International Conference on Sustainable Economics, Management, and Accounting (ICSEMA 2026) Proceedings
Vol. 02 Year 2026, 474 – 484
ISSN: 3109-3337

INTERNAL FINANCIAL RISK OR MACROECONOMIC PRESSURE? EXPLAINING IPO UNDERPRICING THROUGH FINANCIAL LEVERAGE AND INFLATION

Nisa'ul Mumtazah[1*], Andi Kushermanto [2], Dian Priatiningsih [3], Catur Ragil Sutrisno[4], M.Shofiyuddin [5],

[1-4] Accounting Study Program, Faculty of Economics and Business, Universitas Pekalongan, Indonesia
[5] Management Study Program, Faculty of Economics and Business, Universitas Pekalongan, Indonesia

[*]Email corresponding author: andiunikal@gmail.com

Article Information: Received --- June, 25 2026, ***Published*** --- August, 10 2026

Abstract

This study examines the effect of financial leverage on IPO underpricing with inflation as a moderating variable in companies conducting initial public offerings (IPOs) on the Indonesian Stock Exchange between 2021 and 2025. IPO underpricing remains a persistent phenomenon in emerging markets, reflecting high levels of information asymmetry and uncertainty in the pricing of newly listed firms. This research is grounded in information asymmetry and signalling theories, which explain that investors interpret financial information as signals when evaluating firm quality during IPOs. This study employs a quantitative causal approach using partial least squares–structural equation modelling (PLS-SEM) with WarpPLS 7.0. The sample consists of 48 non-financial IPO firms selected through purposive sampling. The findings reveal that financial leverage has a negative and significant effect on IPO underpricing, indicating that investors perceive leverage as a positive signal reflecting managerial confidence and firm growth prospects rather than merely financial risk. Furthermore, inflation significantly moderates the relationship between financial leverage and IPO underpricing by strengthening the negative effect of leverage on underpricing. These results suggest that macroeconomic conditions influence how investors interpret leverage in the IPO market. This study contributes to the IPO underpricing literature by highlighting the role of macroeconomic conditions in shaping investor perceptions of corporate financial signals in emerging markets.

Keywords: IPO Underpricing; Financial Leverage; Inflation; Signaling Theory; Information Asymmetry

INTRODUCTION

An initial public offering (IPO) represents an important mechanism in the capital market that enables firms to obtain external financing through the first public issuance of shares. IPOs not only function as a means of capital accumulation but also play a significant role in promoting resource allocation efficiency within financial markets and supporting a country's economic growth. This argument is consistent with (Guo et al., 2020), who state that the IPO process contributes to capital formation and plays a role in the economic development of a country. Furthermore, (Jamaani & Ahmed, 2020) explain that IPOs constitute one of the most widely discussed corporate events because they are closely associated with new share offerings and the underpricing phenomenon, which remains insufficiently explained. Through IPOs, firms gain opportunities to expand business scale, improve operational capacity, strengthen competitiveness, and obtain broader access to external financing to support long-term growth strategies.

For firms, the decision to undertake an IPO is not solely driven by financing needs but also by efforts to enhance reputation, credibility, and visibility among the public and investors. Ritter and

Welch argued that raising additional equity is the primary consideration for firms conducting IPOs (Gu et al., 2025). Publicly listed firms generally have greater access to external financing sources, either through seasoned equity offerings or other financial instruments. Moreover, IPOs mark a transformation from private to public companies, requiring firms to become more transparent in disclosing information to investors. In this process, firms must convince the market regarding their quality, prospects, and value to ensure that the offered shares are well-received by investors. Consequently, IPOs are not merely stock issuance processes but also represent market perception formation regarding the quality of firms entering public markets.

Nevertheless, the IPO market has distinct characteristics compared to the trading of already listed firms. During IPOs, investors face relatively high uncertainty because firms do not have a market price history that can be used as a basis for evaluating fair stock value. Kao and Chen, (2020) argue that valuing an initial public offering (IPO) remains challenging because firms lack price history prior to going public. This condition creates information asymmetry between firms and investors, in which firms possess more complete information regarding their business conditions and future prospects than market participants. The IPO market exhibits significant information asymmetry among investors. Those with superior information can assess firm value more accurately, whereas others face greater uncertainty and a higher risk of overpaying for shares. Consequently, uninformed investors are more susceptible to adverse selection and potential investment losses (Xiang et al., 2026). Furthermore, Access to receiving truthful, transparent information on firm quality and future prospects is essential for investors. Nevertheless, information disclosure in the initial public offering (IPO) market is frequently limited by moral hazard, as firms may have incentives to withhold or selectively disclose information. This behavior increases information asymmetry and uncertainty in the IPO valuation process (Kao & Chen, 2020). Such information uncertainty eventually encourages various market mechanisms aimed at reducing investor risk in the IPO process.

IPO studies have focused much attention on underpricing, namely, the condition in which the IPO offering price is lower than the stock closing price on the first trading day in the secondary market. This condition enables investors to earn positive abnormal returns on the first trading day, while firms are considered to leave substantial potential proceeds unrealised because shares are offered at lower prices than their market value. IPO underpricing is a well-documented phenomenon in capital markets, in which the offering price of newly issued shares is typically lower than the market price on the first trading day. This discrepancy enables investors to achieve positive initial returns (Kao & Chen, 2020). Moreover, Jamaani and Ahmed (2020) emphasised that IPO underpricing represents one of the most persistent anomalies in global capital markets, with highly varied underpricing levels across countries. This phenomenon indicates that underpricing is not merely a first-day price difference but rather reflects valuation uncertainty in the IPO process.

From a theoretical perspective, IPO underpricing is generally explained through information asymmetry theory, which argues that investors in the IPO market possess unequal information sets. Rock (Rock, 1986) explained that informed investors can evaluate firm value more accurately and therefore only purchase underpriced shares, whereas uninformed investors face a greater risk of purchasing overpriced shares and incurring losses. Consequently, firms and underwriters tend to set lower IPO prices as compensation for the information risk faced by investors. Underpricing is considered necessary to provide excess returns for investors and to encourage informed investors to reveal their private information through IPO trading activities (Beatty & Ritter, 1986). In addition to information asymmetry, previous studies have shown that IPO underpricing is also influenced by economic uncertainty, information quality, underwriter reputation, corporate governance, and investor sentiment (Hu et al., 2021; Zhang & Du, 2025).

The underpricing phenomenon is also dominant in the Indonesian capital market. Based on data from the Indonesia Stock Exchange (IDX), 257 firms conducted initial public offerings (IPOs) during the 2021–2025 period, of which 186 firms, or approximately 72%, experienced underpricing on the first trading day. In 2021, 42 out of 54 IPO firms experienced underpricing, representing 78%, while in 2022, 42 out of 59 firms experienced underpricing, or approximately 71%. Furthermore, in 2023, 52 out of 79 IPO firms experienced underpricing, representing 66%. The phenomenon increased again in 2024, when 33 out of 41 firms experienced underpricing, or approximately 80%, while in 2025, 17 out of 24 IPO firms experienced underpricing, accounting for 71%. These data indicate that IPO underpricing continues to occur consistently every year in the Indonesian capital market, although with fluctuating percentages.

The high level of IPO underpricing in Indonesia indicates that IPO pricing processes continue to face relatively high uncertainty and information asymmetry, as commonly observed in emerging markets. This condition suggests that investors are not yet fully capable of accurately assessing firms' intrinsic values during IPO offerings, thereby encouraging firms to provide price discounts through lower offering prices relative to first-day market prices. Under such circumstances, investors rely heavily on signals provided by firms in evaluating firm quality and future prospects. Therefore, IPO underpricing in Indonesia reflects first-day stock price differences and illustrates issues related to risk perception, information uncertainty, and firm valuation processes in the IPO market. Consequently, the persistent underpricing phenomenon in Indonesia warrants further investigation, particularly regarding internal and external factors influencing investors' interpretation of IPO firms.

Information Asymmetry Theory and Signaling Theory

Initial public offering (IPO) activities are characterised by relatively high levels of information uncertainty compared with the trading of firms that have been long listed on stock exchanges. During the IPO process, investors do not possess historical market price information or fully comprehensive information regarding firm conditions and future prospects, thereby creating information asymmetry between firms and investors. Under such conditions, firms possess superior information regarding their business quality and prospects compared to market participants. The absence of historical market prices prior to an IPO makes it difficult for investors to accurately assess firm value, thereby increasing uncertainty in the IPO valuation process (Kao & Chen, 2020). Consequently, investors face substantial uncertainty in determining the fair value of IPO shares.

Differences in information accessibility among investors create substantial uncertainty in IPO markets. Investors possessing superior information are generally able to assess firm value more accurately and selectively invest in underpriced shares, whereas uninformed investors face a greater likelihood of purchasing overpriced stocks and incurring losses. As a result, IPO shares are frequently offered at discounted prices to compensate investors for information risk and to encourage informed investors to participate in the offering process. Therefore, IPO underpricing can be understood as a consequence of information asymmetry and uncertainty surrounding firm valuation in the IPO market (Beatty & Ritter, 1986; Rock, 1986; Xiang et al., 2026).

Under conditions of information asymmetry, firms attempt to provide signals to investors to reduce uncertainty regarding their quality. Signalling theory suggests that high-quality firms have incentives to provide positive signals to the market to differentiate themselves from low-quality firms. Such signals may include corporate governance quality, underwriter reputation, ownership structure, dividend policy, and financial information disclosures. (Wang et al., 2023) argued that firms providing positive signals to the market can improve investor valuation, thereby reducing information asymmetry and lowering initial public offering (IPO) underpricing. In the IPO context, financial information disclosed in the prospectus, including financial leverage, may function as a signal for investors to assess firm risk and future prospects.

IPO Underpricing

IPO underpricing refers to a condition in which the IPO offering price is lower than the stock closing price on the first trading day in the secondary market. This condition enables investors to obtain positive abnormal returns on the first trading day, while firms are considered to leave substantial proceeds unrealised because the shares are sold below their potential market value. IPO underpricing remains one of the most persistent phenomena in capital markets, occurring across various countries and market structures, including emerging economies characterized by relatively high valuation uncertainty (Hu et al., 2021).

From the perspective of information asymmetry, underpricing functions as a compensation mechanism for the uncertainty faced by investors in IPO markets. Beatty and Ritter (1986)argued that the higher the ex-ante uncertainty surrounding a firm, the higher the level of underpricing required to attract investors. Moreover, underpricing is frequently viewed as a strategy adopted by firms and underwriters to attract investor participation under uncertain market conditions. In practice, underwriters tend to set IPO prices below the estimated firm value to minimise the risk of unsold shares. Consequently, IPO underpricing fundamentally reflects how investors evaluate risk, quality, and future prospects of IPO firms.

Previous studies indicate that IPO underpricing is influenced by various internal and external factors. Internal factors frequently associated with underpricing include profitability, firm size, underwriter reputation, ownership structure, corporate governance quality, and financial leverage. (Abbas et al., 2022; Ekonomi & Issue, 2021; Su, 2004)Meanwhile, modern IPO studies suggest that underpricing is also influenced by macroeconomic conditions, political uncertainty, financial crises, technological developments, investor sentiment, interest rates, and inflation (Ali et al., 2020; Asiri & Haji, n.d.; Mohamed Riyath et al., 2025; Xie et al., 2025). These findings indicate that IPO pricing is determined not only by firm-specific characteristics but also by how investors respond to uncertainty in the broader market environment.

Financial Leverage and IPO Underpricing

Financial leverage is one of the financial indicators that reflects the extent to which firms rely on debt financing within their capital structure. From the perspective of signalling theory, high leverage is often interpreted as a signal of managerial optimism regarding firm prospects and future cash flow generation. Theoretically, leverage may function as a positive signal because firms with strong future prospects are generally more willing to utilise debt financing than lower-quality firms. Ross (1977) explained that debt usage may serve as a signalling mechanism through which firms communicate quality-related information to the market.

Nevertheless, previous studies have reported inconsistent findings regarding the relationship between financial leverage and IPO underpricing. Several studies have found that leverage positively affects underpricing because it is perceived as an indicator of high financial risk. (Auliana & Masturo, 2023; Ni et al., 2024; Sonia et al., 2025) found that leverage positively influences IPO underpricing. High leverage levels are considered to increase the probability of financial distress, thereby encouraging investors to demand higher compensation through greater underpricing.

Conversely, other studies have reported that leverage negatively affects IPO underpricing. (Abbas et al., 2022; Malini, 2023a) found that leverage reduces IPO underpricing. From the perspective of signalling theory, high leverage is interpreted as a signal of managerial confidence regarding a firm's ability to fulfil financial obligations and sustain future growth. Firms with strong growth prospects are believed to possess greater ability to manage debt obligations, thereby allowing leverage to function as a positive signal capable of reducing investor uncertainty regarding firm prospects. Reduced uncertainty subsequently lowers the level of IPO underpricing because investors have stronger confidence in firm quality.

These inconsistent findings suggest that the effect of leverage on IPO underpricing may depend on investors' interpretations of leverage under different economic conditions. Therefore, the relationship between financial leverage and IPO underpricing remains an important topic requiring further investigation.

H1: Financial leverage affects IPO underpricing.

Inflation as a Moderating Variable

Inflation is a macroeconomic indicator that reflects general increases in the prices of goods and services over time. Inflation conditions may influence economic stability, interest rates, the cost of capital, and investor expectations regarding firm prospects. (Mohamed Riyath et al., 2025) argued that macroeconomic conditions, such as inflation, economic growth, and market development, are associated with IPO activity and firms' decisions to go public. Furthermore, macroeconomic uncertainty may affect investors' perceptions regarding firm risk and valuation processes during IPOs.

In modern IPO studies, external factors, such as global financial crises, political uncertainty, changes in market conditions, and investor sentiment, are also known to affect IPO underpricing. Li et al. (2011) explained that increasing uncertainty following the global financial crisis heightened investor concerns regarding transparency and information asymmetry. Meanwhile, (Xie et al., 2025), demonstrated that political uncertainty may increase IPO underpricing through heightened valuation uncertainty.

Within capital markets, high inflation tends to make investors more cautious in making investment decisions because of increased economic uncertainty and higher capital costs. High inflation may also increase investor sensitivity toward firm financial risk, particularly among highly leveraged firms. (Wenehen et al., 2025) found that macroeconomic variables such as inflation and interest rates influence IPO underpricing in the Indonesian capital market. Adyatma Fahrezy & Amalia Fachruddin (2024) further argued that high inflation increases investor caution in evaluating IPO stocks due to heightened economic uncertainty.

From the perspective of signalling theory, leverage may function as a signal of corporate optimism regarding future cash flow generation and business expansion. However, investors' interpretation of leverage may change depending on prevailing economic conditions. Under relatively stable economic conditions, leverage may be interpreted as a signal of expansion and managerial confidence. Conversely, under high-inflation conditions, leverage may be perceived as a source of financial risk because of increasing financing costs and greater pressure on firms' ability to fulfil debt obligations.

Therefore, inflation is expected to moderate the relationship between financial leverage and IPO underpricing.

H2: Inflation moderates the relationship between financial leverage and IPO underpricing.

RESEARCH METHODS

Research Design

This study employs a quantitative research approach with a causal design to examine the effect of financial leverage on IPO underpricing and the moderating role of inflation among firms conducting initial public offerings (IPOs) on the Indonesian Stock Exchange during 2021–2025. A causal approach is adopted because the study seeks not only to identify relationships among variables but also to explain how financial leverage influences underpricing under different macroeconomic conditions.

This study is grounded in information asymmetry and signalling theories, which explain that IPO underpricing is influenced by how investors interpret corporate signals under uncertain market conditions. Within this context, financial leverage is positioned as a signal interpreted differently by

Vol. 02 Year 2026, 474 – 484
ISSN: 3109-3337

investors depending on prevailing macroeconomic conditions, whereas inflation is employed as a moderating variable explaining changes in investor perceptions toward leverage.

Research Object

The research objects consist of firms that conducted IPOs on the Indonesian Stock Exchange during 2021–2025. The observation period was selected because it reflects the post-pandemic market conditions, characterised by macroeconomic fluctuations, inflationary pressure, increased market uncertainty, and changes in investor behaviour toward IPO stocks.

The data used in this study include IPO offering prices, first-day closing prices, annual financial statements, and annual inflation data. IPO and financial statement data were obtained from IPO prospectuses and the official Indonesia Stock Exchange website (www.idx.co.id), whereas inflation data were obtained from publications issued by Statistics Indonesia (www.bps.go.id).

Population and Sample

The population of this study consists of all firms conducting IPOs on the Indonesia Stock Exchange during the 2021–2025 period. Based on the available data, 186 IPO firms experienced underpricing during the observation period.

The sampling technique employed was purposive sampling, which involved the selection of samples based on specific criteria relevant to the research objectives. This approach was adopted because not all IPO firms possessed characteristics consistent with the requirements of this study, particularly regarding financial data completeness and leverage structure.

Operational Definition of Variables

Table 1. Operational Definition of Variables

No	Variabel	Operational Definition	Measure
1.	IPO Underpricing	IPO underpricing refers to a condition in which the IPO offering price is lower than the first-day closing price in the secondary market. Underpricing is measured using the initial return.	$Initial\ Return = \frac{Closing\ Price - Offering\ Price}{Offering\ Price}\ x\ 100\%$
2.	Financial Leverage	Financial leverage refers to the extent to which firms utilise debt financing within their capital structure. Leverage is measured using the debt-to-equity ratio (DER).	$DER = \frac{Total\ Debt}{Total\ Equity}$
3.	Inflation	Inflation is employed as a moderating variable representing the annual increase in the consumer price index (CPI).	$Inflasi = \frac{IHK_t - IHK_{t-1}}{IHK_{t-1}}\ x\ 100\%$
4.	Firm Size	Firm size was used as a control variable and measured using the natural logarithm of total assets.	$size = ln(Total\ Asset)$

Data Analysis Technique

This study employs partial least squares–structural equation modelling (PLS-SEM) using WarpPLS 7.0. PLS-SEM was selected because it accommodates predictive research models, does not require strict normality assumptions, and is appropriate for relatively limited sample sizes. Furthermore, PLS-SEM is suitable for analysing the moderating relationships between financial leverage, inflation, and IPO underpricing. The data analysis consists of descriptive statistics, structural model

Vol. 02 Year 2026, 474 – 484
ISSN: 3109-3337

evaluation, goodness-of-fit assessment, predictive relevance testing, effect size evaluation, and hypothesis testing using path coefficients and p-values.

RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistics provide an overview of the characteristics of the research variables, including the minimum, maximum, mean, and standard deviation.

Table 2. Descriptive statistics

Variable	**Maximum**	**Minimum**	**Mean**	**Std. Dev**
Underpricing	0.350	0.200	0.306	0.051
Financial Leverage	3.100	1.020	1.736	0.594
Inflation	5.510	1.870	2.999	1.403
Firm Size	31.381	17.364	26.453	2.293

Descriptive statistics indicate that IPO firms in the sample generally experienced relatively high underpricing during the first trading day, with an average underpricing level of 30.6%. The relatively low standard deviation suggests that underpricing levels among IPO firms were relatively homogeneous.

Structural Model Diagram

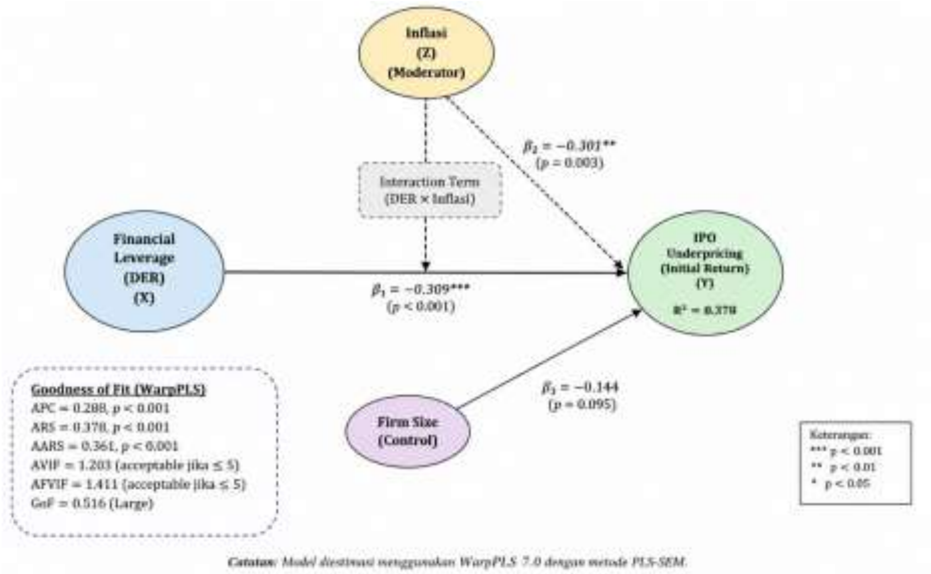

Figure 1. Structural Model Diagram

Goodness-of-Fit Evaluation

The results of the goodness-of-fit evaluation demonstrate that the structural model satisfies all required fit criteria.

Table 3. Results of the Goodness-of-fit Evaluation

Model Fit	**Value**	**Significance**
APC	0.259	0.013
ARS	0.266	0.012
AARS	0.216	0.028
AVIF	1.053	Ideal
AFVIF	1.223	Ideal
GoF	0.516	Large

The GoF value of 0.516 indicates that the model has strong explanatory power in explaining the relationships among financial leverage, inflation, and IPO underpricing.

Inner Model Evaluation

The R-square value of 0.266 indicates that 26.6% of the variation in IPO underpricing can be explained by financial leverage, inflation moderation, and firm size, whereas the remaining variation is explained by variables outside the research model.

Hypothesis Testing

Table 4. Result of Hypothesis Testing

Relationship	Path Coefficient	P-Value	Result
Financial Leverage → Underpricing	-0.309	0.010	Significant
Leverage × Inflation → Underpricing	-0.301	0.012	Significant
Firm Size → Underpricing	-0.166	0.113	Not Significant

The findings indicate that financial leverage has a negative and significant effect on IPO underpricing. Furthermore, the interaction between leverage and inflation also has a negative and significant effect on underpricing.

Discussion

The Effect of Financial Leverage on IPO Underpricing

The findings reveal that financial leverage negatively and significantly affects IPO underpricing. This indicates that higher leverage levels tend to reduce IPO under-pricing. From the perspective of signalling theory, leverage is not always interpreted as an indicator of financial distress but may also function as a signal of managerial optimism regarding future business prospects. Investors in the Indonesian IPO market tend to perceive leverage as an indication that firms have access to external financing to support business expansion and growth. Consequently, investor uncertainty declines, reducing the need for firms to provide large price discounts through the underpricing. These findings are consistent with those of (Malini, 2023b), (Siwach & Kumar, 2023), and (Wisnu et al., n.d.), who reported that leverage negatively affects IPO underpricing.

The Moderating Role of Inflation

The findings demonstrate that inflation strengthens the negative relationship between financial leverage and IPO underpricing. Under high-inflation conditions, investors become more selective in evaluating IPO firms because inflation increases economic uncertainty and financial risk sensitivity. Consequently, leverage becomes a stronger signal of firms' financial capability and resilience. Investors tend to perceive highly leveraged firms that are still capable of conducting IPOs during inflationary periods as possessing stronger financial capacity and better business prospects. These findings indicate that investors' interpretation of leverage is dynamic and highly dependent on prevailing macroeconomic conditions. Inflation not only affects overall economic uncertainty but also influences how investors interpret corporate financial signals in IPO markets.

CONCLUSION

This study aims to examine the effect of financial leverage on IPO underpricing with inflation as a moderating variable among firms conducting IPOs on the Indonesian Stock Exchange during 2021–2025. The findings demonstrate that financial leverage negatively and significantly affects IPO underpricing. This result indicates that investors in the Indonesian IPO market do not necessarily perceive leverage as a sign of financial distress but rather as a signal of managerial optimism and future business prospects. Furthermore, inflation significantly moderates the relationship between financial leverage and IPO underpricing by strengthening the negative effect of leverage on underpricing. These findings suggest that macroeconomic conditions influence how investors interpret corporate financial signals in IPO markets. Theoretically, this study contributes to the development of the IPO underpricing literature, particularly in relation to signalling theory and information asymmetry theory. Practically, the findings provide implications for firms, underwriters, and investors in understanding the role of leverage and macroeconomic conditions in IPO pricing decisions.

BIBLIOGRAPHY

Abbas, D. S., Rauf, A., Hidayat, I., & Sasmita, D. (2022). Determinan on Underpricing at The Initial Public Offering: Evidence Indonesia Stock Exchange. *Quantitative Economics and Management Studies*, *3*(2), 175–185. https://doi.org/10.35877/454ri.qems852

Adyatma Fahrezy, I., & Amalia Fachruddin, K. (2024). Accounting, Agriculture Management and Sharia Administration. *International Journal of Economics*, *4*(6), 2808–4713. https://doi.org/10.54443/ijebas.v4i6.2539

Ali, G., Khan, A. J., & Rafiq, S. (2020). ECONOMIC ANALYSIS OF IPO UNDERPRICING IN STOCK MARKET OF PAKISTAN. *International Journal of Economics and Financial Issues*, *10*(4), 198–205. https://doi.org/10.32479/ijefi.10040

Asiri, B. K., & Haji, A. J. (n.d.). THE DETERMINANTS OF IPO UNDERPRICING IN THE GCC COUNTRIES. *International Journal of Arts & Sciences*. Retrieved http://www.ipo-underpricing.com/UP/Underpricing/Modelle/GG/e_Winners%20Curse.html

Auliana, R. R., & Masturo. (2023). 8412-Article Text-25976-3-10-20240201. *Jurnal Comparative: Ekonomi Dan Bisnis*, *5*(2), 130–144. https://doi.org/http://dx.doi.org/10.31000/combis.v5i2

Beatty, R. P., & Ritter, J. R. (1986). INVESTMENT BANKING, REPUTATION, AND THE UNDERPRICING OF INITIAL PUBLIC OFFERINGS*. In *Journal of Financial Economics* (Vol. 15).

Ekonomi, J., & Issue, S. (2021). *Dwijaya dan Cahyadi: Faktor-Faktor yang Mempengaruhi Tingkat … Faktor-Faktor yang Mempengaruhi Tingkat Underpricing: Studi Empiris Perusahaan Keluarga IPO di BEI*.

Gu, M., Wang, H., Zhang, Y., & Wang, Z. (2025). The impact of operational leanness and resilience on managing geopolitical risks: The moderating role of demand uncertainty and betweenness centrality. *Transportation Research Part E: Logistics and Transportation Review*, *201*. https://doi.org/10.1016/j.tre.2025.104214

Guo, Y., Delaney, D., & Ahmed, A. (2020). Is an Auditor's Propensity to Issue Going Concern Opinions a Valid Measure of Audit Quality? *Australian Accounting Review*, *30*(2), 144–153. https://doi.org/10.1111/auar.12300

Hu, Y., Dai, T., Li, Y., Mallick, S., Ning, L., & Zhu, B. (2021). Underwriter reputation and IPO underpricing: The role of institutional investors in the Chinese growth enterprise market. *International Review of Financial Analysis*, *78*. https://doi.org/10.1016/j.irfa.2021.101956

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*. https://doi.org/10.1016/j.ribaf.2020.101250

Kao, L., & Chen, A. (2020). How a pre-IPO audit committee improves IPO pricing efficiency in an economy with little value uncertainty and information asymmetry. *Journal of Banking and Finance*, *110*. https://doi.org/10.1016/j.jbankfin.2019.105688

Malini, H. (2023). THE UNDERPRICING PHENOMENON IN INITIAL PUBLIC OFFERINGS (IPOS) THROUGH FINANCIAL PERFORMANCE AS A MODERATING VARIABLE IN COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0). *Jurnal Ekonomi*, *12*, 2023. http://ejournal.seaninstitute.or.id/index.php/Ekonomi

Mohamed Riyath, M. I., Indunil Dayaratne, D. A., & Jahfer, A. (2025). Macroeconomic variables and initial public offerings in Sri Lanka: a principal component analysis approach. *LBS Journal of Management & Research*, *23*(1), 1–26. https://doi.org/10.1108/lbsjmr-06-2023-0023

Ni, W., Trisna, P., Dewi, T., Hasibuan, G., & Wirawan, Y. (2024). Factors Affecting the Underpricing of Shares of Companies that Conduct Initial Public Offerings with the Auditor's Reputation as a Moderator. *Journal of Social Research*, 1723–1738. http://ijsr.internationaljournallabs.com/index.php/ijsr

Rock, K. (1986). WHY NEW ISSUES ARE UNDERPRICED*. In *Journal of Financial Economics* (Vol. 15).

Ross, S. A. (1977). The Determination of Financial Structure: The Incentive-Signalling Approach. In *Source: The Bell Journal of Economics* (Vol. 8, Number 1). https://www.jstor.org/stable/3003485

Siwach, P., & Kumar, P. R. (2023). Determinants of Under Pricing in Initial Public Offerings of Small and Medium Enterprises. In *Annals of Agri-Bio Research* (Vol. 28, Number 1).

Sonia, Soejono, F., Sri Mendari, A., & Vinice, M. (2025). *Pengaruh Leverage, Profitabilitas dan Umur Perusahaan Terhadap Tingkat Underpricing pada Perusahaan yang Melakukan IPO di BEITahun 2020 - 2023*.

Su, D. (2004). Leverage, insider ownership, and the underpricing of IPOs in China. *Journal of International Financial Markets, Institutions and Money*, *14*(1), 37–54. https://doi.org/10.1016/S1042-4431(03)00043-X

Wang, J., Cheng, R., Huang, Y., & Yan, C. (2023). The pre-IPO dividend and IPO underpricing: Evidence from China. *Pacific Basin Finance Journal*, *82*. https://doi.org/10.1016/j.pacfin.2023.102195

Wenehen, C., Ekananda, M., & Safitri, J. (2025). Pengaruh Faktor Internal dan Makroekonomi Terhadap Underpricing Saham IPO di Bursa Efek Indonesia: Pendekatan Sektoral Tahun 2022-2024. *Journal of Accounting and Finance Management*, 1816–1830. https://doi.org/10.38035/jafm.v6i3

Wisnu, K., Pradnyana, A., Made, N., & Erawati, A. (n.d.). *THE EFFECT OF COMPANY PERFORMANCE ON UNDERPRICING LEVEL IPO SHARES ON THE INDONESIA STOCK EXCHANGE FOR THE PERIOD 2013-2023*.

Xiang, X., He, X., & Han, Y. (2026). Digital finance and IPO underpricing: Evidence from China. *International Review of Economics and Finance*, *105*. https://doi.org/10.1016/j.iref.2026.104889

Xie, Y., Li, Z., Ouyang, W., & Wang, H. (2025). Decoding the impact of political uncertainty on IPO underpricing in China. *China Accounting and Finance Review*, *27*(1), 40–71. https://doi.org/10.1108/cafr-11-2023-0138

Zhang, M., & Du, W. (2025). Economic policy uncertainty, investor sentiment and IPO underpricing. *International Review of Financial Analysis*, *105*. https://doi.org/10.1016/j.irfa.2025.104420