DIVIDEND PAYOUT RATIO, FREE CASH FLOW, AND SHARE REPURCHASES IN INDONESIAN LISTED COMPANIES

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ABSTRACT
The primary objective of this research is to examine the impact of the dividend payout ratio and free cash flow on share repurchases in Indonesian companies listed on the Indonesia Stock Exchange between 2016 and 2020. The study focuses on companies that engaged in share repurchases during the specified period. A purposive sampling technique was employed, resulting in a sample size of 36 share repurchase instances for analysis. The financial statements of these companies were utilized as the data source, and a multiple linear regression analysis was conducted. The results of the study reveal a significant positive relationship between both the dividend payout ratio and free cash flow and share repurchases.

INTRODUCTION
Profitability is a fundamental goal for a company, as it contributes to increasing cash reserves. Consequently, companies often find themselves with excess cash due to profits surpassing investment opportunities (Rahmadhani & Mawardi, 2016). In such situations, companies have several options for cash utilization, including acquiring assets, paying off debts, or distributing them to shareholders (Frankel & CFP, 2023; Wesson, Smit, Kidd & Hamman, 2018). In the case of distributing the excess cash to shareholders, companies can choose between paying dividends or engaging in share repurchases (Hundal & Kondrateva, 2022; Wesson et al., 2018; Wulandari & Usman, 2019).

Share repurchase, also known as stock buyback, is a corporate activity to purchase outstanding shares from the public, thereby reducing the number of shares in circulation (Neufeld, 2023). This corporate strategy is frequently employed by companies as part of their business tactics (Manconi, Peyer & Vermaelen, 2019). Share repurchases commonly serve as a primary means for companies to utilize their cash reserves. Additionally, Share repurchases can be utilized as a solution to stabilize stock prices during periods of fluctuation (Kitri & Manurung, 2020; Mewengkang & Tulung, 2018).

There are several methods for share repurchases as outlined by CFI (2023b), but according to Reddy (2020) and Wesson, Bruwer & Hamman (2015), as cited in Nyere & Wesson (2019), there are two common types of share repurchases. The first type is known as general or open market...
repurchases, which involve a company purchasing its shares from the open market. The second type is called specific repurchases, which include pro rata tender offers and private offers made to a specific group of shareholders. Both types of repurchases have their advantages. General (or open market) repurchases offer flexibility, allowing companies to buy back shares opportunistically when market conditions are favorable. They provide liquidity to shareholders, potentially enhancing shareholder value, and signal confidence in the company's stock price. Specific repurchases target specific groups of shareholders and can be more focused and efficient in achieving specific objectives. They are often used to address ownership concentration, address shareholder concerns, or allow strategic investors to increase their ownership stake. However, some studies, such as Palladino & Lazonick (2022), specifically define share repurchases as a corporation's repurchases of its shares on the open market. While other studies indicate that open market Share repurchases are a prominent method employed by public listed firms worldwide (Alquhaif, Al-Gamrh & Latif, 2020; Feng, Pukthuanthong, Thiengtham, Turtle & Walker, 2013; Lazonick, 2018). For example, according to Abdou & Gupta (2019), share repurchases conducted by S&P 500 companies in 2006 constituted approximately 70% of corporate cash distribution, with 95% of these buybacks being executed through open-market operations. Given the widespread practice of open-market stock buybacks, our exploration will focus on this type of share repurchase.

Share repurchases have garnered significant global attention as they have become a widespread practice among companies worldwide (Alquhaif et al., 2020). Palladino & Lazonick (2022) assert that these buybacks have become the favored approach for companies to allocate their profits to shareholders, surpassing traditional dividend payments. However, the prevalence of share repurchases has raised concerns due to allegations that corporations exploit this strategy to manipulate stock prices and primarily benefit senior executives, fund managers, and rich households in the United States. Consequently, these practices prevent profits from being reinvested in innovation and impede long-term investment (Ni, Song & Yao, 2020). The authors contend that this shift in corporate behavior has contributed to the exacerbation of income inequality and hindered overall innovation and growth. Additionally, Short (2023) further highlights the increasing backlash from the public and political spheres against stock buybacks. Critics argue that the share repurchase program primarily favors executives and shareholders, worsening income inequality while diminishing investments, in crucial areas such as research and development and employee welfare (Lazonick, 2018; Short, 2023). These studies advocate for regulatory reform aimed at governing stock buyback policies.

In Indonesia, the process of share repurchases is governed by a regulation issued by the Financial Services Authority, namely Regulation Nomor 30/POJK.04/2017 concerning Share Repurchases by Publicly Listed Companies (Otoritas Jasa Keuangan, 2017). Given the trading conditions in the Indonesian Stock Exchange from early 2020 to March 2020, which experienced significant pressure due to the global, regional, and national economic slowdown and the impact of the COVID-19 pandemic and declining global oil prices as discussed by Gitayuda (2021), the Financial Services Authority (OJK) issued permits in early 2020 (Regulation Nomor 3/SEOJK.04/2020 concerning Other Conditions Constituting Significantly Fluctuating Market Conditions) for all issuers to conduct share repurchases without Annual General Meeting approval as a measure to provide economic stimulus and mitigate the significant market fluctuations (Laili, 2020). As a result, the number of issuers conducting buybacks since March 2020 has sharply increased. This raises the question: what are the underlying reasons and motivations for companies to engage in stock buybacks and repurchase their shares?
According to CFI (2023a), Frankel & CFP (2023), and Smart (2023), companies engage in share repurchases for various reasons. Firstly, they may perceive their share as undervalued, offering a buying opportunity at a discount. Secondly, buybacks provide an effective tax-saving method for distributing capital to shareholders as opposed to dividends. Thirdly, repurchasing shares can boost earnings per share (EPS) by reducing the number of outstanding shares. Fourthly, buybacks offer more flexibility in adjusting dividend policies without eliciting strong investor reactions. Finally, share repurchases help counterbalance the dilution caused by stock-based compensation.

In addition to the reasons mentioned, companies often utilize share repurchases as a strategic tool to benefit the company and its shareholders. Buybacks can be employed to manipulate reported EPS, presenting a favorable image of the company’s financial performance (Almeida, Fos & Kronlund, 2016; Alquhaif et al., 2020; Koopmans, 2022; Saxena & Sahoo, 2022). Furthermore, buybacks are sometimes driven by short-term policies, focusing on immediate gains rather than long-term growth and investment. Additionally, share repurchases enable companies to exert greater control over their stock, influencing factors such as market perception, stock prices, and ownership structure (Gupta, Abrol & Bhattacharya, 2021; Vaupel, Bendig, Fischer-Kreer & Brettel, 2023; Wesson et al., 2018). These factors highlight the multifaceted nature of share repurchases and their potential implications for corporate strategy and control.

Chen & Obizhaeva (2022) provided a summary of common motivations that drive companies to engage in stock repurchases. These motivations include executives perceiving their company’s stock to be undervalued, using repurchases as a signaling mechanism, seeking financial flexibility, having excess cash available, and employing stock buybacks as a tool for risk management. These factors collectively influence the decisions made by companies regarding their stock buyback strategies. This study underscores the intricate interplay of these motivations, illustrating that companies strategically consider a blend of factors to guide their stock repurchase decisions.

In recent decades, stock buybacks have become a massive phenomenon, with trillions of dollars being distributed each year by companies worldwide through this practice (Palladino & Lazonick, 2022). Neufeld (2023) reported that during the third quarter of 2022, it is estimated that around 20% of companies listed in the S&P 500 Index carried out stock buybacks, resulting in a year-over-year increase of at least 4% in their EPS. Given the enduring and expanding nature of stock buybacks, there is a need for further research to comprehensively understand the various factors surrounding this phenomenon, including the motivations and driving factors that lead companies to engage in this practice. This research aims to respond to the demand for further investigation into stock buybacks by offering valuable insights into the underlying reasons and motivations that compel companies to engage in the repurchase of their shares.

Prior studies have highlighted the vital connection between certain variables, particularly dividend payout ratio (DPR) and free cash flow (FCF), concerning decisions related to share repurchases. Rahmadhani & Mawari (2016) reveal that FCF significantly impacted share repurchases among Indonesian firms between 2008 and 2014. Notably, the dividend payout ratio’s (DPR) role is evident in multiple studies: Nyere & Wesson (2019) highlight the impact of regulatory reforms on dividend payout trends in South African companies. Abraham, Harris & Auerbach (2018) explore the short-term effects of share repurchases on EPS and strategic purposes. Andriosopoulos & Hoque (2013) underscore the consistent significance of dividend-related factors in multiple countries. This collective research shows the integral relationship between dividend payout, FCF, and the decision to engage in
share repurchases, shedding light on their dynamic interplay across diverse contexts.

Furthermore, these metrics are intertwined with agency theory, signaling theory, and the substitution hypothesis. A high DPR may mitigate agency costs by aligning management’s interests with shareholders and signaling stability to investors. Similarly, a stable DPR or strong FCF can signal a company's financial well-being and growth potential, influencing investors' perceptions and decisions.

Agency theory highlights potential conflicts between shareholders and management regarding profit allocation, with shareholders desiring dividends for returns and management preferring retained funds for investment. These conflicts can lead to increased agency costs that could affect the overall value of the firm. The DPR plays a role in managing agency costs, as it can signify that management is adequately sharing profits with shareholders, potentially reducing the incentive for management to engage in value-destroying activities. Signaling Theory indicates that financial decisions convey a company's condition to investors. A stable DPR can signal earnings stability, attracting income-seeking investors, while a decrease may imply uncertain cash flows. Furthermore, when a company pays dividends, it reduces the amount of available cash for management, acting as a mechanism to align management’s interests with those of shareholders. The Substitution Hypothesis Theory suggests that companies can attain a specific target capital structure by strategically choosing between paying dividends or engaging in share repurchases, guided by internal assessments and market conditions. From this standpoint, it is suggested that companies may prefer to share repurchases over dividend options. The DPR becomes relevant in the Substitution Hypothesis context as companies adjust their capital mix. An increase in a company’s DPR may signal to investors that the company is less inclined to participate in share repurchases. In line with the substitution hypothesis, such occurrences can be deemed acceptable at times since investors might prioritize share repurchases over dividends due to their tax efficiency.

Furthermore, efficient management of FCF is crucial to mitigating agency costs under agency cost theory. The allocation of surplus funds through FCF can signal the company's financial health and prospects to investors. Additionally, strategic decisions between distribution methods like dividends and share repurchases enable companies to optimize their capital structure. This effective utilization of FCF not only addresses agency concerns but also communicates financial well-being and enhances the company's overall financial structure.

The prior studies and theories mentioned above have shown that, besides the strategic reasons discussed earlier, there are financial metrics that are commonly used as predictors for companies to engage in share repurchases. The two important financial metrics are the DPR and FCF. These metrics provide insights into a company’s financial health, performance, and ability to generate cash. The DPR represents the portion of earnings distributed as dividends, indicating the company’s commitment to returning profits to shareholders (Gupta et al., 2021). FCF, on the other hand, reflects the cash available after deducting operating expenses and capital expenditures, serving as an indicator that reflects the financial flexibility and potential for future investments or capital allocation decisions. Both the DPR and FCF are commonly used by investors and analysts to evaluate the financial stability and shareholder-friendly policies of a company; in other words, they are indications of the availability of cash that enables a company to carry out share repurchases.

Those studies have shown that share repurchases are influenced by both the DPR (Octaviani & Yulia, 2017; Rahmadhani & Mawardi, 2016) and FCF (Andriyat, Hidayati & Safrianti, 2023; Octaviani & Yulia, 2017). However, those studies were conducted before companies were granted the flexibility to conduct stock buybacks by the Financial Services Authority (OJK) in
2020, where companies could engage in buybacks without obtaining shareholder approval or a general meeting of Shareholders (Otoritas Jasa Keuangan, 2020). Under this regulation, companies can buy back shares from 7.5% to 20% of their paid-up capital.

The regulation was introduced by the Indonesian government in response to significant market fluctuations caused by the COVID-19 outbreak. Its primary objective was to stabilize the market and mitigate the impact of these challenging circumstances. This measure was taken in light of the demanding stock trading conditions on the Indonesia Stock Exchange (IDX) since the beginning of 2020, during which the market faced substantial pressure and witnessed a sharp decline in the Composite Stock Price Index (IHSG).

As of the beginning of the second month of 2020, nine issuers had allocated IDR 5.87 trillion for share buybacks. Among these issuers, six had already carried out buybacks since 2019, while the other three began buybacks in 2020. One of their reasons for conducting these buybacks was the issuers’ desire to keep the stock price in line with its fundamentals, believing that a more stable stock price would make it more attractive for investment purposes (Gumilar, 2020).

Amid the imperative to stabilize stock prices during periods of crisis, we are keen to investigate whether this driving force promptly propels companies toward stock buybacks. This research aims to examine whether the same determinants consistently guided companies’ decisions to pursue share buybacks across these diverse timeframes. The study seeks to shed light on whether variables such as the DPR and FCF consistently influence companies' choices to engage in buybacks. Therefore, our research aims to retest whether these two factors remain significant drivers for companies engaging in buybacks, encompassing both the pre-pandemic and pandemic periods, as well as the pre- and post-OJK 2020 regulation on ease buybacks.

This novel investigation involves analyzing 36 stock buybacks on the Indonesia Stock Exchange that were conducted from 2016 to 2020. The findings of our study indicate a positive correlation between the DPR and FCF with share repurchases during the study period. However, when testing data specifically from companies conducting buybacks in 2020, the results, not reported here, for both variables are insignificant, suggesting that there is no consistent determinant across the sample period.

Our study shares similarities with the research conducted by Yuliana, Sarumpaet & Syaipudin (2022), as we both examine the relationship between FCF and share repurchases using the same years of analysis. However, there is a difference in our study in terms of the formula used to measure the FCF variable. In our study, we measure Cash Flow from Assets or operating activities, whereas their study measures Cash Flow from Capital or from investing activities, which focuses on the cash inflows and outflows associated with investments in long-term assets. We believe that our proxy is more comprehensive in capturing the essence of cash flow, as cash flow is generated not only from long-term assets but also from short-term assets like inventory. This represents an additional enhancement that we have incorporated into our research. The utilization of distinct proxies for cash flow measurement may have played a role in yielding disparate outcomes. In our study, we found a positive relationship between FCF and share repurchases, aligning with the theoretical expectations. On the other hand, their research reported a negative relationship between FCF and share repurchases.

This paper is structured as follows. After the introduction section, a literature review and hypothesis development are presented. The next section is the research methodology, followed by the research findings and discussion. The end of the paper presents the conclusion, limitations, and recommendations for further investigation.
LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This present study utilizes three theoretical frameworks to predict and explain the relationship between the variables of interest. These theories include the Substitution theory, Signaling theory, and Agency Cost theory. By drawing on these theories, the study aims to provide a good understanding of the factors influencing share repurchase decisions by companies.

Substitution Hypothesis Theory

The substitution hypothesis theory is a theoretical framework used to understand the link between dividend payouts and share repurchases by companies. This theory suggests that companies have the option to distribute earnings to shareholders either through dividends or through share repurchases. Therefore, when companies have positive earnings, they can choose between paying dividends to shareholders or repurchasing their shares (Moin, Guney & El Kalak, 2020). The theory considers that investor’s view dividends and share repurchases as substitute mechanisms for receiving cash from the company. Likewise, when a company decides to repurchase its share instead of paying dividends, it is seen as substituting one form of cash distribution (in the form of dividends) with another (share repurchases). The theory argues that investors are generally indifferent between receiving cash dividends and selling a portion of their shares in a share repurchase. This is based on the assumption that investors can trade their shares in the market at any time if they desire to obtain cash. Furthermore, this theory argues that share repurchases can replace dividend payments, allowing companies to allocate their available funds in a more effective manner (Rendy, 2020). As a result, share repurchases become a significant consideration for companies when deciding how to distribute cash to their shareholders.

Signaling Theory

Signaling theory is a framework used to understand how companies communicate information to the market and stakeholders through various actions and signals. The theory suggests that companies engage in signaling to convey valuable information about their financial health, prospects, and future performance. In the context of stock markets, one common signal employed by companies is the announcement of dividend policy decisions or share repurchases. This theory considers that a company’s decision to pay dividends or engage in share repurchases can be considered a signal to investors. These signals are used to communicate the company’s confidence in its financial condition, growth potential, and profitability. Therefore, when a company pays dividends, it signals that it has stable and consistent earnings and expects to continue generating positive cash flows. Dividends are often associated with mature and established companies that have steady income streams.

Similarly, share repurchases can be perceived as an indication that the company’s share is undervalued. By repurchasing shares, a company demonstrates confidence in its prospects and indicates that it believes the market is not fully recognizing its true value. Signaling theory helps to understand how share repurchases can influence investor perceptions and market reactions. Therefore, the signaling theory provides a framework to understand how DPR and share repurchases are linked, highlighting the role of these actions in conveying information and influencing investor sentiments.

Agency Cost Theory

According to the agency cost theory, stock buybacks are used as a strategy to alleviate agency costs and align the interests of company management with shareholders. The agency cost theory suggests that stock buybacks can address agency conflicts that arise when managers prioritize their interests over shareholders. In cases where a company generates surplus cash flow, it can use it for stock buybacks, reducing the
amount of cash available for managers to potentially misuse or invest in projects that do not benefit shareholders. Cash flow plays a crucial role in determining a company’s ability to undertake stock buybacks. Companies with higher levels of FCF have surplus cash that can be utilized for various purposes, including stock buybacks. By repurchasing their shares, companies can return capital to shareholders and signal that they believe their shares are undervalued. Overall, the agency cost theory provides a framework for understanding the relationship between cash flow and stock buybacks.

**Share Repurchases**

Share repurchases refer to a company buying back its shares from shareholders. This practice is commonly employed by companies with low ownership to reduce the number of outstanding shares (Hsu, Fung & Chang, 2016). Additionally, company managers who own company shares may also conduct share repurchases to retain or increase their ownership. This strategy leads to an increase in the managers' ownership percentage, granting them not only decision-making authority but also greater control over the company (Lailiyah & Soeharto, 2019).

Saxena & Sahoo (2022) delve into the reasons behind companies engaging in share repurchases, highlighting both traditional and strategic motivations. Traditional reasons encompass distributing shares for compensation plans, enhancing EPS, and sending signals to shareholders. Conversely, strategic goals revolve around managing excess cash and maintaining an optimal capital structure.

Under the perspective of signaling theory, share repurchases serve as a signal from the management that the company's share is undervalued (Abraham, Harris & Auerbach, 2018; Koopmans, 2022). This prompts management to engage in share repurchases, anticipating a rise in the company's share price in the future, leading to potential capital gains (Koopmans, 2022).

Additionally, the substitution hypothesis theory suggests that share repurchases can act as an alternative to cash dividends. When share repurchases are implemented, dividend payments tend to decrease. This is because investors tend to prefer buybacks over dividends since buybacks offer capital gains at a lower tax rate (Alquaif et al., 2020; Larsson & Rios Benavides, 2019; Manconi et al., 2019; Octaviani & Yulia, 2017; Rahmadhani & Mawardi, 2016). Consequently, buying back shares provides tax advantages to shareholders due to the variation in tax rates between dividends and capital gains (Lailiyah & Soeharto, 2019).

Meanwhile, from the perspective of agency cost theory, stock buybacks can function as a mechanism to reduce the potential for agency conflict between company managers and shareholders. The agency cost theory argues that conflicts of interest can arise between managers, who may prioritize their interests, and shareholders, who seek to maximize their profits. Stock buybacks, in this context, can be seen as a way for managers to align their interests with those of shareholders. By buying back company stock, managers are effectively reducing the number of shares outstanding in the market, which can increase the value of the remaining shares. This benefits both managers, who often have a significant ownership stake, and shareholders, who experience an increase in the value of their holdings.

The DPR and FCF can both influence the decision to engage in stock buybacks. If a company has a lower DPR, it retains more earnings internally, which can be used for stock buybacks. On the other hand, if a company has a higher DPR or limited FCF, it may have fewer resources available for stock buybacks.

**Dividend Payout Ratio and Share Repurchases**

When a company earns profits, it can be utilized in various ways. Companies can choose to reinvest their earnings for growth, pay debts, make acquisitions, maintain cash reserves, or make investments. Additionally, companies have the option to distribute a portion of their profits to shareholders. If the company
decides to return some of its profits to shareholders, it can do so through cash dividends or by buying back shares owned by shareholders (Andriosopoulos & Hoque, 2013). The company’s decisions regarding these choices can be observed through the DPR.

The DPR is a financial indicator that illustrates the percentage of a company’s earnings allocated to shareholders in the form of dividend payments. It provides insight into the portion of profits used for cash dividend payments. A higher DPR indicates that a significant proportion of the company’s income is allocated for dividends, while a lower ratio indicates that the company retains a larger share of its income for alternative purposes, such as reinvestment in the business or debt repayment.

The DPR is commonly used by investors and analysts to assess a company’s payout policy. It can offer valuable information regarding a company’s financial well-being, profitability, and potential for future expansion. If the dividend payment is too high, it indicates a significant portion of the company’s earnings is being distributed to shareholders. While this may be attractive to investors seeking income, it can limit the company’s ability to reinvest in growth and innovation. Additionally, maintaining a high dividend payment may strain the company’s financial flexibility and make it challenging to meet future obligations or navigate unexpected circumstances. Thus, companies are discouraged from paying excessively high dividends because such payments must be made in cash, which can deplete the company’s cash and liquidity reserves. This can limit the company’s ability to meet other financial obligations and maintain a healthy level of working capital.

The DPR can also be used to investigate the likelihood of a company conducting share repurchases. A higher DPR typically indicates that a larger proportion of the company’s earnings are being distributed as dividends to shareholders. In such cases, the company may have less available cash to allocate toward share repurchases. Conversely, a lower DPR suggests that the company retains a larger portion of its earnings, which may provide more financial flexibility to engage in share repurchases. By analyzing the DPR, investors can gain insights into the potential inclination of a company to conduct share repurchases.

This is consistent with the findings of Octaviani & Yulia (2017), who observed that the DPR has a negative and significant impact on share repurchases. Their research suggests that as the DPR increases, the propensity for share repurchases decreases. In other words, companies that allocate a higher percentage of their earnings to dividends are less inclined to participate in share repurchases.

According to signaling theory, high dividend payments provide a positive indication to investors that the company has generated significant profits that can be distributed to shareholders. This leads to an increase in stock prices. Therefore, when a company chooses to pay high dividends to shareholders, the distribution of cash through share repurchases decreases. Based on these arguments, it can be concluded that share repurchases serve as an alternative to dividends, and as a result, the DPR influences share repurchase actions. Therefore, the second hypothesis is:

**H1:** The DPR has a negative impact on share repurchases.

**Free Cash Flow**

Free cash flow (FCF) is a financial indicator that depicts the cash generated by a company after considering operational costs, capital expenditures, and taxes. It is a measure of cash available to a company to use for diverse objectives, such as debt repayment, investment in growth projects, dividend payments, or involvement in stock buybacks. In other words, FCF is the available cash flow after deducting operational costs and other expenses in an accounting period.

Positive FCF signifies that the company is producing more cash than it needs for its regular operations and
investments. This provides flexibility and financial strength to pursue strategic initiatives or distribute cash to shareholders. Conversely, negative FCF suggests that the company is spending more cash than it is generating, which may require external financing or a reassessment of the company's operational efficiency.

Studies have indicated that FCF plays a crucial role in companies' decisions on share repurchases. Feng et al. (2013) argue that companies are more likely to conduct stock buybacks if they have higher FCF and lower debt levels. This is supported by Octaviani & Yulia (2017), and Rahmadhani & Mawardi (2016), who state that higher FCF in a company leads to larger share repurchases. Lailiyah & Soeharto (2019) and Syahputra & Prisilia (2020) also support the notion that higher FCF increases the likelihood and magnitude of share repurchases. When a company has excess cash, it means that its earnings exceed investment opportunities. Rahmadhani & Mawardi (2016) argue that FCF, in the form of excess cash or capital, can influence a company to engage in share repurchases.

According to the agency cost theory, there is an association between FCF and share repurchases. The theory suggests that when companies have excess FCF, it may lead to agency conflicts between managers and shareholders. Managers may have the incentive to invest the excess cash in projects that benefit their interests rather than maximizing shareholder value.

In such cases, share repurchases can be seen as a mechanism to mitigate these conflicts. By using the excess cash to repurchase shares, companies reduce the amount of available cash that managers can potentially misuse. This alignment of interests can help alleviate agency costs and enhance shareholder value. Therefore, the theory suggests that higher levels of FCF are associated with a greater likelihood of share repurchases, indicating a positive relationship between FCF and share repurchases. Based on the preceding discussion, the third hypothesis can be formulated as follows:

H2: There is a positive impact of FCF on share repurchases.

**RESEARCH METHODS**

This study is a quantitative research investigation that utilizes secondary data. The population of the study includes all companies listed on the Indonesian Stock Exchange between 2016 and 2020. A sample of 40 companies is drawn from this population, specifically focusing on those that conducted share repurchases during the specified research period. Four outliers were removed from the overall sample, resulting in a final sample size of 36 share repurchases for analysis. The determination of sample size usually lacks a fixed rule, yet researchers often adhere to standard principles. For instance, in regression analysis, maintaining a minimum of 10 observations per variable is commonly advised. Thus, with three independent variables, a recommended

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<thead>
<tr>
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<th>Variable</th>
<th>Variable Definition</th>
<th>Measurement</th>
<th>Scale</th>
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<td>1.</td>
<td>Share Repurchases (Y)</td>
<td>The company's purchases of its own outstanding shares from the public.</td>
<td>Number of Shares Repurchase</td>
<td>Ratio</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Number of Outstanding Share</td>
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<td>2.</td>
<td>Dividend Payout Ratio (X1)</td>
<td>The percentage value of net profit after tax minus retained earnings, which is then distributed to shareholders as</td>
<td>Cash Dividend</td>
<td>Ratio</td>
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<td></td>
<td></td>
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<td>Net Income</td>
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<td>3.</td>
<td>Free Cash Flow (X2)</td>
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<td>Profit After Tax - Depreciation</td>
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<td>Total asset - Cash &amp; Cash Equivalent</td>
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Table 1.
Measurement of Variable
minimum sample size of 30 is applicable (Statistics Solutions, 2023). Consequently, our chosen sample size fulfills this prescribed threshold. The research data is obtained by employing the content analysis technique on the financial reports of the sample companies.

This present study examines one dependent variable and two independent variables. The dependent variable, share repurchases (Y), is measured by dividing the number of share repurchased by the number of outstanding shares of the sampled companies during the study period. The independent variables include the DPR and FCF. The DPR (X1) is calculated by dividing cash dividends by net income. This measurement approach is adopted from the work of Gupta (2016) and Rahmadhani & Mawardi (2016). The FCF (X2) is measured using the formula employed by Octaviani & Yulia (2017), which is calculated as the after-tax profit minus depreciation divided by total assets minus cash and cash equivalents. The measurement of the individual variable is presented in Table 1.

Analytical Method
This present study utilizes multiple linear regression analysis to investigate the influence of the independent variables, Dividend Payout Ratio (X1) and Free Cash Flow (X2), on the dependent variable Share Repurchases (Y). The data analysis was conducted using a combination of the SPSS and Stata software programs, which include descriptive statistical analysis, classical assumption tests, and multiple linear regression analysis. The regression model used for the analysis is as follows:

\[ SR = \beta_0 + \beta_1 \text{DPR} + \beta_2 \text{FCF} + \varepsilon \]

In the given regression model, the dependent variable Y, denoted as SR, represents share repurchases. The independent variables X1 and X2 are represented by DPR (Dividend Payout Ratio) and FCF (Free Cash Flow), respectively. The model includes the intercept \( \beta_0 \), regression coefficients \( \beta_1 \) and \( \beta_2 \), and the error term \( \varepsilon \).

ANALYSIS AND DISCUSSION
Descriptive Statistics
Descriptive statistics present an overview of the characteristics and distribution of the variables under investigation. They provide summary measures such as the number of samples (N), minimum, maximum, mean, and standard deviation, offering valuable insights into the central tendency, variability, and distributional properties of the data. The results of the descriptive statistical analysis in this study can be observed in Table 2.

Based on Table 2, the descriptive statistics for the share repurchase variable (Y) indicate that it was examined in 36 observations during the study period. The variable ranges from a minimum value of 0.0016904 to a maximum value of 4.673644 indicates that the companies in the sample exhibited a diverse range of stock repurchase activities. Some companies engaged in infrequent repurchases, while others undertook more frequent repurchases. The average (mean) value of the variable is 0.9884396, suggesting that, on average, companies in the sample participated in stock repurchases to some extent. However, the standard deviation of 1.123112 indicates a higher amount of variability in the stock repurchase data points from the mean.

<table>
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<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
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<td>0.355613</td>
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</tbody>
</table>
This greater standard deviation suggests that the data points are more spread out from the mean, indicating greater variability in the frequency or magnitude of stock repurchases among the companies in the sample. These statistics provide insights into the range and distribution of the share repurchase variable, revealing both the variability and central tendency of the data.

Similarly, the descriptive statistical analysis for the DPR variable (X1) shows that it was analyzed in 36 observations during the study period. The variable ranges from a minimum value of 0.0360884 to a maximum value of 5.952569. The average (mean) value of the variable is 0.7102094, suggesting the average proportion of a company's earnings that is distributed to shareholders in the form of dividends. The standard deviation of 1.062448 indicates significant variability in the data points, as evidenced by its relatively higher value compared to the mean. This suggests that the DPR of the companies in the sample vary considerably around the average value, indicating diversity in their dividend distribution practices.

Furthermore, the data for FCF was also analyzed based on 36 observations. The variable ranges from a minimum value of 0.0000784 to a maximum value of 2.162901. The average (mean) value of the variable is 0.1698149, indicating that, on average, the companies in the sample generated FCF equivalent to approximately 16.98% of their total revenue or operating cash flow during the study period. FCF represents the surplus cash generated by a company after covering its operating expenses and capital expenditures, providing insight into its financial health and ability to fund various activities. The relatively low standard deviation of 0.3556132 indicates low information variability, as the values of FCF tend to cluster around the mean. This suggests a more homogeneous distribution of data, indicating that most companies in the sample generated FCF within a relatively narrow range around the average value.

Given the heterogeneity of our share repurchase and DPR variables, we have opted to use robust regression in Stata for our hypothesis testing. Robust regression is a suitable data analysis technique for dealing with variations and differences within the dataset, as suggested by previous studies. By employing robust regression, we can obtain more reliable results and account for the potential impact of heterogeneity on our findings.

The table below displays the number of companies engaging in share repurchases annually throughout the study period, offering insights into the frequency of such transactions. This allows us to assess the impact of government regulations that eased restrictions on stock buybacks to address business volatility. Considering the findings of Wang, Yin, and Yu (2021) that suggest companies do take advantage of regulatory changes, we initially anticipated a significant increase in share repurchases in 2020 following the enactment of the regulation. Surprisingly, our results indicate that there was no substantial rise in share repurchases in 2020 following the implementation of the regulations. We recorded fluctuating instances of 7, 9, 11, 5, and 4 share repurchases in the years 2016, 2017, 2018, 2019, and 2020, respectively. However, it is crucial to acknowledge that the limited timeframe for analysis in 2020 may not fully capture the

<table>
<thead>
<tr>
<th>Table 3.</th>
<th>Results of Pearson Correlation Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SR</td>
</tr>
<tr>
<td>SR</td>
<td>1.0000</td>
</tr>
<tr>
<td>DPR</td>
<td>0.4627* (0.0045)</td>
</tr>
<tr>
<td>FCF</td>
<td>2678 (1144)</td>
</tr>
</tbody>
</table>

* Significant at the 0.05 level.
impact of the pandemic and government intervention on share repurchases.

**Classical Assumption Testing**
We conducted four classical assumption tests before running the regression analysis. These tests included normality tests, multicollinearity tests, heteroscedasticity tests, and autocorrelation tests. For parsimony, the results are not reported here. However, the individual results of these tests indicate that the assumptions for the regression analysis, including the BLUE (Best Linear Unbiased Estimator) assumptions, have been satisfied

**The Pearson Correlation Test**
The Pearson correlation coefficient quantifies the magnitude of the linear association between two variables. The results of the Pearson correlation test conducted at a significance level of 0.05, presented in Table 3, provide information about the magnitude and direction of the correlation between the variables under investigation.

Table 3 reveals that the variable DPR exhibits a positive and significant relationship with share repurchase at a 5% significance level, indicating that an increase in the DPR is associated with a higher likelihood of share repurchases. On the other hand, the relationship between FCF and share repurchase is positive, but it is not statistically significant, suggesting that variations in FCF do not have a significant impact on share repurchases. Similarly, FCF shows a negative relationship with DPR, but it is also not statistically significant. This implies that changes in FCF do not significantly affect the DPR. These findings imply that other factors or variables might play a more influential role in determining share repurchases than FCF.

It’s important to note that Pearson correlation coefficients measure the relationship between two variables in isolation and may differ from results obtained through multiple regression analysis. This discrepancy can be attributed to the presence of confounding factors or additional variables that influence the relationship of interest. Regression analysis accounts for these factors, allowing for the detection of significant relationships.

**Table 4.**
Results of Multiple Linear Regression Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Predicted Sign</th>
<th>Estimates (p value)</th>
<th>t-stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPR</td>
<td>-</td>
<td>0.553847**</td>
<td>3.07</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.005)</td>
<td></td>
</tr>
<tr>
<td>FCF</td>
<td>+</td>
<td>1.127331***</td>
<td>7.98</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.000)</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td>0.403983 **</td>
<td>2.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.036)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>F (2, 33)</td>
<td></td>
<td>22.73</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0000)</td>
<td></td>
</tr>
<tr>
<td>R-Square</td>
<td></td>
<td>.3378</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-Square</td>
<td></td>
<td>29.77%</td>
<td></td>
</tr>
<tr>
<td>RMSE</td>
<td></td>
<td>0.94124</td>
<td></td>
</tr>
<tr>
<td>Mean VIF</td>
<td></td>
<td>1.03</td>
<td></td>
</tr>
</tbody>
</table>

Model 1: To test the hypotheses
P value in parentheses, * p<0.10, * p<0.05, ** p<0.001***
Source: output Stata (2023)
Multiple Linear Regression Analysis
The impact of DPR and FCF on share repurchases in Indonesian companies during the period of 2016 to 2020 was examined through multiple linear regression analysis at a significance level of 0.05 or 5%. The findings of this regression analysis are outlined in Table 4.

Based on the regression results presented in Table 4, rounded to 3 decimal places, the formulated regression equation model is as follows:

\[ SR = 0.404 + 0.553 \text{DPR} + 1.127 \text{FCF} + \varepsilon \]

The equation above indicates that if both the DPR and FCF remain unchanged (equal to 0), the share repurchases in the sample companies will have a value of 0.404. The regression coefficient for the independent variable, the DPR, is 0.553. This means that if the DPR increases by 1 unit while the FCF remains constant, the share repurchases in the companies listed on the BEI will increase by a factor of 0.553. The regression coefficient for FCF is 1.127, indicating that if the FCF increases by 1 unit while the DPR remains constant, the share repurchases will increase by a factor of 1.127.

Hypothesis Test
The Simultaneous Significance Test (F-statistic)
The F-test is used to determine the overall significance of a regression model by measuring the ratio of explained variation to unexplained variation. By comparing this ratio to the critical value of the F distribution, the statistical significance of the regression model can be determined. If the F-statistic is greater than the critical value, it means that the regression model is significant and the independent variables have a significant effect. Conversely, if the F-statistic is less than the critical value, we conclude that the regression model is not significant.

In our analysis, the F-statistic significance value is 0.000, which is smaller than the significance level of 0.05, and the F-statistic value is 22.73, greater than the critical F-value of 3.28. These results indicate a strong relationship between the independent variables (DPR and FCF) and the dependent variable (share repurchase) in Indonesian companies from 2016 to 2020. Additionally, the model fits well with the data, demonstrating its ability to explain a significant amount of variation in the dependent variable.

The Partial Significance Test (t-statistic)
The t-statistic test shows the individual influence of the variables using a significance level of 0.05 (\(\alpha = 5\%\)). The results indicate that the critical t-value is at a significance level of 0.05.

Table 4 provides evidence that both DPR and FCF are positively associated with share repurchase, as indicated by their P-values below 0.05%. The coefficient of DPR is 0.5533847 with a t-statistic of 3.07, indicating a positive and significant relationship between DPR and share repurchases at a 5% significance level. This implies that for every unit increase in the DPR, we can expect an average increase of 0.5533847 units in share repurchases. These findings demonstrate a clear and statistically significant association between the DPR and share repurchases, suggesting that companies with higher DPR are more likely to engage in share repurchases. Given these results, Hypothesis 2 can be confidently rejected.

Table 4 provides compelling evidence that FCF is positively and significantly associated with share repurchase, as indicated by the coefficient of 1.127331 with a t-statistic of 7.98. This signifies that FCF has a strong and statistically significant impact on share repurchases at a 1% significance level. Specifically, for every unit increase in FCF, there is an expected increase of 1.127331 units in share repurchases. These findings underscore the importance of FCF in driving share repurchase decisions by companies. Thus, we can confidently accept Hypothesis 3, which states that FCF has a positive and significant association with share repurchases.

The coefficient of determination (R2) has a value between 0 and 1. A higher coefficient of determination indicates a greater variation of the independent
variables affecting the dependent variable. The results of the coefficient of determination can be seen in Table 4. The value is 0.3378. This study uses two independent variables, so the adjusted R-square value is used to measure the proportion of the independent variables' influence on the dependent variable. The adjusted R-square coefficient of 0.297 indicates that the proportion of the influence of DPR and FCF on share repurchases in Indonesian listed companies from 2016 to 2020 is 29.7%, while the remaining 70.3% (100% - 29.7%) is influenced by other variables not examined in this study.

DPR and Share Repurchases
The results of our hypothesis testing reveal a significant and positive relationship between the variable DPR and share repurchases. This finding challenges the predictions of the substitution hypothesis, which suggests a negative association between DPR and share buybacks. According to the substitution hypothesis, high DPR should correspond to lower levels of share repurchases, as companies can replace dividend payments with buybacks. However, our analysis demonstrates that companies with higher DPR are more inclined to engage in share repurchases, indicating that the substitution hypothesis is not applicable in this context.

In Indonesia, share buybacks are a discretionary corporate action exercised based on company policies to address specific issues and strategic goals. There are no specific regulations guiding companies on the proportion of dividend payments or share buybacks. As a result, companies may utilize buybacks as part of their capital management strategy, to optimize the capital structure, boosting EPS, and showcasing management's confidence in the company's future performance. The flexibility in timing and quantity provided by share buyback options has made this practice customary in Indonesia, benefiting both existing shareholders and companies attracting new investors.

Simultaneously, companies also cater to shareholders relying on income from dividends. Hence, both dividend payments and share repurchases are applied by our sample companies simultaneously, depending on their financial objectives and overall business strategy. This balanced approach allows those companies to meet the expectations of different shareholders and maintain a strategic focus on long-term growth and performance.

These findings suggest that DPR and share repurchases are not perfect substitutes but rather complementary strategies employed by companies to distribute earnings to shareholders. This interpretation aligns with the argument put forth by Lailiyah & Soeharto (2019), who argue that Indonesian companies distribute dividends as a commitment to shareholders while also utilizing share repurchases. Therefore, we can conclude that share repurchases and dividends are not substitutes but rather complementary approaches utilized by companies. In addition, Larsson & Rios Benavides (2019) argue that under normal circumstances, it is reasonable to assume that dividend payments and stock buybacks can be considered interchangeable options. However, in reality, companies operate in a variety of economic environments and cater to the diverse aspirations of shareholders. Therefore, specific economic conditions significantly influence a company's decision on how to utilize its available cash.

Our findings align with the studies conducted by Rahmadhani & Mawardi (2016) and Susanti & Erlanda (2018), which similarly found a positive influence of DPR on share repurchases. However, they contradict the findings of Gupta (2016), Octaviani & Yulia (2017), and Syahputra & Prisilia (2020), who suggested a negative relationship between the DPR and share repurchases. The inconsistency between our findings and those of prior studies and existing theories, specifically the substitution hypothesis, can be interpreted in several ways. Firstly, it is possible that the substitution hypothesis does not hold universally and may be context-dependent. Our study may have examined a specific
context or sample that deviates from the assumptions made by the substitution hypothesis. Secondly, methodological differences could contribute to the disparity. Variations in data collection, measurement techniques, or statistical analysis may yield different results.

**FCF and Share Repurchases**

The statistical analysis reveals a significant and positive relationship between our second independent variable, FCF, and the dependent variable, share repurchases. This finding suggests that companies with higher levels of FCF are more likely to engage in stock buybacks. When a company generates substantial FCF, indicating excess capital or available funds, it tends to be inclined towards utilizing share repurchases as a means of distributing the surplus cash. This finding supports our third hypothesis, which is based on agency cost theory. According to the agency cost theory, excess cash represented by FCF can potentially lead to opportunistic behaviors by managers, where the cash is used for projects that do not create shareholder value. However, when companies utilize the excess cash for share repurchases, they can align the interests of managers and shareholders, reducing potential agency conflicts and costs. This finding confirms that FCF has a positive impact on share repurchases, indicating that companies with higher levels of FCF are more likely to engage in stock buybacks.

The findings of this research are consistent with previous studies conducted by Syahputra & Prisilia (2020), Lailiyah & Soeharto (2019), Octaviani & Yulia (2017), and Rahmadhani & Mawardi (2016), which have all shown a positive relationship between FCF and share repurchases. These studies indicate that as the level of FCF in a company increases, there is a greater likelihood of the company engaging in stock buybacks. On the other hand, our results contradict the findings of previous studies conducted by Susanti & Erlanda (2018) & Mastan (2013). Susanti & Erlanda (2018) demonstrated a negative impact of FCF on share repurchases, suggesting that as FCF increases, companies are less inclined to perform stock buybacks. Similarly, Mastan (2013) argued that companies with limited cash flows may lack the resources to engage in share repurchases. Furthermore, Hariyanto & Mardani (2015) emphasized the long-term advantages of FCF, which may lead companies to prioritize dividend payments or reinvestments rather than share repurchases.

**CONCLUSION**

This study investigates the impact of DPR and FCF on share repurchases in companies listed on the Indonesia Stock Exchange from 2016 to 2020. The study examines 36 instances of share repurchases during this period. The findings support all of our hypotheses and reveal that both the DPR and FCF have simultaneous and partial effects on share repurchases.

Specifically, the results demonstrate that the DPR has a positive influence on share repurchases at the sample companies. As the DPR increases, companies are more inclined to engage in share repurchases. These findings contradict the Substitution theory, which suggests that companies choose between dividend payments and share repurchases as alternative means of cash distribution; however, in this study, this premise does not hold.

Furthermore, the study reveals that FCF has a positive impact on share repurchases. This means that higher levels of FCF are associated with a greater likelihood of companies conducting share repurchases. In essence, the availability of funds within a company significantly influences its decision to pursue share repurchases. These findings align with the principles of the Agency Cost theory. According to the Agency Cost theory, the presence of FCF may lead companies to engage in opportunistic behavior. By utilizing excess cash to repurchase their shares, companies could mitigate agency costs and align the interests of shareholders and managers. This action directly returns value to shareholders, potentially reducing conflicts of interest,
enhancing overall corporate governance, and maximizing shareholder value.

LIMITATIONS AND SUGGESTIONS
This study has several limitations that should be considered in interpreting the results. Firstly, the monitoring period of only five years, specifically from 2016 to 2020, may have constrained the total sample size as only a limited number of companies conducted share repurchases each year. To obtain a more robust understanding of share repurchase determinants, future researchers could extend the research period to encompass a larger timeframe, enabling a broader range of companies to be included in the analysis.

Secondly, this study focused solely on two financial variables, namely the DPR and FCF, which collectively explained 29.7% of the variance in share repurchases (as indicated by the R-Square value). This implies that a significant portion, approximately 70.2%, of the influence on share repurchases is attributed to factors beyond the scope of this study. Therefore, researchers may consider incorporating additional relevant independent variables in their future investigations to capture a more comprehensive picture of the drivers behind share repurchases. By doing so, a more holistic understanding of the motivations and determinants of share repurchases can be obtained.

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