Modern Finance

Modern Finance Institute

Article

The effect of underwriter reputation and market sentiment on IPO underpricing: Evidence from Indonesia

Vivi Ariyani [1,*] and Tatang Ary Gumanti [2]

[1] Fakultas Bisnis, Universitas Katolik Widya Mandala Surabaya, Indonesia; e-mail: vivi.ariyani@ukwms.ac.id
[2] Fakultas Bisnis, Universitas Katolik Widya Mandala Surabaya, Indonesia; e-mail: tatangag@ukwms.ac.id
* Corresponding author: Fakultas Bisnis, Universitas Katolik Widya Mandala Surabaya, Indonesia; e-mail: vivi.ariyani@ukwms.ac.id

Abstract: Underpricing is a phenomenon that occurs worldwide, and many factors could affect its variation, either from internal or external aspects. This paper examines whether market sentiment and underwriter reputation explain the cross-sectional variation of underpricing among 424 Indonesian initial public offerings (IPOs) from 2016 to 2024. The study differentiates the data into three groups: the period before, during, and after the COVID-19 pandemic. As predicted, the study shows a significant negative effect of market sentiment and underwriter reputation on the level of IPO underpricing. The adverse effect persists during the pandemic but disappears during the period before and after the pandemic. Age and size of the Board negatively and significantly affect the underpricing level, but company size has a positive and significant effect. The finding implies that investors wishing to gain from the IPO market must select the company underwritten by a reputable underwriter.

Keywords: underwriter reputation, market sentiment, IPO underpricing, initial public offerings, Indonesia, COVID-19 pandemic, information asymmetry, emerging markets, corporate governance

Citation: Ariyani, V., & Gumanti, T. A. (2025). The effect of underwriter reputation and market sentiment on IPO underpricing: Evidence from Indonesia. *Modern Finance*, *3*(3), 54-65.

Accepting Editor: Adam Zaremba

Received: 18 April 2025
Accepted: 6 September 2025
Published: 12 September 2025

1. Introduction

Underpricing is inherent in initial public offerings (IPOs) even during an economic crisis. A recent study on 32 countries reports that IPO companies issued during the Covid-19 pandemic the IPO companies were, on average, underpriced by 63.7% and this figure is greater than that of companies issued before the pandemic of 32.4% (Zhang & Neupane, 2024). However, the findings are different among Indonesian IPOs. Zhang & Neupane report that the phenomenon is evident among Indonesian IPOs, where during the pandemic, the average underpricing is 46.7% on 39 IPOs, while during non-pandemic periods, the figure is 71.9% on 33 IPOs. Thus, it seems that the world's underpricing behavior is opposite for the Indonesian IPOs. This condition is certainly interesting to analyze, in order to dig deeper into the underpricing phenomenon in Indonesia, in three time-spans, namely before, during, and after the Covid-19 pandemic.

The study examines the underwriter's role in pricing the IPO. It also examines the effect of market sentiment on the cross-sectional underpricing. IPO literature confirms the link between the level of underpricing and the quality of underwriters. Empirical evidence generally supports the evidence that the more qualified (highly reputable) the underwriter, the lower the underpricing level of an IPO (Carter & Manaster, 1990; Megginson & Weiss, 2017; La Rocca, 2021). This aligns with the monopsony power hypothesis (Ritter, 1998). The idea behind this hypothesis is that underwriters know more about the market than the issuing company does. To get buyers who do not know much about the issue to buy it, the underwriter has to pay them more by underpricing it. Because they have more knowledge, underwriters can underprice issues to make buy-

side clients happy with little marketing. Carter and Manaster (1990) also developed a model suggesting that prestigious underwriters are associated with lower risk offerings. As the risk of offering is low, the expected price run-up is also low, leading to a lower initial return on average.

Our study is motivated by the fact that the Indonesian stock exchanges (IDX) regularly update the quality of underwriters. Every month, the IDX releases data on the top 20 reputable underwriters in Indonesia. Thus, the ranking of underwriters changes every month, and in this study, we adjust that change to accommodate the monthly changes. We believe that this change offers a new treatment for measuring underwriter reputation.

The adverse effect of underwriter reputation and underpricing is worldwide. Several previous papers found that highly reputable underwriters reduce underpricing (Carter & Manaster, 1990; Megginson & Weiss, 2017; Chemmanur & Fulghieri, 1994). More recent evidence supports this finding (Arora & Singh, 2019; Bandi et al., 2020; Ong et al., 2020; Neghab et al., 2023). In particular, Neghab et al. prove that highly reputable underwriters reduce the occurrence of underpricing and after IPOs on US 3,457 companies during January 1979 to November 2018. A review paper by Jamaani & Alidarous (2019) confirms that underwriter reputation can cause information asymmetry. That is, a reputable underwriter effectively certifies a fair assessment of the IPO company's offering price so that it will provide third-party guarantees to investors. The description above strengthens the argument that reputable underwriters will reduce the underpricing of IPO companies.

Asymmetric information in an IPO setting can also be related to market sentiment and investor sentiment, which could affect the market reaction to newly issued stocks (Ljungqvist et al., 2006). This asymmetric information arises because investor sentiment and market sentiment reflected in market indices are a collection of investors' sentiments. Empirical evidence supports this assertion. Chen & Ho (2020) examine market sentiment and found that during periods of high market sentiment, optimistic investors will tend to overvalue stocks, resulting in expensive stock prices. This is confirmed by Baker & Wurgler (2006) that information received by investors regarding IPO companies can affect investor sentiment, giving rise to excessive optimism, higher (lower) investor demand, and higher (lower) price deviations on the first day of listing, which can increase (decrease) underpricing.

Despite the findings reported by Chen & Ho (2020), the relationship between market sentiment and the level of underpricing is still conflicting, which offers further investigation using different IPO settings to test for external validity. Ung et al. (2023) find that investor sentiment affects underpricing weakly, while market sentiment, measured using market indices, affects underpricing positively. Other studies find that high market sentiment positively correlates with underpricing (Yoshinaga & de Castro, 2012; Neupane et al., 2014; Huang et al., 2016; Soeroto et al., 2021). The results of this paper explain that if investors are less informed, then investors will be exposed to sentiment and trade on rising stocks, which will cause greater price increases in IPOs. Krinitz & Neumann (2021), when using market indices as a proxy for market sentiment, report a positive correlation with IPO underpricing, while market sentiment, measured by positive and negative news about the issuing company, was negatively correlated with underpricing. Sentiment analysis using subjective information extracted from text sources will reduce the information asymmetry among investors, thereby reducing price deviations at the time of the IPO. Zhu et al. (2015) and Meliana & Nainggolan (2023) also report a significantly negative relationship between market sentiment and IPO underpricing. It appears that differences in findings may arise due to differences in proxies for market sentiment. This clearly offers an opportunity for an external validity test of the existing proxy.

Based on the above description, this paper will fill the research gap. The gap is based on different research results regarding underwriter reputation and market sentiment with IPO underpricing. Another difference in this paper compared to previous papers is the use of market sentiment proxies and testing at three different time conditions, namely

before, during, and after the Covid-19 pandemic in the Indonesian capital market, which covers the time span of 2016 to 2024. The study tests 424 Indonesian IPOs and finds a negative and significant effect of market sentiment and underwriter reputation on the level of IPO underpricing. The bad effects do not happen before or after the pandemic, but they do happen during it. The adverse effect endures during the epidemic but vanishes in the periods preceding and after it. The remainder of the paper is organized as follows. Section 2 reviews the existing literature. Section 3 discusses the data and methodology. Section 4 presents the results. Section 5 concludes the study.

2. Literature Review

The theory of information asymmetry or information imbalance was first developed by Akerlof (1970), who argued that the seller may have more information than the buyer, so the price offered does not match the price estimated by the buyer. That is, the sales price that occurs does not match the offer given by the seller to the buyer because of the information imbalance between the seller and the buyer. Akerlof further explained that there is asymmetry in the information because the seller has more knowledge about the product being sold than the buyer does. Information asymmetry between issuing companies and investors in the capital market is that companies conducting IPOs have more knowledge about the company and the company's prospects than potential investors, which can affect the initial return when the company conducts an IPO.

Early studies by Beatty & Ritter (1986) contend that underwriters can be classified into two categories: reputable and non-reputable. Reputable underwriters tend to control most of the shares in the IPO market, have superior advisory teams, and establish relationships with institutional investors, including hedge funds, mutual funds, and pension funds. Less reputable underwriters tend to have a small business scale and are not yet known to the IPO market, so they have less underwriting power.

Underwriters can conduct a thorough evaluation of the IPO company. Carter & Manaster (1990) assert that IPO companies that choose reputable underwriters signal to the market about the quality and credibility of an IPO to reduce IPO underpricing. This is in accordance with Habib & Ljungqvist (2001), who contend that issuing companies prefer to use reputable underwriters because they provide a positive signal to investors, which reduces IPO underpricing. In addition, Habib & Ljungqvist argue that the issuing company can also choose to use non-reputable underwriters with best effort underwriting, which can minimize expenses for hiring underwriters but can cause high underpricing.

In line with the above findings, other studies have also found that reputable underwriters negatively correlate with underpricing (Ong et al., 2020; Jamaani & Ahmed, 2020). This means that choosing a reputable underwriter will increase the confidence of potential investors in the IPO company, which will have an impact on reducing underpricing. Similarly, Chemmanur & Fulghieri (1994) report that the selection of reputable underwriters was able to reduce underpricing. However, the study further explains that if the company is not facing significant information asymmetry in the equity market, then the company can use non-reputable underwriters. This means that the selection of reputable underwriters is needed for companies that need to increase potential investors' confidence in the company, as the company has good prospects in the long term.

Ong et al. (2020) prove that underwriter reputation is negatively related to IPO value. Companies that use the services of reputable underwriters set the IPO offering price lower than the intrinsic value at the time of listing. However, after including firm size, Ong et al. find a positive effect between underwriter reputation and IPO valuation. The change in effect explains that large companies tend to decide to use reputable underwriters to increase investor confidence that the issuing company is transparent and improve the provision of information in the prospectus as an obligation for the IPO, and will remain

transparent after the IPO, thus the selection of reputable underwriters will boost the fair value of the IPO and after the IPO.

Ong et al. (2020) also explain that the occurrence of IPO underpricing implies that the IPO price on the first trading day does not show the intrinsic value of the company due to the influence of market sentiment and investor optimism, so that there is a positive initial return on the IPO day. This finding supports Arnold et al. (2010), who show that most prospectuses are risk information open to interpretation, so most information is ambiguous. This is what can lead to the emergence of investor sentiment. This means investor sentiment refers to the information the IPO company provides in the prospectus.

Jamaani & Alidarous (2019) summarize that issuing companies that use reputable underwriters confirm the asymmetry theory of the signal model, which states that issuing companies give positive signals to potential investors. Ljungqvist (2007) asserts that although companies can use non-reputable underwriters, reputable underwriters can reduce information asymmetry with potential investors. This assertion is supported by many empirical studies (Carter & Manaster, 1990; Megginson & Weiss, 2017; Chemmanur & Fulghieri, 1994; Habib & Ljungqvist, 2001; Ljungqvist, 2007; Jamaani & Alidarous, 2019; Ong et al, 2020; Neghab et al., 2023). On average, these studies find that underwriter reputation negatively correlates with IPO underpricing. Based on the description above, this study builds a hypothesis that underwriter reputation is negatively correlated with the level of IPO underpricing.

Market sentiment is investors' overall attitude towards a company, sector, or financial market, revealed through buying and selling activities. Market sentiment in stock market activity can be caused by noise. Black (1990) argues that investors must be able to distinguish between information and noise because there is so much noise when investors conduct stock trading activities. Major announcements or events can cause noise that causes stock purchases by investors to rise for the short term.

However, market sentiment is often analogous to investor sentiment. Ljungqvist (2007) explains that with the increase in investor sentiment, the number of IPO offerings will also increase; besides, high investor sentiment indicates that the market is optimistic about the company's prospects. Positive sentiment enhances higher subscriptions and valuations, leading to higher underpricing, while negative sentiment can lead to lower demand, causing IPOs to underperform

Market sentiment profoundly influences IPO underpricing. Positive market sentiment generally diminishes underpricing, whilst unfavorable sentiment may intensify it. Positive sentiment enhances investor confidence and demand, resulting in elevated IPO prices and an increased probability of oversubscription. In contrast, negative sentiment might suppress demand and diminish initial profits; optimistic market sentiment elevated demand. When investors exhibit optimism over the market, they are more inclined to engage in IPOs, increasing demand for new shares. Positive mood will result in elevated first returns. Increased demand may result in a higher IPO price, thus diminishing the extent of underpricing. A robust market might result in a diminished disparity between the initial offer price and the first-day trading price, signifying less underpricing.

Conversely, negative market sentiment will diminish demand. Negative sentiment might render investors reluctant to participate in new companies, resulting in diminished demand for IPO shares and diminished initial returns. Should demand be insufficient, the IPO price may be established at a lower level, hence potentially augmenting the extent of underpricing. Negative sentiment may lead to a wider disparity between the initial offer price and the first-day trading price, indicating heightened underpricing.

Baker & Wurgler (2007) define investor sentiment as beliefs about future cash flows and investment risks that do not match the facts that occur. Baker & Wurgler (2006) contend that higher (lower) investor demand and higher (lower) price deviations on the first day of listing will affect investor sentiment, which creates excessive optimism, so it can increase (decrease) underpricing. Krinitz & Neumann (2021) support this statement by emphasizing that investors' reactions to the information received will lead to market

sentiment. This explains that investors' reactions on the stock exchange will cause market sentiment.

Rock (1986) confirms the positive relationship between market sentiment and IPO underpricing. According to Rock, information asymmetry between potential investors causes the issuing company to provide a discounted price to potential investors, thus increasing the level of underpricing. Several studies support the positive relationship between market sentiment and IPO underpricing (Baker & Wurgler, 2007; Dorn, 2009; Neupane et al., 2014; Chen & Ho, 2020; Soeroto et al., 2021; Ung et al., 2023).

In this study, we follow Neghap et al (2023), who use the number of IPOs during the period as the proxy for market sentiment. More specifically, Neghab et al. ascertain that hot market activity is the most significant component influencing premarket underpricing relative to other proxies, and it exerts an adverse effect on underpricing. This indicates that the average level of underpricing is reduced during active IPO market conditions. Based on the above explanation, the research hypothesizes that market sentiment negatively correlates with IPO underpricing.

3. Data and Methods

3.1. Sample Data

This research was conducted on the Indonesian Stock Exchange on companies that conducted IPOs from 2016 to 2024. During the research period, 449 IPO companies were in the population. By applying the purposive sampling method, 424 sample companies were obtained. The study uses cross-sectional secondary data.

3.2. Variable Definition

In this study, the dependent variable is the level of IPO underpricing. Underpricing is an IPO phenomenon that often occurs in the capital market. In this case, the phenomenon that occurs is underpriced, namely, if at the close of the first day the share price of the issuing company is above the offering price, or overpriced, if at the close of the first day the share price is below the offering price. The measurement in this study for underpricing uses Initial Return (IR), as follows:

$$\mathrm{IR} = \frac{Price_{\mathrm{t}} - \mathrm{Price}_{\mathrm{t-1}}}{\mathrm{Price}_{\mathrm{t-1}}}. \quad (1)$$

IR is the initial return, $Price_t$ is the IPO closing price on the first day the stock is traded (t), and $Price_{t-1}$ is the initial offering price as stated in the prospectus (t-1).

The independent variables in this study are underwriter reputation and market sentiment. An underwriter is a securities company that helps sell shares issued by the issuing company on the stock exchange to investors. In this case, the party that contracts with the issuer to conduct a public offering for the issuer's benefit, with or without the obligation to buy the remaining unsold securities. Previous research uses dummy variables; in this case, reputable underwriters are given a score of 1, and non-reputable underwriters are given a score of 0 (Chemmanur & Fulghieri, 1994). The quality of underwriters in the issuer's stock offering is measured based on the underwriter rating. In this case, the IDX issues a monthly list of the top twenty reputable underwriters based on the total underwriter value.

Market sentiment (*MARKSENT*) is the proportion of information received about the issuing company by potential investors during the IPO that will lead to market sentiment. Moreover, Neumann (2021) uses investors' reactions on the stock exchange to generate market sentiment. This study's measurement of market sentiment follows Baker in that it uses the number of IPOs in a given month, which is expressed as the number of IPOs during one month.

This study uses four control variables. The selection of control variables follows previous research, namely company size and company age, by adding a board of

commissioners. The first control variable is company size. This study measures it using the natural logarithm of the total asset value. The measurement of the company size variable is as follows. The second is the age of the company. The company age variable is measured from when the company was established until the year of the IPO. Third, the Board of Commissioners (BOARD) oversees and provides advice to the Board of Directors and ensures that the company implements good corporate governance. The measure used is the board of commissioners' number.

Table 1. Variable Measurement

Variable	Variable Measurement	Symbol
	Independent Variables	
Underwriter	The quality of underwriters in the issuer's stock offering is measured based on the underwriter rating IDX	UWR
Market Sentiment	The number of IPOs in a given month, which is expressed as the number of IPOs during one month	MARSENT
	Control Variables	
Firm Age	from the time the company was established until the year of the IPO	Age
Firm Size	natural logarithm of the total asset value	LnSize
Board of Commissioners	The number of the board of commissioners in the IPO company	Board
	Dependent Variables	
Initial Return	(IPO closing price on the first day the stock - initial offering price as stated in the prospectus) / initial offering price as stated in the prospectus	IR

This paper uses multiple regression to determine how much underwriter reputation and market sentiment affect IPO underpricing.

$$IR_i = \alpha + \beta_1 UWR_i + \beta_2 MARSENT_i + \beta_3 AGE_i + \beta_4 LnSIZE_i + \beta_5 BOARD_i + e_i. \quad (2)$$

The description of the equation is as follows. *IR* is the first day initial return, *UWR* is the underwriter reputation, *MARSENT* is market sentiment, *AGE* is the company's age, *LnSIZE* is the company's size, and *BOARD* is the company's size.

4. Results and discussion

4.1. Preliminary results

At this stage, we present the changes in underwriter reputation during the analysis period every year. Table 2 compares reputable and non-reputable underwriters during the analysis period.

Table 2. Comparison of Reputable and Non-Reputable Underwriters

Period	Reputable underwriter (%)	Non-reputable underwriter (%)
2016	46.7	53.3
2017	48.6	51.4
2018	28.6	71.4
2019	34.5	65.5
2020	45.1	54.9
2021	40.7	59.3
2022	30.5	69.5
2023	36.7	63.3
2024	15.8	84.2
Average	36.4	63.6

Source: www.idx.co.id and IPO company prospectus

Based on prospectus data, the underwriters used by IPO companies from 2020 to 2023 who entered the top twenty underwriters every month in the Covid-19 period from 2020 to 2021 in the Indonesian capital market increased. Meanwhile, in 2022, during the Covid-19 pandemic, and in the Covid-19 endemic period in 2023 and 2024, the use of reputable underwriters decreased, as seen in Table 2. In addition, the use of reputable underwriters by companies conducting IPOs in Indonesia is still less than fifty percent, which is why the author researched the relationship between underwriters and IPO underpricing in the Indonesian capital market.

Table 3. Descriptive Statistics of Variables (n-424)

Variables	Minimum	Maximum	Mean	Std. Deviation
IR	-0,405	2,984	0,304	0,284
UWR	0	1	0,350	0,479
MARSENT	1	15	6,560	3.248
Age	1	64	17,200	12,532
LnSize	20,473	31,036	26,260	1,722
Board	1	7	2,840	1,066

Table 3 shows the descriptive statistics of the research variables in 424 companies that conducted IPOs on the Indonesia Stock Exchange (IDX) from 2016 to 2024. On average, companies that conduct IPOs in the year range experience a positive initial return of 30.39%. The one-sample t-test results show that the initial return level is different from zero, which means that, on average, the companies studied experience underpricing. The underpricing rate of 30.39% is lower than that reported by Zhang & Neupane (2024) when examining 78 IPOs in 2015-2021.

The average size of companies conducting IPOs is IDR 1 trillion, and the minimum value is IDR 778.9 million. If you pay attention to the maximum value of the total assets of the IPO companies, it can be seen that some companies have total assets of IDR 30 trillion. This means there is a gap in business scale in the companies studied. On average, the companies studied have a board of commissioners of 3 people (2.840). Uniquely, some companies only have one board of commissioners. The highest number of board of commissioners in the company is seven people. At first glance, it can be seen that companies with only one board of commissioners are certainly less effective in carrying out supervisory activities.

4.2. Main Findings

Table 4 presents the results of testing the research hypothesis. It shows that underwriter and market sentiment correlate negatively and significantly with initial return. Similarly, company age and board size are negatively and significantly correlated with initial return, while company size is not correlated with initial return.

Table 4. Pearson Correlation Matrix of Research Variables (n=424)

Variables	MARSENT	Age	Lnsize	Board	IR
UWR	0.008	-0.003	0.249**	0.098*	-0.093*
MARSENT		0.011	0.013	-0.037	-0.134**
Age			0.254**	0.117**	-0.087*
Lnsize				0.224**	0.033
Board					-0.185**

Notes: ** and * indicate significant correlation coefficients at the 1% and 5% (1-tailed) levels, respectively.

The results of the research tests are presented in Table 5. Testing in Model 1 tests the effect of independent variables consisting of underwriters and market sentiment on the

level of IPO underpricing. Table 4 shows the results of testing the first hypothesis, which has a significant negative coefficient ($p<0.10$) in model 1, and in model 2, the coefficient is significantly negative ($p<0.05$). The research results on the effect of underwriter reputation on the level of IPO underpricing are in accordance with the first hypothesis that underwriter reputation negatively affects the level of IPO underpricing, so the hypothesis stating that underwriter reputation negatively affects the level of IPO underpricing is accepted.

Table 5. Results of Hypothesis Testing

Variables	Prediction	Model 1	Model 2
Constant		0,400 (12,358)	0,032 (0,152)
UWR	Negative	-0,054 (-1,904)*	-0,062 (-2,152)**
MARSENT	Negative	-0,012 (-2,780)***	-0,012 (-3,007)***
Age	Negative		-0,002 (-1,949)*
Lnsize	Negative		0,021 (2,534)**
Board	Negative		-0,053 (-4,093)***
R^2		0,026	0,078
Adj. R^2		0,022	0,067
F-stat		5,722***	7,065***

Notes: The t-calculated values in parentheses ***, **, and * indicate significant coefficients at the 1%, 5% and 10% (1-tailed) levels, respectively.

Discussion of the results of the analysis of the coefficient value of the influence of underwriter reputation on the level of IPO underpricing is negative and significant (Table 5). The use of reputable underwriters in IPO companies from 2016 to 2024 in Indonesia amounted to 36.4% (Table 2). This means that the use of reputable underwriters is still lacking in Indonesia; perhaps this is related to the fact that the costs incurred by the issuing company will be greater if it uses reputable underwriters. This is consistent with Carter & Manaster (1990), who assert that the cost of reputable underwriters is higher than that of non-reputable underwriters. Companies use reputable underwriters to increase investor confidence in the issuing company. This finding supports Ljungqvist (2007), who contends that issuing companies use reputable underwriters to reduce investor information asymmetry.

The results of this study are in line with previous research (Carter & Manaster, 1990; Megginson & Weiss, 2017; Chemmanur & Fulghieri, 1994; Habib & Ljungqvist, 2001; Arora & Singh, 2019; Bandi et al., 2020; Ong et al., 2020; Neghab et al., 2023), which find that reputable underwriters negatively affect the level of IPO underpricing. It is also emphasized by Jamaani & Alidarous (2019) that issuing companies use reputable underwriters to provide positive signals to potential investors because reputable underwriters can convince potential investors that the issuing company is a quality company and has a good prospect, so that it will reduce the level of IPO underpricing.

The results of testing the second hypothesis are shown in Table 5, with the coefficient value in model 1 consistently negative and significant ($p>0.01$). The results found that market sentiment has a negative and significant effect on the level of IPO underpricing. Table 5 shows that model 2, with the addition of control variables, is consistently negative and significant ($p>0.01$). The results found that market sentiment has a negative and significant effect on the level of IPO underpricing. The results support the study's second hypothesis that market sentiment hurts the level of IPO underpricing. Based on the explanation above, hypothesis 2, which states that market sentiment negatively affects IPO underpricing, is accepted.

The results of this study show similar findings to those of Neghab et al. (2023), who found that market sentiment, measured as the number of IPOs during the period of issue, has a negative and significant effect on IPO underpricing. This finding is also in line with other studies (Zhu et al., 2015; Krinitz & Neumann, 2021; Meliana & Nainggolan, 2023)

who report that market sentiment is negatively related to IPO underpricing, that the higher the market sentiment, the more risk-averse investors become and reduce demand for IPO shares, thereby reducing the IPO return rate. It is also emphasized by Huang et al. (2016) that positive sentiment shows an optimistic effect, while negative sentiment shows a pessimistic effect.

The adverse effect of market sentiment on IPO underpricing explains an excessive price correction in the stock market. In this case, this can occur if there is a period with a series of bad news that causes market sentiment to be pessimistic. This finding is surprising because it contradicts the expectation that when many (fewer) companies go public during the period, known as a hot issue, the level of underpricing shall be high (low). This evidence is interesting to explore. Is it because of the Indonesian market skepticism during the COVID-19 pandemic? As mentioned previously, the Indonesian IPO market has a contradictory behaviour compared to other capital markets, as shown in Zhang & Neupane (2024), who report that during the pandemic, the average underpricing is higher than before the pandemic, but an opposite finding for Indonesian IPOs.

The negative influence between market sentiment and the level of IPO underpricing occurs because, in the study period, there was a crisis period during the pandemic until the end of the COVID-19 epidemic in 2020 to 2023. This means that pessimistic market sentiment caused a high level of IPO underpricing from 2016 to 2024 in IPO companies in Indonesia.

4.3. Robustness Test

Table 6 shows the robustness test by dividing the sample group into groups before, during, and after the pandemic. The sample group before the pandemic shows that the use of reputable underwriters affects the IPO underpricing rate negatively and significantly. This means using reputable underwriters in Indonesia is still lacking, thus increasing IPO underpricing. The number of commissioners in the pre-pandemic sample group also affects the IPO underpricing rate negatively and significantly. This is consistent with the research findings in the full sample, which state that a larger number of commissioners reduces information asymmetry, decreasing the IPO underpricing rate.

Table 6. Regression Test Results Before, During, and After the COVID-19 Pandemic

Variables	Prediction	Before the Pandemic (2016-2019) n=154	During the Pandemic (2020-2022) n=158	After the Pandemic (2023-2024) n=112
Constant		1.267 (2.866)	0.032 (0.152)	-0.350 (-1.230)
UWR	Negative	-0.202 (-3.703)***	-0.062 (-2.153)**	-0.002(-0.047)
MARSENT	Negative	0.001 (0.191)	-0.012 (-3.007)***	-0.006 (-1.027)
Age	Positive	-0.002 (-1.155)	-0.002 (-1.949)*	-0.001 (-0.405)
LnSize	Positive	-0.020 (-1.165)	0.021 (2.534)**	0.020 (1.794)*
Board	Negative	-0.055 (-2.537)**	-0.053 (0.000)***	0.013 (0.745)
R^2		0.188	0.078	0.057
Adj. R^2		0.161	0.067	0.012
F-stat		6.871***	7.065***	1.273

Notes: The t-calculated values are presented in parentheses ***, **, and *, which indicate significant correlation coefficients at the 1%, 5%, and 10% (1-tailed) levels, respectively.

The sample group during the pandemic shows that the lack of use of reputable underwriters by issuing companies during the COVID-19 pandemic reduced the confidence of potential investors in issuing companies, which increased IPO underpricing. The market sentiment during the COVID-19 pandemic was negative,

making potential investors pessimistic about the issuing company, which increased IPO underpricing.

During the Covid-19 pandemic, the sample group shows that the larger the size of the issuing company, the more it provides a positive signal that the company has good prospects in the future, so the issuing company deliberately sets a lower IPO price to compensate potential investors with IPO underpricing. The higher the number of commissioners in the issuing company during the Covid-19 pandemic, the more confidence potential investors have that the board of commissioners supervises the issuing company to implement good corporate governance, which helps reduce IPO underpricing. Meanwhile, in the sample group after the COVID-19 pandemic, the only variable affecting the IPO underpricing level is company size. This may be because large companies are considered to have better prospects and have the potential to provide more attractive initial returns to potential investors.

5. Conclusions

Based on the analysis and discussion results, this study concludes that the use of reputable underwriters is still lacking in Indonesia, which increases IPO underpricing. This can be because the cost of using reputable underwriters is higher than that of non-reputable underwriters. Hence, the issuing company tends to reduce the issuance cost using non-reputable underwriters. Similarly, market sentiment in Indonesia experiences pessimistic sentiment, which impacts the increasing IPO underpricing. This is due to the pandemic crisis period until the end of the COVID-19 pandemic, during this period. However, many companies issued IPOs, and potential investors were very cautious in deciding to purchase shares of IPO companies, increasing IPO underpricing.

This study provides implications for the theory of information asymmetry. The study results illustrate that market sentiment can be a consideration for the decision on the timing of IPO issuance for companies, because market sentiment in specific periods can result in information asymmetry, which can impact increasing (decreasing) IPO underpricing. While the implication for potential investors is that it can be a consideration when investing in IPO companies, using reputable underwriters gives potential investors confidence regarding the quality of the issuing company. The overall sentiment of investors will be helpful for potential investors in giving a fair price to the issuing company's shares.

Implications for underwriters: this study's results can be used by underwriters to consider market sentiment before and after IPO, corporate governance, and financial performance of the issuing company. In addition, underwriters should build good relationships with potential investors to explain the prospects of the issuing company and attract investors to buy IPOs. Underwriters should be prepared to face risks such as pessimistic market sentiment to maintain stock price stability after the IPO. The results of this study can provide input to issuing companies that using reputable underwriters can increase potential investors' confidence in the issuing company, as it is of quality and has prospects that increase in the future if it uses reputable underwriters. Issuing companies also need to consider market sentiment, as the overall sentiment of potential investors can affect the level of IPO underpricing.

Author Contributions: V.A. contributed to the problem statement, article concept development, critical literature analysis, statistical data collection, and description of results. T.A.G. contributed to econometric modeling and the formation of research conclusions.

Funding: This work was supported by Widya Mandala Catholic University, Surabaya, Indonesia.

Data Availability Statement: The authors have no permission to share the source data.

Conflicts of Interest: The authors declare no conflict of interest.

References

Akerlof, G. (1970). A market for lemons. *Quarterly Journal of Economics*, 84(3), 488-500. https://doi.org/10.2307/1879431

Arnold, T., Fishe, R.P.H., & North, D. (2010). The effects of ambiguous information on initial and subsequent IPO returns. *Financial Management*, 39 (4), 1497–1519. https://doi.org/10.1111/j.1755-053X.2010.01120.x

Arora, N., & Singh, B. (2019). Impact of Auditor and Underwriter Reputation on Underpricing of SME IPOs in India. *Management and Labour Studies*, 44(2), 193–208. https://doi.org/10.1177/0258042X19829 285

Baker, M., & Wurgler, J. (2006). Investor sentiment and the cross-section of stock returns. *Journal of Finance*, 61(4), 1645–1680. https://doi.org/10.1111/j.1540-6261.2006.00885.x

Baker, M., & Wurgler, J. (2007). Investor sentiment in the stock market. *Journal of Economic Perspectives*, 21(2), 129-151. https://doi.org/10.1257/jep.21.2.129

Bandi, Wahyu, W., & Irwan T. (2020). The lead underwriter reputation and underpricing: study of company's IPO in Indonesia. *International Journal of Economic Policy in Emerging Economies*. 13 (3), 244-255. https://doi.org/10.1504/IJEPEE.2020.109051

Beatty, P., & Ritter, J.R. (1986). Investment banking, reputation, and the underpricing of initial public offerings. *Journal of Financial Economics*, 15(1-2), 213–232. https://doi.org/10.1016/0304-405X(86)90055-3

Black, F. (1990). Noise. *Scientific American*, 262(3), 78-79. https://doi.org/10.1038/scientificamerican0390-78b

Carter, R., & Manaster, S. (1990). Initial public offerings and underwriter reputation. *Journal of Finance*, 45(4), 1045-1067. https://doi.org/10.1111/j.1540-6261.1990.tb02426.x

Chemmanur, T.J., & Fulghieri, P. (1994). Investment bank reputation, information production, and financial intermediation. Journal of Finance, 49(1), 57-79. https://doi.org/10.1111/j.1540-6261.1994.tb04420.x

Chen, E.T., & Ho, J.C. (2020). Mispricing and the five-factor model under different market sentiments. *Heliyon*, 6(6), 1-5. https://doi.org/10.1016/j.heliyon.2020.e04191

Dorn, D. (2009). Does sentiment drive the retail demand for IPOs? *Journal of Financial and Quantitative Analysis*, 44(1), 85-108. https://doi.org/10.1017/S0022109009090024

Habib, M.A., & Ljungqvist, A. P. (2001). Underpricing and entrepreneurial wealth losses in IPOs: Theory and evidence. *Review of Financial Studies*, 14(2), 433-458. https://doi.org/10.1093/rfs/14.2.433

Huang, F.L., Li, Y.L., LI, Y., & Wang, Z. (2016). Initial public offering underpricing. *Sahngdong Soft Science Research Program Project*, 7(12), 124–133.

Jamaani, F., & Ahmed, A. D. (2020). Simultaneous effects of clustering and endogeneity on the underpricing difference of IPO firms: A global evidence. *Research in International Business and Finance*, 54, 101250. https://doi.org/10.1016/j.ribaf.2020.101250

Jamaani, F., & Alidarous, M. (2019). Review of theoretical explanations of IPO underpricing. *Journal of Accounting, Business and Finance Research*, 6(1), 1-18. https://doi.org/10.20448/2002.61.1.18

Jamaani, F., & Alidarous, M. (2023). Does the appointment of the three musketeers reduce IPO underpricing? Global evidence. *Eurasian Business Review*, 13, 887–929. https://doi.org/10.1007/s40821-022-00219-y

Krinitz, J., & Neumann, D. (2021). Decision analytics for initial public offerings: How filing sentiment influences stock market returns. In: Gimpel, H. et al. (Eds.). *Market Engineering*. Springer, Cham. pp. 45-67. https://doi.org/10.1007/978-3-030-66661-3_3

La Rocca, T. (2021). Do prestigious underwriters shape IPO pricing? A meta-analytic review. *Review of Managerial Science*, 15(3), 573-609. https://doi.org/10.1007/s11846-019-00356-1

Ljungqvist, A. (2007). IPO Underpricing. In Eckbo. B.E. (Eds.). Handbooks in Finance, *Handbook of Empirical Corporate Finance*, pp. 375-422. Amsterdam. https://doi.org/10.1016/B978-0-444-53265-7.50021-4

Ljungqvist, A., Nanda, V., & Singh, R. (2006). Hot markets, investor sentiment, and IPO pricing. *Journal of Business*, 79(4), 1667–1702. https://doi.org/10.1086/503644

Megginson W.L., & Weiss K.A. (1991). Venture capitalist certification in initial public offerings. *Journal of Finance*, 46(3), 879–903. https://doi.org/10.1111/j.1540-6261.1991.tb03770.x

Meliana., & Nainggolan, Y. A. (2023). Media, market sentiment and startups IPO: Study of initial return in Indonesia stock market. *Economics, Finance, Investment and Sharia (EKUITAS)*,5 (1), 49-58. https://doi.org/10.47065/ekuitas.v5i1.3804

Neghab, D.P., Bradrania, R., & Elliott, R. (2023). Deliberate premarket underpricing: New evidence on IPO pricing using machine learning. *International Review of Economics and Finance*, 88 (July), 902-927. https://doi.org/10.1016/j.iref.2023.07.008

Neupane, S., Paudyal, K., & Thapa, C. (2014). Firm quality or market sentiment: What matters more for IPO investors? *Journal of Banking and Finance*, 44(1), 207-218. https://doi.org/10.1016/j.jbankfin.2014.04.010

Ong, C.Z., Mohd-Rashid, R., & Taufil-Mohd, K.N. (2020). Do institutional investors drive the IPO valuation? *Borsa Istanbul Review*, 20(4), 307-321. https://doi.org/10.1016/j.bir.2020.05.003

Ong, C.Z., Mohd-Rashid, R., & Taufil-Mohd, K.N. (2020). Underwriter reputation and IPO valuation in an emerging market: evidence from Malaysia. *Managerial Finance*, 46(10), 1283-1304. https://doi.org/10.1108/MF-11-2019-0579

Rock, K. (1986). Why new issues are underpriced. *Journal of Financial Economics*, 15(1–2), 187–212. https://doi.org/10.1016/0304-405X(86)90054-1

Soeroto, W. M., Saputra, S., Arifin, V.A., Hasina, Z., & Putri, T.V. (2021). Investor sentiment, market volatility, and IPO initial returns. *Journal of Finance and Banking*, 25(4), 895-905. https://doi.org/10.26905/jkdp.v25i4.6119

Ung, S.N., Gebka, B., & Anderson, R.D. J. (2023). Is sentiment the solution to the risk-return puzzle? A (cautionary) note. *Journal of Behavioral and Experimental Finance*, 37, 100787. https://doi.org/10.1016/j.jbef.2023.100787

Yoshinaga, C.E., & de Castro, F.H.F. (2012). The relationship between market sentiment index and stock rates of return: A panel data analysis. *BAR - Brazilian Administration Review*, 9(2), 189-210. https://doi.org/10.1590/S1807-76922012000200005

Zhang, Z., & Neupane, S. (2024). Global IPO underpricing during the Covid-19 pandemic: The impact of firm fundamentals, financial intermediaries, and global factors. *International Review of Financial Analysis*, 91, 102954. https://doi.org/10.1016/j.irfa.2023.102954

Zhu, H., Zhang, C., Li, H., & Chen, S. (2015). Information environment, market-wide sentiment and IPO initial returns: Evidence from analyst forecasts before listing. *China Journal of Accounting Research*, 8(3), 193–211. https://doi.org/10.1016/j.cjar.2015.01.002