 banks, including 17 IBs and 37 CBs listed on the Malaysian Stock Exchange during the period 2010-to 2018. The data required were obtained from FitchConnect database and Bank Negara Malaysia. The study's result is that the study provides evidence of a long-run and short-run relationship between leverage and its critical determinants for Islamic Bank and Conventional Bank. The finding show that the different independent variables for the capital structure have different effects (in terms of magnitude of the coefficient) for Islamic firms and credit unions. The variables are book debt, size, profitability, liquidity, growth opportunities, credit risk, and bank age.

a. Negative relationship between liquidity and book leverage
   This is consistent with pecking order theory. Liquid conventional banks prefer internal financing, and less debt is incurred (Titman & Wessels, 1988). Each 1% increase in the liquidity ratio leads to a 0.073% decrease in the leverage ratio of conventional banks in the long run. This result can be explained by the lower information asymmetry faced by more liquid conventional banks, leading to a better ability to raise equity (Belkhir et al., 2016).

b. Positive and significant impact of growth opportunities on book leverage.
   Consistent with pecking order theory, conventional banks with more investment opportunities increasingly resort to debt financing when internal financing is exhausted.

c. Credit risk reveal evidence of a negative and significant association with book leverage. Consistent with trade-off theory, banks exposed to higher risk must reduce their leverage to minimize their bankruptcy risk. This negative impact of credit risk on bank leverage is more pronounced for conventional banks.

d. This positive relationship also supports the trade-off theory that a firm's tangibility or asset structure should be positively related to leverage (Titman & Wessels, 1988). Similar results were found by Bitar et al. (2018).

e. The positive and significant effect of bank size on debt is in line with trade-off theory predictions. This suggests that large banks are less exposed to bankruptcy risk, which increases their debt capacity.

f. A negative and significant relationship between profitability and book debt. Supports the pecking order theory. This result shows that retained earnings are the preferred funding source for banks. Since higher profitability allows banks to retain more profits, the need for debt financing is reduced.

g. Positive relationship between bank age and leverage.
The age of a company is considered one of the most important determinants of its capital structure. Previous studies have shown that financing costs are not associated with the life cycle of a firm. Since firm age can be defined as a standard criterion for reputation in capital structure models, increasing firm age as a going concern reduces information asymmetry, implying higher debt. A firm uses its reputation, built up over time, which allows it to generate high profits to deal with debt problems and show its solvency.

2.5.4 DETERMINANTS OF CAPITAL STRUCTURE IN THAILAND

The choice of financing is crucial for companies, especially long-term financing, which determines the company's financing options. The long-term

financing mix that a company uses is its form of capital. It consists of debt, equity and hybrid securities that a company uses to finance its assets, operations and growth. Therefore, the choice of capital structure is among the most important economic management issues that can maximize shareholder price. Similarly, the choice of capital form affects the price of capital and the choice of capital raising plans. In the study of Modigliani and Miller (1958), it was proved that the capital structure or financing approach is inappropriate for the price of the firm under the assumptions of a perfect market, while Modigliani and Miller (1963) argued that the capital structure applies to the price of the firm under the conditions of taxation. Subsequent researchers have made convenient assumptions, including financial ruin costs, tax defense without debt, organizational costs, and variable data, and have included protected capital market frictions in the model. The key elements affecting capital structure choices are associated with these frictions. Annual data on one hundred forty-four companies indexed on the Stock Exchange of Thailand for the twelve years from 2000 to 2011 are obtained from the Datastream database, as the form of capital is critical for the company to generate its assets and operations and ultimately maximize the valuation of the company. Therefore, what determines the form of capital of a company is one of the main questions of this research. For an indexed company in the Thai inventory change market, the research confirms that the debt-equity ratio increases with the duration of the company and decreases significantly with profitability. Nevertheless, there are no relationships between tangibility, growth opportunity, enterprise risk and debt ratios. In summary, firm length and profitability fully determine capital structure in Thailand.

The trade-off theory of capital structure predicts that leverage increases with firm size, profitability, and tangibility, while it decreases with growth opportunities and volatility. However, the pecking order theory predicts that leverage decreases with firm size, profitability, tangibility, and volatility, while growth opportunities remain unclear.

a. The results highlight a significant positive relationship between firm size and leverage in line with trade-off theory. The larger a firm is, the higher its leverage.

b. There is a significant inverse relationship between profitability and leverage related to the pecking order theory. The more profit a company makes, the less debt it takes on.

c. There is no significant relationship between tangibility and leverage.

d. There is no significant relationship between growth opportunity and leverage.

e. There is no significant relationship between business risk and leverage.

2.5.5 CAPITAL STRUCTURE AND REGULATORY CAPITAL OF FRENCH BANKS

This study aims to investigate the determinants of banks' capital structure and regulatory capital. Our sample includes a panel of 172 French banks: commercial banks, cooperative banks, investment banks and savings banks over the period 2002-2012 from our BankScope database. The results of our study support both the corporate finance and buffer views. We find that the regulatory view is not the most important determinant of banks' capital structure. Instead, the results confirm the corporate finance view. The buffer view seems to prevail in alternative measures. This result is consistent with the impact of regulation on bank capital structure. The variables leverage are size, profitability, collateral, growth opportunities, risk and dividends.

Our results suggest that the determinants that characterize banks, such as size, profitability, growth, risk, collateral, and dividends, explain much of the variation in bank leverage. At the same time, the explanatory power seems to be

lower when the Tier 1 capital ratio is introduced. However, country heterogeneity and time level seem to play a more significant role in explaining the variation in the dependent variable.

a. The effects of size seem to be constant for French banks

Compared to the results of Gropp and Heider (2010). Concerning both corporate finance and buffer considerations, our result confirms the predicted sign of size.

b. The estimated profitability coefficients have a high negative impact on the indebtedness of French banks.

The operational sign is consistent with the results of Gropp and Heider (2010) and the prediction of corporate financing; banks choose internal over external financing, referring to pecking order theory and agency theory. The main explanation proposed is that the banking sector is characterized by rapid growth between 2000 and the financial crisis in 2007. Liikanen et al. (2012) show that most banks accumulated profits; in this way, they financed their operations instead of increasing leverage.

c. The Collaterals are insignificant as the predicted effects of buffer views

As for the effect of collateral on leverage, this is not confirmed. The conventional wisdom is that banks that have more assets should act as collateral and be able to increase their leverage.

d. Growth is negatively correlated with banks.

The negative impact on real growth opportunities can be explained by high differentials. This has been confirmed by Corporate Finance. Growth is defined by changes in net interest income and fee and commission income, which reflect the potential growth of the non-credit part of the business, which reflect the potential growth of a part of the business not related to lending.

e. The risk has a positive coefficient

Signs of opposition from the perspective of corporate finance and buffer views. This can be explained by the low volatility and high mean value of various assets during the financial crisis. Regulatory effects forcing risky banks to reduce leverage will increase their capital base.

f. Dividends is negatively insignificant

This means that a bank that pays dividends has a lower equity ratio, which is, of course because banks that do not pay dividends can instead accumulate profits, which increases their equity ratio.

2.6 THEORITICAL FRAMEWORK

2.6.1 SIZE AS A DETERMINANT OF BANK CAPITAL STRUCTURE

The larger the company, the higher the increase in debt financing. Large banks are less exposed to bankruptcy risk, which increases their debt capacity. The size of the bank is the size of the firm, which total sales can measure. In this study, the variable size of the bank is measured by the logarithmic value of total sales. "Large firms also have greater leverage because the bankruptcy costs of debt are lower for large firms" (Abor & Biekpe, 2007). The natural logarithm of total sales can measure the size of a bank. The size of a bank may be related to flexibility in financing.

Bank size is positively related to capital structure because large firms tend to have good reputation and have more specific company information. According to the trade-off theory, the results highlight a significant positive relationship between firm size and leverage. Large companies can borrow more easily (Cassar & Holmes, 2004). Based on this theory, the hypothesis in this study is:

Hypothesis 1 : Size as a determinant of bank capital structure

2.6.2 PROFITABILITY AS A DETERMINANT OF BANK CAPITAL STRUCTURE

A bank that wants to grow and develop needs capital or sources of money that it can use to finance its business activities. Therefore, the bank must determine the optimal capital structure to increase the value of the bank. Several factors influence the capital structure. According to Psillaki and Daskalakis, the factors that affect capital structure are profitability, size, tangibility, and growth risk (Psillaki & Daskalakis, 2008).

Profitability is the amount of profit generated by the bank's activities. In this study, profitability can be measured by comparing EBIT to the bank's total equity. Banks with high profitability tend to use relatively little debt because when profitability is high, funding needs can be met from retained earnings Hermuningsih (2013). Banks with high profitability have more internal funds than banks with low profitability. In the composition of the capital structure, if the proportion of equity is higher than the proportion of debt, then the proportion of the capital structure is lower. Therefore, the higher the profitability, the lower the capital structure ratio, and profitability negatively influence the capital structure. Profitability has a negative impact on the capital structure. If a bank's profitability increases, the bank's capital structure decreases. Banks with high profitability take on less debt because the company can provide sufficient funds through retained earnings.

The higher the bank's return on equity, the more effectively the bank uses its assets to generate profits (Siringoringo, 2012). When the return on equity increases, the bank can be healthy. This means that the value CAR is a measure of the bank's equity, the bank can meet its operational needs without the need to borrow or raise equity.

Studies that show that profitability has a negative impact on capital structure include Joni and Lina (2010), Solfida and Maryani (2007), Suko (2006), Andry (2010), Suprantiningrum (2010), Erkaningrum (2010), and Dian (2012). On the other hand, Yuhasril (2006), Tri (2007), and Mas'ud (2008) found that higher profitability increases the firm's debt. Based on this theory, the hypotheses in this study are:

Hypothesis 2 = Profitability as a determinant of bank capital structure

2.6.3 BUSINESS RISK AS A DETERMINANT OF BANK CAPITAL STRUCTURE

If the bank has a high NPL ratio, this indicates a high risk of bad loans. According to the pecking order theory, high credit risk may reduce public confidence, so banks will have difficulty obtaining funds from customer deposits and other financial institutions (Siringoringo, 2012). The research results that found a negative relationship between credit risk and capital structure are from Setiawan (2006) and Tri (2007). Based on this theory, the hypothesis in this study is:

Hypothesis 3 = Business Risk as a determinant of bank capital structure

2.7   CONCEPTUAL FRAMEWORK
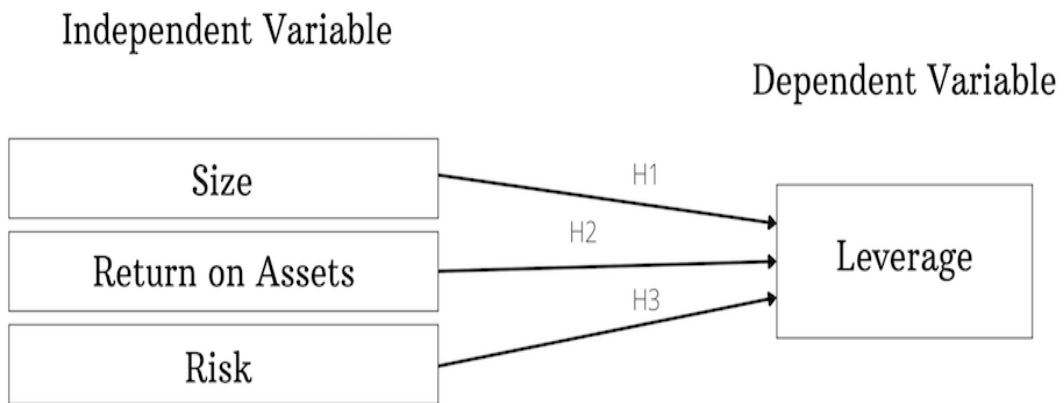
FIGURE 2.1 : Relationship between Independent Variable and Dependent Variable

H1 : There is positive and significant influence between Size toward leverage

H2 : There is negative and significant inflence between Profitability toward leverage

H3 : There is negative and significant influence between Risk toward leverage

2.8   SUMMARY OF THE CHAPTER

This chapter mainly contains a summary of the literature review. The literature review is divided into seven subtopics. The first is the introduction, which explains the topic. The second subtopic deals with the theory used in this research. The third subtopic is the dependent variable. The fourth subtopic is the independent variable. The fifth is the empirical study. The sixth is the conceptual framework and the seventh is the hypothesis of the study.