

IMPACT OF CASH HOLDING AND DEBT POSITION ON IPO UNDERPRICING

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Abstract: *This study investigates the impact of cash holdings and debt levels on IPO underpricing in the Malaysian market, aiming to provide insights into the relationship between capital structure components and IPO performance. Using IPO prospectuses from Bursa Malaysia, the research examines 225 IPOs listed on the Main Market from 2005 to 2019 through descriptive statistics and cross-sectional regression analysis. The findings reveal a significant positive relationship between cash holdings and underpricing, highlighting liquidity and growth signaling benefits, while debt levels exhibit an insignificant and negative effect, challenging traditional agency theory. These results emphasize the critical role of financial decisions in influencing investor perceptions during IPOs. The study contributes to the literature by addressing the limited exploration of cash and debt factors in IPO contexts and offers valuable implications for corporate financial strategy and investor decision-making in emerging markets.*

Keywords: *IPO, Underpricing, Cash, Debt, Size*

Introduction

An Initial Public Offering (IPO) involves a private company offering its shares to investors to achieve a stock exchange listing. The initial return of an IPO, often characterized by underpricing, refers to the first-day trading gain calculated from the difference between the offer price and the market price. IPOs are widely regarded as lucrative investment opportunities for generating substantial short-term returns (Liu et al., 2023; Mehmood et al., 2023; Mohd-Rashid et al., 2019). Empirical evidence supports these significant returns. For instance, Ibbotson et al. (1994) reported an increase in average initial returns in the U.S. from 21.1% in 1960 to 55.5% in 1992, while Ritter and Welch (2002) observed returns peaking at 65% between 1999 and 2000. Despite variations, studies consistently highlight positive excess returns in the U.S. market (Bradley & Jordan, 2002; Ligon & Liu, 2011; Liu et al., 2023; Tuominen, 2023; Zheng et al., 2005). Globally, Boulton et al. (2009) analyzed IPOs from 49 countries and Loughran et al. (1994) studied 25 nations, both reporting average positive excess returns ranging from 4% to 80%. Malaysian IPOs, identified as highly discounted in emerging markets by Loughran et al. (1994), exhibit underpricing rates between 63% and 167% (Dawson, 1987; Ku-Ismail et al., 1993; Yong & Isa, 2003; Taufil-Mohd, 2007; Yong & Albada, 2018; Tajuddin et al., 2023). This study investigates the influence of cash holdings and debt position on the significant underpricing of Malaysian IPOs. Cash and debt are essential components of a firm's capital structure, often utilized to finance investments or manage operations. While most prior research on cash and debt has focused on listed firms, there is limited exploration of these factors in firms preparing for IPOs. Typically, capital structure decisions aim to minimize the cost of capital or maximize firm value. Therefore, understanding how cash and debt are employed is crucial to analyzing financing decisions that may impact IPO underpricing. The framework examining cash and debt remains underexplored, especially regarding its effect on IPO performance at listing. By incorporating agency theory, this study seeks to enhance understanding of the Malaysian IPO market, particularly the relationship between cash, debt, and underpricing.

The paper is organized as follows: Chapter 2 reviews relevant literature, Chapter 3 outlines the research methodology, Chapter 4 presents the findings, and Chapter 5 concludes the study.

Review of the Literature

Agency theory, introduced by Jensen and Meckling (1976), is a foundational concept in IPO literature, addressing conflicts (agency costs) between managers and shareholders due to misaligned interests and incomplete information. The theory posits that managers may prioritize self-interest over shareholder value, leading to inefficient use of free cash flow, such as investing in projects with negative net present value (NPV) (Jensen, 1986). This misuse can decrease equity value and discourage investor participation, negatively impacting IPO performance. Jensen (1986) further suggests that leveraging debt can mitigate agency conflicts by compelling managers to allocate free cash flow to debt servicing rather than wasteful projects, aligning interests with shareholders. This perspective is reinforced by Fama and French (2002), who argue that debt serves as a monitoring mechanism, fostering investor confidence by reducing managerial discretion over cash flow. Overall, agency conflict influences investor behavior and IPO outcomes, highlighting the importance of managing free cash flow and debt effectively to protect shareholder interests.

The literature on cash holdings and IPO underpricing reveals diverse perspectives on how cash influences IPO performance. Miller and Orr (1966) pioneered the discussion, proposing that holding cash incurs opportunity costs but signals investment potential, potentially increasing

investor interest in IPOs. Conversely, Jensen (1986) highlighted agency costs associated with excess cash, as managers might pursue suboptimal projects, a view supported by Harford (1999), who linked large cash reserves with value-reducing acquisitions. This uncertainty could deter IPO investors. Booth et al. (2001) extended the analysis to capital structure decisions in developing countries, finding that highly profitable firms prefer cash retention, which can lower financial uncertainty and bankruptcy risk, thus positively signaling IPO performance. Dittmar et al. (2003) underscored the role of agency costs, showing that firms in weak shareholder protection environments hold more cash, often to reduce free cash flow through dividends, which might positively affect IPO performance. Al-Najjar and Belghitar (2011) examined cash holdings in emerging markets, revealing that weak shareholder protection leads firms to retain high cash levels but invest in unprofitable projects, potentially reducing IPO equity value. These insights suggest that the interplay between cash holdings and IPO underpricing hinges on managerial behavior, investor perceptions, and institutional factors.

Firms generally prefer debt financing due to the tax deductibility of interest, which lowers the cost of capital. However, the risk of bankruptcy from an inability to service debt presents a significant downside. Myers (2001) argues that while debt can increase firm value, excessive debt may lead to financial distress if investment profits fall short of operating cash flow. This aligns with Kim and Sorensen (1986), who suggest that firms with high growth opportunities tend to have low debt ratios, signaling financial prudence to IPO investors. Conversely, Friend and Lang (1988) argue that debt can mitigate agency costs and serve as a positive signal to investors, as higher debt ratios are associated with increased management shareholdings and shareholder wealth maximization, supporting Jensen (1986). In contrast to Kim and Sorensen (1986) and Myers (2001), Friend and Lang (1988) find that high-growth firms often use more debt to finance expansion. Whited (1992) highlights that small firms face challenges in borrowing due to limited liquidity and collateral, leading to higher borrowing costs from information asymmetry. This can negatively impact the attractiveness of their shares to investors, reducing IPO performance.

Data and Methodology

In this research, IPO prospectuses available on Bursa Malaysia's website were used as the primary data source. The sample was drawn from IPOs listed on Main Market of Bursa Malaysia between January 2005 and December 2019. During this period, a total of 366 IPOs were issued. After excluding IPO listed in ACE Market, outliers and financial sector companies, 225 IPOs were selected for further analysis.

This study provides descriptive statistics for the entire sample and employs a cross-sectional approach alongside multiple regression analysis to test the research hypotheses. To achieve the study's objective of examining the impact of cash holdings and debt levels on IPO underpricing, the following regression equation is proposed:

$$UP_i = \beta_0 + \beta_1 Cash_i + \beta_2 Debt_i + \beta_3 Asset_i + \beta_4 Issue_i + \varepsilon_i \quad (\text{Eq. 1})$$

Here, IPO underpricing (UP) is the dependent variable, defined as the percentage change in the issue price on the first trading day relative to the offer price. The independent variables are total cash holdings and total debt position, both expressed as percentages. Additionally, the model includes two control variables: total assets and issue size.

Results

Table 1 presents the descriptive statistics of the IPOs. The analysis reveals that the average underpricing of Malaysian IPOs, based on the final sample of 225, is 17.28%. Underpricing ranges widely, with a minimum of -29.09% and a maximum of 181.54%, highlighting significant variability. This variability underscores the potential for an in-depth exploration of the factors affecting underpricing. The highest cash holding recorded is 38.47%, while the lowest is 0.55%. The mean debt position stands at 45.08%, with values ranging from 6.03% to 56.16%. The average total assets of the companies amount to RM 654 million, spanning from RM 12.04 million to RM 29.2 billion. During the study period, the average number of shares issued is 249 million, with a median of 31.61 million.

Table 1: Descriptive Statistics

| Variables | Mean | Median | Min. | Max. | Std. Dev. | Skew. | Kurt. |
|--------------------------------|--------|--------|--------|-----------|-----------|-------|-------|
| Underpricing (%) | 17.28 | 8.00 | -29.09 | 181.54 | 29.09 | 2.42 | 11.68 |
| Cash (%) | 12.00 | 9.41 | 0.55 | 38.47 | 11.21 | 2.44 | 13.39 |
| Debt (%) | 45.08 | 44.01 | 6.03 | 56.16 | 17.59 | 0.25 | 2.83 |
| Total asset (RM million) | 654.00 | 115.00 | 12.04 | 29,200.00 | 2,720.00 | 8.20 | 77.54 |
| No. of shares issued (million) | 249.00 | 31.61 | 2.40 | 12,500.00 | 1,160.00 | 8.41 | 80.63 |

Notes. Std. Dev. = Standard Deviation, Skew = Skewness, Kurt = Kurtosis, RM = Ringgit Malaysia.

Table 2 presents the Pearson correlation matrix. The majority of the independent variables exhibit correlations below 0.50, with the exception of a notable positive correlation of 0.53 between DEBT and ASSET. Despite this, multicollinearity is not a concern, as the variance inflation factors (VIF) fall within the range of 1.22 to 6.13. To ensure robustness, the Newey-West covariance estimator was applied to adjust the standard errors before conducting the cross-sectional regression analysis.

Table 2: Correlation Matrix

| VARIABLES | UP | CASH | DEBT | ASSET | ISSUE |
|-----------|----------|----------|----------|----------|-------|
| UP | 1 | | | | |
| CASH | 0.085 | 1 | | | |
| DEBT | -0.064 | -0.158** | 1 | | |
| ASSET | -0.047* | -0.166** | 0.528*** | 1 | |
| ISSUE | -0.147** | 0.72 | 0.383*** | 0.817*** | 1 |

Notes: ***, **, and * denote significance levels of 1%, 5%, and 10%, respectively. UP refers to underpricing. CASH represents the ratio of cash holdings to total assets. DEBT indicates the company's debt ratio, calculated as debt divided by total assets. ASSET is the natural logarithm of total assets. ISSUE is the natural logarithm of the total equity issued multiplied by the offer price.

Table 3 presents the results of the regression analysis. The variable CASH showed a significant positive relationship with underpricing. A substantial cash balance enhances a firm's cash flow and liquidity, while signaling growth prospects or higher firm value, ultimately improving IPO performance. This finding aligns with Al-Najjar (2013) and Al-Najjar and Belghitar (2011), who highlighted that larger cash reserves provide an opportunity cost advantage when invested in profitable ventures that enhance firm value. Conversely, DEBT demonstrated an insignificant and negative relationship with underpricing. The negative association between debt and underpricing observed in this study contradicts agency theory. Jensen (1986) posited that debt

reduces agency conflicts between managers and shareholders, as debt holders monitor managerial activities, potentially boosting equity value. However, the findings of this study suggest otherwise, indicating that high debt levels are perceived negatively by investors, adversely affecting IPO performance.

Table 3: Regression Result

| Dependent variable is the initial return | | |
|--|-----------------------|---------------------|
| Independent Variables | The restricted model: | |
| | Whole Sample | |
| | Coefficient | <i>t</i> -statistic |
| CONSTANT | 13.707 | 0.4768 |
| CASH | 0.4357 | 1.8566* |
| DEBT | -0.1118 | -0.8505 |
| <i>ln</i> ASSET | 9.1556 | 2.7248*** |
| <i>ln</i> ISSUE | -9.6261 | -3.2971*** |
| <i>R</i> -squared | 0.1653 | |
| Adjusted <i>R</i> -squared | 0.1483 | |
| <i>F</i> -Statistics | 13.8408*** | |
| Probability | 0.0000 | |
| Durbin-Watson | 1.3724 | |
| VIF range | 1.2240 – 6.1256 | |

Notes: ***, **, and * denote significance levels of 1%, 5%, and 10%, respectively. UP refers to underpricing. CASH represents the ratio of cash holdings to total assets. DEBT indicates the company's debt ratio, calculated as debt divided by total assets. *ln*ASSET is the natural logarithm of total assets. *ln*ISSUE is the natural logarithm of the total equity issued multiplied by the offer price.

The analysis revealed a positive relationship between ASSET and IPO underpricing, suggesting that larger firms might offer greater discounts due to their favorable growth prospects (Abdullah and Taufil Mohd, 2004; Tajuddin et al., 2019; Mehmood et al., 2021). Regarding the size of the offering (LNSIZE), the findings indicated a significant negative relationship with IPO underpricing. This implies that smaller offerings, with fewer shares available for investor subscription, are more likely to result in underpricing. The negative link between issue size and underpricing is consistent with prior studies (Mohd-Rashid et al., 2013; Mok and Hui, 1998; Tajuddin et al., 2015; Yu and Tse, 2006). In summary, all variables except DEBT were significant in explaining IPO underpricing.

Conclusion

The study explores the impact of cash holdings and debt levels on the underpricing of Initial Public Offerings (IPOs) in Malaysia. The findings reveal that cash holdings positively influence IPO performance by signaling liquidity and growth prospects, while debt levels have an insignificant and negative effect, challenging agency theory. Larger firms tend to show higher underpricing due to favorable growth signals, whereas smaller issue sizes also lead to increased underpricing, aligning with previous research. The study is limited by its focus on Malaysian IPOs and may not generalize to other markets. Future research could extend the analysis to

other emerging markets, incorporate additional financial and institutional variables, and explore the dynamic impact of macroeconomic factors on IPO underpricing.

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