CHAPTER I

INTRODUCTION

1.1. Background

1.1.1. Financial Stability in Global Real Estate

The main cause of the 2008 global financial crisis was largely the lack of financial stability, which can be achieved through adequate liquidity. Lehman Brothers' downfall in 2008 was primarily caused by inadequate liquidity, stemming from mismatches between their assets and liabilities. This mismatch arose from their exposure to the subprime mortgage industry in 2007. As a result, Lehman Brothers found themselves in a situation where their liabilities exceeded their assets, leaving them without sufficient cash to meet their debt obligations. In 2007, Lehman Brothers owned US$111 billion of real estate-related assets and securities. However, starting in mid-2007, the real estate markets began to exhibit signs of decline. The declining real estate market has resulted in a substantial decrease in the value of Lehman Brothers' assets, while their value of liabilities remained unchanged, so there was unmatched value wherein the value of liabilities were greater than value of assets. To address this issue, Lehman Brothers should have secured additional cash injections from shareholders or sold assets to generate fresh funds for meeting their obligations. That was why Lehman Brothers chose to file Chapter 11 for bankruptcy because although Lehman Brothers sells their assets, the proceeds will still not be enough to pay their obligations. Given this case, financial stability is very important for the economy as a whole (Wiggins et al, 2014).

Aside from the case of Lehman Brothers, Jing et al. (2021) referred to the decline of Evergrande, a Chinese real estate developer, as China's version of the Lehman Brothers collapse. In November 2009, Evergrande went public on the Hong Kong Stock Exchange in November 2009, raising approximately US$722 million. As of June 2021, Evergrande booked around RMB2 trillion in debt, plus the off-balance sheet debt. Evergrande's debts accounted for 2% of China's GDP, and the company employed 200,000 individuals. Evergrande had over 800 projects under construction, but financial difficulties forced the suspension of more than half of them. As noted by Almeida et al. (2022), Evergrande Real Estate Group Limited (formerly known as Hengda Group) was the second-largest real estate company in China by revenue and held the 122nd position on the Fortune Global 500 list. On December 3, 2021, Evergrande officially informed that they would default on their debts (Linyu, 2022). One of Evergrande's key issues was the mismatch between asset and liability maturities, which ultimately resulted in a lack of liquidity. Despite reporting a net income of RMB31.4 billion (approximately US$4.8 billion) in 2020, the Company faced difficulties in fulfilling its short-term financial obligations. The periods of their liabilities were mainly current liabilities, while the completion period of their assets will take more than one year. Also, their products cannot attract customers to buy, therefore they have no liquidity from sales to pay their contractors and creditors. The figures for the financial position of Evergrande are as follows:

	UoM	2021	2020
Total Assets (A)	**RMB**	**2,107,096,000,000**	**2,301,159,000,000**
Total Liabilities (B)	**RMB**	**2,580,150,000,000**	**1,950,728,000,000**
Net Asset Value (Firm Value based on book) (C=A-B)	**RMB**	**(473,054,000,000)**	**350,431,000,000**
Market Capitalization (Firm Value based on Market)	**HKD**	**20,994,838,431**	**197,265,345,010**
Net Income (Net Loss)	**RMB**	**(686,219,000,000)**	**31,400,000,000**
Debt to Equity Ratio (B/C)	%	**-545%**	**557%**
Total Assets	**US$**	**331,518,117,025**	**352,252,361,198**
Total Liabilities	**US$**	**405,945,656,791**	**298,609,763,191**
Net Income (Net Loss)	**US$**	**(107,965,669,693)**	**4,806,588,394**
Net Asset Value (Firm Value based on book)	**US$**	**(74,427,539,766)**	**53,642,598,007**
Market Cap (Firm Value based on market)	**US$**	**2,692,854,285**	**25,444,400,089**

Table 1.1 - Key Financial Figures of Evergrande

Source: *https://doc.irasia.com/listco/hk/evergrande/annual/2021/ar2021.pdf*

In terms of assets, Evergrande is recognized as a sizable company, with total assets reaching RMB2.1 trillion (approximately US$331 billion) in 2021 and RMB2.3 trillion (approximately US$352 billion) in 2020. In the context of net asset value, Evergrande is deemed to be on a smaller scale, particularly in 2021, owing to its negative net asset value resulting from a substantial debt-to-equity ratio at -545%. The summary of firm value of Evergrande is as follows:

	UoM	2021	2020	%
Net Asset Value	RMB	(473,054,000,000)	350,431,000,000	-235%
Firm Value per Market Value	HKD	20,994,838,431	197,265,345,010	-89%
Net Asset Value	US$	(74,427,539,766)	53,642,598,007	-239%
Firm Value per Market Value	US$	2,692,854,285	25,444,400,089	-89%

Table 1.2 - Net Asset Value and Firm Value of Evergrande

Source: *https://doc.irasia.com/listco/hk/evergrande/annual/2021/ar2021.pdf*

In 2021, Evergrande's Net Asset Value (NAV) dropped by 239% compared to 2020, reaching a negative value of approximately US$74.4 billion. This decline indicated that the company's liabilities had exceeded its total assets, highlighting its severe financial distress. Evergrande's debt is five times greater than its equity, leading to a substantial reduction in firm value and severe financial instability. Aside from the negative net asset value, firm value per market value also decreased

by 89%. The significant drop in market value reflects a loss of investor confidence and suggests a potential decline in how Evergrande is perceived on the stock market. The combination of a negative firm value per book and a decreased market value suggests financial distress and challenges for Evergrande. This may signal doubts about Evergrande's capacity to meet its financial obligations and raise concerns about the overall stability of its business.

NAV primarily reflects the value of a firm. It is determined by adding the market values of all assets and subtracting the total liabilities. NAV is commonly seen as a reliable estimate of the fundamental value of a real estate company primarily engaged in property ownership and leasing (Rehkugler et al, 2012). NAV often closely corresponds to or matches a company's book value per share. Businesses with strong growth potential are typically valued higher than their NAV would suggest (Chen, 2023). Aside from NAV, some investors also consider. Market Capitalization ("Market Cap") is a measure of a firm's value, calculated by multiplying market share price with the total number of outstanding shares (Fernando, 2023). Evergrande's case illustrates a company that relied more on debt than equity as part of its financial strategy, ultimately burdening its performance. As a result, both NAV and market cap of Evergrande experienced a significant decline. This situation led to financial instability, and Evergrande defaulted on its obligations due to a lack of liquidity. According to trade-off theory, Myers (1984) contended that employing debt up to a specific threshold could mitigate the expenses associated with financial distress and offer tax benefits through interest deductions. Big corporations like Evergrande typically lean towards utilizing debt

rather than internal funds for project financing, primarily due to their substantial assets that can serve as collateral. However, Miller (1988) affirmed Modigliani and Miller's (1963) conclusion that the inclusion of debt in a company's capital structure increases the risk of bankruptcy. The events in Evergrande align with the principles of Modigliani and Miller (1963), where a rise in debt corresponds to an increased likelihood of bankruptcy.

To achieve financial stability, the World Bank (2016) defined it as a state where corporations efficiently allocate resources and properly evaluate and manage financial risk. In addition to the World Bank's (2016) definition of financial stability, Isamail et al. (2023) argued that a key aspect of financial stability centers on how a company manages its assets and liabilities to maintain liquidity, which aligns with the World Bank's definition. Similarly, Xuanling and Meng (2023) emphasized that companies should properly manage their assets and liabilities to maintain adequate liquidity, which ultimately ensures financial stability. As for Evergrande, the allocation of assets and liabilities is not evenly distributed. Consequently, Evergrande lacks sufficient liquidity, which has led to financial instability. Linyu (2022) elucidated that capital structure of Evergrande was not reasonable because debt to equity ratio stood at -545% and 557% for 2021 and 2020, respectively. The real estate industry requires significant upfront capital expenditures to contractors, while customers typically pay through installment schemes. This mismatch between installment-based revenue from customers and the immediate payments required for contractors contributes to financial instability. Evergrande's need for upfront capital expenditure is reasonable, as it must prioritize

paying its contractors first. Increased debt levels correspond to an elevated level of risk. One challenge facing Evergrande is that the market is not receptive to their products. This situation has left Evergrande with limited cash flows. Given Evergrande's circumstances, it can be inferred that the composition of a company's capital structure plays a critical role in maintaining financial stability. Financial stability needs reasonable capital structure to ensure long-term stability (Altman, (1968); Nguyen et al. (2023)).

1.1.2. Financial Stability in Indonesia Real Estate

Despite the difficulties faced by many companies across various sectors during the COVID-19 pandemic, a number of real estate companies in Indonesia showcased a unique scenario from 2020 to 2022. In comparison to certain companies in other sectors facing challenges, the real estate industry in Indonesia displayed strong financial stability. The pandemic was an unforeseen event affecting companies worldwide. Worldwide, companies have faced financial shocks due to the COVID-19 pandemic, leading to widespread layoffs. Some businesses encountered financial challenges, struggling to remain operational and sustain themselves. In March 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a global pandemic. This health crisis severely impacted the global economy, causing major disruptions in financial markets. Government-mandated lockdowns and travel restrictions have curtailed economic activities, contributing to an adverse economic situation globally (Xu & Jin, 2022). Numerous countries, including Indonesia, have witnessed negative economic

growth as a consequence of these challenges. The global economy was negatively impacted by the pandemic, and according to the International Monetary Fund (IMF), 95% of countries were projected to experience negative growth (Rahmah and Novianty, 2021). In response to the economic challenges caused by COVID-19, the Federal Reserve took swift action in March 2020 by implementing quantitative easing, purchasing US$500 billion in Treasury securities and US$200 billion in mortgage-backed securities (Timiraos, 2020).

In 2020 during pandemic, GDP growth of Indonesia had significantly dropped to -2.07% from 5.02% in 2019. Below is the trend of GDP Growth from 2012 to 2022.

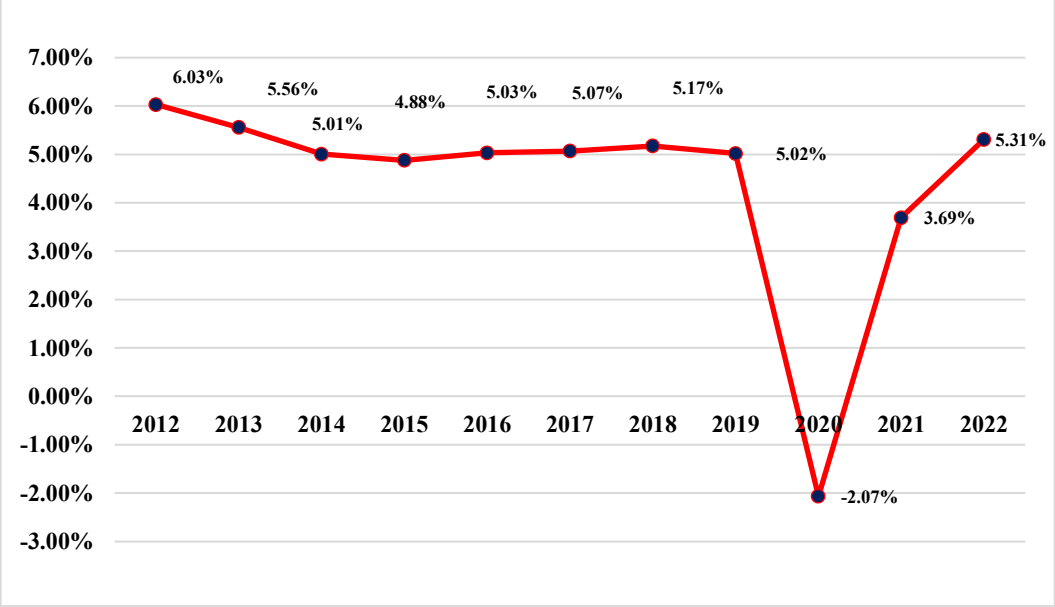


Table 1.3 – GDP Growth of Indonesia from 2012 to 2022

Source: *World Bank*

The breadwinners were unemployed, and it was difficult to obtain project financing from banks at that time (Crespí-Cladera et al, 2021). This pandemic has caused financial instability or financial shocks in global markets or is also known

as financial distress. The term “financial distress” is often used with a negative connotation to describe a company facing a temporary liquidity shortfall and challenges in meeting its financial obligations as they come due (Gordon, 1971; Davydenko, 2012). According to Platt (1995), financial distress represents the early stage or initial indication of a decline in a company’s financial health, occurring before bankruptcy or liquidation takes place.

The World Bank (2016) defines financial stability as a state in which the financial system functions effectively, allocates resources efficiently, and accurately evaluates and manages financial risks. A financial system is considered stable when it can correct internal financial imbalances that arise from significant adverse events. Financial stability is vital for economic growth, as all real-sector transactions are conducted through the financial system (The World Bank, 2016). According to the Federal Reserve of the United States (2018), financial stability does not aim to prevent losses or failures but rather to ensure the financial system can function effectively during both prosperous and challenging economic periods. It is about building resilience so that adverse events do not hinder the system's overall performance. Jakubík and Teplý (2008) emphasized that financial stability reflects a company's liquidity position, noting that a lack of financial liquidity heightens the risk of bankruptcy. According to Savina (2020), financial stability is the primary objective of financial analysis. It involves maintaining a predetermined sound financial condition that ensures ongoing solvency, while taking into account the company's reliance on creditors and investors, typically measured through the debt-to-equity ratio. Ujam et al. (2023) argued that firm financial stability

encompasses the capability of companies to maintain production and operational levels in the near future, as well as the ability to endure temporary economic challenges. Several studies suggest that capital structure influences firm value, which is considered a reflection of strong performance, often demonstrated by high profitability. High profitability implies that liquidity is assured, and this, in turn, contributes to the establishment of financial stability (Santika and Kusuma (2002); Aivazian et al. (2005); Berger and Di Patti (2006); Suharli (2006); Kontesa (2015); Vătavu (2015); Detthamrong et al. (2017)). These studies have presented both theoretical and empirical perspectives on how capital structure influences financial stability, particularly in times of financial distress (Altman, 1968; Campbell et al., 2008; ElBannan, 2021; Nguyen et al., 2023).

Capital structure fundamentally refers to the proportion of debt and equity a company employs to finance its operations and investments (Priya et al. (2015); Nawaz et al. (2011); Siddik et al. (2017)). Vătavu (2015) argued that optimal capital structures can reduce the weighted average cost of capital, leading to an increase in the market value per share, which serves as a key indicator of the firm's overall value. Ahmed et al. (2024) argued that excessive debt can heighten financial risk, while a well-balanced capital structure ensures stability by optimizing the cost of capital and managing financial obligations effectively. The optimal capital structure is one that maximizes a firm's value by striking a balance between the benefits and costs of debt and equity, thereby enhancing financial stability (Ahmed et al., 2024; Priya et al., 2015).

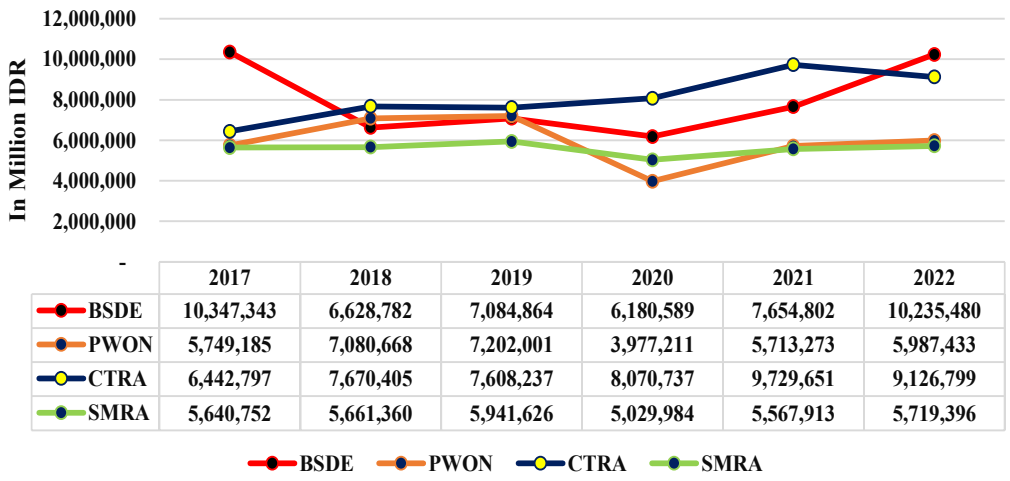
The composition of capital structure affects the cost of capital, and the endeavor to minimize this cost contributes to a higher firm value (Priya et al, 2015). According to Ross et al. (2013), managers should choose the capital structure based on their beliefs regarding the structure that enhances firm value, ultimately leading to the enhancement of shareholders' value. Debt, which often has a lower cost than equity, can amplify returns to shareholders. The total value of a company is derived from the combination of its debt and equity. This value is distributed among various stakeholders, including shareholders and debt holders. Investors and the market assess firm value as a key indicator of a company's worth. A company with an optimal capital structure is often perceived more positively, leading to higher market capitalization. Hasbi (2015) concluded that capital structure has strong connection and positive influence on the firm value and capital structure holds significant importance in shaping firm value, and it also exerts an impact on profitability, ultimately contributing to the establishment of financial stability. Suzulia and Saluy (2020) argued that the capital structure plays a significant role in influencing both firm value and profitability, ultimately shaping the overall financial stability of the company. The conclusion drawn by Nishihara & Shibata (2021) underscores the critical importance of the choice of capital structure in corporate networks. Their findings suggest that the decisions regarding capital structure are pivotal, as they have the potential to lead to simultaneous bankruptcy or financial instability across interconnected corporations. Also, Supyan and Kuswanto (2023) contended that firm value and capital structure are interconnected, and both play significant roles in determining financial stability.

The capital structure, comprising both debt and equity, plays a crucial role in determining the cost of capital, which in turn affects the overall value of the firm. This balance also impacts financial stability, as higher levels of debt can increase the risk of bankruptcy and liquidity issues.

Despite the pandemic's negative impact on certain businesses in Indonesia, several real estate companies showcased strong performance in contrast. This pandemic has disrupted the world economy due to restrictions on human activities as a result of lockdowns and travel bans by the government. During pandemic COVID-19, according to López-Gutiérrez et al. (2014), most companies have propensity to reduce their investment during financial shocks and companies with fewer opportunities will have propensity to under-invest. Also, mostly individual investors tend to hold their investment and focus on how to survive during pandemic and also, they are not willing to take the risky investments and prefer "wait-and-see position" for the outcome of economy (Ortmann et al, 2020). However, in Indonesia's property industry, a contradiction to the theory emerged during the COVID-19 pandemic. While investment was expected to decline during the COVID-19 pandemic, however, some individuals still continued to invest in property, even purchasing high-priced properties despite the economic uncertainty. It was a surprise for stock analysts in the stock market because the performance of Big 4 Property Companies (PT Bumi Serpong Damai Tbk (BSDE), PT Pakuwon Jati Tbk (PWON), PT Ciputra Development Tbk (CTRA) and PT Summarecon Agung Tbk (SMRA)) were considered awesome during pandemic. It is a

phenomenal performance for Big 4. The performance of the Big 4 companies did not align with the country's economic growth during the pandemic.

Given this condition, there is a phenomenon gap between the theoretical expectation of a tendency to reduce spending during financial shocks and the actual reality where people continue to spend their money on buying property. The performance of revenue from Big 4 is as follows:

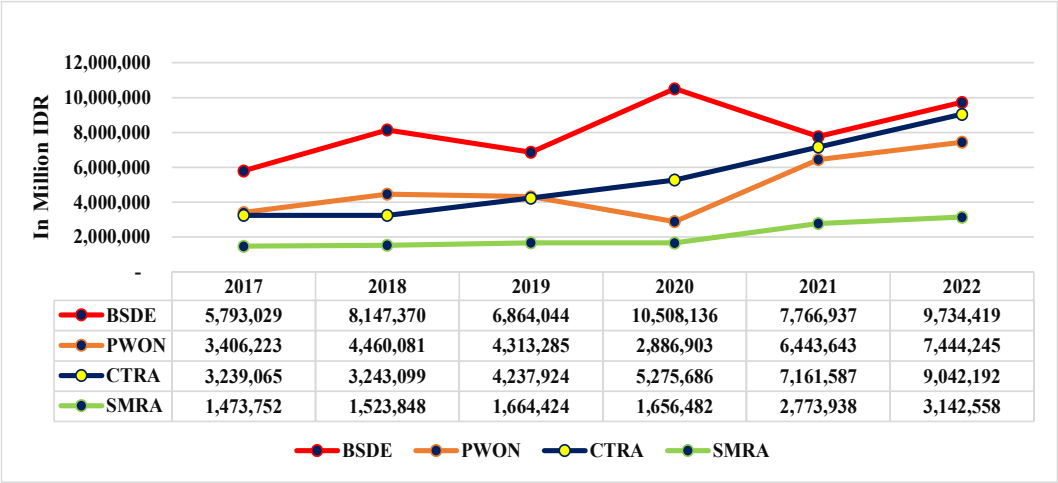


	2017	2018	2019	2020	2021	2022
BSDE	10,347,343	6,628,782	7,084,864	6,180,589	7,654,802	10,235,480
PWON	5,749,185	7,080,668	7,202,001	3,977,211	5,713,273	5,987,433
CTRA	6,442,797	7,670,405	7,608,237	8,070,737	9,729,651	9,126,799
SMRA	5,640,752	5,661,360	5,941,626	5,029,984	5,567,913	5,719,396

Table 1.4 – Revenue from Big 4

Source: *Website of each company*

During the COVID-19 pandemic, the cash positions of the Big 4 companies were significantly stronger compared to the period before the pandemic. This was seen as unusual because, typically, during economic hardships, people are more inclined to save money. Despite real estate products being expensive, people continued to purchase them. The performance of cash position is as follows:

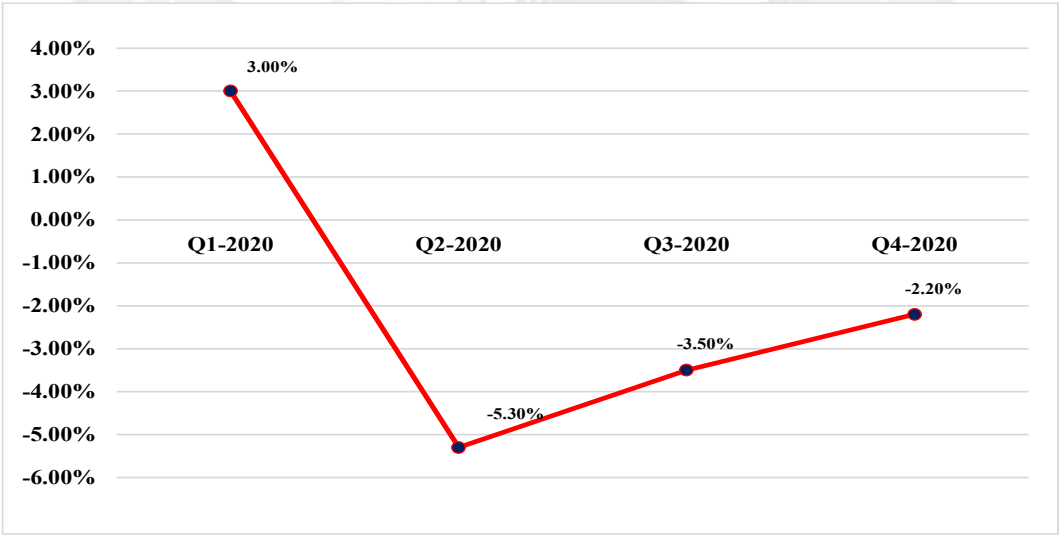


	2017	2018	2019	2020	2021	2022
BSDE	5,793,029	8,147,370	6,864,044	10,508,136	7,766,937	9,734,419
PWON	3,406,223	4,460,081	4,313,285	2,886,903	6,443,643	7,444,245
CTRA	3,239,065	3,243,099	4,237,924	5,275,686	7,161,587	9,042,192
SMRA	1,473,752	1,523,848	1,664,424	1,656,482	2,773,938	3,142,558

Table 1.5 – Cash Position from Big 4

Source: *Website of each company*

The Indonesia economic growth stood at -5.3%, -3.5% and -2.2%, in Q2-2020, Q3-2020 and Q4-2020, respectively (Muhyiddin and Nugroho, 2021). However, the performance of Big 4 real estate companies showed the other way around where the performance was not in negative point. The Indonesia economic growth is as follows:



Graphic 1.6 – GDP Growth of Indonesia from Q1 2020 to Q4 2020

Source: *Badan Pusat Statistik Indonesia*

Financial instability is a threat for every company across the globe. Some companies have anticipated the potential arrival of financial shocks, and some have not anticipated it. During financial shocks, there are lots of layoffs and people lose their jobs and ultimately, unemployment rises, and the country's economy will enter into a crisis which is unfavorable for everyone. To anticipate this condition, companies should have financial stability to contain the big economic turbulence. It is proven that companies whose good financial stability can survive during economic turbulence (Chant et al, 2003; Ujam et al. (2023)).

The comprehension of capital structure by certain researchers, particularly regarding the trade-off theory and pecking order theory, has not been extensively and comprehensively investigated, especially in the context of financial stability amid the financial shocks caused by COVID-19, specifically within real estate companies. Some studies have different findings on capital structure.

This study examines financial stability as the dependent variable, with profitability, leverage, and liquidity serving as independent variables. Firm value functions as a mediating variable, while firm size serves as a moderating variable. Additionally, firm age, interest rate and COVID-19 are included as control variables. Additionally, this study seeks to assess the interrelationships among the dependent, independent, control, mediating and moderating variables to provide a comprehensive understanding of the factors influencing financial stability. This study is conducted in the context of real estate companies for three reasons. First, one of the industries which can provide lots of job creations for a country's economy is the real estate industry because real estate industry have a lot of

connections with other industries. Absolutely, the construction of a single house involves the utilization of numerous products including paint, steel, tiles, roofing materials, appliances like fridges and TVs, furniture, electricity-related components, air conditioning units, water pumps, aluminum, windows, doors, locks, timber, cement, sands, nails, and more. The production of each of these items typically requires dedicated factories, each of which employs a substantial workforce. For instance, cement factories often have a labor force ranging from 200 to 500 workers, as do tiling factories. Similarly, factories manufacturing items like TVs or AC units also require a significant number of employees. The complex interconnection of industries emphasizes the significant role of the real estate industry in generating employment across a broad spectrum of manufacturing sectors. Certainly, the aggregation of the workforce from all factories engaged in the real estate industry would result in a sizable and impactful labor force, making a substantial contribution to the country's economy. Second, Petriella (2021) reports that the real estate industry made a significant contribution to Indonesia's GDP, accounting for 13.6% in 2020. In other words, the real estate industry has the capacity to absorb a considerable amount of the labor force. Third, housing stands as a fundamental necessity for everyone, underscoring the crucial role of the real estate industry in addressing a basic need of the population. The importance of the real estate industry is evident as housing is a fundamental need for everyone globally. The industry's critical role becomes apparent in the unfortunate event of a collapse due to financial instability. Such a scenario would lead to an increase in layoffs, job losses, and could potentially trigger an economic crisis, emphasizing

the interconnectedness of the real estate sector with employment and overall economic stability.

1.2. Research Problem

While the COVID-19 pandemic severely impacted multiple sectors in Indonesia, including hospitality, retail, and tourism (Rahmah and Novianty, 2021), the real estate sector displayed an unusual resilience. Several property firms continued to perform strongly, maintaining high profitability, strong liquidity, and solid cash positions during the crisis. This raises important questions about what financial and structural factors contributed to this stability. Despite this phenomenon, limited research has examined the determinants of financial stability specifically within Indonesian real estate companies. Therefore, this study seeks to investigate the key drivers of financial stability, such as profitability, leverage, liquidity, firm age, interest rate, firm value, firm size and COVID-19, that influence financial stability in the real estate sector.

The success of property companies is not solely reliant on their sales performance; capital structure decisions also significantly contribute. Given the high capital expenditure nature of real estate businesses, funding through debt or equity is essential and plays a key role in shaping their financial stability. Financial stability is especially crucial in the real estate industry, given the significant cash flows associated with large upfront construction costs and the staggered collection of customer payments through installment schemes. Given the significant capital expenditure demands in the real estate sector, the researcher aims to explore the key

factors that contribute to the strong financial stability of real estate companies. This curiosity stems from the logical expectation that the pandemic would pose challenges to liquidity, but in reality, during pandemic, real estate companies have good financial stability. The researcher aims to comprehend this counterintuitive trend and unravel the factors that enabled real estate companies to maintain financial stability despite the challenging circumstances. The focus is on identifying and analyzing the determinants that strengthen real estate companies' ability to withstand the challenges posed by the ongoing global health crisis. This research centers on the factors influencing the financial stability of real estate companies, with financial stability serving as the dependent variable.

To achieve a desired level of financial stability, some literature suggests that both capital structure and firm value are pivotal in significantly contributing to financial stability. In terms of capital structure, it refers to the composition of a company's financing, balancing debt and equity to support its operations and growth. This composition plays a pivotal role in determining the cost of funds, whether sourced from debt or equity, which in turn affects the liquidity within the firm. Firm value is commonly represented by Net Asset Value (NAV), which is determined by subtracting liabilities from assets. This metric offers valuable insights into a company's financial health and overall value, grounded in accounting principles. The balance of debt and equity within the capital structure is a key factor influencing the NAV, which serves as an indicator of a firm’s value based on its book value (Suzulia and Saluy, 2020). Hirdinis (2019) argued that a firm's value can be assessed through either its market value or the book value derived from its

equity. According to Zhuravlyova et al. (2019), the assessment of financial stability as a feature of a company's financial condition, characterized by a comprehensive and integrated nature, ought to be rooted in an examination of its capital structure. The ratio of debt and equity is very important for firm value and financial stability. Kokeyeva et al. (2021) contended that every management has the authority to decide on the capital structure ratio for its firm. A well-structured capital arrangement allows a company to maintain a healthy level of financial stability. In summary, a balanced capital structure is crucial for both financial stability and firm value. Excessive reliance on debt can cause financial stress and heighten the risk of default, whereas depending too heavily on equity may limit a company's ability to efficiently leverage its financial resources and maximize returns. Achieving the optimal balance in capital structure ensures the availability of funds for operations, investments, and debt servicing, thereby supporting overall financial stability.

Previous studies have often focused on the relationship between capital structure and financial performance, with relatively little attention given to the connection between capital structure and financial stability. The current research seeks to explore this under-examined aspect, recognizing its importance in understanding the broader dynamics of financial stability, particularly within the context of property and sales activities. For instance, Yabs (2015) explored the relationship between capital structure and financial performance in real estate companies in Kenya. The study concluded that capital structure had a modestly positive impact on the financial performance of these companies during the period under review. Based on these findings, the study recommended that real estate

companies in Kenya reduce their debt levels within the capital structure to enhance performance. Rufus and Ofoegbu (2017) support Yabs' (2015) findings, asserting that capital structure exerts a positive and significant influence on the financial performance of real estate companies in Nigeria. However, Feng and Guo (2015) contend that in the context of China, there exists a negative correlation between the financial performance of listed real estate companies and their capital structure. This relationship is attributed to the limited financing channels available and the stringent macroeconomic controls in China, where a high debt ratio ultimately undermines financial performance. Likewise, Ngoc et al. (2021) share a similar viewpoint, arguing that capital structure negatively impacts the business performance of real estate companies listed on the Ho Chi Minh Stock Exchange.

The majority of prior research on financial stability has concentrated on the banking sector and other industries (Madi, 2016; Alfiano, 2018; Vo et al., 2019; Rubio-Misas, 2020; Al Salamat and Al-Kharouf, 2021; Karim et al., 2022; Kharabsheh and Gharaibeh, 2022; Hudaya and Firmansyah, 2023). Nguyen et al. (2023) studied the relationship between capital structure and financial stability specifically within hotel companies only but not real estate companies. This research will be more focused on financial stability for real estate companies in Indonesia. Also, several previous researches have associated the capital structure with financial shocks and not connected with financial stability (Muigai (2016); Fredrick (2018); Fahlevi and Marlinah (2018); Abdioğlu (2019), and Lee and Manual (2019)). Additionally, in international research, financial stability variables are very rarely used especially in real estate industry. Most international studies

have linked capital structure to financial performance rather than examining its connection with financial stability in real estate companies (Feng & Guo (2015); Yabs (2015); Ioana (2020); Ngoc et al. (2021)). As financial stability variables are seldom employed in real estate industry, this research seeks to address the existing research gap by establishing a connection between profitability, leverage, liquidity, firm age, interest rate, firm value and firm size, and financial stability, particularly in real estate companies. Despite capital structure has been often studied in previous researches and linked to a number of variables including financial performance, financial distress, and liquidity, but the study on the relationships between profitability, leverage, liquidity, firm age, interest rate, firm value and firm size and financial stability for real estate companies is few (Hasbi (2015); Nishihara & Shibata (2021); Supyan and Kuswanto (2023); Suzulia and Saluy, (2020)).

In response to the identified research gaps, this study aims to contribute by emphasizing the critical role of capital structure in sustaining financial stability within real estate companies. To underpin this analysis, this research employs two established capital structure theories, the first is Trade-Off Theory (TOT) and the second is the Pecking Order Theory (POT). TOT posits that firms can attain the best shape of capital structure by balancing the tax advantages of debt financing against the potential costs of financial distress, such as bankruptcy risk and agency costs (Aini et al., 2022). In contrast, POT suggests that firms prioritize their sources of financing to mitigate information asymmetry, with a preference hierarchy that places internal financing first (Aini et al., 2022). Myers (1977) further asserts that, under the POT framework, there is no single optimal capital structure; rather, firms

follow a sequential order of financing choices based on the principle of least resistance to information asymmetry. Megginson et al. (2007) concur with Myers (1977) in affirming that the Pecking Order Theory (POT) proposes a hierarchical approach to financing decisions, whereby firms exhibit a clear preference for internal financing over external sources. This framework helps explain why highly profitable firms often maintain relatively low levels of debt. Supporting this perspective, Basit and Irwan (2017) emphasize that understanding the impact of capital structure on firm performance is essential for management, as it enables them to determine the optimal mix of debt and equity to effectively finance their operations. Basically, funding originates from internal funds, debt, or equity (Seeman and Jacobson, 2017). TOT focuses on the utilization of debt to maximize tax benefits. According to POT, firms are expected to adhere to a specific hierarchy when sourcing funds to finance their operations (Myers and Majluf, 1984). This hierarchy reflects a preference for internal financing through retained earnings, followed by short-term debt, then long-term debt, and lastly, the issuance of new equity. This order is driven by information asymmetries between corporate management and external investors. Myers and Majluf (1984) argue that such asymmetries can be mitigated when firms avoid issuing new securities and instead rely on retained earnings to support investment and growth opportunities. The theory implies that as the degree of information asymmetry increases, the cost of equity issuance also rises. Consequently, firms facing substantial information asymmetry are more likely to increase debt financing to avoid the undervaluation associated with issuing new equity.

In capital structure literature, Trade-Off Theory (TOT) models have been predominant. The tax benefit–bankruptcy cost trade-off framework, as advanced by scholars such as Baxter (1967), Robichek and Myers (1966), Kraus and Litzenberger (1973), Scott (1976), and DeAngelo and Masulis (1980), posits that firms seek to maintain an optimal target leverage ratio by strategically adjusting their capital structure. This adjustment is aimed at balancing the long-term benefits of debt, primarily the tax shield, against its associated costs, notably the risk of financial distress and potential bankruptcy. TOT suggests that firms operate with a target leverage ratio and make incremental adjustments to their capital structure over time to converge toward this optimal level. Under this framework, firms are incentivized to utilize debt financing to benefit from interest tax shields, which become increasingly advantageous as earnings grow (Hoang et al., 2021; Brigham & Houston, 2011). The core proposition of TOT is that an optimal capital structure results from a careful balance between the tax advantages of debt and the associated costs, such as the risk of financial distress and bankruptcy (Nguyen et al., 2020; Fredrick, 2018; Abel, 2018; Ghazouani, 2013). This theoretical model emphasizes the strategic use of debt to enhance firm value while mitigating potential financial risks. However, in practice, debt sometimes overburdens the firm, and TOT cannot explain why low-debt structure firm is better in financial stability than high debt structure. POT focuses on the utilization of internal funds. The hypothesis of POT is that the more profitable, the more utilization of internal funds instead of loan and equity (Nguyen et al, 2020; Fredrick, 2018). However, in common practice, internal funds generally cannot make firms grow fast, while high-debt structure can increase

firm value despite the threat arising from financial distress (Myers, 2001). Some companies prefers using debt to expand and grow in scale or called inorganic growth. POT cannot explain why the growth of firms using external funds (debt and equity) is faster and more scalable than firms using internal funds.

Given the impact difference on the financial aspects between TOT and POT, the research seeks to assess the connection between profitability, leverage, liquidity, firm age, interest rate, firm value, firm size, COVID-19 and financial stability especially in the context of real estate companies which are listed on the Indonesia Stock Exchange from 2012 to 2022.

1.3. Research Objectives

This study aims to address existing research gaps by developing a comprehensive model to examine the determinants of financial stability in Indonesian real estate companies. This study evaluates the relationships between various independent variables, profitability, leverage, liquidity, firm age, interest rates, firm value, firm size, and the COVID-19 pandemic, and the dependent variable, financial stability. To provide a more in-depth and multidimensional assessment, the study also incorporates both Asymmetric Risk Assessment and Z-score Analysis, thereby enhancing the robustness and analytical depth of the evaluation.

1.4. Research Questions

Sekaran and Bougie (2016) defined a problem as any circumstance or situation in which there is a gap between the real and the intended ideal conditions. Based on the phenomenon gap, real estate companies in Indonesia demonstrated strong performance during the financial shock of the COVID-19 pandemic, contrary to the common expectation that they would struggle. This expectation stems from the perception that real estate products are expensive, and therefore, demand would likely decline during periods of economic uncertainty. Based on research gaps, as explained in the previous pages, the majority of earlier studies on financial stability were more concentrated on banks. The financial stability of real estate companies will be the primary subject of this study. Also, this research seeks to fill a research gap by linking capital structure and financial stability in real estate companies because most prior researches had linked the capital structure with financial distress in Indonesia but not with financial stability. The variable of financial stability is relatively infrequently employed in international research, and many of these studies have linked capital structure with financial performance rather than with financial stability for real estate companies. The capital structure will be linked to financial stability in this study since the variable for financial stability is rarely utilized in research, especially for the real estate industry. The research questions are as follows:

1. Direct Effect
    a. How does Profitability affect Financial Stability?
    b. How does Leverage affect Financial Stability?

c. How does Liquidity affect Financial Stability?

2. Moderating Effects of Firm Size
   a. To what extent does Firm Size moderate the relationship between Profitability and Financial Stability?
   b. To what extent does Firm Size moderate the relationship between Leverage and Financial Stability?
   c. To what extent does Firm Size moderate the relationship between Liquidity and Financial Stability?

3. Mediating Effects of Firm Value
   a. Does Firm Value mediate the relationship between Profitability and Financial Stability?
   b. Does Firm Value mediate the relationship between Leverage and Financial Stability?
   c. Does Firm Value mediate the relationship between Liquidity and Financial Stability?

1.5. Benefits of Research

The expected outcome of this study is to identify the key determinants that contribute to strong financial stability in real estate companies. These findings are intended to serve as valuable guidance for other companies, offering insights into strategies to enhance their own financial resilience. Since financial stability serves

as a fundamental pillar for all businesses, this study not only offers a practical tool for assessing financial stability within the real estate sector but also provides a useful reference for companies across other industries.

1.5.1. Practical Benefits

This research provides a practical tool for evaluating financial stability through three key approaches: the analysis of relationships between independent and dependent variables, Asymmetric Risk Assessment, and Z-score Analysis, each offering distinct perspectives. In addition to its analytical depth, the study delivers wide-ranging practical benefits for stakeholders within and beyond the real estate industry. Specifically, for real estate companies, it offers valuable insights into the financial factors that drive long-term stability, supporting efforts to improve financial management and enhance resilience in the face of economic uncertainties such as the COVID-19 pandemic or global financial crises.

Financial institutions, regulators, and policymakers can leverage the study's findings to develop more effective risk assessment tools, regulatory frameworks, and policy measures aimed at promoting financial stability across the sector.

The research also contributes to the academic community by offering a foundation for further studies in corporate finance, crisis management, and industry-specific financial stability.

Moreover, investors and financial analysts can use the insights to better assess the financial health and risk exposure of real estate firms, supporting more informed and strategic investment decisions. Overall, the study promotes a

stronger, more transparent, and resilient real estate sector within the broader economic landscape.

1.5.2. Theoretical Benefits

This research contributes to the theoretical understanding of financial stability by examining a comprehensive set of variables that influence it, particularly within the context of real estate companies facing financial distress, such as during the COVID-19 pandemic.

By linking capital structure to financial stability, the study extends the application of existing financial theories, including the Trade-Off Theory, the Pecking Order Theory, and Accounting-based Distance to Default specifically within the real estate sector.

Furthermore, the research provides empirical evidence on the key determinants of financial stability in Indonesia's real estate industry, thereby enriching the theoretical discourse in capital structure and financial resilience.