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CONTENTS

EVIEWS ANALYSIS : UNDERPRICING DETERMINANTS AND IMPLICATIONS ON LONG-TERM UNDERPERFORMANCE SHARES IPO ON INDONESIA STOCK EXCHANGE (BEI)

HAMILAH, MAKMURI AND GUSMIARNI

Abstract: This study aims to analyze factors that influence companies doing Underpricing at the moment, companies conduct IPOs in the stock market and its implications on Long-Term Underperformance in proxy with JCI on IPO shares in IDX. Analysis of phenomena. By using sample data onto IPO implementation for years 2006 until IPO 2011 with period of 5 year for every implementation of IPO, method done by using Sampling Purposive Method.

The first analysis based on the data onto companies conducting initial public offering (IPO) in BEI during the period 2006 to 2011, underpricing average by 83 percent. The average initial return to companies underpricing during the IPO during the period 2006 to 2011 average initial return to 31 percent, and the highest in 2007 with Initial Return of 40 percent and the lowest occurred in 2011 by 20 percent.

The second analysis shows that the average of the age variable of company, the value of cavitation, the volatility effect on the level of underpricing in the company conducting Initial Public Offering (IPO). While the Company Size Variable, Interest Rate and Rupiah Exchange Rate are not significant.

For the third analysis, the long-term performance of IHSG after firm IPO is significantly influenced by the Company's Age variables, Capitalization Value, Volatility, Interest Rate, and Rupiah Exchange Rate, while the variables in Company Size influence is not significant. This study reinforces the asymmetric information theory of underpricing phenomena, due to information asymmetry between underwriters and firms. Differences in information are supported by agency theory and signal theory, whereby information published as an announcement will provide a signal to investors in making investment decisions.

Introduction

The implementation of IPO in Indonesia has only started since the 1980s. Until the end of 1990 there were 74 companies listed in stock exchange. In the year 1991 up to the beginning of 2011 there has been a very rapid growth of the implementation of Initial Public Offering (IPO) in the capital market, which became 473 companies with a capitalization of Rp.2.860,82 trillion. However, the privatization process of state-owned enterprises is still very small. Of 141 state-owned enterprises consisting of 18 new sectors there are 18 companies that has done IPO in the period 1991-2011, which started with the company Semen Gresik and the last company Garuda Indonesia.

The process of Initial Public Offering (IPO), Go Public or often referred to as the initial public offering is a stock offering activity conducted by the company to the public (public). By offering shares to the public, the company will be listed on the stock to become a public / open company.

In the process of selling the first stock of a company to a general investor is called an IPO. According to Law no.8 of 1995 concerning capital market, public offering is a security offering activity undertaken by issuers to sell securities to the public based of the procedures set forth in the capital market law and its implementation regulations. Companies that conduct public offering of shares, their shares must be able to transacted on the stock so that investors can resell or buy if they can not during the IPO. The issued shares have a price known as an initial public offering (IPO) is an important factor of both the issuer and the underwriter as it relates to the amount of funds to be earned by the issuer and the risk that the underwriter will bear. The amount of funds received by the issuer is a correlation between the number of shares offered at the price per share, so the higher the price per share then the funds received will be greater.

Initial Public Offering (IPO) Initial Public Offering (IPO) Initial Public Offering (IPO) Initial Public Offering (IPO) is lower than the stock market price in the secondary market on the first day, there will be a low-price phenomenon in the initial offer, called Underpricing. On the other hand, if the current price of Initial Public Offering (IPO) arew higher than the stock price on the secondary market on the first day, then this phenomenon is called Overpricing (Hanafi, 2004). Research conducted by Aggrawal et al, (1993) concluded that underpricing phenomenon occurs to the time of Initial Public Offering (IPO). Another phenomenon is the long-term negative return and the existence of cycles in terms of underpricing and volume of companies conducting Initial Public Offering (IPO), known as the three anomaly Initial Public Offering (IPO). Underpricing has become a common phenomenon in the initial public offering in various capital markets around the world (Lounghran et al., 1994), Underpricing is, after all, an indirect cost of an Initial Public Offering (IPO).

According to Beatty (1989), underpricing conditions has different effects of companies and investors. Companies will not benefit if there is underpricing, because the funds obtained from go public are not maximum. In the event of Overpricing, investors will lose money because they do not receive the initial return to the shareholder's profit because of the difference in stock prices purchased in the initial market at the IPO with the selling price in question on the first day on the secondary market. The phenomenon of underpricing and overpricing occurs to the capital markets of various countries. Among the United States, Britain, Australia, South Africa, China, Malaysia and Indonesia. Underpricing is one of the most common phenomena in the implementation of Initial Public Offering (IPO). The second anomaly are Long Term Underperformance, which is where in the long run, the performance of IPO shares has poor performance. This condition causes Cummulative Abnormal Return (CAR) of IPO shares to form up and down pattern. This shows that the price that occurs to the beginning of the secondary market is not the stock price in accordance with the value of the company (fair price). In the long run,

positive initial returns due to underpricing are eliminated because of long-term issues (Sembel, 1996).

In Indonesia underpricing phenomenon has also been done as shown in table 1 below.

Table 1
Underpricing phenomenon in Indonesia

Researchers	Sample	Time	Underpricing (%)
Trisnawati and Martani	131	1994-2001	38,0
Trisnawati and Nikmah	90	1994-2000	5,0
Emilia, Sulaiman, Sembel	92	1999-2005	59,4
Nasirwan, Sjarruddin	96	1993-1997	12,1
Yasa, Gerianta W	300	1990-2001	21,3
Handayani	28	2000-2006	34,9
Sulistio, Helen	44	1998-2003	82,0
Wijayanto, Andy	67	2000-2006	28,3
Purnamitha (2013)	98	2008-2012	87,00
Widyani and Yasa (2013)	169	2000-2011	43,90
Rangi and Harto (2013).	71	2007-2011	37,15
Gunawati, dkk (2015)	150	2007-2012	25,30
Saputra and Suaryana (2016)	57	2010-2013	35,28

Literature Review

The existing underpricing theories so far none has dared to explicitly declare better in explaining underpricing phenomena. Most of the existing theories set out from the existence of information inequality (information asymmetric) in the vicinity of Initial Public Offering (IPO).

Beatty (1989) explains that underpricing or positive initial return in the primary market is due to the existence of information asymmetry (ex-ante Uncertainty) that is price uncertainty in the future. Information asymmetry can occur if the investor does not have accurate information on information owned by the investor.

The study of the phenomenon of underpricing in the IPO was first performed by the US Securities and Exchange Commission (SEC) in 1963. More than 10 years later, Ibbotson and Jaffe (1975) conducted the same study in the United States and obtained results that the initial average return obtained by investors when buying shares through IPO mechanism is 16.83%.

The occurrence of under-pricing phenomena in stock trading the first day after the IPO on the Indonesian stock exchange in the period 1989-1994 was allegedly caused by: (i) government interference in stock exchanges, (ii) the state of the Indonesian capital market experienced a boom in 1989 and 1990 with the number of issuers as many as 67 companies that conduct initial publication. This is considered consistent with the phenomena occurring in neighboring countries where under-pricing phenomena in the 1990s were lower than those of the late 1980s.

Several factors are expected to affect underpricing and long-term under-employment ie Company Age, Company Size, Capitalization Value, Volatility, Interest Rate and Exchange Rate in Exchange Rate ($).

The longer operating age of the company makes it possible to provide a wider and more public information publication than the newly established company. The longer the life of the company, the more information the community can acquire (Nurhidayati and Indriantoro, 1998) thereby reducing information asymmetry and minimizing uncertainty of the future. Rosyati and Sabeni (2002) said that the company's age had a negative and significant effect on underpricing while Ghozali and Mansur (2002) did not show significant influence. Similar research in Indonesia, among others, conducted by Trisnawati (1998) who conducted research on the Jakarta Stock Exchange by taking data onto 1994 to 1995 successfully proves that the age of the company has a positive and significant effect on initial return.

Company size can also be used as a measure of uncertainty, because large-scale firms are generally better known so that the information is certainly more than small firms, if there is much information known to the public then the level of uncertainty can be reduced so that the investment decision is right. It is estimated that large-scale companies have lower levels of underpricing than small-scale enterprises. This is in accordance with the research of Kim et. al. (1993) showing the influence of negative and significant firm size of underpricing, which means the larger the size to the company the smaller the level of underpricingnya the smaller the smaller the size of the company the greater the level of underpricing. Companies with larger sizes tend to contain fewer Uncertainties, such companies will experience a lower initial return. The greater the Uncertainty of the company, the greater the average initial return, large-scale companies tends not to be affected by market conditions but rather affect the market conditions (Retnowati, 2013).

Volatility is the amount of distance between the fluctuation of the stock price or the price of the stock or foreign currency. High volatility means the price rises rapidly and then suddenly drops in rapidly resulting in a huge difference between the lowest and the highest prices in time, the small volatility also changeable bias there is clock hours where volatility slows volatility bias is aimed at the number of certain pips or absolute numbers. Volatility means the conditional variance between an asset. Volatility analysis is useful in portfolio formation, risk management and price formation, volatility is also used in predicting risk, volatility prediction has an important influence in investment decision making, Volatility modeling is Autoregressive Conditional Heteroskedatisitas (ARCH) permitted by Engle (1982) and used in measuring the financial risks and behavior of the mining sector, where the result is that the volatility of mining stock returns has a reliance on time. And ARCH can be detected if the large number of samples and Generalized Autoregressive Conditional Heteroskedasticity (GARCH) developed by Bollerslev in 1986 became the method commonly used in financial analysis including stock return and volatility.

The capitalization of shares or other terms of market capitalization is a business term that points to the overall price of a company's stock that is a price to pay for all shares of the company. The magnitude and growth of a company's market capitalization is often an important measure of the success or failure of an open

company. Capitalization is sometimes used as a synonym for market capitalization and can also be market capitalization and long-term debt. The stock market is a market for general trading and related financial instruments (including stock options, trading and stock index estimates). According to (Robert, 1997) in Boeli (2008) states the market price multiplied by the number of shares in circulation will be in the market value or so-called Market Capitalization.

The interest rate (BI Rate) based on the explanation given by Bank Indonesia (www.bi.go.id), the BI rate is the policy rate reflecting the stance or stance of monetary policy stipulated by Bank Indonesia and announced to the public, BI rate is announced by the Board of Governors of Bank Indonesia, and implemented in monetary operations conducted by Bank Indonesia through the management of liquidity in the money market to achieve the operational targets of monetary policy. The operational objectives of monetary policy are reflected on the development of interbank money market interest rates. While inflation according to Samuelson (2001) that inflation as a condition where there is an increase in general prices, good goods, services and factors of production. This definition indicates the weakening of purchasing power followed by the declining real value of a country's currency.

The exchange rate is the price of a currency of a state that is measured or stated in another currency. Exchange rate plays an important role in spending decisions, because exchange rate allows us to translate prices from different countries into the same language. If all other conditions remain, the depreciation of a country's currency against all other currencies (the increase in foreign exchange prices for the country concerned) causes its exports to be cheaper and its imports more expensive. While appreciation (decline in foreign exchange prices in the country concerned) makes its exports more expensive and imports cheaper.

Exchange rate is very important to the foreign exchange market (foreign exchange market). Although foreign exchange trading takes place in various financial centers spread across the globe, modern telecom technology has linked them into a single market chain that operates 24 hours daily. One important category of foreign exchange trading is forward trading, in which some parties agree to exchange currency in the future of the basis of the exchange rate they have agreed upon. Whereas other categories, ie spot trading (spot trading) directly execute the exchange (this is usually for urgent or practical purposes).

Since the exchange rate is the relative price of the two sets, then the exchange rate is considered to be the asset price itself. the basic principle of asset pricing is that the current asset value is determined by its estimated future purchasing power. In evaluating assets, investors always display the asset's estimated value of return, or the rate of increase in the value of investments embedded in the asset at later times. The returns to deposits traded with the foreign exchange market are determined by interest rate and estimated exchange rate changes.

Follow by the Journal of Indonesian Applied Economics vol 2 no.2 october 2011. Written by Imam Mukhlis, the development of the current liberalism and globalization of the world has caused its own concerns for each State. To address the dynamics that occurs every State formulates a framework of multi sector

cooperation. On the other hand, it can also be explained that the existing liberalism and globalization brings consequences of the economic fundamentals of each country. The country's lack of prosperity in maintaining the fundamentals of this economy can have an impact on macroeconomic stability. One of the macroeconomic indicators that are tentative to external economic turmoil is the exchange rate of currency (currency exchange rate). In this case the exchange rate reflects the strength of the economy as a result of the penetration and effects of the global economy. The more stable the exchange rate of a country's currency against the currencies of other countries, the more it shows the fundamental strength of the country's economy. In other words, the government (monetary authority) is able to conduct monetary policy and from the exchange rate of currency that can encourage economic competitiveness of a country. The rise of the currency exchange rate in the money market (appreciation and depreciation) shows the magnitude of the volatility that occurs to the currency of a State with the currency of another Country (Chou, 2000). Increasing volatility shows an increasing movement towards exchange rate (appreciation / Depreciation of currency). This gives an overvalued overview and undervalued exchange rate against other currencies of the State. When the exchange rate is experiencing extreme volatility, then the economy will experience instability both from the macro and micro.

Development of the following framework based on theoretical overview of some previous research, the research paradigm can be described as follows:

Picture 1: Framework

Research Hypothesis

Hypothesis (H_1)	:	The Effect of the Company's Age on Underpricing of IPO Shares
Hypothesis (H_2)	:	The Influence of Company Size on Underpricing Shares IPO
Hypothesis (H_3)	:	There is a positive effect of Capitalization Value on IPO Stock Underpricing
Hypothesis (H_4)	:	The Effect of Volatility on IPO Stock Underpricing
Hypothesis (H_5)	:	There is an effect of Interest Rate on IPO Stock Underpricing
Hypothesis (H_6)	:	The effect of the Rupiah Exchange Rate on Underpricing of IPO Shares
Hypothesis (H_7)	:	Influence of company age, company size, capitalization value, volatility, interest rate and exchange rate of Rupiah to underpricing IPO shares
Hypothesis (H_8)	:	The Effect of the Company's Age on Long-Term Underperformance
Hypothesis (H_9)	:	Effect of Company Size on Long-Term Underperformance
Hypothesis (H_{10})	:	The Effect of Stock Capitalization Value on Long-Term Underperformance.
Hypothesis (H_{11})	:	Effect of Volatility on Long-Term Underperformance
Hypothesis (H_{12})	:	Effect of Interest Rate on Long-Term Underperformance
Hypothesis (H_{13})	:	Effect of Rupiah Exchange Rate on Long-Term Underperformance
Hypothesis (H_{14})	:	The Influence of Underpricing of IPO Shares to Long-Term Underperformance
Hypothesis (H_{15})	:	Influence of company age, company size, capitalization value, volatility, interest rate and exchange rate of Rupiah to underpricing IPO shares and its application to Long-Term Underperformance.

Research Methods

In this dissertation is used a combination of descriptive and inferential methods using historical data onto a long period of time. Selection of a long period of time is expected to provide a more accurate picture of the phenomenon of underpricing and long-term underperformance in the stock market of Indonesia.

Population of this research is Company which does go public since 2006 until 2011 at Indonesia stock exchange (BEI).

Sample in detail is the Company of companies that have been doing IPO since 2006 until the end of 2011 and up to now still listed in the Indonesian stock foam (BEI). Companies that are still listed on the Stock Exchange but not available past data are not included in the unit research.

The data and information used is from Boomberg & Real Time Information (RTI) information service providers, Indonesia Stock Exchange (BEI) website, OJK

website, website of publicly listed companies, Bank Indonesia website (BI), Ministry of Finance website, TICMI website (The Indonesia Capital Market Institute).

Research Result

Data analysis of the company conducting initial public offering in 2011.

Description of Statistics

Table 1
Data Description: Initial Public Offering of 2011

	AGE	HSHM	IHSG	KAPT
Mean	14.23077	793.8077	4494.673	5372.014
Maximum	26.0	3750.000	5491.340	12642.93
Minimum	3.0	50.00000	3679.829	2198.465
Std. Dev.	7.017321	855.2656	514.1398	1832.762
Observations	65	65	65	65

Source: Data is processed using eviews 9.0

     Table 1 shows that the data of 13 firms over the period 2011 to 2015

a) Of the 65 Company Age data (AGE), a minimum of 3 years and a maximum value of 26 years. With an average of 14.23077 years and a standard deviation from 7.017321 years.

b) Of 65 data Share prices (HSHM), minimum value of Rp 50.00 and maximum value of Rp 3750,00. With an average of Rp 793.8077 and a standard deviation from Rp 855.2656.

c) Of the 65 Composite Stock Price Index (IHSG), the minimum value of 3679,829 and the maximum value of 5491.340. With an average of 4494,673 and a standard deviation from 514. 1398.

d) Of the 65-capitalization data (KAPT), the minimum value of 2198,465 billion Rp and the maximum value of 12642.93 billion Rp. With an average of 5372.014 billion Rp and a standard deviation from 1832.762 billion Rp.

Table 1 (continued)
Data Description: Initial Public Offering of 2011

	KURS	RATE	SIZE	VOLA
Mean	10492.85	0.063423	13.03349	5.293417
Maximum	12500.00	0.075000	26.01083	13.85237
Minimum	8523.000	0.006000	5.626433	2.128004
Std. Dev.	1354.623	0.018270	4.512825	2.076263
Observations	65	65	65	65

Source: Data is processed using eviews 9.0

     Table 1 (continued) shows that the data of 17 companies over the period 2011 to 2015

a) Of the 65 Exchange Rate data (KURS), a minimum value of Rp 8523.00 and a maximum value of Rp 12500.00. With an average of Rp 10492.85 and a standard deviation from Rp 1354.623.

b) Of the 65 Interest Rate (RATE) data, the minimum value is 0.0060 and the maximum value are 0.0750. With an average of 0.059618 and a standard deviation from 0.063423.

c) Of the 65 Company Size (SIZE) data, a minimum value of 5.626433 and a maximum value of 26,01083. With an average of 13.03349 and a standard deviation from 4.512825.

d) Of the 65 Volatilization data (VOLA), a minimum value of 2.128004 billion Rp and a maximum value of 13.85237 billion Rp. With an average of 5.293417 billion Rp and standard deviation of 2.076263 billion Rp.

Model Accuracy Test

a. Common Effect vs Fixed Effect

The chow-test test is used to determine which model will be selected in the panel data regression model estimation, whether the common effect or fixed effect model. This test is done by using statistical test of F or chi-square with hypothesis as follows:

Ho: Common effect model is better than fixed effect

Hi: Fixed effect model is better than common effect

If the value of F arithmetic (F-test) and chi-square test is smaller than a = 0.05 (5%), then Ho is rejected and Hi is accepted. This shows that the effect model remains better than the common effect model in estimating panel data regression. Conversely, if Ho is accepted and H! rejected, which means that the common effect models is better than the fixed effect model in estimating panel data regression.

b. Fixed Effect vs Random Effect

The choice of which model is used between the fixed effect model or the random effect model, the Hausman test is performed. (Hausman test). The hypothesis in the Hausman test is as follows:

Ho : Random effect model is better than fixed effect

Hi : The fixed effect model is better than random *effect*

If the probability value (Prob) Chi-Square Hausman Test is smaller than a = 0.05 (5%), then Ho is rejected and Hi is accepted.

c. Common Effect vs Random Effect

Determination of use of which model is used in panel data regression, whether common effect model or random effect model through Lagrange Multiplier (LM-test) Breusch-Pagan test. The hypothesis in this test is as follows:

Ho : The common effects model is better than the random effect

Hi : The random effect model is better than the common effect

If LM test> chi-squares with Alpha = a = 0.05 and df = 3, then Ho is rejected and Hi is accepted. Based on the calculation of Breusch-Pagan LM test (BP)

chi-squares table with a $= 0.05$, or the probability value of LM-test Breusch-Pagan 0.0000 is smaller than a $= 0.05$, it can be concluded that the random effect model is better rather than the common effect model in eliminating the influence of internal and external factors of underpricing and its implications on the long-term underperformance of IPOs in Indonesia. Hypothesis tests results as follows:

Table 2
Hypothesis Test Results Structure-1 Data 2011

Hypothesis	Variable	Influence on HSHM		Decision
		Coefficient	Prob	
H1	AGE	-38,17485	0.2238	p > 0,05 ; TS
H2	ROA	-23,48465	0.0884	p > 0,05 ; TS
H3	KAPT	0,004295	0.8442	p > 0,05 ; TS
H4	VOLA	-14,11421	0.5276	p > 0,05 ; TS
H5	RATE	-146,9806	0.9549	p > 0,05 ; TS
H6	KURS	-0,066122	0.1761	p > 0,05 ; TS
H7	Together	F= 3,985729	0.002088	p < 0,05 ; S
R_Square	0.291944			

Source: Data is processed using eviews 9.0

Information:

S   : significant;

TS : no significant

Model Accuracy Test

a. Common Effect vs Fixed Effect

The chow-test test is used to determine which model will be selected in the panel data regression model estimation, whether the common effect or fixed effect model. This test is done by using statistical test F or chi-square with hypothesis as follows:

Ho : Common effect model is better than fixed effect

Hi : The fixed effect model is better than common *effect*

If the value of F arithmetic (F-test) and chi-square test is smaller than a $= 0.05$ (5%), then Ho is rejected and Hi is accepted. This shows that the fixed effect model is better than the common effect model in estimating panel data regression. Conversely, if Ho is accepted and Hi is rejected, which means that the common effect model is better than the fixed effect model in estimating panel data regression.

b. Fixed Effect vs Random Effect

The choice of which model is used between the fixed effect model or the random effect model, the Hausman test is performed. (Hausman test). The hypothesis in the Hausman test is as follows:

Ho : Random effect model is better than fixed effect

Hi : The fixed effect model is better than random *effect*

If the probability value (Prob) Chi-Square Hausman Test is smaller than a = 0.05 (5%), then Ho is rejected and Hi is accepted.

To test the hypothesis Structure-2 used regression analysis results based on FEM model Hypothesis tests results as follows:

Table 3
Hypothesis Test Results Structure-2 Data 2011

Hypothesis	Variable	Influence of IHSG		Decision
		Coefficient	Prob	
H8	AGE	288,7716	0.0003	$p < 0,05$; S
H9	SIZE	15,25441	0.2639	$p > 0,05$; TS
H10	KAPT	0,098487	0.0000	$p < 0,05$; S
H11	VOLA	-15,67250	0.4749	$p > 0,05$; TS
H12	RATE	-316,8223	0.9015	$p > 0,05$; TS
H13	KURS	0,005992	0.9439	$p > 0,05$; TS
H14	HSHM	0,071141	0.6156	$p > 0,05$; TS
H15	Bersama-sama	F= 11,92961	0.000000	$p < 0,05$; S
R_Square	0.834353			

Source: Data is processed using eviews 9.0
Information:
S   : significant
TS   : no significan

Hypothesis Test Results

a) Based on the analysis and hypothesis testing presented in Table 2 and Table 3 for companies conducting initial public offering (IPO) in 2011, firm sizes proxy with Asset obtained results.

(1) H_i: There is a positive influence of the company's age on underpricing initial public offering (IPO).

H1 hypothesis Not proven shown by the coefficient of -38.17485 and probability significance of 0.2238> 0.05 thus the influence of the company's age on the underpricing of initial public offering (IPO) negative and not significant.

(2) H_i: There is a positive effect of firm size of underpricing initial public offering (IPO).

H2 hypothesis is not proven shown by coefficient of -23.48465 and probability significance of 0.0884> 0.05 thus the effect of firm size proxy with Asset to underpricing initial public offering (IPO) negative and not significant.

(3) H_i: There is a positive effect of stock capitalization on underpricing of IPO.

H3 hypothesis is not proven shown by coefficient of 0.004295 and probability significance of 0.8442> 0.05 thus the effect of stock capitalization value on underpricing of initial public offering (IPO) positive and not significant.

(4) H_i: H3 hypothesis is not proven shown by coefficient of 0.004295 and probability significance of 0.8442> 0.05 thus the effect of stock capitalization value on underpricing of initial public offering (IPO) positive and not significant

H4 hypothesis is not proven shown by coefficient of -14.11421 and probability significance of 0.5276> 0.05 thus the effect of volatilization on underpricing initial public offering (IPO) negative and not significant.

(5) H_5: There is a negative effect of the interest rate on the underpricing of initial public offering (IPO)).

H5 hypothesis not proven shown by coefficient equals to -46,9806 and probability significance equal to 0,9549> 0,05 hence influence of interest rate to underpricing initial public offering (IPO) negative and not significant.

(6) H_6: There is a positive influence of the rupiah exchange rate against underpricing of initial public offering (IPO).

H6 hypothesis is not proven shown by coefficient of -0.066122 and probability significance of 0.1761> 0.05 thus the effect of rupiah exchange rate on underpricing of initial public offering (IPO) negative and not significant.

(7) H_7: There is influence of company age, company size, stock capitalization value, volatilization, interest rate, and rupiah exchange rate together with under pricing of initial public offering (IPO).

The H7 hypothesis proved to be shown by probability significance of 0.002088 <0.05 thus firm age, firm size, stock capitalization values, volatilization, interest rate, and rupiah exchange rate together with under pricing of IPO. If there is an increase in stock then the value of stock price will increase positively by ·0,002088.

(8) H_8: There is a positive influence of firm age on long-term underperformance.

H8 hypothesis proved shown by the coefficient of 288.7716 and the probability significance of 0.0003 <0.05 thus the influence of firm age on long-term underperformance positive and significant. If an increase in the age of the company will increase the JCI value of 288.7716.

(9) H_9: There is a positive effect of firm size of long-term underperformance.

H9 hypothesis is not proven shown by coefficient of 15.25441 and probability significance of 02639> 0.05 thus the effect of firm size to long-term underperformance positive and not significant.

(10)H_{10}: There is a positive effect of stock capitalization on long-term underperformance.

H10 hypothesis proved shown by coefficient of 0.098487 and the probability significance of 0.0000 <0.05 thus the effect of stock capitalization values to long-term underperformance positive and significant. Meaning that any increase in capitalization value will increase the JCI of 0.098487.

(11)H_{11}: There is a negative effect of volatilization on long-term underperformance.

H11 hypothesis is not proven shown by coefficient of -15.67250 and probability significance of 0.4749> 0.05 thus the effect of volatilization on long-term underperformance is negative and not significant.

(12)H_{12}: There is a negative effect of interest rate on long-term underperformance.

H12 hypothesis not proven shown by coefficient equal to 87,07803 probability

significance equal to 09015> 0,05 hence influence of interest rate to long-term underperformance positive and not significant.

H₁₂: There is a negative influence of the rupiah against long-term underperformance.

H13 hypothesis not proven shown by coefficient of 0,005992 and probability significance equal to 0,9439> 0,05 hence influence of rupiah exchange rate to long-term underperformance positive and not significant.

H₁₄: There is an underpricing effect on long-term underperformance.

H14 hypothesis not proven shown by coefficient of 0.071141 and probability significance of 0.6156> 0.05 thus the influence of underpricing to long-term underperformance positive and not significant.

H₁₅: There is influence of company age, firm size, stock capitalization value, volatility, interest rate, rupiah exchange rate and underpricing together against long-term underperformance.

The hypothesis H15 is shown by the probability significance of 0.0000 <0.05 thus the influence of firm age, firm size, stock capitalization values, volatilization, interest rate, rupiah exchange rate and underpricing jointly against significant long-term underperformance.

Discussion

Based on the data analysis of the company conducting initial public offering in 2006 up to 2011 and testing the hypothesis that has been done, first Regression of Structure-1 to prove the influence of company age, Company size where company size proxy with Ln (Asset) denoted by SIZE, Capitalization of shares (KAPT), Volatilization (VOLA), Interest Rate (RATE) and Rupiah Exchange Rate (KURS) on Underpricing Share Price (HSHM).

Summary of hypothesis testing results

Table 4
Hypothesis Test Results Structure-1

Hypothesis	Variable	Structure-1: Influence on HSHM					
		2006	2007	2008	2009	2010	2011
H1	AGE	Significant					
H2	SIZE						
H3	KAPT	Significant					
H4	VOLA	Significant					
H5	RATE						
H6	KURS					Significant	T
H7	simultaneous	Significant	0.452541	0.699775	Significant	0.539926	Significant
R-Square		0,239348	0.061839	0.057235	0.865513	0.060963	0.291944

Table 5
Structure Hypothesis Test Results-2

Hypothesis	Variable	Structure-2: Influence on IHSG					
		2006	2007	2008	2009	2010	2011
H8	AGE		Significant	Significant	Significant	Significant	Significant
H9	SIZE						
H10	KAPT	Significant	Significant	Significant		Significant	Significant
H11	VOLA		Significant	Significant			
H12	RATE	Significant				Significant	
H13	KURS	Significant	Significant	Significant	Significant		
H14	HSHM						
H15	simultaneous	Significant	Significant	Significant	Significant	Significant	Significant
R_Square		0.860242	0.838245	0.934422	0.953878	0.987028	0.834353

Conclusions and Recommendations

Conclusion

Based on the empirical findings and in accordance with the formulation of the problem, the conclusions of this study are as follows:

1. The Company's age had a negative and significant effect on 2006 on Underpricing, while in 2007 until 2011 it was not significant. The empirical findings in the research hypothesis stating that the age of the company has a positive effect on underpricing on initial public offering (IPO) in Indonesia Stock Exchange.

2. The size of the firm is not significant against underpricing in companies that conduct an IPO. The empirical findings in the research hypothesis stating that firm size have a positive effect on underpricing on initial public offering (IPO) in Indonesia Stock Exchange.

3. The value of capitalization significantly affected the underpricing in 2006, 2010 and 2011 while not significant in 2007 until 2009. While the empirical findings in the research hypothesis which states there is a positive effect of stock capitalization value on underpricing IPOs in Indonesia Stock Exchange.

4. Volatility had a significant negative effect of 2006 while 2007 to 2011 was not significant. Empirical findings in the hypothesis of the study there is a positive effect of volatilization on underpricing initial public offering (IPO) in Indonesia Stock Exchange.

5. Non-significant interest rates in 2007, 2008, 2010 and 2011 were negative while 2006 and 2009 were positive for underpricing. The empirical findings in the research hypothesis have negative influence of interest rate on underpricing of IPO in Indonesia Stock Exchange.

6. The exchange rate of the Rupiah (Exchange rate $) 2006 to 2010 is negatively insignificant while in 2011 the positives are insignificant. The empirical findings in the hypothesis contained a positive influence of the rupiah exchange rate against the underpricing of IPOs on the Indonesia Stock Exchange.

7. Influence along with company age, firm size, stock capitalization value, volatilization, interest rate, and rupiah exchange rate against underpricing in 2006, 2007, 2008, 2010 were positively insignificant while in 2009 and 2011 significant. The empirical findings are consistent with the hypothesis that there is influence of company age, firm size, stock capitalization values, volatilization, interest rate, and rupiah exchange rate simultaneously to underpricing initial public offering (IPO) in Indonesia Stock Exchange.

8. The 2006 corporate age was negatively insignificant while 2007 to 2011 was positively significant in accordance with the empirical finding of the research hypothesis that there was a positive influence of firm age on long-term underperformance in Indonesia Stock Exchange.

9. The size of firm positive is not significant to long-term underperformance in accordance with empirical findings hypothesis research there is a positive effect of firm size of long-term underperformance in Indonesia Stock Exchange in Bursa Efek Indonesia.

10. significant positive capitalization in 2006, 2007, 2008, 2010, 2011 except in 2009 have negative effect is not significant in accordance with the empirical findings hypothesis research there is a positive effect of stock capitalization value against long-term underperformance in Indonesia Stock Exchange.

11. Volatility significantly negatively influenced in 2006, 2007, 2008 and 2009 have a significant non-significant positive effect in 2010 and 2011 have no significant negative effect in accordance with the empirical findings hypothesis research there is a positive effect of volatilization to long-term underperformance in Indonesia Stock Exchange.

12. Interest rates in 2006 and 2010 were significantly negative, 2007, 2008 and 2011 negatively insignificant, in 2009 positive not significant in accordance with the empirical findings of the research hypothesis there is a negative effect of interest rate on long-term underperformance in Indonesia Stock Exchange.

13. The exchange rate of Rupiah (Exchange Rate $) in 2006 to 2009 has a significant negative effect, in 2010 the negative effect is not significant and in 2011 have a significant positive effect in accordance with empirical findings research hypothesis there is a negative effect of rupiah exchange rate against long-term underperformance in Stock Exchange Indonesia.

14. Underpricing in 2006, 2007, 2008, 2010 has significant negative effect, 2009 and 2011 have no significant positive effect in accordance with the empirical findings of the research hypothesis there is influence of underpricing to long-term underperformance in Indonesia Stock Exchange.

15. Influence together is significant in accordance with the empirical findings of the research hypothesis there is influence of company age, firm size, stock capitalization value, volatilization, interest rate, rupiah exchange rate and underpricing jointly against long-term underperformance in Indonesia Stock Exchange.

Managerial Implications

Theoretical Implications

Based on empirical research findings, underpricing phenomena that occur to Indonesia can be explained by the age of the company, the value of capitalization, volatility, and the dollar exchange rate. While for long term underperformance after IPO is explained by variable age of company, value of capitalization, volatility, interest rate and exchange rate. The results of this study strengthen the theory of asymmetric information (Asssimetric Information Theory) will occur underpricing phenomenon is also supported by agency theory (Agency Theory) and Signal theory (Signalling Theory), it also reinforces the theory of efficient market hypothesis that explains that an efficient market is a market where the price of all traded securities reflects all available information. Where investors should seek information about a personnel or corporate approach to seek information that is not contained in the analysis of financial statements fundamentally.

Suggestion

1. Based on the results of research IPO success is much greater by underwriter, it is recommended that underwriters in determining stock prices prime can pay more attention to information that is non-accounting so that all parties concerned with the IPO process can have enough information so that is not based only on data is fundamental so I suggest that not all cheap stocks or underpricing are good for the long term.

2. For independent audits or public accounting firms that will issue an opinion for a company for the phases of the IPO process should be able to present transparently in accordance with a predetermined code of public accountants.

References

1. Aggarwal, Reena and Pietra Rivoli, 1990, "Fads in The Itial Public Offering Market?", *Financial Management 19 (1990)*, 45-57.

     R. Leal and L. Hernandez, 1993, " The Aftermarket Performance of *Initial Public Offering* in Latin America " *Financial management 22 (1993)*, 42-53.

2. Allen, F. and Faulhaber, G.R., 1989, "Signaling by *Underpricing* in the IPO Market ", *Journal Of Financial Economics* 23 (1989), 303-323.

3. Ariefianto, Moch. Doddy. 2012, Economics of Essence and Applications by Using eViews, Jakarta, PT. Gelora Aksara Pratama

4. Arifin, Zaenal. 2005. "Financial Theory and Capital Market". Yogyakarta, UII.

5. Arikunto. 2002. Research Methodology A Proposal Approach, Jakarta, PT. Rineka Cipta.

6. Anderson, S,C, Beard,T.L., & Born.J.A. (1995), *Initial Public Offerings .Finding and Theories* , Boston: Kluwer Academic.

7. Beatty, R.P. and J.R. Ritter, 1986, "Investment Banking, Reputation, and *Underpricing* of Initial Public offering" . *Journal of Financial economics 15 (January/Pebruary 1986)*,213-32

8. Brigham, Eugene F, Michael C.Ehrhardt, 2005, *Financial Management, Theory and Practice*, International Edition, 11th Edition, SOUIH-WESTERN CENCAGE Learning

9. Baron,D.P.and Hamstrong (1980)."The Investment Banking Contract for New Issues Under Asymmetric Information:Delegation and The Incentive Problem," *Journal of Finance* ,35(5),1115-1138.

34. Hwang C.Y. and N Jayaraman "Long-term Performance of IPOs and Non IPOs: Japanese Evidence" Working Paper, J.M. Katz Graduate School Of Business, University of Pittsburgh (1992).

35. Isnurhadi et. al "The Analysis of Short-Run and Long-Run Performance of Privatization Initial Public Offering in Malaysia" Working Paper, Sriwijaya University (2008)

————, J. Sindelar and J. Ritter " Initial Public Offerings." *Journal of applied Corporate Finance (1993).*

36. Jog, V.M. and A. L. Riding *"Underpricing* in Canadian IPOs" *Financial Analysis Journal (1987, 48-55*

37. Keloharju,M. "Winner's curse, legal liability, and the long term-run performance of *Initial Public Offering* in Finland." *Journal of Financial economics 34 (1993),251-277.*

38. Li.M., Zheng, S.X.,&Melancon, M.V.(2005)," *Underpricing,* Share Retention, and the IPO Aftermarket Liquidity, *International Journal of Managerial Finance,* Vol.l,No.2, pp.76-94.

39. Levis, M. "The Long-run Performance of Initial Public Offerings: The UK Experience 1980-88." *Financial Management 22 (1993), 28-41.*

40. Loughran, T and J. R Ritter " The Timing and Subsequent Performance of IPOs: Implications for the cost of equity capital." Unpublished University of Illionis working paper(1993).

————————and—————"The New Issues Puzzle. " *The Journal of finance 50 (1995),23-51.*

41. Loughran, T ., Ritter, J. R and Rydqvyst , K " Initial Public Offerings: International Insights", *Pasific-Basin Finance Journal 2 (updated 2010), 165-199.*

42. Lowry, M., Officer, M. S and Schwert, G.W. " The Variability of IPO Initial Returns: International Insights", *Pasific-Basin Finance Journal 2 (updated 2010), 165-199.*

43. Lucas, D and R. McDonald " Equity Issues and Stock Price Dynamics " *Journal of Finance 38 (1990),1019-1043.*

44. Makhija, A., Bhandari, A., Grammatikos, T., and Papaioannou, G " Risk And Return on Newly Listed Stocks " *Journal of Financial Research 12 (1989), 90-102.*

45. McDonald, J and A K Fisher " New Issue Stock Price Behavior" *Journal of Finance 27 (March 1972), 97-102.*

46. Miller, R and F Reily. " An Examination of Mispricing, returns, and *Uncertainty* for Initial Public Offerings." *Financial Management 16 (1987). 33-38.*

47. Manurung, Adler Haymans *(20\3),Initial Public Offering (IPO) Konsep, Teori, dan Proses ,* Jakarta: PT Adler Manurung Press.

48. Muscarella, Crish J and Michael Vetsuypens " A Simple test Baron's Model of IPO *Underpricing*" *Journal of Financial Economics 24 (1989), 125-135.*

————————and—————" The *Underpricing* of Second Initial Public Offerings " *Journal of financial Research 12 (1989), 183-192.*

49. Pada Kumar, Venkata Vijay, (2010)," A Study of *Underpricing* of Initial Public Offers (IPO) And Impact on Performance of IPO Stocks in Indian Financial Markets, *Social Science Research Network.*

50. Pham, P.,Kalev, V & Steen, A. (2003). "*Underpricing,* Stock Allocation, Ownership Structure and Post Listing Liquidity of Newly Listed Firms," *Journal of Banking and Finance,Vol.27,* No.5,pp.919 - 924 .

51. Ramirez, M.A.A, Cabestre,Fco,JR,&Aquilue,R.S.(2006), "Does *Initial Public Offering* Have Influence on Liquidity and Trading Activity." *Finance and Accounting,* pp.84-98.

52. Rodoni, Ahmad dan Herni Ali, 2010 , Modern Financial Management, Issue One, Mitra Wacana Media.

53. Ross, Stephen.A, "The Arbitrage Theory of Capital Asset *Tricing,"Journal of Economic Theory,* December 1976.

54. Ritter, Jay R, and Ivo Welch, 2002," A Review of IPO Activity, Pricing, and Allocations," *Journal of Finance* 57, 1795-1828.

55. Ritter, Jay.,(2012), "Economies of scope and IPO activity in Europe, "*http://papers.ssrn.com / sol3/papers.cftn/abstract.id=2169966*

56. Ritter, Jay R " The Long-run Performance of Initial Public Offerings," *Journal of finane 46* (March 1991),3-27.

57. Reilly, F.K. Brown, K.C, edisi terbaru, *Investment Analysis and Portfolio Management*, 5thedition, The Dry den Press, Chicago.

58. Ross, Stephen A, Randolph W.Westerfield, Jeffrey F. Jaffe,(2005), *Corporate Finance*, Seventh Edition, McGraw - Hill International Edition.

59. Rock, K. "Why New Issues are Underpriced", *Journal of Financial Economics 15 (January/ February 1986). 187-212.*

60. RUUD, J " *Underwriter* Price Support and the IPO *Underpricing* Puzzle." *Journal of Financial economics 34 (1993), 135-151.*

61. Saunders, Anthony. *The Underpricing of Initial Public Offerings (IPOs) in Singapore; Public Policy Issues and Possible solutions.* Singapore : Institute of Southeast Asian Studies (1989)

62. Shocrul R. Ajija, Dyah W. Sari, Rahmat H. Setianto, and Martha R. Primanti. 2011. Smart way to master EViews. Publisher Salemba Empat.

_____and Joseph Lim. " *Underpricing* and the New Isuue Proses in Singapore," *Journal of Banking and Finance 14 (Agustus 1990), 291-309.*

63. Stern, R.L. and P Bornstein." Why New Issues are Lousy Investments." *Forbes 136 (December 2, 1985) 152-90.*

64. Sum, Law Swee. " *Underpricing* of IPOs in Singapore" *Asian Pasific Journal of Management 8 (October 1991) 175-184.*

65. Taggart, R., edisi terbaru, *Quantitative Analysis for Invesment Management,* Prentice Hall.

66. Tinic, Seha M " Anatomy of Initial Public Offerings of Common Stock.: *Journal of finance 43 (September 1988) 789-822.*

67. Titman, S. and. B Trueman " Information Quality and the Valuation of new issues" *Journal of Accounting and economics 8 (19 6); 159-172*

68. Van-Horne, J., edisi terbaru, *Financial Market Rates and Flows,* Prentice Hall

69. Welch, Ivo " Seasoned Offerings, Immitation Cost and the *Underpricing* of Initial Public Offerings" *Journal of Finance 44 (June 1989), 421-449.*

_____, N. Jegadeesh, and M Weinstein " An Empirical Investigation of IPO Returns and subsequent Equity Offerings " *Journal of Financial Economics 34 (1993).153-175.*

70. Wessels, R.E "The Market for Initial Public Offering; An Analysis of the Amsterdam Stock Exchange." *In A Reappraisal of the efficiency of financial markets, R Guimaraes, et al (eds),* Berlin, Springer- Verlag (1989).

71. Wing Wahyu Winarno. 2009. *Analytical Econometrics and Statistics with EViews, Second Edition.* UPP College of Management Sciences YKPN.

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UNDERPRICING DETERMINANTS AND

by

EVIEWS ANALYSIS : UNDERPRICING DETERMINANTS AND IMPLICATIONS ON LONG-TERM UNDERPERFORMANCE SHARES IPO ON INDONESIA STOCK EXCHANGE (BEI)

HAMILAH, MAKMURI AND GUSMIARNI

Abstract: This study aims to analyze factors that influence companies doing Underpricing at the moment, companies conduct IPOs in the stock market and its implications on Long-Term Underperformance in proxy with JCI on IPO shares in IDX. Analysis of phenomena. By using sample data onto IPO implementation for years 2006 until IPO 2011 with period of 5 year for every implementation of IPO, method done by using Sampling Purposive Method.

The first analysis based on the data onto companies conducting initial public offering (IPO) in BEI during the period 2006 to 2011, underpricing average by 83 percent. The average initial return to companies underpricing during the IPO during the period 2006 to 2011 average initial return to 31 percent, and the highest in 2007 with Initial Return of 40 percent and the lowest occurred in 2011 by 20 percent.

The second analysis shows that the average of the age variable of company, the value of cavitation, the volatility effect on the level of underpricing in the company conducting Initial Public Offering (IPO). While the Company Size Variable, Interest Rate and Rupiah Exchange Rate are not significant.

For the third analysis, the long-term performance of IHSG after firm IPO is significantly influenced by the Company's Age variables, Capitalization Value, Volatility, Interest Rate, and Rupiah Exchange Rate, while the variables in Company Size influence is not significant. This study reinforces the asymmetric information theory of underpricing phenomena, due to information asymmetry between underwriters and firms. Differences in information are supported by agency theory and signal theory, whereby information published as an announcement will provide a signal to investors in making investment decisions.

Introduction

The implementation of IPO in Indonesia has only started since the 1980s. Until the end of 1990 there were 74 companies listed in stock exchange. In the year 1991 up to the beginning of 2011 there has been a very rapid growth of the implementation of Initial Public Offering (IPO) in the capital market, which became 473 companies with a capitalization of Rp.2.860,82 trillion. However, the privatization process of state-owned enterprises is still very small. Of 141 state-owned enterprises consisting of 18 new sectors there are 18 companies that has done IPO in the period 1991-2011, which started with the company Semen Gresik and the last company Garuda Indonesia.

The process of Initial Public Offering (IPO), Go Public or often referred to as the initial public offering is a stock offering activity conducted by the company to the public (public). By offering shares to the public, the company will be listed on the stock to become a public / open company.

In the process of selling the first stock of a company to a general investor is called an IPO. According to Law no.8 of 1995 concerning capital market, public offering is a security offering activity undertaken by issuers to sell securities to the public based of the procedures set forth in the capital market law and its implementation regulations. Companies that conduct public offering of shares, their shares must be able to transacted on the stock so that investors can resell or buy if they can not during the IPO. The issued shares have a price known as an initial public offering (IPO) is an important factor of both the issuer and the underwriter as it relates to the amount of funds to be earned by the issuer and the risk that the underwriter will bear. The amount of funds received by the issuer is a correlation between the number of shares offered at the price per share, so the higher the price per share then the funds received will be greater.

Initial Public Offering (IPO) Initial Public Offering (IPO) Initial Public Offering (IPO) Initial Public Offering (IPO) is lower than the stock market price in the secondary market on the first day, there will be a low-price phenomenon in the initial offer, called Underpricing. On the other hand, if the current price of Initial Public Offering (IPO) arew higher than the stock price on the secondary market on the first day, then this phenomenon is called Overpricing (Hanafi, 2004). Research conducted by Aggrawal *et al*, (1993) concluded that underpricing phenomenon occurs to the time of Initial Public Offering (IPO). Another phenomenon is the long-term negative return and the existence of cycles in terms of underpricing and volume of companies conducting Initial Public Offering (IPO), known as the three anomaly Initial Public Offering (IPO). Underpricing has become a common phenomenon in the initial public offering in various capital markets around the world (Lounghran *et al.*, 1994), Underpricing is, after all, an indirect cost of an Initial Public Offering (IPO).

According to Beatty (1989), underpricing conditions has different effects of companies and investors. Companies will not benefit if there is underpricing, because the funds obtained from go public are not maximum. In the event of Overpricing, investors will lose money because they do not receive the initial return to the shareholder's profit because of the difference in stock prices purchased in the initial market at the IPO with the selling price in question on the first day on the secondary market. The phenomenon of underpricing and overpricing occurs to the capital markets of various countries. Among the United States, Britain, Australia, South Africa, China, Malaysia and Indonesia. Underpricing is one of the most common phenomena in the implementation of Initial Public Offering (IPO). The second anomaly are Long Term Underperformance, which is where in the long run, the performance of IPO shares has poor performance. This condition causes Cummulative Abnormal Return (CAR) of IPO shares to form up and down pattern. This shows that the price that occurs to the beginning of the secondary market is not the stock price in accordance with the value of the company (fair price). In the long run,

positive initial returns due to underpricing are eliminated because of long-term losses (Sembel, 1996).

In Indonesia underpricing phenomenon has also been done as shown in table 1 below.

Table 1
Underpricing phenomenon in Indonesia

Researchers	Sample	Time	Underpricing (%)
Yolana and Martani	131	1994-2001	38,0
Triani and Nikmah	90	1994-2000	5,0
Emilia, Sulaiman, Sembel	92	1999-2005	59,4
Isnurhadi, Sjaruddin	96	1993-1997	12,1
Yasa, Gerianta W	300	1990-2001	21,3
Handayani	28	2000-2006	34,9
Sulistio, Helen	44	1998-2003	82,0
Wijayanto, Andy	67	2000-2006	28,3
Paramitha (2013)	98	2008-2012	87,00
Widayani and Yasa (2013)	169	2000-2011	43,90
Risqi and Harto (2013).	71	2007-2011	37,15
Gumanti, dkk (2015)	150	2007-2012	25,30
Saputra and Suaryana (2016)	57	2010-2013	35,28

Literature Review

The existing underpricing theories so far none has dared to explicitly declare better in explaining underpricing phenomena. Most of the existing theories set out from the existence of information inequality (information asymmetric) in the vicinity of Initial Public Offering (IPO).

Beatty (1989) explains that underpricing or positive initial return in the primary market is due to the existence of information asymmetry (ex-ante Uncertainty) that is price uncertainty in the future. Information asymmetry can occur if the investor does not have accurate information on information owned by the investor.

The study of the phenomenon of underpricing in the IPO was first performed by the US Securities and Exchange Commission (SEC) in 1963. More than 10 years later, Ibbotson and Jaffe (1975) conducted the same study in the United States and obtained results that the initial average return obtained by investors when buying shares through IPO mechanism is 16.83%.

The occurrence of under-pricing phenomena in stock trading the first day after the IPO on the Indonesian stock exchange in the period 1989-1994 was allegedly caused by: (i) government interference in stock exchanges, (ii) the state of the Indonesian capital market experienced a boom in 1989 and 1990 with the number of issuers as many as 67 companies that conduct initial publication. This is considered consistent with the phenomena occurring in neighboring countries where under-pricing phenomena in the 1990s were lower than those of the late 1980s.

Several factors are expected to affect underpricing and long-term under-employment ie Company Age, Company Size, Capitalization Value, Volatility, Interest Rate and Exchange Rate in Exchange Rate ($).

The longer operating age of the company makes it possible to provide a wider and more public information publication than the newly established company. The longer the life of the company, the more information the community can acquire (Nurhidayati and Indriantoro, 1998) thereby reducing information asymmetry and minimizing uncertainty of the future. Rosyati and Sabeni (2002) said that the company's age had a negative and significant effect on underpricing while Ghozali and Mansur (2002) did not show significant influence. Similar research in Indonesia, among others, conducted by Trisnawati (1998) who conducted research on the Jakarta Stock Exchange by taking data onto 1994 to 1995 successfully proves that the age of the company has a positive and significant effect on initial return.

Company size can also be used as a measure of uncertainty, because large-scale firms are generally better known so that the information is certainly more than small firms, if there is much information known to the public then the level of uncertainty can be reduced so that the investment decision is right. It is estimated that large-scale companies have lower levels of underpricing than small-scale enterprises. This is in accordance with the research of Kim et. al. (1993) showing the influence of negative and significant firm size of underpricing, which means the larger the size to the company the smaller the level of underpricingnya the smaller the smaller the size of the company the greater the level of underpricing. Companies with larger sizes tend to contain fewer Uncertainties, such companies will experience a lower initial return. The greater the Uncertainty of the company, the greater the average initial return, large-scale companies tends not to be affected by market conditions but rather affect the market conditions (Retnowati, 2013).

Volatility is the amount of distance between the fluctuation of the stock price or the price of the stock or foreign currency. High volatility means the price rises rapidly and then suddenly drops in rapidly resulting in a huge difference between the lowest and the highest prices in time, the small volatility also changeable bias there is clock hours where volatility slows volatility bias is aimed at the number of certain pins or absolute numbers. Volatility means the conditional variance between an asset. Volatility analysis is useful in portfolio formation, risk management and price formation, volatility is also used in predicting risk, volatility prediction has an important influence in investment decision making, Volatility modeling is Autoregressive Conditional Heteroskedatisitas (ARCH) permitted by Engle (1982) and used in measuring the financial risks and behavior of the mining sector, where the result is that the volatility of mining stock returns has a reliance on time. And ARCH can be detected if the large number of samples and Generalized Autoregressive Conditional Heteroskedasticity (GARCH) developed by Bollerslev in 1986 became the method commonly used in financial analysis including stock return and volatility.

The capitalization of shares or other terms of market capitalization is a business term that points to the overall price of a company's stock that is a price to pay for all shares of the company. The magnitude and growth of a company's market capitalization is often an important measure of the success or failure of an open

company. Capitalization is sometimes used as a synonym for market capitalization and can also be market capitalization and long-term debt. The stock market is a market for general trading and related financial instruments (including stock options, trading and stock index estimates). According to (Robert, 1997) in Boeli (2008) states the market price multiplied by the number of shares in circulation will be in the market value or so-called Market Capitalization.

The interest rate (BI Rate) based on the explanation given by Bank Indonesia (www.bi.go.id), the BI rate is the policy rate reflecting the stance or stance of monetary policy stipulated by Bank Indonesia and announced to the public, BI rate is announced by the Board of Governors of Bank Indonesia, and implemented in monetary operations conducted by Bank Indonesia through the management of Liquidity in the money market to achieve the operational targets of monetary policy. The operational objectives of monetary policy are reflected on the development of interbank money market interest rates. While inflation according to Samuelson (2001) that inflation as a condition where there is an increase in general prices, good goods, services and factors of production. This definition indicates the weakening of purchasing power followed by the declining real value of a country's currency.

The exchange rate is the price of a currency of a state that is measured or stated in another currency. Exchange rate plays an important role in spending decisions, because exchange rate allows us to translate prices from different countries into the same language. If all other conditions remain, the depreciation of a country's currency against all other currencies (the increase in foreign exchange prices for the country concerned) causes its exports to be cheaper and its imports more expensive. While appreciation (decline in foreign exchange prices in the country concerned) makes its exports more expensive and imports cheaper.

Exchange rate is very important to the foreign exchange market (foreign exchange market). Although foreign exchange trading takes place in various financial centers spread across the globe, modern telecom technology has linked them into a single market chain that operates 24 hours daily. One important category of foreign exchange trading is forward trading, in which some parties agree to exchange currency in the future of the basis of the exchange rate they have agreed upon. Whereas other categories, ie spot trading (spot trading) directly execute the exchange (this is usually for urgent or practical purposes).

Since the exchange rate is the relative price of the two sets, then the exchange rate is considered to be the asset price itself. the basic principle of asset pricing is that the current asset value is determined by its estimated future purchasing power. In evaluating assets, investors always display the asset's estimated value of return, or the rate of increase in the value of investments embedded in the asset at later times. The returns to deposits traded with the foreign exchange market are determined by interest rate and estimated exchange rate changes.

Follow by the Journal of Indonesian Applied Economics vol 2 no.2 october 2011. Written by Imam Mukhlis, the development of the current liberalism and globalization of the world has caused its own concerns for each State. To address the dynamics that occurs every State formulates a framework of multi sector

cooperation. On the other hand, it can also be explained that the existing liberalism and globalization brings consequences of the economic fundamentals of each country. The country's lack of prosperity in maintaining the fundamentals of this economy can have an impact on macroeconomic stability. One of the macroeconomic indicators that are tentative to external economic turmoil is the exchange rate of currency (currency exchange rate). In this case the exchange rate reflects the strength of the economy as a result of the penetration and effects of the global economy. The more stable the exchange rate of a country's currency against the currencies of other countries, the more it shows the fundamental strength of the country's economy. In other words, the government (monetary authority) is able to conduct monetary policy and from the exchange rate of currency that can encourage economic competitiveness of a country. The rise of the currency exchange rate in the money market (appreciation and depreciation) shows the magnitude of the volatility that occurs to the currency of a State with the currency of another Country (Chou, 2000). Increasing volatility shows an increasing movement towards exchange rate (appreciation / Depreciation of currency). This gives an overvalued overview and undervalued exchange rate against other currencies of the State. When the exchange

rate is experiencing extreme volatility, then the economy will experience instability both from the macro and micro.

Development of the following framework based on theoretical overview of some previous research, the research paradigm can be described as follows:

Picture 1: Framework

Research Hypothesis

Hypothesis (H_1)	:	The Effect of the Company's Age on Underpricing of IPO Shares
Hypothesis (H_2)	:	The Influence of Company Size on Underpricing Shares IPO
Hypothesis (H_3)	:	There is a positive effect of Capitalization Value on IPO Stock Underpricing
Hypothesis (H_4)	:	The Effect of Volatility on IPO Stock Underpricing
Hypothesis (H_5)	:	There is an effect of Interest Rate on IPO Stock Underpricing
Hypothesis (H_6)	:	The effect of the Rupiah Exchange Rate on Underpricing of IPO Shares
Hypothesis (H_7)	:	Influence of company age, company size, capitalization value, volatility, interest rate and exchange rate of Rupiah to underpricing IPO shares
Hypothesis (H_8)	:	The Effect of the Company's Age on Long-Term Underperformance
Hypothesis (H_9)	:	Effect of Company Size on Long-Term Underperformance
Hypothesis (H_{10})	:	The Effect of Stock Capitalization Value on Long-Term Underperformance.
Hypothesis (H_{11})	:	Effect of Volatility on Long-Term Underperformance
Hypothesis (H_{12})	:	Effect of Interest Rate on Long-Term Underperformance
Hypothesis (H_{13})	:	Effect of Rupiah Exchange Rate on Long-Term Underperformance
Hypothesis (H_{14})	:	The Influence of Underpricing of IPO Shares to Long-Term Underperformance
Hypothesis (H_{15})	:	Influence of company age, company size, capitalization value, volatility, interest rate and exchange rate of Rupiah to underpricing IPO shares and its application to Long-Term Underperformance.

Research Methods

In this dissertation is used a combination of descriptive and inferential methods using historical data onto a long period of time. Selection of a long period of time is expected to provide a more accurate picture of the phenomenon of underpricing and long-term underperformance in the stock market of Indonesia.

Population of this research is Company which does go public since 2006 until 2011 at Indonesia stock exchange (BEI).

Sample in detail is the Company of companies that have been doing IPO since 2006 until the end of 2011 and up to now still listed in the Indonesian stock foam (BEI). Companies that are still listed on the Stock Exchange but not available past data are not included in the unit research.

The data and information used is from Boomberg & Real Time Information (RTI) information service providers, Indonesia Stock Exchange (BEI) website, OJK

website, website of publicly listed companies, Bank Indonesia website (BI), Ministry of Finance website, TICMI website (The Indonesia Capital Market Institute).

Research Result

Data analysis of the company conducting initial public offering in 2011.

Description of Statistics

Table 1
Data Description: Initial Public Offering of 2011

	AGE	HSHM	IHSG	KAPT
Mean	14.23077	793.8077	4494.673	5372.014
Maximum	26.0	3750.000	5491.340	12642.93
Minimum	3.0	50.00000	3679.829	2198.465
Std. Dev.	7.017321	855.2656	514.1398	1832.762
Observations	65	65	65	65

Source: Data is processed using eviews 9.0

Table 1 shows that the data of 13 firms over the period 2011 to 2015

a) Of the 65 Company Age data (AGE), a minimum of 3 years and a maximum value of 26 years. With an average of 14.23077 years and a standard deviation from 7.017321 years.

b) Of 65 data Share prices (HSHM), minimum value of Rp 50.00 and maximum value of Rp 3750,00. With an average of Rp 793.8077 and a standard deviation from Rp 855.2656.

c) Of the 65 Composite Stock Price Index (IHSG), the minimum value of 3679,829 and the maximum value of 5491.340. With an average of 4494,673 and a standard deviation from 514. 1398.

d) Of the 65-capitalization data (KAPT), the minimum value of 2198,465 billion Rp and the maximum value of 12642.93 billion Rp. With an average of 5372.014 billion Rp and a standard deviation from 1832.762 billion Rp.

Table 1 (continued)
Data Description: Initial Public Offering of 2011

	KURS	RATE	SIZE	VOLA
Mean	10492.85	0.063423	13.03349	5.293417
Maximum	12500.00	0.075000	26.01083	13.85237
Minimum	8523.000	0.006000	5.626433	2.128004
Std. Dev.	1354.623	0.018270	4.512825	2.076263
Observations	65	65	65	65

Source: Data is processed using eviews 9.0

Table 1 (continued) shows that the data of 17 companies over the period 2011 to 2015

a) Of the 65 Exchange Rate data (KURS), a minimum value of Rp 8523.00 and a maximum value of Rp 12500.00. With an average of Rp 10492.85 and a standard deviation from Rp 1354.623.

b) Of the 65 Interest Rate (RATE) data, the minimum value is 0.0060 and the maximum value are 0.0750. With an average of 0.059618 and a standard deviation from 0.063423.

c) Of the 65 Company Size (SIZE) data, a minimum value of 5.626433 and a maximum value of 26,01083. With an average of 13.03349 and a standard deviation from 4.512825.

d) Of the 65 Volatilization data (VOLA), a minimum value of 2.128004 billion Rp and a maximum value of 13.85237 billion Rp. With an average of 5.293417 billion Rp and standard deviation of 2.076263 billion Rp.

Model Accuracy Test

a. Common Effect vs Fixed Effect

The chow-test test is used to determine which model will be selected in the panel data regression model estimation, whether the common effect or fixed effect model. This test is done by using statistical test of F or chi-square with hypothesis as follows:

Ho: Common effect model is better than fixed effect

Hi: Fixed effect model is better than common effect

If the value of F arithmetic (F-test) and chi-square test is smaller than a = 0.05 (5%), then Ho is rejected and Hi is accepted. This shows that the effect model remains better than the common effect model in estimating panel data regression. Conversely, if Ho is accepted and H! rejected, which means that the common effect models is better than the fixed effect model in estimating panel data regression.

b. Fixed Effect vs Random Effect

The choice of which model is used between the fixed effect model or the random effect model, the Hausman test is performed. (Hausman test). The hypothesis in the Hausman test is as follows:

Ho : Random effect model is better than fixed effect

Hi : The fixed effect model is better than random *effect*

If the probability value (Prob) Chi-Square Hausman Test is smaller than a = 0.05 (5%), then Ho is rejected and Hi is accepted.

c. Common Effect vs Random Effect

Determination of use of which model is used in panel data regression, whether common effect model or random effect model through Lagrange Multiplier (LM-test) Breusch-Pagan test. The hypothesis in this test is as follows:

Ho : The common effects model is better than the random effect

Hi : The random effect model is better than the common effect

If LM test> chi-squares with Alpha = a = 0.05 and df = 3, then Ho is rejected and Hi is accepted. Based on the calculation of Breusch-Pagan LM test (BP)

chi-squares table with a = 0.05, or the probability value of LM-test Breusch-Pagan 0.0000 is smaller than a = 0.05, it can be concluded that the random effect model is better rather than the common effect model in eliminating the influence of internal and external factors of underpricing and its implications on the long-term underperformance of IPOs in Indonesia. Hypothesis tests results as follows:

Table 2
Hypothesis Test Results Structure-1 Data 2011

Hypothesis	Variable	Influence on HSHM		Decision
		Coefficient	Prob	
H1	AGE	-38,17485	0.2238	p > 0,05 ; TS
H2	ROA	-23,48465	0.0884	p > 0,05 ; TS
H3	KAPT	0,004295	0.8442	p > 0,05 ; TS
H4	VOLA	-14,11421	0.5276	p > 0,05 ; TS
H5	RATE	-146,9806	0.9549	p > 0,05 ; TS
H6	KURS	-0,066122	0.1761	p > 0,05 ; TS
H7	Together	F= 3,985729	0.002088	p < 0,05 ; S
R_Square	0.291944			

Source: Data is processed using eviews 9.0
Information:
S   : significant;
TS : no significant

Model Accuracy Test

a. Common Effect vs Fixed Effect

The chow-test test is used to determine which model will be selected in the panel data regression model estimation, whether the common effect or fixed effect model. This test is done by using statistical test F or chi-square with hypothesis as follows:

Ho : Common effect model is better than fixed effect

Hi : The fixed effect model is better than common *effect*

If the value of F arithmetic (F-test) and chi-square test is smaller than a = 0.05 (5%), then Ho is rejected and Hi is accepted. This shows that the fixed effect model is better than the common effect model in estimating panel data regression. Conversely, if Ho is accepted and Hi is rejected, which means that the common effect model is better than the fixed effect model in estimating panel data regression.

b. Fixed Effect vs Random Effect

The choice of which model is used between the fixed effect model or the random effect model, the Hausman test is performed. (Hausman test). The hypothesis in the Hausman test is as follows:

Ho : Random effect model is better than fixed effect

Hi : The fixed effect model is better than random *effect*

If the probability value (Prob) Chi-Square Hausman Test is smaller than a = 0.05 (5%), then Ho is rejected and Hi is accepted.

To test the hypothesis Structure-2 used regression analysis results based on FEM model. Hypothesis Tests results as follows:

Table 3
Hypothesis Test Results Structure-2 Data 2011

Hypothesis	Variable	Influence of IHSG		Decision
		Coefficient	Prob	
H8	AGE	288,7716	0.0003	p < 0,05; S
H9	SIZE	15,25441	0.2639	p > 0,05; TS
H10	KAPT	0,098487	0.0000	p < 0,05; S
H11	VOLA	-15,67250	0.4749	p > 0,05; TS
H12	RATE	-316,8223	0.9015	p > 0,05; TS
H13	KURS	0,005992	0.9439	p > 0,05; TS
H14	HSHM	0,071141	0.6156	p > 0,05; TS
H15	Bersama-sama	F= 11,92961	0.000000	p < 0,05; S
R_Square	0.834353			

Source: Data is processed using eviews 9.0

Information:

S   : significant

TS   : no significan

Hypothesis Test Results

a) Based on the analysis and hypothesis testing presented in Table 2 and Table 3 for companies conducting initial public offering (IPO) in 2011, firm sizes proxy with Asset obtained results.

(1) **H$_1$:** There is a positive influence of the company's age on underpricing initial public offering (IPO).

H1 hypothesis Not proven shown by the coefficient of -38.17485 and probability significance of 0.2238> 0.05 thus the influence of the company's age on the underpricing of initial public offering (IPO) negative and not significant.

(2) **H$_2$:** There is a positive effect of firm size of underpricing initial public offering (IPO).

H2 hypothesis is not proven shown by coefficient of -23.48465 and probability significance of 0.0884> 0.05 thus the effect of firm size proxy with Asset to underpricing initial public offering (IPO) negative and not significant.

(3) **H$_3$:** There is a positive effect of stock capitalization on underpricing of IPO.

H3 hypothesis is not proven shown by coefficient of 0.004295 and probability significance of 0.8442> 0.05 thus the effect of stock capitalization value on underpricing of initial public offering (IPO) positive and not significant.

(4) **H$_4$:** H3 hypothesis is not proven shown by coefficient of 0.004295 and probability significance of 0.8442> 0.05 thus the effect of stock capitalization value on underpricing of initial public offering (IPO) positive and not significant

H4 hypothesis is not proven shown by coefficient of -14.11421 and probability significance of 0.5276> 0.05 thus the effect of volatilization on underpricing initial public offering (IPO) negative and not significant.

(5) H_5: There is a negative effect of the interest rate on the underpricing of initial public offering (IPO)).

H5 hypothesis not proven shown by coefficient equals to -46,9806 and probability significance equal to 0,9549> 0,05 hence influence of interest rate to underpricing initial public offering (IPO) negative and not significant.

(6) H_6: There is a positive influence of the rupiah exchange rate against underpricing of initial public offering (IPO).

H6 hypothesis is not proven shown by coefficient of -0.066122 and probability significance of 0.1761> 0.05 thus the effect of rupiah exchange rate on underpricing of initial public offering (IPO) negative and not significant.

(7) H_7: There is influence of company age, company size, stock capitalization value, volatilization, interest rate, and rupiah exchange rate together with under pricing of initial public offering (IPO).

The H7 hypothesis proved to be shown by probability significance of 0.002088 <0.05 thus firm age, firm size, stock capitalization values, volatilization, interest rate, and rupiah exchange rate together with under pricing of IPO. If there is an increase in stock then the value of stock price will increase positively by 0,002088.

(8) H_8: There is a positive influence of firm age on long-term underperformance.

H8 hypothesis proved shown by the coefficient of 288.7716 and the probability significance of 0.0003 <0.05 thus the influence of firm age on long-term underperformance positive and significant. If an increase in the age of the company will increase the JCI value of 288.7716.

(9) H_9: There is a positive effect of firm size of long-term underperformance.

H9 hypothesis is not proven shown by coefficient of 15.25441 and probability significance of 02639> 0.05 thus the effect of firm size to long-term underperformance positive and not significant.

(10) H_{10}: There is a positive effect of stock capitalization on long-term underperformance.

H10 hypothesis proved shown by coefficient of 0.098487 and the probability significance of 0.0000 <0.05 thus the effect of stock capitalization values to long-term underperformance positive and significant. Meaning that any increase in capitalization value will increase the JCI of 0.098487.

(11) H_{11}: There is a negative effect of volatilization on long-term underperformance.

H11 hypothesis is not proven shown by coefficient of -15.67250 and probability significance of 0.4749> 0.05 thus the effect of volatilization on long-term underperformance is negative and not significant.

(12) H_{12}: There is a negative effect of interest rate on long-term underperformance.

H12 hypothesis not proven shown by coefficient equal to 87,07803 probability

significance equal to 09015> 0,05 hence influence of interest rate to long-term underperformance positive and not significant.

(13)H¹³: There is a negative influence of the rupiah against long-term underperformance.

H13 hypothesis not proven shown by coefficient of 0,005992 and probability significance equal to 0,9439> 0,05 hence influence of rupiah exchange rate to long-term underperformance positive and not significant.

(14)H₁₄: There is an underpricing effect on long-term underperformance.

H14 hypothesis not proven shown by coefficient of 0.071141 and probability significance of 0.6156> 0.05 thus the influence of underpricing to long-term underperformance positive and not significant.

(15)H₁₅: There is influence of company age, firm size, stock capitalization value, volatility, interest rate, rupiah exchange rate and underpricing together against long-term underperformance.

The hypothesis H15 is shown by the probability significance of 0.0000 <0.05 thus the influence of firm age, firm size, stock capitalization values, volatilization, interest rate, rupiah exchange rate and underpricing jointly against significant long-term underperformance.

Discussion

Based on the data analysis of the company conducting initial public offering in 2006 up to 2011 and testing the hypothesis that has been done, first Regression of Structure-1 to prove the influence of company age, Company size where company size proxy with Ln (Asset) denoted by SIZE, Capitalization of shares (KAPT), Volatilization (VOLA), Interest Rate (RATE) and Rupiah Exchange Rate (KURS) on Underpricing Share Price (HSHM).

Summary of hypothesis testing results

Table 4
Hypothesis Test Results Structure-1

Hypothesis	Variable	Structure-1: Influence on HSHM					
		2006	2007	2008	2009	2010	2011
H1	AGE	Significant					
H2	SIZE						
H3	KAPT	Significant					
H4	VOLA	Significant					
H5	RATE						
H6	KURS					Significant	T
H7	simultaneous	Significant	0.452541	0.699775	Significant	0.539926	Significant
R-Square		0,239348	0.061839	0.057235	0.865513	0.060963	0.291944

Table 5
Structure Hypothesis Test Results-2

Hypothesis	Variable	Structure-2: Influence on IHSG					
		2006	*2007*	*2008*	*2009*	*2010*	*2011*
H8	AGE		Significant	Significant	Significant	Significant	Significant
H9	SIZE						
H10	KAPT	Significant	Significant	Significant		Significant	Significant
H11	VOLA		Significant	Significant			
H12	RATE	Significant				Significant	
H13	KURS	Significant	Significant	Significant	Significant		
H14	HSHM						
H15	simultaneous	Significant	Significant	Significant	Significant	Significant	Significant
R_Square		0.860242	0.838245	0.934422	0.953878	0.987028	0.834353

Conclusions and Recommendations

Conclusion

Based on the empirical findings and in accordance with the formulation of the problem, the conclusions of this study are as follows:

1. The Company's age had a negative and significant effect on 2006 on Underpricing, while in 2007 until 2011 it was not significant. The empirical findings in the research hypothesis stating that the age of the company has a positive effect on underpricing on initial public offering (IPO) in Indonesia Stock Exchange.

2. The size of the firm is not significant against underpricing in companies that conduct an IPO. The empirical findings in the research hypothesis stating that firm size have a positive effect on underpricing on initial public offering (IPO) in Indonesia Stock Exchange.

3. The value of capitalization significantly affected the underpricing in 2006, 2010 and 2011 while not significant in 2007 until 2009. While the empirical findings in the research hypothesis which states there is a positive effect of stock capitalization value on underpricing IPOs in Indonesia Stock Exchange.

4. Volatility had a significant negative effect of 2006 while 2007 to 2011 was not significant. Empirical findings in the hypothesis of the study there is a positive effect of volatilization on underpricing initial public offering (IPO) in Indonesia Stock Exchange.

5. Non-significant interest rates in 2007, 2008, 2010 and 2011 were negative while 2006 and 2009 were positive for underpricing. The empirical findings in the research hypothesis have negative influence of interest rate on underpricing of IPO in Indonesia Stock Exchange.

6. The exchange rate of the Rupiah (Exchange rate $) 2006 to 2010 is negatively insignificant while in 2011 the positives are insignificant. The empirical findings in the hypothesis contained a positive influence of the rupiah exchange rate against the underpricing of IPOs on the Indonesia Stock Exchange.

7. Influence along with company age, firm size, stock capitalization value, volatilization, interest rate, and rupiah exchange rate against underpricing in 2006, 2007, 2008, 2010 were positively insignificant while in 2009 and 2011 significant. The empirical findings are consistent with the hypothesis that there is influence of company age, firm size, stock capitalization values, volatilization, interest rate, and rupiah exchange rate simultaneously to underpricing initial public offering (IPO) in Indonesia Stock Exchange.

8. The 2006 corporate age was negatively insignificant while 2007 to 2011 was positively significant in accordance with the empirical finding of the research hypothesis that there was a positive influence of firm age on long-term underperformance in Indonesia Stock Exchange.

9. The size of firm positive is not significant to long-term underperformance in accordance with empirical findings hypothesis research there is a positive effect of firm size of long-term underperformance in Indonesia Stock Exchange in Bursa Efek Indonesia.

10. significant positive capitalization in 2006, 2007, 2008, 2010, 2011 except in 2009 have negative effect is not significant in accordance with the empirical findings hypothesis research there is a positive effect of stock capitalization value against long-term underperformance in Indonesia Stock Exchange.

11. Volatility significantly negatively influenced in 2006, 2007, 2008 and 2009 have a significant non-significant positive effect in 2010 and 2011 have no significant negative effect in accordance with the empirical findings hypothesis research there is a positive effect of volatilization to long-term underperformance in Indonesia Stock Exchange.

12. Interest rates in 2006 and 2010 were significantly negative, 2007, 2008 and 2011 negatively insignificant, in 2009 positive not significant in accordance with the empirical findings of the research hypothesis there is a negative effect of interest rate on long-term underperformance in Indonesia Stock Exchange.

13. The exchange rate of Rupiah (Exchange Rate $) in 2006 to 2009 has a significant negative effect, in 2010 the negative effect is not significant and in 2011 have a significant positive effect in accordance with empirical findings research hypothesis there is a negative effect of rupiah exchange rate against long-term underperformance in Stock Exchange Indonesia.

14. Underpricing in 2006, 2007, 2008, 2010 has significant negative effect, 2009 and 2011 have no significant positive effect in accordance with the empirical findings of the research hypothesis there is influence of underpricing to long-term underperformance in Indonesia Stock Exchange.

15. Influence together is significant in accordance with the empirical findings of the research hypothesis there is influence of company age, firm size, stock capitalization value, volatilization, interest rate, rupiah exchange rate and underpricing jointly against long-term underperformance in Indonesia Stock Exchange.

Managerial Implications

Theoretical Implications

Based on empirical research findings, underpricing phenomena that occur to Indonesia can be explained by the age of the company, the value of capitalization, volatility, and the dollar exchange rate. While for long term underperformance after IPO is explained by variable age of company, value of capitalization, volatility, interest rate and exchange rate. The results of this study strengthen the theory of asymmetric information (Asssimetric Information Theory) will occur underpricing phenomenon is also supported by agency theory (Agency Theory) and Signal theory (Signalling Theory), it also reinforces the theory of efficient market hypothesis that explains that an efficient market is a market where the price of all traded securities reflects all available information. Where investors should seek information about a personnel or corporate approach to seek information that is not contained in the analysis of financial statements fundamentally.

Suggestion

1. Based on the results of research IPO success is much greater by underwriter, it is recommended that underwriters in determining stock prices prime can pay more attention to information that is non-accounting so that all parties concerned with the IPO process can have enough information so that is not based only on data is fundamental so I suggest that not all cheap stocks or underpricing are good for the long term.

2. For independent audits or public accounting firms that will issue an opinion for a company for the phases of the IPO process should be able to present transparently in accordance with a predetermined code of public accountants.

References

1. Aggarwal, Reena and Pietra Rivoli, 1990, "Fads in The Itial Public Offering Market?", *Financial Management 19 (1990), 45-57.*

    ——R. Leal and L. Hernandez, 1993, " The Aftermarket Performance of *Initial Public Offering* in Latin America " *Financial management 22 (1993), 42-53.*

2. Allen, F. and Faulhaber, G.R., 1989, "Signaling by *Underpricing* in the IPO Market ", *Journal Of Financial Economics* 23 (1989), 303-323.

3. Ariefianto, Moch. Doddy. 2012, Economics of Essence and Applications by Using eViews, Jakarta, PT. Gelora Aksara Pratama

4. Arifin, Zaenal. 2005. "Financial Theory and Capital Market". Yogyakarta, UII.

5. Arikunto. 2002. Research Methodology A Proposal Approach, Jakarta, PT. Rineka Cipta.

6. Anderson, S,C, Beard,T.L., & BornJ.A. (1995), *Initial Public Offerings .Finding and Theories* , Boston: Kluwer Academic.

7. Beatty, R.P. and J.R. Ritter, 1986, "Investment Banking, Reputation, and *Underpricing* of Initial Public offering" . *Journal of Financial economics 15 (January/Pebruary 1986),213-32*

8. Brigham, Eugene F, Michael C.Ehrhardt, 2005, *Financial Management, Theory and Practice,* International Edition, 11th Edition, SOUIH-WESTERN CENCAGE Learning

9. Baron,D.P.and Hamstrong (1980)."The Investment Banking Contract for New Issues Under Asymmetric Information:Delegation and The Incentive Problem," *Journal of Finance* ,35(5),1115-1138.

10. Brigham, Eugene F., and Houston, Joel,1996, *Fundamentals of Financial Management,* Seventh Edition, USA: Dryden Value Press.

11. Bodie, Zvt., Alex Kane, and Alan. J. Marcus, (2011), *Investment and Portfolio Management,* Ninth Edition USA Me Graw Hill.

12. Booth, J.&Chua, L. (1996),"Ownership Dispersion, Costly Information, and IPO *Underpricing,*" *Journal of Financial Economics,* Vol.41, No.2, pp.291-310. Zeng, S.X., Ogdenm P.J.&Frank, C.J. (2005) "Pursuing Value Through Liquidity in IPO's: *Underpricing,* Share Retention, Lockup, and Trading Volume Relationships," *Review of Quantitative Finance and Accounting,* Vol.25. No.3. (Nov), pp.293 - 312.

13. Chen,N, R.Roll dan S.Ross, 'Economic Forces and the Stock *Market.*"*Journal of Business,* (July 1986).

14. Carter, Ricard and steven manaster, 1990, "*Initial Public Offering* and *Underwriter* Reputation ", *Journal of finance 45 (June 1990),104-1067.*

15. Cheng, William, 2010, "The Initial Public Offerings of Chinese State-Owned Enterprises in Hong Kong Stock Exchange ", *Journal of finance and Economics 52 (2010),142-148.*

16. Damodar N. Gujarati. 2009. Fundamentals of Econometrics, Second Book, Fifth Edition, Publisher Salemba Empat.

17. Dawson, S M, 1987, "Secondary market Performance of IPOs :Hongkong, Singapore and Malaysia 1978-1984." *Journal of business and acounting 14 (1987), 65-76.*

18. Denis, D., 1994, "Investment Opportunities and the market reaction to equity offerings" *Journal of financial and quantitative analysis 29 (1994),159-177.*

19. Drake, P and M Vetsuypens., 1993, "IPO *Underpricing* and insurance against Legal Liability" *Financial management 22 (1993),64-73.*

20. Dunbar, Craig, 1992 " The effect of information Asymmetries on the choice of *underwriter* Compensation contracts in IPOs." *Working Paper, University Of Rochester*

21. Dunbar, Craig, 1992, "Withdrawn IPOs, contracts Choice and the hot Issue market of 1980" *Working Paper, University Of Pittsburgh (1992b)*

—— Withdrawn Initial Public Offerings *Working Paper, University Of Pittsburgh (1995)*

22. Eitman, S., edisi terbaru, *Multinational Business Finance*, Addison – Wesley.

23. Engelen, P.J., Essen, M.V. "Underpricing and *Investor* Protection Around the World-Contry-Level Evidence. Working Paper, *Utrecht University* (2007)

24. Ellul, A and Pagano.M (2006),'TPO *Underpricing* and After-Market Liquidity," *The Review of Financial Studies,* 19(2),381 -421.

25. Field, Laura C "Is Institutional Investment in Initial Public Offerings Related Run Performance of These Firms?. Working Paper, UCLA(1995).

26. Fama, Eugene F. dan Kenneth R. French /'Common Risk Factors in Returns on Stocks and Bonds," *Journal of Financial Economics* Vol.33 ,1993, 3 - .56.

27. Fama, Eugene F. dan Kenneth R. French," The Cross-Section of Expected Returns, " *Journal of Finance* " Vol.47 ,1992, 427-465.

28. Garfinkel, J " IPO *Underpricing* Insider Selling and Subsequent Equity Offerings." *Financial Management 22 (1993),74-83.*

29. Grinblatt, M and C.Y Hwang "Signaling and the Pricing Issues", *Journal of Finance 44 1989 393-420*

30. Hanley, K. " The *Underpricing* of Initial Public Offerings and the Pricing of New Issues" *Journal of Finance 44 (1989).*

31. Hanley, K, A Kumar and P Seguin. " Price Stabilization in the market for new issues", *Journal of financial*

—— and W.J. Wilhelm "Evidence on the strategic Allocation of Initial Public Offerings", *Journal of Financial Economics 37 (1995), 239-257.*

32. Hartono, Jogiyanto,(2014) *Teori Portofolio dan Analisis Investasi,*Edisi Kesembilan, BPFE Yogyakarta.

33. Haugen, R., edisi terbaru, *beast on Wall Street*, Prentice Hall.

34. Hwang C.Y. and N Jayaraman "Long-term Performance of IPOs and Non IPOs: Japanese Evidence" Working Paper, J.M. Katz Graduate School Of Business, University of Pittsburgh (1992).

35. Isnurhadi et. al "The Analysis of Short-Run and Long-Run Performance of Privatization *Initial Public Offering* in Malaysia" Working Paper, Sriwijaya University (2008)

——, J. Sindelar and J. Ritter " Initial Public Offerings." *Journal of applied Corporate Finance (1993).*

36. Jog, V.M. and A. L. Riding *"Underpricing* in Canadian IPOs" *Financial Analysis Journal (1987, 48-55*

37. Keloharju,M. "Winner's curse, legal liability, and the long term-run performance of *Initial Public Offering* in Finland." *Journal of Financial economics 34 (1993),251-277.*

38. Li.M., Zheng, S.X.,&Melancon, M.V.(2005),"*Underpricing*, Share Retention, and the IPO Aftermarket Liquidity, *International Journal of Managerial Finance,* Vol.l,No.2, pp.76-94.

39. Levis, M. "The Long-run Performance of Initial Public Offerings: The UK Experience 1980-88." *Financial Management 22 (1993), 28-41.*

40. Loughran, T and J. R Ritter " The Timing and Subsequent Performance of IPOs: Implications for the cost of equity capital." Unpublished University of Illionis working paper(1993).

_____and_____"The New Issues Puzzle. " *The Journal of finance 50 (1995),23-51.*

41. Loughran, T ., Ritter, J. R and Rydqvyst ,K " Initial Public Offerings: International Insights", *Pasific-Basin Finance Journal 2 (updated 2010), 165-199.*

42. Lowry, M., Officer, M. S and Schwert, G.W. " The Variability of IPO Initial Returns: International Insights", *Pasific-Basin Finance Journal 2 (updated 2010), 165-199.*

43. Lucas, D and R. McDonald " Equity Issues and Stock Price Dynamics " *Journal of Finance 38 (1990),1019-1043.*

44. Makhija, A., Bhandari, A., Grammatikos, T., and Papaioannou, G " Risk And Return on Newly Listed Stocks " *Journal of Financial Research 12 (1989), 90-102.*

45. McDonald, J and A K Fisher " New Issue Stock Price Behavior" *Journal of Finance 27 (March 1972), 97-102.*

46. Miller, R and F Reily. " An Examination of Mispricing, returns, and *Uncertainty* for Initial Public Offerings." *Financial Management 16 (1987). 33-38.*

47. Manurung, Adler Haymans *(20\3),Initial Public Offering (IPO) Konsep, Teori, dan Proses ,* Jakarta: PT Adler Manurung Press.

48. Muscarella, Crish J and Michael Vetsuypens " A Simple test Baron's Model of IPO *Underpricing*" *Journal of Financial Economics 24 (1989), 125-135.*

_____and_____" The *Underpricing* of Second Initial Public Offerings " *Journal of financial Research 12 (1989), 183-192.*

49. Pada, Kumar, Venkata Vijay, (2010)," A Study of *Underpricing* of Initial Public Offers (IPO) And Impact on Performance of IPO Stocks in Indian Financial Markets, *Social Science Research Network.*

50. Pham, P.,Kalev, V & Steen, A. (2003). "*Underpricing*, Stock Allocation, Ownership Structure and Post Listing Liquidity of Newly Listed Firms," *Journal of Banking and Finance,Vol.27,* No.5,pp.919 - 924 .

51. Ramirez, M.A.A, Cabestre,Fco,JR,&Aquilue,R.S.(2006), "Does *Initial Public Offering* Have Influence on Liquidity and Trading Activity."*Finance and Accounting,* pp.84-98.

52. Rodoni, Ahmad dan Herni Ali, 2010 , Modern Financial Management, Issue One, Mitra Wacana Media.

53. Ross, Stephen.A, "The Arbitrage Theory of Capital Asset *Tricing,"Journal of Economic Theory,* December 1976.

54. Ritter, Jay R, and Ivo Welch, 2002," A Review of IPO Activity, Pricing, and Allocations," *Journal of Finance* 57, 1795-1828.

55. Ritter, Jay.,(2012), "Economies of scope and IPO activity in Europe, "*http://papers.ssrn.com / sol3/papers.cftn/abstract.id=2169966*

56. Ritter, Jay R " The Long-run Performance of Initial Public Offerings," *Journal of finane 46 (March 1991),3-27.*

57. Reilly, F.K. Brown, K.C, edisi terbaru, *Investment Analysis and Portfolio Management,* 5[th]edition, The Dry den Press, Chicago.

58. Ross, Stephen A, Randolph W.Westerfield, Jeffrey F. Jaffe,(2005), *Corporate Finance,* Seventh Edition, McGraw - Hill International Edition.

59. Rock, K. "Why New Issues are Underpriced", *Journal of Financial Economics 15 (January/ February 1986). 187-212.*

60. RUUD, J " *Underwriter* Price Support and the IPO *Underpricing* Puzzle." *Journal of Financial economics 34 (1993), 135-151.*

61. Saunders, Anthony. *The Underpricing of Initial Public Offerings (IPOs) in Singapore; Public Policy Issues and Possible solutions.* Singapore : Institute of Southeast Asian Studies (1989)

62. Shocrul R. Ajija, Dyah W. Sari, Rahmat H. Setianto, and Martha R. Primanti. 2011. Smart way to master EViews. Publisher Salemba Empat.

    _ _ _ _ _ _and Joseph Lim. " *Underpricing* and the New Isuue Proses in Singapore," *Journal of Banking and Finance 14 (Agustus 1990), 291-309.*

63. Stern, R.L. and P Bornstein." Why New Issues are Lousy Investments." *Forbes 136 (December 2, 1985) 152-90.*

64. Sum, Law Swee. " *Underpricing* of IPOs in Singapore" *Asian Pasific Journal of Management 8 (October 1991) 175-184.*

65. Taggart, R., edisi terbaru, *Quantitative Analysis for Invesment Management,* Prentice Hall.

66. Tinic, Seha M " Anatomy of Initial Public Offerings of Common Stock.: *Journal of finance 43 (September 1988) 789-822.*

67. Titman, S. and. B Trueman " Information Quality and the Valuation of new issues" *Journal of Accounting and economics 8 (19 6); 159-172*

68. Van-Horne, J., edisi terbaru, *Financial Market Rates and Flows,* Prentice Hall

69. Welch, Ivo " Seasoned Offerings, Immitation Cost and the *Underpricing* of Initial Public Offerings" *Journal of Finance 44 (June 1989), 421-449.*

    _ _ _ _ _ _ _, N. Jegadeesh, and M Weinstein " An Empirical Investigation of IPO Returns and subsequent Equity Offerings " *Journal of Financial Economics 34 (1993).153-175.*

70. Wessels, R.E "The Market for Initial Public Offering; An Analysis of the Amsterdam Stock Exchange." *In A Reappraisal of the efficiency of financial markets, R Guimaraes, et al (eds),* Berlin, Springer-Verlag (1989).

71. Wing Wahyu Winarno. 2009. *Analytical Econometrics and Statistics with EViews, Second Edition.* UPP College of Management Sciences YKPN.

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