

Accrual-based vs cash-based accounting in affecting underpricing phenomenon: Evidence from emerging country

Yuli Soesetio^{1*}, Ely Siswanto², Lulu Nurul Istanti³, Subagyo⁴

^{1,2,3,4} Manajemen, Fakultas Ekonomi dan Bisnis, Universitas Negeri Malang, Indonesia

Abstract

Until now, more than 80 percent of shares are underpriced at every IPO event around the world, making it a phenomenon and a big unsolved puzzle, so it is still interesting and relevant to research, especially in emerging countries. This study aims to reveal the impact of profitability information based on accrual and cash on the phenomenon of underpricing on the Indonesia Stock Exchange (IDX). The sample used was firms that conducted IPOs on the IDX from 1994-2020 that had met the sample criteria of 475 firms using the purposive sampling method. Furthermore, the collected cross-section data were analyzed using ordinary least square (OLS) regression. The study concluded that only accrual-based profitability information consistently affects underpricing. These results also support the argument that the use of the accrual-based is better than the cash-based to predict underpricing. This study implies that IPO firms to pay more attention to, strengthen, and maintain their 'earnings' so that investors are more confident regarding the firm's future business continuity. In addition, investors are more detailed in using information from the prospectuses of large firms.

Keywords: Accrual, Cash, Underpricing, Initial Public Offering, Indonesia Stock Exchange

Introduction

IPO is the most important activity carried out by the firm as an effort to increase funds without interest in the capital market (Badru *et al.*, 2019). In addition, the firm's purpose of conducting an IPO is to gain access to a new and broad sources of funding, carry out mergers or acquisitions of other firms with financing through the issuance of new shares, increase the ability to going concern, improve the firm's image, and improve the welfare of shareholders

(Hadi, 2013; Mun & Jang, 2019; Yazdani & Aris, 2015).

However, one of the phenomenon that is still become a big puzzle in the IPO event in around the world is positive initial returns, underpricing (Jamaani & Alidarous, 2019; Mehmood *et al.*, 2021). Through their paper, Loughran *et al.* (1994) explained that from 54 countries studied, all of these countries showed positive initial returns in every IPO activity on the world stock exchange. Mehmood *et al.* (2021) through their paper summarize

Permalink/DOI : <https://doi.org/10.21067/jem.v18i2.7311>

How to cite : Soesetio, Y., Siswanto, E., Istanti, L. N., & Subagyo. (2022). Accrual-based vs cash-based accounting in affecting underpricing phenomenon: Evidence from emerging country. *Jurnal Ekonomi Modernisasi*, 18(2), 240-254.

Article info : Received: July 2022; Revised: August 2022; Accepted: September 2022

*Corresponding Author:
Universitas Negeri Malang
Jl. Semarang No.5, Sumbersari, Lowokwaru, Malang, Jawa Timur, Indonesia
E-mail: yuli.soesetio.fe@um.ac.id

ISSN 0216-373X (print)
ISSN 2502-4578 (online)



underpricing phenomenon in developed, developing and emerging markets and finds positive initial return. In India, Dhamija & Arora (2017) found that there were 22% positive initial return from 2005-2015. In fact, Alanazi & Al-Zoubi (2015) found that the average underpricing in Saudi Arabia from 2003-2010 was 265,5%.

Table 1. IPO Firms and Underpricing in 1994-2020

Year	IPO	Under-priced Company	%	Under-pricing Average (%)
1994	47	26	55%	15.35%
1995	23	12	52%	10.78%
1996	17	14	82%	12.25%
1997	31	23	74%	16.82%
1998	6	4	67%	34.47%
1999	9	7	78%	52.56%
2000	25	17	68%	68.15%
2001	31	27	87%	96.06%
2002	23	18	78%	39.17%
2003	9	5	56%	13.91%
2004	12	10	83%	21.93%
2005	9	7	78%	17.13%
2006	13	12	92%	37.28%
2007	22	20	91%	41.16%
2008	19	16	84%	35.90%
2009	13	8	62%	21.89%
2010	23	22	96%	30.53%
2011	25	17	68%	20.14%
2012	22	20	91%	30.29%
2013	30	21	70%	24.31%
2014	24	21	88%	28.77%
2015	16	14	88%	29.81%
2016	15	12	80%	30.94%
2017	37	29	78%	43.94%
2018	57	54	95%	66.99%
2019	55	51	93%	53.80%
2020	51	51	100%	43.81%
Σ	664	538	81%	34.75%

Source: www.idx.co.id, www.ticmi.co.id, data processed (2022)

The underpricing phenomenon also continues to appear every year on the Indonesia Stock Exchange (IDX). In table 1, it shows that more than 80 percent of companies that carried out the IPO process at IDX experienced underpricing with an average of 34.75%, which means that the closing price on the first day trading increased by 34.75% from the offering price in the initial market.

One of the causes of underpricing is inequality of various information such as prospectuses that underlie prospect expectations and firm assessments between issuers, underwriters, and investors. Thus, ‘information asymmetry theory’ is one of the theories that answers why in the stock market there is always underpricing during the IPO process that occurs in around the world. In addition, the ‘behavioral theory informational cascade’ also strengthens the previous theory.

Nevertheless, every stock exchange in around the world is constantly trying to reduce information asymmetry by requiring all firms to publish prospectuses before conducting an initial public offering. Detailed and complete prospectus information can be used by investors to obtain information about the risks, developments, and opportunities of a firm in the future.

This study aims to test the impact of financial information analysis, especially profitability and other information presented in the prospectus on the phenomenon of underpricing. In addition, previous studies were limited to only one type of profitability proxy without further exploring the comparison between profitability proxies and various accounting methods. In addition, the use of more complete samples and longer periods is another strength to provide more general and robust results. Thus, the results of this study are expected to add and sharpen the findings from previous literature related to prospectus information especially profitability information on underpricing

dynamics. There are many previous papers that used profitability ratios to test their effect on underpricing such as studies from Abbas *et al.* (2022); Mayasari *et al.* (2018); Permatasari & Kusumah (2017); Thoriq *et al.* (2018); Utomo & Kurniasih (2020), but have not found consistent results. In addition, the use and comparison of various profitability indicators in determining underpricing is still not widely practiced. Therefore, we are interested in researching and concluding more comprehensively the effect of accrual and cash-based profitability information on underpricing.

Profitability is one of the fundamental analyses to analyze the firm's ability to generate both positive and negative profits. In addition, profitability is one of the fundamental analysis proxies to measure and analyze the sustainability of the firm and become a bottom line calculation of the firm's performance (Etale *et al.*, 2021). Measuring profitability either in the past or projecting it in the future is the most important measure of business success (Hofstrand, 2009). Saputra *et al.* (2019) argued that future profit projections are the financial information that most attracts the attention of investors and concludes that firm size and underwriter reputation are the main factors in predicting future profits more accurately.

In addition to the use of profit, the firm's ability to generate cash is another indicator to see the performance of a firm. Operating cash flow is one of the indicators to see the firm's ability to use or generate cash. Operating cash flow is one of the indicators to see the firm's ability to use or generate cash as well as the main determinant of business success (Febriani *et al.*, 2017). Lumbanraja (2018) found that operating cash flow is positively related to stock price. Foerster *et al.* (2017); Hou *et al.* (2011) found that cash flow tends to be better at predicting stock returns than gross profit, operating profit and net profit. Cash activity arising from operating activities is a key and true indicator that firm's operations

are success (Febriani *et al.*, 2017). In addition, accrual accounting requires a subjective assessment, therefore it will be prone to management manipulations (Brealey & Myers, 1981; Serly & Lau, 2021).

On the other side, Muniroh & Yuliati (2021) argued that operating cash flow cannot be a key benchmark for a firm's future success. Profitability using gross profit is the "cleanest" measure of actual profitability (Novy-Marx, 2013). In Statement of Financial Accounting Concepts No. 1 (1978), the Financial Accounting Standards Board (FASB) stated that, cash-based accounting statements provide an incomplete basis for assessing future cash flow prospects than accrual accounting statements because they do not show a relationship between periods (Kwon, 1989; Nguyen & Nguyen, 2020; Pae & Yoon, 2012). Abolhalaje *et al.* (2012); Abolhallaje *et al.* (2014) explains that some of the advantages of implementing accrual-based accounting are timely management evaluation, supporting tax planning goals, better resource allocation and accountability and clarity of costs.

Accrual profit is considered relevant in measuring a firm's performance because it avoids distortions of uncertain cash flow variations in performance measurements (Godfrey *et al.*, 2003). Accrual-based accounting is able to improve the decision-making process, encourage better financial management, and improve public accountability (Yusof & Jaafar, 2018). Using the accrual based as a measure of the quality of profit, Bhattacharya *et al.* (2013) found that poor quality of profits were significantly and incrementally related to higher information asymmetry. Good profit quality comes from a good profitability ratio (Purnamasari & Fachrurrozie, 2020). In other words, the quality of profit measured using the accrual based is negatively related to information asymmetry. Thus, if the firm's profitability is good, the quality of profit owned by the

firm is also good, it will minimize information asymmetry and underpricing.

H1a: Profitability using accrual-based accounting has a significant negative effect on underpricing

H1b: Profitability using cash-based accounting has a significant negative effect on underpricing

H1c: Profitability using accrual-based accounting is better at predicting underpricing

The larger the firm's assets, the firm has the potential to generate greater profits and minimize the investment risks that will be faced by investors. Large firms are generally better known to the public than small firms. Firms that are better known, tend to disclose more information and the information is more accessible to investors than small firms. This will reduce information asymmetry in large firms so that it will reduce the IPO underpricing. Mayasari *et al.* (2018); Singgih *et al.* (2018) proving a significant relationship between the firm size and underpricing. Different result from Morina & Rahim (2020); Thoriq *et al.* (2018) which states there is no significant effect of the firm size on underpricing.

H2: Firm size has a significant negative effect on underpricing

In the IPO process, an underwriter is one of the capital market institutions that has an important role during the IPO process for a firm. Underwriters act as intermediaries and become suppliers of firm information for investors. According to their experience, underwriters have information about the needs of potential investors in making investment decisions. The underwriter will give consideration or advice to the issuer regarding various information that can reduce the level of information asymmetry and optimize the funds obtained through the IPO process. Thus, the underwriter will give the best effort to sell the shares at a price that meets the quality of the firm. Research from

Dhamija & Arora (2017); Razafindrambimina & Kwan (2013); Reutzel & Belsito (2015); Sundarasan *et al.* (2018) mentioned that the reputation of underwriters has a negative and significant effect on underpricing. However Badru & Ahmad-Zaluki (2018); Thoriq *et al.* (2018) concluding the reputation of the underwriter has no significant effect on the underpricing.

H3: Underwriter reputation has a significant negative effect on underpricing

The relationship between auditor reputation and underpricing has been researched in numerous studies (Arora & Singh, 2019; Chen *et al.*, 2018; Nazihah *et al.*, 2020). The utilization of reputable capital market institutions, that is, underwriters and auditors give legitimacy to IPO firms because they help in reducing uncertainty about future cash flows and therefore reducing underpricing. Study from Ardiansyah (2004) discloses that investors trust financial statements audited by reputable auditors than non-reputable auditors. Investor confidence helps increase the value of the firm by reducing information asymmetry and uncertainty regarding IPOs (Arora & Singh, 2019). Study from Arif & Isnidya (2010); Gao *et al.* (2015); Razafindrambimina & Kwan (2013); Sundarasan *et al.* (2018) shows the result that the auditor's reputation has a negative and significant effect on the initial return. While the results from Arora & Singh (2019); Badru & Ahmad-Zaluki (2018) proving that there is no significant effect of the auditor's reputation on underpricing.

H4: Auditor reputation has a significant negative effect on underpricing

Methods

This paper examines the relationship between the firm's profitability and initial return on IPO firm. This quantitative

Soesetio, dkk / Accrual-based vs cash-based accounting

research paper uses secondary data from the prospectus of firms conducting IPOs for the period 1994-2020 and closing prices of the first day in the secondary market obtained from the IDX, PT Kustodian Sentral Efek Indonesia (KSEI) and The Indonesia Capital Market Institute (TICMI). This period was chosen because cash flows began to be reported in the financial statements in 1994.

The population is 664 firms that conducted IPOs on the IDX for 27 years for the 1994-2020 period. The use of the purposive sampling method obtained a sample of 475 firms with sample criteria, (1) the initial public offering price was lower than the closing price at the beginning of

the day in the secondary market or underpriced as many as 538 firms (2) firms that experienced underpricing and IPO prospectuses were accessible as many as 475 firms. The variables used in this research are shown in table 2.

OLS analysis is used as an analytical tool to answer every hypothesis proposed because it use cross-section data. Regression of each profitability variable to underpricing is carried out alternately and tiered to avoid the presence of multicollinearity (Alin, 2010; Daoud, 2017), because each proxy uses relatively the same data i.e. net profit for accrual based and operating cash flow for cash based. The regression model used:

Table 2. Variable operationalization

Variables	Symbol	Type	Measurement
Dependent Variable			
Underpricing	UDP	Ratio	(Price of stock at the end of first trading day – IPO price)/IPO price
Independent Variables			
Return on equity	ROE	Ratio	EAT/Total equity
Return on asset	ROA	Ratio	EAT/Total asset
Earning per share	EPS	Ratio	EAT/Listed shares
Cash flow return on equity	CFROE	Ratio	Operating cash flow/Total equity
Cash flow return on asset	CFROA	Ratio	Operating cash flow/Total asset
Control Variables			
Firm Size	SIZE	Ratio	Natural logarithm of total asset
Underwriter reputation	UND	Dum- my	Measured by frequency (1 if firm use top 10 underwriters: 0 otherwise)
Auditor reputation	AUD	Dum- my	1 if firm use big four auditors: 0 otherwise

Source: data processed (2022)

$$IR_i = \alpha_i + \beta_1 ROE_i + \beta_7 SIZE_i + \beta_9 UND_i + \beta_{10} AUD_i + e_i \quad (1)$$

$$IR_i = \alpha_i + \beta_2 ROA_i + \beta_7 SIZE_i + \beta_9 UND_i + \beta_{10} AUD_i + e_i \quad (2)$$

$$IR_i = \alpha_i + \beta_3 EPS_i + \beta_7 SIZE_i + \beta_9 UND_i + \beta_{10} AUD_i + e_i \quad (3)$$

$$IR_i = \alpha_i + \beta_4 CFROE_i + \beta_7 SIZE_i + \beta_9 UND_i + \beta_{10} AUD_i + e_i \quad (4)$$

$$IR_i = \alpha_i + \beta_5 CFROA_i + \beta_7 SIZE_i + \beta_9 UND_i + \beta_{10} AUD_i + e_i \quad (5)$$

Result

Descriptive Statistic Analysis

The data obtained and processed through passing the classical assumption test and regression analysis with the OLS method shown in tables 4 and 5. The descriptive statistics in table 3 show an

average of underpricing is 0.414, which means that the firm set the IPO price 41% lower than the closing price of the shares on the first day of trading on the stock exchange so that investors earn profit from the purchase of the IPO shares by the abnormality of the initial IPO pricing firm and raised funds.

Table 3. Decriptive Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
UDP	475	0.414	0.385	0.003	3.125
ROE	475	0.151	0.668	-10.416	7.143
ROA	475	0.029	0.190	-3.474	0.641
EPS	475	25.987	58.328	-119.609	530.968
CFROE	475	0.018	2.434	-45.917	14.219
CFROA	475	0.022	0.230	-2.972	2.724
SIZE	475	26.598	1.698	22.288	33.174
UND	475	0.531	0.500	0	1
AUD	475	0.225	0.418	0	1

Source: data processed (2022)

Different Test

Table 4 shows the results of the different test underpricing and profitability information in large and small firms based on Law no. 20 of 2008 about micro, small and medium enterprises. In small firms, underpricing tends to be greater at 50.4% while in large firms it is only 31.6%. This

result explains that small firms provide a greater initial return as a sweetener and compensation for the risks that will be faced by IPO investors that invest in small firms so the process of raising funds through the IPO will take place successfully and potential investors are willing to buy all the shares offered. Thus,

Table 4. Different test

Variable	Test	Mean		t	Sig.
		Big	Small		
UDP	Independent t test	0.316	0.504	5.464	0.0000
	Mann whitney u test	0.316	0.504	5.114	0.0000
ROE	Independent t test	0.128	0.173	0.746	0.4559
	Mann whitney u test	0.128	0.173	-0.219	0.8263
ROA	Independent t test	0.046	0.013	-1.916	0.0559
	Mann whitney u test	0.046	0.013	-1.418	0.1563
EPS	Independent t test	32.956	19.554	-2.516	0.0122
	Mann whitney u test	32.956	19.554	-3.436	0.0006
CFROE	Independent t test	0.199	-0.149	-1.558	0.1200
	Mann whitney u test	0.199	-0.149	-2.743	0.0061
CFROA	Independent t test	0.060	-0.013	-3.463	0.0006
	Mann whitney u test	0.060	-0.013	-4.328	0.0000

Source: data processed (2022)

Soesetio, dkk / Accrual-based vs cash-based accounting

the underwriter will not suffer loss for the IPO event that is covered due to the enactment of a full commitment agreement that requires the underwriter to purchase the remaining unsold shares at the time of the IPO.

In terms of profitability, large firms tend to have greater profits and cash flow than small firms. This is considering that the financial performance condition of large firms has greater resources so that there is a better chance of profitability performance as shown in table 4, EPS and CFROA. On the contrary, other information related to the firm's financial condition is relatively no different from the conditions before the IPO was held.

Hypothesis Test

Using hierarchical regression analysis shows that return on equity (ROE) has a

coefficient of -0.022 with a significance of more than 0.1 which means ROE has no significant effect on underpricing. This result rejects H1a that accrual-based profitability affects underpricing.

Return on asset (ROA) has a coefficient of 0,024 with a significance of more than 0.1 which means ROA has no significant effect on underpricing. This result rejects H1a that accrual-based profitability affects underpricing.

Earning per share (EPS) has a coefficient of -0,001 with a significance of less than 0.05 which means EPS has significant effect on underpricing. This result accept H1a that accrual-based profitability affects underpricing.

Cash flow return on equity (CFROE) has a coefficient of -0,002 with a significance of more than 0.1 which means CFROE has no significant effect on

Table 5. Regression Result

Variable	(1) UDP	(2) UDP	(3) UDP	(4) UDP	(5) UDP
ROE	-0.022 (0.021)				
ROA		0.024 (0.061)			
EPS			-0.001** (0.000)		
CFROE				-0.002 (0.003)	
CFROA					0.036 (0.056)
SIZE	-0.053*** (0.014)	-0.053*** (0.014)	-0.050*** (0.014)	-0.053*** (0.014)	-0.053*** (0.014)
UND	0.021 (0.039)	0.021 (0.039)	0.017 (0.038)	0.021 (0.039)	0.020 (0.039)
AUD	-0.124*** (0.039)	-0.124*** (0.040)	-0.109*** (0.040)	-0.123*** (0.039)	-0.126*** (0.039)
Constant	1.849*** (0.363)	1.847*** (0.369)	1.763*** (0.362)	1.832*** (0.364)	1.852*** (0.368)
R-squared	0.090	0.089	0.097	0.089	0.089

Note: *, **, *** significant at 10%, 5%, 1%

Source: data processed (2022)

underpricing. This result rejects H1b that cash-based profitability affects underpricing.

Cash flow return on asset (CFROA) has a coefficient of 0,036 with a significance of more than 0.1 which means CFROA has no significant effect on underpricing. This result rejects H1b that cash-based profitability affects underpricing.

Of the five profitability variables used, only EPS, which is accrual-based profitability, has a significant effect on underpricing. This result accepts H1c that profitability using accrual-based accounting is better at predicting underpricing than cash-based.

Company size (SIZE) consistently has a significant effect on underpricing with a significance level of less than 0.05. This result accepts H2 that is, the company size affects underpricing.

Underwriter reputation (UND) consistently has no significant effect on underpricing because it has a significance level of more than 0.1. This result rejects H3 that is, underwriter reputation affects underpricing.

Auditor reputation (AUD) consistently has a significant effect on underpricing with a significance level of less than 0.05. This result accepts H4 that is, auditor reputation affects underpricing.

Discussion

The Effect of Profitability using accrual-based on Underpricing

Profitability information is a general and simple measure that is always become the first question in the investor's mind before starting an investment or business. This is natural considering that the firm's goal is to maximize the welfare of shareholders. Well-being will be gained through healthy, sustainable, and profitable business practices in the long term. Therefore, EPS information is the most important profit information and is a special concern available in the prospectus for investors when transacting around the IPO.

This is proven, from some of the profitability proxies used, only EPS consistently has a significant negative effect on underpricing. These results support Wijayanto (2010) which states that EPS has a significant negative effect on underpricing.

This result explains that the higher the EPS value, the smaller the underpricing. The high EPS value provides a positive signal for investors so that they are willing to buy initial shares at a high and optimal price, close to the fair value of the firm, cause small underpricing. In addition, it increases investor confidence and trust in the future performance of the firm, thereby reducing information asymmetry and uncertainty regarding the IPO (Arora & Singh, 2019). EPS information is also considered more important than other proxies of profitability based on accruals and cash because it is able to provide a more convincing and relatively simpler picture of the firm's profits which shareholders are entitled to each share owned (Morina & Rahim, 2020). This also makes the high initial pricing and the issuer obtain funds optimally. In the article written by Dechow *et al.* (1998); Yusof & Jaafar (2018); Zarandi *et al.* (2013) proves that accrual basis is better in terms of providing reliable, informative, comparable, and comprehensive results than cash basis.

The Effect of Profitability using cash-based on Underpricing

The cash-based profit measures in this study proxied by CFROE and CFROA consistently had no significant effect on underpricing. The measurement of cash-based historical data has become less meaningful and is not a major concern for investors because the power to predict the future firm success is lower than the accrual basis. Accrual gradually improve operating cash flow capabilities in projecting future operating cash flows (Farshadfar *et al.*, 2022). Similarly, the study

from Biswas *et al.* (2015); Narsa (2011) found that the ability of accrual-based profit information i.e. gross profit and net profit is higher than cash-based in predicting future cash flows. In addition, accrual accounting can reduce timing and matching problems. This result proves that profitability using accrual-based is better than cash-based accounting, especially in predicting underpricing.

The Effect of Firm Size on Underpricing

The results of the regression analysis concluded that firm size information was used by decision makers. Firm size has a negative and significant effect on underpricing. Firms with larger assets have the advantage that they are better known by the public than small firms. Firms that are better known, tend to disclose more information and the information is more accessible to investors than small firms. This will reduce information asymmetry in large firms. This condition makes the firm more confident to offer its shares at a high price then it will minimize the difference between the closing price of the first day in the secondary market and the offering price in the primary market.

The findings of this study strengthen the conclusions of the study from Mayasari *et al.* (2018); Singgih *et al.* (2018) which proves the existence of a significant relationship between the firm size and underpricing. Different result from Morina & Rahim (2020) which states there is no significant effect of the firm size on underpricing.

The Effect of Underwriter Reputation on Underpricing

The results of the regression analysis concluded that the underwriter's reputation information was not used by decision makers. The reputation of the underwriter provides a signal for the market to assess the quality of the issuer for good or bad. A good underwriter's reputation is a positive signal for investors in assessing the issuer's

shares of good quality (Thoriq *et al.*, 2018). However, there are two conditions for a positive signal that will be effective, that the signal must reach potential investors and be interpreted properly and not easily imitated by low-quality firms. On the contrary, the use of reputable underwriters is relatively easy to imitate by all issuers, so investors cannot distinguish between the quality of good and bad issuers by only looking at underwriters who underwriting IPO shares (Aini, 2013). Through their studies, Albada *et al.* (2019) explains that most IPO firms use reputable underwriters. This has caused investors to ignore these signals as useful information to identify good investment characteristics.

Albada *et al.* (2019) concluded that underwriter reputation can reduce the level of information asymmetry in the IPO firm, but it cannot affect the initial return on the IPO firm. These results also support previous research by Thoriq *et al.* (2018) which proves that there is no significant effect of underwriter reputation on underpricing.

The Effect of Auditor Reputation on Underpricing

The results of the regression analysis concluded that the auditor's reputation information affect the formation of underpricing. The effect of the auditor's reputation variable on the initial return indicates that the better the auditor's reputation, the lower the underpricing rate. This research has successfully proven that reputable auditors are believed by investors to have a greater commitment in maintaining the quality of the audit of issuers' financial statements that they conduct. In other words, financial information that has been audited by reputable auditors is used as a basis for consideration in decision making by investors (Albada *et al.*, 2019).

Reputable auditors improve the quality of the firm by proving the fact that the management has good performance and integrity. Studies conducted by Ardiansyah

(2004) discloses that investors trust financial statements audited by reputable auditors than non-reputable auditors. Investor confidence helps increase the value of the firm by reducing information asymmetry and uncertainty regarding IPOs (Arora & Singh, 2019). Hearn (2013) argues that the reputation of auditors can also reduce the level of information asymmetry from listing firms by reducing agency costs, thereby improving the relationship between pre-IPO shareholders and firm managers. These results also support Arif & Isnidya (2010); Razafindrambimina & Kwan (2013) which proves that the auditor reputation has a negative and significant effect on underpricing.

Robustness Check

Furthermore, the robustness check shown in table 6 tests and strengthens the results of the regression analysis in table 5 by splitting the sample based on the size of firms in the category of large firms and small firms based on Law no. 20 of 2008. In large firms, accrual-based profitability information, EPS, has a significant effect on UDP. Nevertheless, these findings were reinforced also when use small firms although only slightly different for ROA information and other control variables. This reinforces the results of previous regressions that accrual-based profitability information is more informational for IPO investors. In addition, these results provide an idea of the type of IPO investors tend

Table 6. Robustness Check – Large Firms and Small Firms

Variables	Large Firms					Small Firms				
	(1) UDP	(2) UDP	(3) UDP	(4) UDP	(5) UDP	(1) UDP	(2) UDP	(3) UDP	(4) UDP	(5) UDP
ROE	-0.002 (0.032)					-0.025 (0.023)				
ROA		-0.498** (0.203)					0.062 (0.039)			
EPS			-0.000** (0.000)					-0.001** (0.001)		
CFROE				-0.007 (0.017)					-0.001 (0.003)	
CFROA					-0.043 (0.056)					0.119 (0.072)
UND	-0.051 (0.031)	-0.044 (0.032)	-0.054* (0.031)	-0.037 (0.035)	-0.037 (0.034)	0.063 (0.080)	0.062 (0.080)	0.036 (0.080)	0.056 (0.091)	0.059 (0.091)
AUD	-0.167*** (0.031)	-0.159*** (0.031)	-0.158*** (0.032)	-0.182*** (0.032)	-0.181*** (0.033)	-0.114 (0.101)	-0.117 (0.102)	-0.068 (0.102)	-0.026 (0.146)	-0.039 (0.144)
Constant	0.426*** (0.025)	0.444*** (0.025)	0.438*** (0.025)	0.433*** (0.026)	0.434*** (0.026)	0.502*** (0.046)	0.501*** (0.046)	0.534*** (0.048)	0.520*** (0.051)	0.524*** (0.051)
R-squared	0.070	0.084	0.078	0.078	0.078	0.012	0.011	0.042	0.003	0.008

Note: *, **, *** significant at 10%, 5%, 1%

Source: data processed (2022)

to herding and heuristic behavior when making transactions, especially for small firms. Herding behavior shows the tendency of investor behavior to follow the actions of other investors without using and analyzing in depth the fundamental information presented in the prospectus (Luong & Ha, 2011). While heuristic behavior provides an illustration of the decision-making process that uses limited information, relying more on experience and intuition and even not infrequently using the rule of thumb and common sense (Cherry, 2022; Fromlet, 2001). This is proved in the limited use of fundamental information presented in the prospectus influencing underpricing. Only accrual-based profitability information, especially EPS that is considered important by investors, where other accrual-based and cash-based profitability information should theoretically contain information as the financial principle of 'cash is the king' also needs to be considered. If a firm does not have cash, business operations will be disrupted (Adebayo *et al.*, 2015; Beck, 1994; DeFranco & Schmidgell, 1998; Keown *et al.*, 2011).

Conclusion

This study aims to test fundamental information of the profitability of firms based on accrual or cash that investors use when trading until the first day of stock trading on the stock exchange after the IPO. The use of ordinary least square analysis was obtained that accounting conservatism is negatively associated with the magnitude of IPO underpricing, especially the accrual basis with the EPS indicator, although other indicators of accrual are also used as consideration of transactions for large firms. These findings prove that accrual profit information is superior and is considered to have information content for IPO investors than cash flow to determine expectations of return value. In addition, the type of investor tends to heuristic and herding behavior.

These results emphasize the firm to prepare and manage firm performance information that reflects real conditions, especially accrual-based information. The limitation of this study is that the use of data is quite limited due to the availability of data that is not fully available and has a large cost. For the next study, the use of profit quality indicators and market conditions as interaction variables will sharpen the results of the disclosure of the underpricing phenomenon and the type of IPO investor.

References

- 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>
- Abolhalaje, M., Ramezani, M., & Bastani, P. (2012). Accrual accounting accomplishments in Iranian universities of medical sciences: A mixed method study. *Middle East Journal of Scientific Research*, 12(7), 997–1003. <https://doi.org/10.5829/idosi.mejsr.2012.12.7.666>
- Abolhallaje, M., Jafari, M., Seyedin, H., & Salehi, M. (2014). Financial management reforms in the health sector: A comparative study between cash-based and accrual-based accounting systems. *Iranian Red Crescent Medical Journal*, 16(10), 1–5. <https://doi.org/10.5812/ircmj.15472>
- Adebayo, A. S., Ajao, O. S., & Olawanle, S. A. (2015). Going concern assessment through cash generating power: Evidence from cash flow statements (A case study of Nigerian breweries PLC). *International Journal of Economics and Business Administration*, 1(2), 113–119.

- Aini, S. N. (2013). Faktor-Faktor yang Mempengaruhi Underpricing Saham Pada Perusahaan IPO di BEI Periode 2007-2011. *Jurnal Ilmu Manajemen*, 1(1), 88–102.
- Alanazi, A. S., & Al-Zoubi, H. A. (2015). Extreme IPO underpricing and the legal environment in wealthy emerging economies. *Journal of Multinational Finance Management*, 31, 83–103. <https://doi.org/10.1016/j.mulfin.2015.05.004>
- Albada, A., Yong, O., Abdul-Rahim, R., & Hassan, M. E. M. (2019). Information asymmetry and signalling in emerging IPO markets: The case of Malaysia. *Asian Journal of Business and Accounting*, 12(2), 1–28. <https://doi.org/10.22452/ajba.vol12no2.1>
- Alin, A. (2010). Multicollinearity. *Wiley Interdisciplinary Reviews: Computational Statistics*, 2(3), 370–374. <https://doi.org/10.1002/wics.84>
- Ardiansyah, M. (2004). Pengaruh variabel keuangan terhadap return awal dan return 15 hari setelah IPO serta moderasi besaran perusahaan terhadap hubungan antara variabel keuangan dengan return awal dan return 15 hari setelah IPO di Bursa Efek Jakarta. *The Indonesia Journal of Accounting Research*, 7 (2). <https://doi.org/10.33312/ijar.118>
- Arif, A., & Isnidya, F. N. (2010). Analisis faktor-faktor yang mempengaruhi initial return pada penawaran perdana saham di bursa efek Indonesia saat krisis finansial global periode 2006-2008. *Jurnal Informasi Perpajakan Akuntansi Dan Keuangan Publik*, 5(2), 111–130. <https://doi.org/10.25105/jipak.v5i2.4475>
- 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/10.1177/0258042x19829285>
- Badru, B. O., & Ahmad-Zaluki, N. A. (2018). Explaining IPO initial returns in Malaysia: Ex ante uncertainty vs signalling. *Asian Review of Accounting*, 26(1), 84–106. <https://doi.org/10.1108/ARA-11-2016-0133>
- Badru, B. O., Ahmad-Zaluki, N. A., & Wan-Hussin, W. N. (2019). Signalling IPO quality through female directors. *International Journal of Managerial Finance*, 15(5), 719–743. <https://doi.org/10.1108/IJMF-01-2018-0025>
- Beck, D. F. (1994). Cash is king. *The Health Care Supervisor*, 13(1), 1–9.
- Bhattacharya, N., Desai, H., & Venkataraman, K. (2013). Does earnings quality affect information asymmetry? evidence from trading costs. *Contemporary Accounting Research*, 30(2), 482–516. <https://doi.org/10.1111/j.1911-3846.2012.01161.x>
- Biswas, M. R., Rahman, S. M., & Rahman, M. A. (2015). Effectiveness of accrual basis accounting as compared to cash basis accounting in financial reporting. *International Journal of Multidisciplinary Research and Development*, 2(10), 467–473.
- Brealey, R. A., & Myers, S. C. (1981). *Principles of corporate finance* (First). McGraw-Hill.
- Chen, K., Lin, A., & Siregar, D. (2018). Auditor reputation, auditor independence and the underpricing of IPOs. *The Journal of Applied Business and Economics*, 20(6), 30–39. <https://doi.org/10.33423/jabe.v20i6.370>
- Cherry, K. (2022). *What are heuristics?*
- Daoud, J. I. (2017). Multicollinearity and regression analysis. *4th International Conference on Mathematical Applications in Engineering*, 1–6. <https://doi.org/10.1088/1742-6596/949/1/012009>

- Dechow, P. M., Kothari, S. P., & Watts, R. L. (1998). The relation between earnings and cash flows. *Journal of Accounting and Economics*, 25(2), 133–168. [https://doi.org/10.1016/S0165-4101\(98\)00020-2](https://doi.org/10.1016/S0165-4101(98)00020-2)
- DeFranco, A. L., & Schmidgell, R. S. (1998). Cash flow practices and procedures in the lodging industry. *Journal of Hospitality and Tourism Research*, 22(1), 72–83. <https://doi.org/10.1177/109634809802200107>
- Dhamija, S., & Arora, R. K. (2017). Impact of quality certification on IPO underpricing: Evidence from India. *Global Business Review*, 18(2), 428–444. <https://doi.org/10.1177/0972150916668611>
- Etale, L. M., Ochuba, I. S., & Sawyerr, A. E. (2021). Social cost accounting and profitability of Glaxo Smith Kline Nigeria Plc. listed on the NSE. *European Journal of Business and Innovation Research*, 9(1), 31–52.
- Farshadfar, S., Schneider, T., & Bewley, K. (2022). The usefulness of accrual-based surpluses in the Canadian public sector. *Journal of Accounting and Public Policy*, 41(5), 106961. <https://doi.org/10.1016/j.jaccpubpol.2022.106961>
- Febriani, M. D., Soesetio, Y., & Wijjayanti, T. (2017). Pengaruh Profitabilitas Terhadap Intial Return Dilihat Dari Aspek Cash Basis Dan Accrual Basis. *AKRUAL: Jurnal Akuntansi*, 8(2), 153–165. <https://doi.org/10.26740/jaj.v8n2.p53-65>
- Foerster, S., Tsagarelis, J., & Wang, G. (2017). Are cash flows better stock return predictors than profits? *Financial Analysis Journal*, 73(1), 73–99. <https://doi.org/10.2469/faj.v73.n1.2>
- Fromlet, H. (2001). Behavioral finance-theory and practical application: Systematic analysis of departures from the homo oeconomicus paradigm are essential for realistic financial research analysis. *Business Economics*, 36(3), 63–69.
- Gao, J., Cong, L. M., & Evans, J. (2015). Earnings management, IPO underpricing, and post-issue stock performance of Chinese SMEs. *The Chinese Economy*, 48(5), 351–371. <https://doi.org/10.1080/10971475.2015.1067085>
- Godfrey, J. M., Hodgson, A., & Holmes, S. (2003). *Accounting Theory*. John Wiley & Sons Australia.
- Hadi, N. (2013). *Pasar Modal Acuan Teoretis dan Praktis Investasi di Instrumen Keuangan Pasar Modal*. Yogyakarta: Graha Ilmu.
- Hearn, B. (2013). The determinants of IPO firm prospectus length in Africa. *Review of Development Finance*, 3(2), 84–98. <https://doi.org/10.1016/j.rdf.2013.04.002>
- Hofstrand, D. (2009). *Understanding profitability*. Iowa State University.
- Hou, K., Karolyi, G. A., & Kho, B.-C. (2011). What factors drive global stock returns? *The Review of Financial Studies*, 24(8), 2527–2574. <https://doi.org/10.1093/rfs/hhr013>
- 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>
- Keown, A. J., Martin, J. D., Petty, J. W., & Scott, D. F. (2011). *Manajemen Keuangan: Prinsip & Penerapan*. Jakarta: PT. Indeks.
- Kwon, Y. K. (1989). Accrual versus cash-basis accounting methods: an agency-theoretic comparison. *Journal of Accounting and Business Policy*, 8(4), 267–

281. [https://doi.org/10.1016/0278-4254\(89\)90015-X](https://doi.org/10.1016/0278-4254(89)90015-X)
- Loughran, T., Ritter, J. R., & Rydqvist, K. (2022). Initial Public Offerings: International Insights. *Pacific-Basin Finance Journal*, 2(2), 165–199.
- Lumbanraja, T. (2018). Pengaruh kemampuan arus kas dan laba kotor terhadap harga saham pada perusahaan perbankan yang terdaftar di bursa efek Indonesia. *Jurakunman (Jurnal Akuntansi Dan Manajemen)*, 2(2), 52–73. <https://doi.org/10.48042/jurakunman.v2i2.9>
- Luong, L. P., & Ha, D. T. (2011). *Behavioral factors influencing individual investors' decision making and performance: A survey at the Ho Chi Minh Stock Exchange*. Umea School of Business.
- Mayasari, T., Yusuf, & Yulianto, A. (2018). Pengaruh return on equity, net profit margin dan ukuran perusahaan terhadap underpricing. *Jurnal Kajian Akuntansi*, 2(1), 41–53. <https://doi.org/10.33603/jka.v2i1.1271>
- Mehmood, W., Rashid, R. M., & Tajuddin, A. H. (2021). A review of IPO underpricing: evidences from developed, developing and emerging markets. *Journal of Contemporary Issues and Thought (JCIT)*, 11(1), 1–19. <https://doi.org/10.37134/jcit.vol11.1.2021>
- Morina, T., & Rahim, R. (2020). Faktor – Faktor Yang Mempengaruhi Initial Return Pada Initial Public Offering (IPO). *Jurnal Penelitian Dan Kajian Ilmiah MENARA Ilmu*, 14(2), 146–157. <https://doi.org/10.31869/mi.v14i2.1891>
- Mun, S. G., & Jang, S. C. (Shawn). (2019). Restaurant firms' IPO motivations and post-IPO performances. *International Journal of Contemporary Hospitality Management*, 31(9), 3484–3502. <https://doi.org/10.1108/IJCHM-08-2018-0677>
- Muniroh, I., & Yuliaty, A. (2021). Do cash flow and accounting profit information affect stock prices? *Journal of Accounting and Strategic Finance*, 4(1), 108–121. <https://doi.org/10.33005/jasf.v4i1.199>
- Narsa, I. M. (2011). Prediksi Aliran Kas Berdasarkan Laba Fungsional dan Aliran Kas Kelambanan : Komparasi antara US dan Indonesia. *Jurnal Akuntansi Dan Keuangan*, 13(1), 1–12. <https://doi.org/10.9744/jak.13.1.1-12>
- Nazihah, A. H., Rosnidah, I., & Juwenah, J. (2020). The influence of auditor's reputation and underwriter's reputation to underpricing shares when initial public offering. *Proceedings of the 1st International Conference on Accounting, Management, and Entrepreneurship (ICAMER 2019)*. <https://doi.org/10.2991/aebmr.k.200305.003>
- Nguyen, H. A., & Nguyen, T. H. (2020). The prediction of future operating cash flows using accrual-based and cash-based accounting information: Empirical evidence from Vietnam. *Management Science Letters*, 10, 683–694. <https://doi.org/10.5267/j.msl.2019.9.010>
- Novy-Marx, R. (2013). The other side of value: the gross profitability premium. *Journal of Financial Economics*, 108(1), 1–28. <https://doi.org/10.1016/j.jfineco.2013.01.003>
- Pae, J., & Yoon, S. S. (2012). Determinants of analysis' cash flow forecast accuracy. *Journal of Accounting, Auditing & Finance*, 27(1), 27–49. <https://doi.org/10.1177/0148558X114091>
- Permatasari, R., & Kusumah, R. W. R. (2017). Pengaruh Return On Asset, Price Earning Ratio, Ukuran Perusahaan, Prosentase Penawaran Tingkat Underpricing. *Proceedings*

Soesetio, dkk / Accrual-based vs cash-based accounting

- Profesionalisme Akuntan Menuju Sustainable Business Practice*, 261–277.
- Purnamasari, E., & Fachrurrozie, F. (2020). The effect of profitability, leverage, and firm size on earnings quality with independent commissioners as moderating variable. *Accounting Analysis Journal*, 9(3), 173–178. <https://doi.org/10.15294/aa.v9i3.42067>
- Razafindrambimina, D., & Kwan, T. (2013). The Influence of Underwriter and Auditor Reputation on IPO Underpricing. *European Journal of Business and Management*, 5(2), 199–212.
- Reutzell, C. R., & Belsito, C. A. (2015). Female directors and IPO underpricing in the US. *International Journal of Gender and Entrepreneurship*, 7(1), 27–44. <https://doi.org/10.1108/IJGE-09-2013-0059>
- Saputra, S., Meutia, I., & Wahyudi, T. (2019). The accuracy of earnings forecast in IPO prospectuses: Evidence from Indonesia. *Jurnal Keuangan Dan Perbankan*, 23(4), 623–637. <https://doi.org/10.26905/jkdp.v23i4.3509>
- Serly, & Lau, A. (2021). Determinan manipulasi akuntansi di laporan keuangan dengan rasio investasi berbasis akrual. *Akurasi: Jurnal Studi Akuntansi Dan Keuangan*, 4(2), 133–150. <https://doi.org/10.29303/akurasi.v4i2.110>
- Singgih, M., Pricilia, V. P., & Lavista, E. (2018). Market to book value, firm size, and the underpricing of Indonesian initial public offerings. *Review of Management and Entrepreneurship*, 2(2), 75–90. <https://doi.org/10.37715/rme.v2i2.964>
- Sundarasan, S. D., Khan, A., & Rajangam, N. (2018). Signalling roles of prestigious auditors and underwriters in an emerging IPO market. *Global Business Review*, 19(1), 69–84. <https://doi.org/10.1177/0972150917713367>
- Thoriq, K. N., Hartoyo, S., & Sasongko, H. (2018). Faktor Internal dan Eksternal yang Memengaruhi Underpricing pada saat IPO di Bursa Efek Indonesia. *Jurnal Aplikasi Manajemen Dan Bisnis*, 4(1), 19–31. <https://doi.org/10.17358/jabm.4.1.19>
- Utomo, A. H., & Kurniasih, A. (2020). The determinant of underpricing towards IPO company at Indonesia stock exchange in 2019. *Journal of Economics, Finance and Management Studies*, 3(8), 117–125. <https://doi.org/10.47191/jefms/v3-i8-02>
- Wijayanto, A. (2010). Analisis pengaruh ROA, EPS, financial leverage, proceed terhadap initial return. *Jurnal Dinamika Manajemen*, 1(1), 68–78.
- Yazdani, L., & Aris, S. (2015). An assessment of the performance of initial public offering (IPOs) in Malaysia. *Research Journal of Finance and Accounting*, 6(3), 1–4.
- Yusof, N. S., & Jaafar, H. (2018). The implementation of accrual-based accounting in Malaysian public sector: Opportunities and challenges. *International Business Education Journal*, 11(1), 49–62. <https://doi.org/10.37134/ibej.vol11.1.5.2018>
- Zarandi, H. M. P., Ghafari, E., Arab, M., & Mozdabadi, S. M. T. (2013). Accrual-based accounting system versus cash-based accounting: An empirical study in municipality organization. *Management Science Letters*, 3(1), 251–256. <https://doi.org/10.5267/j.msl.2012.10.035>