LEVERAGE DEFICIT AND THE ACQUIRER'S COMPANY VALUE IN NORMAL ECONOMICS

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Abstract: In acquisitions, a leverage deficit tends to happen as firms underleverage for financial flexibility and higher financial synergy post-acquisition. Overleveraging is also common when debt utilization in leverage buyouts exceeds historical debt capacity. The acquirer's company value could be proxied by its abnormal return, a product of surplus returns compared to its historical tendencies. This abnormal return, however, could perform outlandishly in periods of economic downturns, as investors place greater value on good news in dire times. This paper examines the interplay between leverage deficit and company value while analyzing the dynamics of acquisitions in normal economics. A two-step multivariate regression is conducted, using samples in the Jakarta Composite Index from 2010 through 2019. The first step consists of finding the target leverage equation, followed by examining the relationship between leverage deficit and cumulative abnormal return. The results of this study illustrate that the positive spectrum of leverage deficit has a positive impact on the value of the company in the context of acquisitions. Previous research suggests that abnormal return is positively correlated to zero deficit, as the achievement of optimal capital structure creates maximum value and minimal agency cost. However, a zero-deficit resulting from an overleveraged scenario is better appreciated, as debt reduction allows higher financial flexibility for future investments. On the other hand, underleveraged companies must increase their debt composition to reduce the deficit, reducing shareholder claims to net cash in a bankruptcy-prone environment.

Keywords: Acquisition, Company value, Normal economics, Leverage deficit, Overleverage

1. INTRODUCTION

In the landscape of corporate finance, the interplay between leverage and company value is a critical area of study, particularly when analyzing the dynamics of mergers and acquisitions. Leverage, the use of borrowed capital to increase the potential return on investment, is often a double-edged sword. While it can amplify gains, it also poses significant risks, especially when the capital structure becomes unbalanced—a phenomenon known as the leverage deficit (Jensen & Meckling, 1976a; Modigliani & Miller, 1958).

A leverage deficit occurs when a company experiences an imbalance between its existing debt and the desired capital structure, which can significantly influence acquisition decisions. The financial risk associated with high levels of debt will exceed the anticipated benefits, including opportunity costs, which may undermine the acquirer's overall value (Myers, 1984). This imbalance can distort valuations and impact financial stability, making it essential for companies to carefully assess their leverage strategies during acquisitions (Harris & Raviv, 1990). Therefore, in a normal economic environment, when positive gross domestic product (GDP) growth takes place, understanding the impact of leverage deficits on an acquirer's company value is crucial for strategic decision-making.

In the context of acquisitions, an acquirer's company takes over another company with the aim of creating synergy—additional value from the combination of the two businesses. Synergy in this case can be either operating synergy or financial synergy (Taran, 2015). Operating synergy is achieved through economies of scale or increased market share, while financial synergy manifests through increased cash flow, debt capacity, and tax benefits. These synergies help the acquirer to earn higher operating profits and cash inflows, while also reducing the cost of capital (Damodaran, 2005).

The value of synergy can be assessed even before its full impact is realized by observing the market's reaction to the acquisition announcement (Bradley et al., 1988). Cumulative Abnormal Return (CAR) is used to measure the difference between a stock's actual and expected return, factoring in an event like an acquisition (Hatem, 2015). However, CAR is influenced not only by market perceptions of synergy but also by broader systematic risks. For example, Silva & Netto (2022) found that acquisitions announced during periods of recession, like the 2008 housing crisis, tend to yield higher CAR.

The success of financial synergy is closely tied to the acquirer's capital structure. According to the trade-off theory, a company must find an optimal balance between debt and equity to maximize its value (Myers, 2001). This equilibrium is achieved by balancing the marginal costs and benefits of debt, particularly through tax shields. However, companies may differ in how they manage leverage. The agency theory suggests that higher leverage can reduce agency costs by compelling management to work harder to meet debt obligations (Jensen & Meckling, 1976). On the other hand, the pecking order theory argues that firms with sufficient internal funds will avoid debt and prioritize internal financing over external funding options like debt and equity (Myers, 1984).

Before an acquisition, the acquirer company must determine the most suitable means of financing the transaction, which could involve using leveraged buyouts (LBO) or relying on internal funds. Blomkvist et al. (2022) suggest that acquirers typically reduce their leverage or increase equity in preparation for an acquisition. This strategy creates room for LBOs, minimizes the need for capital structure adjustments post-acquisition, and prevents the acquirer from absorbing excessive debt from the target company (Bouraoui & Ping, 2014; DeAngelo et al., 2011). After the acquisition, the acquirer will aim to adjust its leverage to align with its target capital structure (Liu et al., 2018). The leverage deficit refers to the gap between a company's current and targeted leverage composition (Hovakimian et al., 2001). A positive leverage deficit occurs when a company is overleveraged (i.e., has more debt than

target), while a negative leverage deficit happens when a company's debt is lower than its target.

Blomkvist et al. (2022) and Liu et al. (2018) argue that a reduction in leverage deficit can increase the acquirer's company value. However, Bouraoui & Ping (2014) and Liu et al. (2018) find that the impact of reducing leverage deficit on a company's value is asymmetrical. A reduction in a positive leverage deficit is typically viewed more favorably by the market because it indicates a decrease in debt levels, which investors generally prefer. Conversely, reducing a negative leverage deficit results in an increase in debt, which may not be as positively received by investors.

Moss (2022) however, argues that there is no clear correlation between leverage deficit and the acquirer's company value. A company may have a positive leverage deficit but still maintain strong profitability and high debt capacity (Woodruff, 2007). In such cases, the increase in CAR after an acquisition might be attributed more to profitability than solvency. Similarly, a company with a negative leverage deficit due to high retained earnings may experience high CAR due to its size, rather than leverage considerations.

In a normal economic environment, understanding how leverage deficits impact an acquirer's company value requires careful consideration of various control variables. Factors such as profitability, company size, growth prospects, market conditions, and valuation ratios all influence how leverage deficits affect corporate valuation. Profitability influences a firm's ability to service debt and its overall risk profile (Myers, 1984). Larger companies may benefit from economies of scale and more stable cash flows, potentially mitigating the adverse effects of high leverage (Harris & Raviv, 1990). Valuation ratios, such as price-to-earnings (P/E) and price-to-book (P/B), help the market gauge the firm's value relative to its earnings and assets, shaping perceptions of risk and return Additionally, broader economic conditions, including a firm's growth prospects, influence the effect of leverage deficits on corporate valuation (Bradley et al., 2017).

Past research done by Blomkvist et al. (2022), Bouraoui & Ping (2014), Liu et al. (2018), and Moss (2022) have typically focused on merged companies or acquisitions during the 2008-2009 recession. This article therefore delves into how leverage deficits affect the acquirer's company value in typical economic conditions while accounting for these critical control variables. We will explore the theoretical foundations of leverage (Modigliani & Miller, 1958), examine how profitability, company size, valuation ratios, and other factors interact with leverage deficits, and discuss strategies for managing these dynamics in acquisition scenarios (Bradley et al., 2017). By integrating these variables, we aim to provide a nuanced understanding of how financial leverage and deficits influence corporate valuation and decision-making in the context of acquisitions.

2. LITERATURE REVIEW

2.1 THEORETICAL FRAMEWORK ON LEVERAGE MANAGEMENT

As mentioned before, the leverage management of companies could be explained by the capital structure theorems. The trade-off theory suggests that firms should have an optimal capital structure to maximize their value (Myers, 2001). The agency theory suggests that a firm should increase its leverage to increase pressure on management, as debt obligation will reduce wasteful expenses and force management to perform for the principal's interest (Jensen et al., 1976). The pecking order theory highlights that firms should first use their internal funds before opting for the use of debt (Myers, 1984). Faulkender et al. (2012) believe that firms' leverage management tends to target their capital structure in a range, instead of at one fixed point.

When strategizing ideal leverage management, a firm is also influenced by its size, profitability, and growth opportunity (Uysal, 2011). Profitability influences the target leverage as higher profitability creates higher debt capacity due to better interest coverage (Woodruff, 2007). When a company has many assets that are fixed and tangible, it will have easier access to funding due to the availability of collateral (Rajan & Zingales, 1995). Lastly, growth opportunities tend to have an inverse relationship with target leverage, as companies need financial flexibility to be their growth drivers (Moss, 2022).

2.2 LEVERAGE DEFICIT

At most times, the actual capital structure component will diverge from the target. A company may have a positive leverage deficit when it requires funding or is currently looking for tax shield benefits (Ghosh & Jain, 2000; Maloney et al., 1993). A company may also opt to have a negative leverage deficit when it desires financial flexibility for future investment and to minimize bankruptcy costs (Huang et al., 2015; Lang et al., 1996; Liu et al., 2018; Ricca et al., 2021). This applies in the context of acquisitions, as the company will reduce its leverage ratio to prepare for its investments. Debt usage is very common in acquisitions as this investment requires a high amount of funds (Harford et al., 2009). Having a negative leverage deficit before an acquisition also protects the acquiring company from being overleveraged after absorbing the target's debt.

Each side of the leverage deficit spectrum has its advantages and disadvantages. A company with a positive leverage deficit will have higher operational risk due to its high financial distress cost (Korajczyk & Levy, 2003; Moss, 2022). They will also have less debt capacity (ceteris paribus), increasing the opportunity cost on hand. The exhausted debt capacity may also give higher increments toward the company's cost of debt, alerting the creditors to higher risk (Harrison et al., 2013). Investors must also be aware of these conditions, according to the pecking order theory, as debt is second in line after internal funding. Therefore, after the debt capacity is fully utilized, the company must use the higher-costing alternative, which is equity. On the other hand, companies with negative leverage deficits have minimal financial distress. However, high agency costs may affect investors' returns (Jensen, 1986)

Companies therefore are inclined to reduce their leverage deficit, although the effort of adjusting capital structure is costly (Byoun, 2008; Leary & Roberts, 2005; Liu et al., 2018). The cost of adjustment also depends on which side of the leverage deficit spectrum the company is on. Companies with a positive leverage deficit will have a higher cost, as reducing the deficit requires them to pay off their debt. The cost for companies with a negative leverage deficit, on the other hand, will be the future interest payments incurred for raising additional amounts of debt (Leary & Roberts, 2005). After the acquisition, the leverage deficit will be reduced, as companies with negative leverage deficit absorb the debt of the target, and companies with positive leverage deficit generate more cash through synergy to pay off their debt.

2.3 ACQUISITION STRATEGY AND LEVERAGE

An acquirer's company that triumphantly creates a no-deficit scenario post-acquisition signals to investors the value of the synergy (Blomkvist et al., 2022; Liu et al., 2018). The cohesion between the absorption of the target's debt and the fulfillment of interest payments through additional earnings before interest and tax (EBIT) is a good indicator of a successful synergy. Indicating that in theory, leverage deficit should have a negative relationship with the value of an acquirer's company. The impact of leverage deficit is asymmetrical, however, as companies with positive leverage deficit pre-acquisition are much appreciated. In the expectation of deficit reduction post-acquisition, overleveraged companies will reduce their debt which grants higher financial flexibility for future growth. On the other hand, investors are keen on a healthy solvability, deeming the effort to reduce the deficit of underleveraged companies by adding debt as less value (Bouraoui & Ping, 2014; Liu et al., 2018).

However, Moss (2022) argues another interpretation of the capital structure theorem, that companies with or without leverage deficit will have an equal trade-off. Therefore, there is no relationship between leverage deficit and an acquirer's company value. According to the agency theory, pressure from creditors will help management realize a higher return (Jensen, 1986; Jensen & Meckling, 1976; Moss, 2022; Uysal, 2011). However, management can be too careful in selecting projects, seeking less risky investments yielding less return for investors (Harrison et al., 2013).

An investor's investment strategy is pegged on a forward-looking scenario, allowing the value of synergy to be captured even before the result is reported through the financial statements (Bradley et al., 1988). Investors will purchase an acquirer's stock if deemed to have a successful synergy later, resulting in price appreciation (Becket, 2004; Besanko & Braeutigam, 2020). More investors will hop on the bandwagon, creating price movements unusual to its historical beta. Speculators looking for capital gain will also participate in the transaction, creating an abnormal return. In general, a stock return will theoretically be enhanced during rumors of acquisition, as inorganic growth is the antidote to companies with limited future organic growth and tends to result in higher exponential growth not viable only through a company's organic growth (Steger & Kummer, 2007).

2.4 MARKET REACTIONS AND CUMULATIVE ABNORMAL RETURN (CAR)

A higher return is associated with higher risk, reflecting an investor's expected return to carry the risk burden. One method of measuring expected return is using the capital asset pricing model, allowing the attribution of risk using beta and risk premium in the calculation (Martin & Wagner, 2019). Beta measures risk using historical stock and index returns. However, the abnormal price movement that results from the acquisition or other corporate actions– announcement of a high payout ratio, restructuring, etc., will yield a surplus return compared to the calculated capital asset pricing model (CAPM). Therefore, the measurement of the acquirer's company value should account for abnormal returns. The cumulative abnormal return as an indicator will help account for surplus return over the normal expected return (Gaughan, 2007; Hartono, 2014).

The relationship between the leverage deficit and the value of an acquirer's company is also highly dependent on its timeframe. Silva & Netto (2022) and Wann & Lamb (2016) find that CAR is higher during times of recession. This happens as investors value good news, such as a corporate action, higher during times of economic downturn compared to a normal economy. A company's plan to adjust its leverage deficit will also be affected in times of uncertainty, especially those that are cyclical (Cardoso & Pinheiro, 2020). Creditors tend to reduce lending while companies are becoming more risk-averse, affecting companies with negative leverage (Gertler & Kiyotaki, 2009). Companies with a positive leverage deficit will find more difficulty in reducing leverage as profitability tends to decrease, putting more pressure on its liquidity and solvability (Korajczyk & Levy, 2003).

2.5 THE ROLE OF PROFITABILITY, COMPANY SIZE, AND GROWTH OPPORTUNITIES IN SHAPING LEVERAGE DECISIONS

To understand the impact of a particular synergy on an acquirer's company's already-existing condition, an investor may use financial ratios such as profitability, solvency, and valuation (SchweserNotes, 2021). A profitability ratio measures the profitability of a company; a solvency ratio shows the capital structure of a company and its ability to pay its long-term obligations; a valuation ratio is a tool to compare how the valuation of a company compares to its peers in the same industry.

A company with higher profitability deserves to be valued at a higher premium as it brings in higher value to shareholders. The greater the profit-generating ability, the higher the return it will bring to investors (Haugen & Baker, 1996; Yang et al., 2010). More cash inflow suggests higher reinvestment opportunities for the firm or a higher payout ratio, both benefiting the shareholders involved. Its tie to leverage however is more complex. A company's leverage management is not only affected by profitability. Higher profitability allows higher debt capacity from better interest coverage and more quantity of collateral available (Woodruff, 2007). It also allows higher retained earnings that according to the pecking order theory, are the first source of funds in line. Hence, it may result in the reduction of the use of leverage. The impact of profitability towards company value, with consideration of leverage, lies in the company's decision to be either overleveraged or underleveraged, as both options are highly feasible. More scholars, however, tend to associate profitability with less use of leverage (Bevan & Danbolt, 2002; Booth et al., 2001; Daskalakis & Psillaki, 2007).

The size of a company is also measured by its assets. In the context of an acquirer's firm value, profitable and large companies can create higher synergy, especially if there are huge size differences between the acquirer and target (Kleinert & Klodt, 2002). Greater size allows for economies of scale, allowing better efficiency in the firm's operations, hence increasing the value for shareholders (ceteris paribus). Firms with more assets also tend to be more immune from bankruptcy costs due to the presence of more collaterals. This allows them to use more leverage to boost profitability. However, higher assets may also indicate a lower upside for future growth. A diminishing growth opportunity will result in lower profitability for minimal increments.

2.6 MEASUREMENT OF CAR

As mentioned before, when a certain company is attractive, its price may be traded at a premium, either to its historical value or to its peers. A high valuation ratio—measured by the P/E, P/BV, etc., reflects investors' confidence in its prospects, as current earnings may not be enough to justify it (Goedhart et al., 2017; Yu et al., 2023). In the context of high P/BV, investors are willing to purchase a stock at a price higher than the value of its net assets (B. Graham & Dodd, 1934). The valuation ratio therefore could be a lagging indicator measuring the company's growth opportunities. It also plays a role as a leading indicator, that a price depreciation is imminent, due to the tendency of extreme valuation ratios to revert to its mean (Carlson et al., 2002). A high ratio also indicates that the available upside will be minimal. New investors may be hesitant to participate, while existing shareholders may be preparing to leave. In the context of acquisitions, P/BV is a better measure of investment growth rather than direct profitability growth, as the presence of goodwill and other intangible assets are crucial for synergy (Choi et al., 2023; Mcnichols et al., 2014). Hence, a measure of P/BV should be equally paired with the P/E ratio to measure profitability. Overvaluation and high base effect however may still dilute the market reaction to the acquisition announcement, rendering the measurement of CAR inaccurate (Damodaran, 2024).

2.7 LEVERAGE DEFICIT AND THE ACQUIRER'S FIRM VALUE IN A NORMAL ECONOMIC CONDITION

In normal economic conditions, an acquirer with the ability to increase debt (leverage) often utilizes debt to finance acquisitions. The use of debt could enhance the return on equity (ROE) if the return generated by the acquisition exceeds the cost of the debt. Meanwhile, a leverage deficit occurs when the acquirer has limited capacity to take on more debt (e.g., due to high existing debt or increased financial risk). In such a scenario, the acquirer may face difficulty financing the acquisition with debt and thus may need to rely on equity (such as issuing new shares) to fund the acquisition. When a firm cannot take on more debt, the cost of equity will rise because investors may demand higher returns to compensate for increased risk. If the acquirer must rely on equity financing (issuing new shares), this can lead to dilution of existing

shares, meaning current shareholders will own a smaller proportion of the company after the acquisition. This dilution could decrease the acquirer's share value, especially if the acquisition does not generate sufficient returns to offset the dilution.

In normal economic conditions, acquirers may have more flexibility to manage their debt, either through bank loans or bond issuances, due to stable financial markets and moderate interest rates. This flexibility allows them to achieve an optimal capital structure, which can increase the acquirer's firm value. Therefore, careful management of the capital structure and avoiding leverage deficit can help the acquirer achieve higher firm value through effective acquisitions.

Modigliani & Miller (1958) argue that, under perfect market conditions, the capital structure (including the use of debt) does not affect firm value. However, they also recognize that, under imperfect market conditions, the proper use of debt can increase firm value by lowering the cost of capital. The research of Jensen & Meckling (1976) discussed how the use of debt can reduce agency costs between shareholders and managers by tightening managerial control over decision-making. Proper leverage can enhance firm value, but if a firm experiences a leverage deficit, its potential to achieve an optimal capital structure is hindered, affecting its value. Myers (1984) introduced the "pecking order theory," which suggests that firms prefer internal financing (debt) over external equity. In the context of a leverage deficit, a firm that cannot optimally increase its debt will likely face higher equity costs, reducing the acquirer's firm's value. Harris & Raviv (1990) argue that capital structure decisions depend on various factors, including bankruptcy costs, taxes, and financial flexibility. The leverage deficit, where a firm cannot take on more debt, may increase financial risk and reduce the firm's value if not carefully managed. J. R. Graham (2000) paper highlights the tax advantages gained from using debt (leverage) and how firms often use leverage to reduce taxes. In the case of a leverage deficit, a firm might not fully capitalize on these tax benefits, potentially reducing the acquirer's firm value in an acquisition process. Stulz (1990) examines how financing policies (including the use of debt) affect managerial decisions in the context of acquisitions. A leverage deficit can limit the available financing options for the acquiring firm, which in turn may impact the value of the target firm in the acquisition. Those studies provide insights into how leverage deficit can affect the capital structure and the acquirer's firm value. When a firm cannot optimally use debt (due to a leverage deficit), this may lead to higher equity costs, reduced tax benefits from debt, and limited financial flexibility. All these factors can potentially decrease the acquirer's firm value in a normal economic condition.

3. DATA AND METHODOLOGY

This research data consists of publicly traded companies listed in the Jakarta Composite Index (JCI). A purposive sampling will be done with the following criteria: 1) the acquisition is announced in a period of a normal economy, excluding samples during the housing and COVID-19 recession; 2) the acquirer is not in the financial and utility sector, as their capital structure is industry-specific. Of 112 publicly traded Indonesian acquisitions spanning from the years 2010 to 2021, 72 pass the criteria.

This research examines the relationship between leverage deficit and an acquirer's company value through a two-step multivariate analysis while accounting for the influence of related variables. The first step seeks to find the target leverage equation by regressing actual market leverage with its determinants, including profitability, size, and growth opportunities. A proxy for business risk, selling expense over sales, will also be considered as a crucial variable. This results in the following equation:

$$ML_{i,t} = a + \beta_1 S_{i,t} + \beta_2 \frac{P}{BV}_{i,t} + \beta_3 \frac{SE}{S}_{i,t} + \beta_4 \frac{EBITDA}{TA}_{i,t} + \beta_5 \frac{Tangible\ A}{TA}_{i,t} + \beta_6 Tangible\ A_{i,t} + \beta_7 Rm_{i,t} + \beta_8 E(r)_{i,t} + \beta_9 \frac{P}{E}_{i,t} + \eta_i + \varepsilon_i \quad (1)$$

where:

$ML_{i,t}$ = Market leverage company *i* on quarter *t*

$S_{i,t}$ = Sales company *i* on quarter *t*

$\frac{P}{BV}_{i,t}$ = Price- to-book value ratio company *i* on quarter *t*

$\frac{SE}{S}_{i,t}$ = Selling expense to sales ratio company *i* on quarter *t*

$\frac{EBITDA}{TA}_{i,t}$ = Earnings Before Interest, Tax, Depreciation & Amortization (EBITDA) to total assets ratio company *i* during quarter *t*

$\frac{Tangible\ A}{TA}_{i,t}$ = Tangible assets to total assets ratio company *i* on quarter *t*

$Tangible\ A_{i,t}$ = Tangible assets company *i* on quarter *t*

$Rm_{i,t}$ = Annualized average weekly total return of company *i* on year *t*

$E(r)_{i,t}$ = Capital asset pricing model company *i* on quarter *t*

$\frac{P}{E}_{i,t}$ = Price-to-earnings ratio company *i* on quarter *t*

After deriving the regression equation to find the target leverage, the leverage deficit will be calculated by deducting actual leverage from the target leverage. Following the first equation, a second multivariate regression will then be conducted as follows:

$$CAR_{i,(t_{-1},t_{+1})} = a + \beta_1 LD_{i,t} + \beta_2 ML_{i,t} + \beta_3 S_{i,t} + \beta_4 Tangible\ A_{i,t} + \beta_5 \frac{P}{BV}_{i,t} + \beta_6 \frac{P}{E}_{i,t} + \beta_7 \frac{EBITDA}{TA}_{i,t} + \varepsilon_i \quad (2)$$

where:

$CAR_{i,(t_{-1},t_{+1})}$ = Cumulative abnormal return company *i* on *t-1* until *t+1* during acquisition announcement date

$LD_{i,t}$ = Leverage deficit company *i* on quarter *t*

$ML_{i,t}$ = Market leverage company *i* on quarter *t*

$S_{i,t}$ = Sales company *i* during quarter *t*

$Tangible\ A_{i,t}$ = Tangible assets company *i* on quarter *t*

$\frac{P}{BV}_{i,t}$ = Price- to-book value ratio company *i* on quarter *t*

$\frac{P}{E}_{i,t}$ = Price-to-earnings ratio company *i* on quarter *t*

$\frac{EBITDA}{TA}_{i,t}$ = Earnings Before Interest, Tax, Depreciation & Amortization (EBITDA) to total assets

The second multivariate regression will investigate the relationship between the acquirer's company value and leverage deficit, alongside the influence of profitability, company size, valuation ratio, and growth opportunity as its control variable.

Those multivariate regressions will acknowledge the time lag effect of the independent variable impact towards the dependent variable. This needs the adjustment of the regression to include η_i as a time variable, with the mathematical equation of ln.

4. DISCUSSION

The first step regression of target leverage and its determinant yielded the following equation:

$$ML_{i,t} = 3.23 - 0.25S_{i,t} + 0.18\left(\frac{P}{BV}\right)_{i,t} - 0.24\left(\frac{SE}{S}\right)_{i,t} - 0.05\left(\frac{EBITDA}{TA}\right)_{i,t} - 0.13\left(\frac{Tangible\ A}{TA}\right)_{i,t} + 0.00Tangible\ A_{i,t} - 5.32Rm_{i,t} - 5.67E(r)_{i,t} + 0.15\left(\frac{P}{E}\right)_{i,t} + \eta_i + \varepsilon_i \quad (3)$$

Sales and EBITDA over total assets as an indicator of profitability yielded a negative correlation with market leverage. An increase in profitability must be attributed to the increase in a company's assets, consisting of debt, preferred shares, and equity. Although debt capacity rises, the companies' equity funding must also rise. Hence, resulting in a lower leverage percentage wise during a higher nominal increase. Selling expense to total sales thereafter also yielded a negative correlation. This result is in line with the consensus that operational risks are inverse to the amount of leverage a company can obtain. Firms with higher risks tend to have higher costs of debt, minimizing their debt capacity. The number of tangible assets also has an inverse relation with market leverage, which is not in line with the general understanding.

Stock return and the two valuation ratios are a proxy for growth opportunities. The valuation ratios and the stock return however yielded different results. The different result is a matter of technicalities, as when stock return rises, the market value of equity which is the denominator of market leverage, increases. Hence, market leverage decreases. The result of the two valuation ratios is still in line with the consensus. High valuation ratios are a sign of a stock overvaluation. The higher-than-average beta will boost the cost of equity issuance of companies. Companies will thereafter find ways to minimize the total cost of capital, choosing debt as a cheaper source of funding.

After the target leverage is found, the second-step regression is conducted with the following result (***Figure 1***):

	CAR
LD	13.644***
	[0.001]
ML	2.072*
	[0.092]
S	1.694
	[0.174]
Tangible A	-1.780**
	[0.029]
P/BV	0.572
	[0.661]
P/E	1.689
	[0.109]
EBITDA/TA	3.951**
	[0.027]
Constant	4.089
	[0.832]
Observations	72
R-squared	0.312

Standard error in parantheses
***p<0.01, **p<0.05, *p<0.1

Figure 1 Significant relationship between leverage deficit alongside relevant determinants towards CAR

Source: author own research

This result illustrates the positive significance of leverage deficit towards an acquirer's company value measured by their t-1 until t+1 days cumulative abnormal return. As explained by previous research, a positive leverage deficit yields higher CAR, as investors highly appreciate the reduction of market leverage in the capital structure. The reduction of leverage reduces the cost of equity and debt capacity, allowing greater financial flexibility for future investments. The reduction of debt also reduces the financial distress and bankruptcy cost, hence allowing more cash flow to be reinvested or spent through dividend payments, instead of interest payments to debtholders that do not benefit the shareholders. A negative leverage deficit or an underleveraged scenario is not applicable to a higher return. Investors expect that the agents will increase the leverage used to fulfill their leverage gap. Although leverage use is crucial for future growth, the increase in debt is mostly attributed to the debt absorption that results from the acquisition's financial synergy. In times of bankruptcy, the increased numbers of debtholders will be first in line for the remaining net cash, yielding a higher cost of equity.

According to M&M's theorem (1958), in a perfect market, capital structure does not affect the overall value of a firm. However, in the presence of taxes, debt provides a tax shield, which can increase firm value, which is also in line with Harris and Raviv's trade-off theory and Graham's work. A reduction in debt or leverage could be viewed positively by the market as it reduces the risk of financial distress, even though it might also reduce the immediate tax shield

benefits. From a theoretical standpoint, reducing leverage could improve the firm's risk profile, thus leading to a positive reaction in terms of CAR. However, an underleveraged firm (one with lower debt) may be seen as not fully utilizing the benefits of debt (like tax shields), which could lead to lower investor returns in the short run as the firm may not be optimizing its capital structure. This study result links the reduction in leverage to a decrease in financial risk and an improvement in financial flexibility, which is in line with M&M's proposition that lowering leverage can make the company more stable. However, M&M's original theory assumes a perfect market and does not account for factors such as taxes or bankruptcy costs, which are important in real-world scenarios. A more practical application of M&M's theory would emphasize that reducing leverage reduces bankruptcy risk, which might lead to a more favorable market reaction.

One reason why investors might appreciate a reduction in leverage is tied to the reduction of agency costs. High leverage can lead to conflicts between shareholders and debtholders, as debtholders may impose constraints on the firm's operations. When a company reduces its leverage, it might reduce these agency costs by lessening the tension between shareholders and debtholders and allowing more flexibility to make decisions in the interest of shareholders. From the agency cost perspective, an underleveraged firm might face higher agency costs related to its equity holders, as shareholders might have less incentive to monitor management when the firm has less debt. Therefore, investors may expect the firm to increase leverage to reduce these costs and align the interests of managers and shareholders more effectively.

Myers suggests that firms prefer internal financing over external financing, and debt over equity when external financing is necessary. A positive leverage deficit could be interpreted as a signal that the firm is utilizing internal resources more efficiently or is able to reduce debt, which would improve financial flexibility. In this context, the reduction in leverage aligns with the pecking order theory because the firm's lower reliance on debt might signal strong internal capital management. Such an improvement in flexibility can be rewarded by investors who anticipate more opportunities for growth without the burden of debt. In line with Myers' theory, underleveraged firms might be perceived as inefficient in terms of financing. Firms that do not take advantage of debt financing could be seen as missing out on valuable opportunities, such as the tax benefits of debt.

Stulz emphasizes that firms manage their capital structure to optimize risk. The reduction of leverage could be viewed positively because it lowers the financial risk, and this could reduce the cost of equity and increase financial flexibility, both of which would be reflected in higher CAR. Stulz would argue that reducing leverage helps lower the financial risk of the firm, making it more attractive to investors. By reducing debt, the firm becomes less vulnerable to financial distress, which can lead to more consistent cash flows and greater financial flexibility. This improved stability can lead to higher firm value, especially when there are future investment opportunities. The reduction in debt is seen as a prudent risk management strategy that aligns with investor interests, potentially resulting in higher CAR.

The control variable that poses a significant effect on CAR are the market leverage, tangible assets, and profitability. The market leverage has a positive relationship with the company's value. This may indicate a counterintuitive result with the also positively related leverage deficit. However, an increase in leverage is not the same as an increase in deficit. An increase in leverage is fuel for investment and growth, also allowing a tax shield that increases the value of the company. According to the trade-off theory, the use of leverage that does not exceed the optimal value or create a deficit will reduce the weighted cost of capital. The use of leverage also prevents agency costs, which increases pressure on agents to be in line with the principal's goals.

The tangible asset on the other hand yielded an inverse correlation. Higher tangible assets may indicate overinvestment or diminishing growth opportunities. With higher debt capacity and debt intake, a lack of investment opportunity will render the leverage decision to be ineffective. Hence, when a higher asset is not followed with the same increments of profitability, the profitability ratio will experience a decline. Lastly, the profitability ratio measured by EBITDA per total asset shows a positive relationship with the company's value. The higher the profitability ratio, the higher the ability for debt service and dividends paid out. High profitability helps increase the company's internal funding, allowing lower cost of funding for future growth opportunities.

5. CONCLUSION

This paper examines the relationship between leverage deficit and an acquirer's company value in normal economics. Simultaneously, we examine how the control variables, which are highly correlated to the use of leverage, impact the acquirer's company value. We first find out that a positive leverage deficit or an overleveraged scenario is positively correlated with CAR. These findings are consistent with the findings of Bouraoui & Ping (2014) and Liu et al. (2018), highlighting investor's less-leverage appetite. When companies reduce their deficit post-acquisition, the cost of equity, financial distress, and bankruptcy costs all will be minimized. These benefits are all indulged amid greater growth opportunities from the inorganic-resulted acquisition growth. This indicates that a negative leverage deficit or an underleveraged scenario is less appreciated by investors due to future leverage addition post-acquisition, squeezing the shareholders' cut for future liquidities.

Second, market leverage, tangible assets, and profitability also have a significant effect on the acquirer's company value. The market leverage has a positive relationship with the company's value, as it is a driver for growth and a source of tax shield. The tangible assets on the other hand yielded an inverse correlation. Higher tangible assets may indicate overinvestment or diminishing growth opportunities, rendering lower profitability. Lastly, profitability has a direct relationship with company value, as more profit increases shareholder value through dividends and future reinvestments.

Some areas that can be improved in the development of further research include:

1. Focus on M&M theory where in a perfect market shows that capital structure does not affect the value of a company, in the real world, reducing leverage can reduce bankruptcy costs and increase financial flexibility, which can lead to higher valuations.
2. The relationship between reducing leverage and agency fees can be further clarified by focusing on how it reduces conflict between shareholders and debtors and between managers and shareholders.
3. The reduction of leverage can be seen as a sign that the company is using its internal resources more efficiently, which fits perfectly with the pecking sequence theory. However, it is also important to note the potential cost of underleverage, especially when it comes to tax benefits.
4. It can expand the trade-off between reducing the risk of bankruptcy and losing the tax shield, emphasizing that an optimal capital structure must balance these factors.
5. The benefits of debt tax should be more clearly related to a company's decision on capital structure, especially in terms of how reducing leverage can forget about these benefits.
6. The discussion on risk management through leverage reduction is appropriate but can be enriched by discussing how this flexibility can be used to capture future growth opportunities without an excessive debt burden.
7. This paper is open for extensive development, as Indonesia for an emerging country, may still be affected by high information asymmetry, increasing the barriers to investor awareness towards a corporate action.

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