# The Effect Analysis of Banking Corporate Bond Issuance Towards the Stock Market Reaction

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**Abstract**

The market capitalization of finance sector stock was dominated by the stock of the banking subsector up to 91,87%. The tendency of Indonesian companies to issued corporate bonds is also high. The banking subsector has dominated 38,52 % of the corporate bond market in Indonesia. This research aimed to analyze the development of the stock and corporate bond markets in the banking subsector of Indonesia from 2013 to 2017, analyzing the effects of the corporate bond issuance events towards the prices and the abnormal stock returns, as well as the analysis of the internal and external factors towards the prices of the stock in banks listed in the IDX from 2013 to 2017. This research showed that the stock and bond markets in the banking subsector of Indonesia had experienced growth from 2013 to 2017. Based on the results of partial regression, the announcement of issuance of corporate bonds, dividends per share, NIM and the exchange rate of rupiah to USD had a significant influence on stock prices and the form of influence was positive. NPL, DER, CAR, BI Rate and inflations had significant effects on prices stocks and the forms of influence were negative. Furthermore, the results of paired sample t-test indicated a significant negative abnormal return on H-1 and a significant positive abnormal return on H = 0 announcement of the bond issuance.

**Keywords**: Corporate bonds, stock price, abnormal stock return, event study, internal factor, external factor

## 1. Introduction

A company is established with the aim of earning profits and maintaining the continuity of the company's business activities. In an effort to obtain profits and develop business, the company will look for various appropriate funding sources to provide optimal results. Through the Pecking Order Theory (POT) by Myers (1984), the implementation of funding sources by companies is conducted in the order of internal fundings (retained earnings) and external fundings if the internal sources are insufficient. Alternative sources of corporate external fundings can be obtained through additional ownership of owner's capital, issuance of new stocks, sale of bonds or credit from banks (Riyanto, 2001), while corporate fundings through stocks or bonds can be obtained through the capital market. The financial sector has contributed 29.66% to capital market capitalization in Indonesia, as seen in figure 1 below
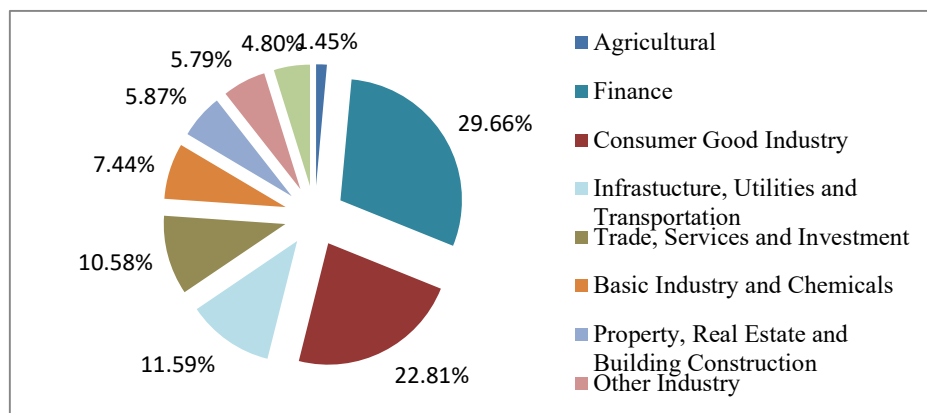


*Source: IDX Yearly Statistic 2017*

*Figure 1 The Stock Market Capitalization Per Sector in 2017*

Based on the 2017 IDX data above, the financial market share capitalization was dominated by banking subsector stocks around 91.87%, indicating that the stock price and the number of bank stocks circulating in the market were high. Ang (1997) theorized that the market capitalization value was the stock market price multiplied by the number of outstanding stocks. Another alternative source of external funding for companies was bonds, as from 2013 to 2017, the tendency of companies to issue corporate bonds in Indonesia was very high, based on the trend of an increase in the outstanding corporate bonds from 2013 to 2017 in figure 2.
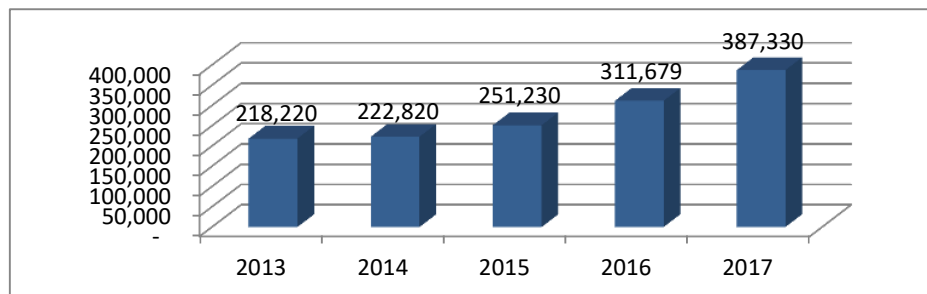


*Source: IDX Yearly Statistic (2013-2017)*

*Figure 2 Outstanding Corporate Bonds in Indonesia Tahun 2013 – 2017*

The amount of the outstanding corporate bonds was increased by 77.50% from Rp. 218,220 trillion in 2013 to Rp. 387,330 trillion in 2017. From the perspective of the industry, the banking subsector is a subsector that controls the corporate bond market in Indonesia. The outstanding sub-bank bonds alone dominated 38.52% of the corporate bond market in Indonesia. Argawal and Mohtadi (2004) stated that the banking sector was more dominant using debt instruments, while the non-banking sector was more driven to implement stock instruments for corporate financing. The issuance of the banking corporate bonds was increased along with the improvement in market perceptions of risk in the industry, increasing funding requirements for capital and meeting credit targets. The Bank required alternative funding sources in the face of the possibility of reduced internal liquidity and sources of third party funds (DPK) which were expected to decline amid the potential for rising inflation and the downward trend in BI rates. A research by Graham and Harvey (2001) suggested that bond issuance occurred more when interest rates were relatively low, as seen in figure 3 below where the Bank of Indonesia (BI) stated that the decrease of the interest rate affected the increasing number of bond issuing banks.
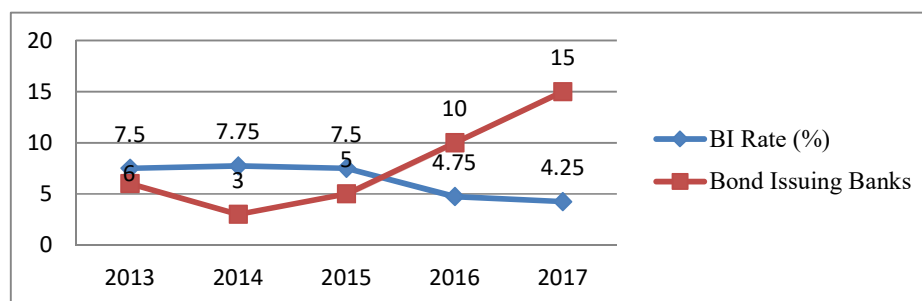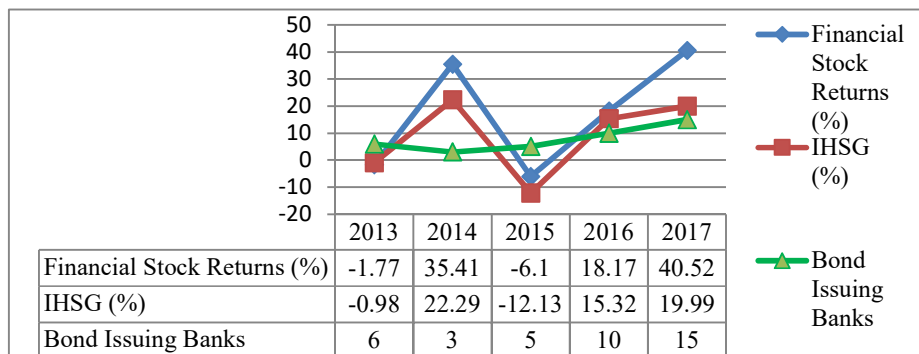


*Source: IDX Yearly Statistic (2013-2017), www.bi.go.id*

*Figure 3 The Comparison of Bond Issuing Banks in 2013 – 2017 with BI Rate*

**1.1 Problem Formulation**

There were several interesting phenomenons related to stock and bond market conditions in Indonesia. In 2014, the financial stock returns increased and then decreased a year later, whereas the number of bond issuing banks decreased in 2014 and then increased in 2015. However, at the end of 2017, the stock returns and the number of bond issuing banks both increased and even exceeded the IHSG, as seen in figure 4 below.

| | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| Financial Stock Returns (%) | -1.77 | 35.41 | -6.1 | 18.17 | 40.52 |
| IHSG (%) | -0.98 | 22.29 | -12.13 | 15.32 | 19.99 |
| Bond Issuing Banks | 6 | 3 | 5 | 10 | 15 |

*Source: IDX Yearly Statistic (2013-2017)*

Figure 4 The Comparison Data of Financial Stock Returns, IHSG and Bond Issuing Banks in Indonesia in 2013-2017

The performance of stocks and bonds in the capital market was influenced by the fundamentals and operating cash flow of the same company, revealing a relationship between the movements that occurred in the bond and stock markets. Gebhardt et.al. (2005) stated that bond market movements could affect the stock market performance. Another theory stated that there were internal and external factors that could affect stock prices, as stated by Weston and Brigham (2001), such as earnings per share, interest rate, amount of dividends given, amount of profits earned by companies, dividends cash distributions, and levels of risk and return on investment. Tandelilin (2000) also stated that macroeconomic factors empirically have been shown to have an influence on capital market conditions.

According to aforementioned descriptions, the purposes of this research were: 1) Analyzing the development of the stock and corporate bond markets in the banking subsector of Indonesia from 2013 - 2017 2) Analyzing the effect of corporate bond issuance events on prices and abnormal stock returns in bank companies listed on the IDX in 2013 - 2017 3) Analyzing the influence of internal factors and external factors on prices of bank companies listed on the IDX in 2013 – 2017.

## 2. Literature Review

2.1 The Pecking Order Theory (POT)

Myers (1984) specifically described the pecking order theory or POT to categorize companies with a sequence of preferences in the implementation of funds. If external fundings were required, the company would choose the safest securities first, then the securities that were at risks. The company would start with debts then mixed securities such as convertible bonds and stocks as the last resort.

2.2 The Signalling Theory

This theory developed a model where the capital structure or debt usage was a signal conveyed by the manager to the market. If the manager had the positive confidence on the prospect of the company and therefore wanted to increase the stock, the manager would communicate this to investors. The Signaling Theory, first developed by Spence in 1974, stated that good companies would be able to distinguish themselves from bad companies by giving signals to the capital market.

2.3 Factors Affecting Stock Prices

According to Brigham and Houston (2004), stock prices were influenced by internal and external factors, one of which was the announcements of equity and debt, as well as performance conditions or health of the bank, while Stock prices in the capital market were influenced by dividends per share. The theory of dividends per share was also known as the Bird in Hand theory, first stated by Myron Gordon and John Lintner (1963). This theory explained that investors wanted a high dividend payment from company profits, in accordance with the investor's goal of investing their stocks to get dividends. Stock prices were also influenced by the debt to equty ratio, as Sudana (2011) stated that a high debt to equity ratio (DER) showed a high dependence on capital to external parties, while high debt burdens and stock prices would decline. External factors that influenced stock prices included BI interest rates, inflation and exchange raterupiah to USD. Tandelilin (2010) stated that rising interest rates could cause investors to withdraw their investments in stocks and encouragee them to savings or deposits. Inflations with stock prices had a negative relationship, as according to Samuelson and Nordhaus (2001), a high inflation was basically not favored by capital market players because it would increase the production costs, increase production

costs and cause a decrease in stock prices. Exchange rate rupiah to USD also had a positive relationship to stock prices, which was supported by several theories developed to discover the relationship between the exchange rate rupiah to USD and stock prices. One of which was the flow oriented theory or the good market approach proposed by Dornbusch and Fischer (1980), which stated that change the exchange rate affected the ability of a company's competitiveness, then resulted in a change in company earnings, costs and the company's stock price.

2.4 Abnormal Stock Returns

According to Tandelilin (2010), the abnormal return was the difference (positive or negative) from the actual return around the announcement with the expected return, a return that must be estimated. According to Jogiyanto (2000), the expected return could be calculated using the Market Adjusted Model estimation model, which suggested that the best estimator for estimating the return of a security was the market index return (IHSG) at a certain moment or period. The expected return estimated by market return, as shown below

$$E(Ri,t) \quad = \quad \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}}$$

$E(Ri,t)$        = market *return*
$IHSG_t$         = the market index return on t periode
$IHSG_{t-1}$     = the market index return on t-1 periode
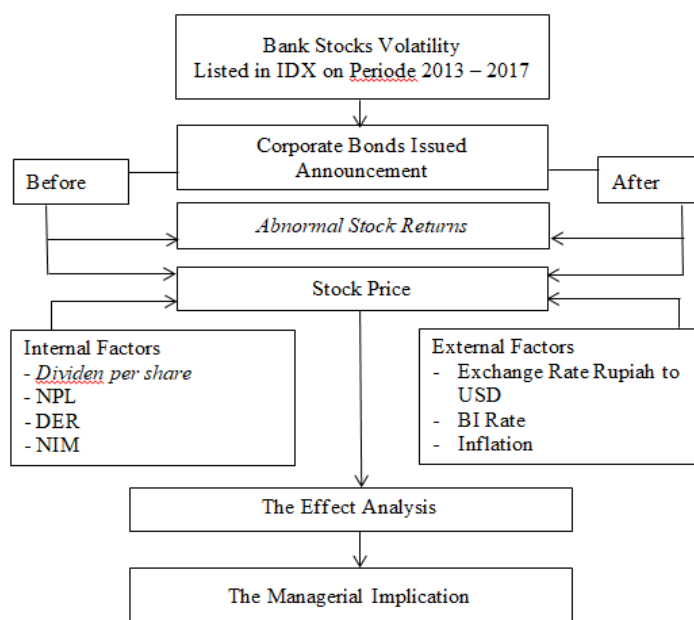
## 3. Research Framework



*Figure 5 Research Framework*

## 4. Research Methodology

This research was conducted in Oktober-Desember 2018. This research implemented the event study method, using descriptive and quantitative approaches. The data was limited to the time period between 2013-2017.

The datas were secondary datas obtained by the Indonesia Stock Exchange (IDX) in the form of a daily closing stock price, stock returns of banks that issued bonds in 2013-2017. Other datas included the annual and quarterly financial statements published for the public period 2013-2017 in the banking subsector companies and datas from Bank of Indonesia (BI) in the form of exchange rate rupiah to USD, interest rates and inflation rates.

The research populations included all bank companies listed on the Indonesia Stock Exchange (IDX) that issue bonds, while the samples were the datas from 16 banks listed on the Indonesia Stock Exchange (IDX) that issued bonds in the period of time between 2013 and 2017.
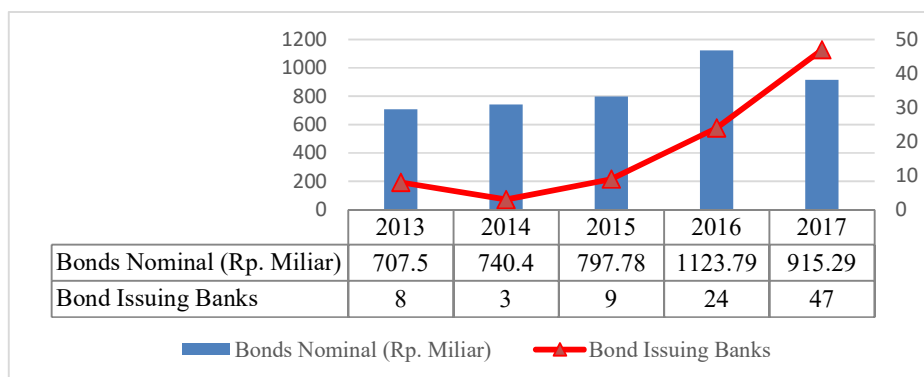
The hypothesis was analyzed using the multiple linear analysis to determine the effect of bond issuance events,

internal factors and external factors on the stock market reaction. In addition, the paired sample t-test was used to compare the variable abnormal stock return of each stock before and after the announcement of bond issuance.

## 5. Results And Discussions

### 5.1 The Development of Bond Market in Banking Subsector in 2013 – 2017

This study found that the bond market in the banking subsector in Indonesia generally experienced a growth, reflected in the increase in the number of bond issuing banks from 6 banks in 2013 to 15 banks in 2017 and the bonds nominal increased around 29.36% from 2013 to 2017.
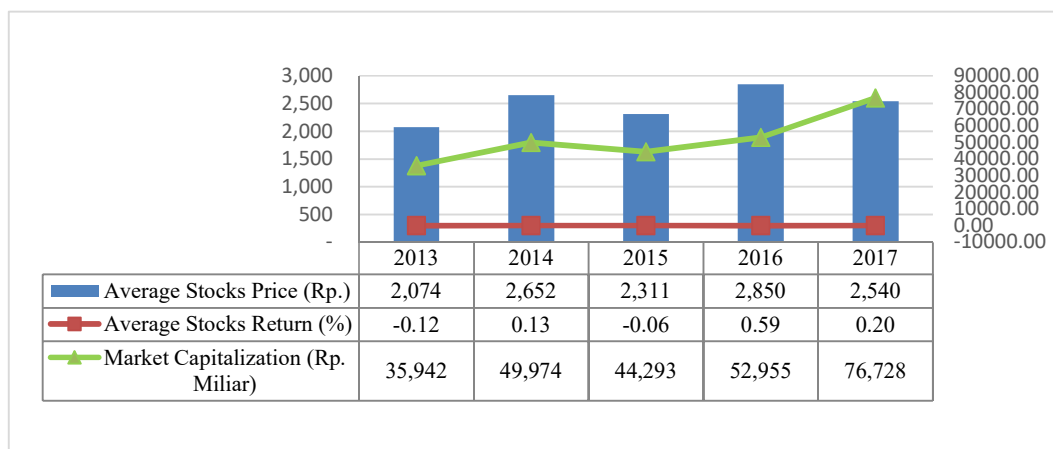


| | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| Bonds Nominal (Rp. Miliar) | 707.5 | 740.4 | 797.78 | 1123.79 | 915.29 |
| Bond Issuing Banks | 8 | 3 | 9 | 24 | 47 |

*Source: IDX Yearly Statistic (2013-2017)*

Figure 6 The Development of Bond Market in Banking Subsector in 2013 – 2017

In figure 6 above, the amount of the 2016 bond increased by 40.86%, along with the government policy in infrastructure development, where it required large funds through bank loans. In 2017, the number of issuing banks increased but the issued bond values decreased by 18.55%, which could be occurred by several factors, one of which was the inflation and exchange rate rupiah to USD which increased in 2017, as well as the plan to increase interest rates of The Fed, as stated in a research by Graham and Harvey (2001) that bond issuance occurred more often when interest rates were relatively low. It resulted in other funding methods looking more appealing, such as rights issues and IPOs of subsidiaries, making bonds difficult to sell.

### 5.2 The Development of Stock Market in Banking Subsector in 2013 – 2017

This study discovered an increase 113.47% in the average stock market capitalization from year 2013 to 2017, whereas the average share price of the bank subsector increased by 22.5% and the average stock return increased by 260.57% from year 2013 to 2017.



| | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| Average Stocks Price (Rp.) | 2,074 | 2,652 | 2,311 | 2,850 | 2,540 |
| Average Stocks Return (%) | -0.12 | 0.13 | -0.06 | 0.59 | 0.20 |
| Market Capitalization (Rp. Miliar) | 35,942 | 49,974 | 44,293 | 52,955 | 76,728 |

*Source: IDX Yearly Statistic (2013-2017)*

Figure 7 The Development of the Stock Market in the Banking Subsector in 2013 – 2017

The capitalization of the market, prices and stock returns of the banking subsector seen in figure 7 above experienced a decline in 2015. By 2016, the average price and stock returns increased again, but in 2017, both experienced another decline while the stock capitalization increased. The decline in the average price and stock returns was likely due to the stock action of two large state-owned banks, namely BRI in October 2017 and Bank Mandiri in September 2017, making share prices smaller than in a year before (2016).

5.3 Results of the Descriptive Analysis

Tabel 1. The Statistics of the Descriptive Variables

| Variables | Maximum Value | Bank Names | Minimum Value | Bank Names |
|---|---|---|---|---|
| Stock Prices (Rp) | 15.300 | Bank BRI | 86 | Bank Capital |
| *Abnormal Stock Return* (%) | 0,145 | Bank OCBC NISP | -0,124 | Bank Mayapada |
| *Dividend Per Share* (Rp) | 429 | Bank BRI | 0,00 | Bank Capital, BTN, CIMB Niaga, Bank Maybank, Bank Permata, BTPN, Bank Victoria, Bank Mayapada, Bank OCBC NISP dan Bank Panin |
| NPL (%) | 3,47 | Bank BTN | 0,32 | Bank Victoria |
| DER (%) | 11,06 | Bank BTN | 4,38 | Bank BTPN |
| NIM (%) | 13,12 | Bank BTPN | 1,76 | Bank Victoria |
| CAR (%) | 25,51 | Bank BTPN | 11,19 | Bank Mayapada |

Table 1 above showed that the highest share price was owned by Bank BRI in August 2017, as investors see the prospectives of its stocks for investment. BRI Bank was also a bank with the highest dividend per share, around Rp. 311.66,- in 2016 and Rp. 428.61,- in 2017. Meanwhile, the banks with the lowest dividend per share of Rp. 0,- was one of the Capital Banks with its lowest share price. These results were in accordance with the theory by Halim (2005), which stated that stock prices formed in the capital market were influenced by dividends per share, and the decrease in dividends paid could provide a negative information for the company and would reduce the stock prices. The bank with the highest abnormal return was Bank OCBC NISP in May 2016, in which the market return in May 2016 reached a very low value of -0.015% or far below the average of 0.001. The lowest Abnormal Return was Bank Mayapada in October 2017, around -0.122 or far below the average return of 0.0002. Bank BTN had the highest DER and NPL ratio in 2015, while BTPN had the highest ratio of NIM, CAR and DER in 2016. These were also in line with the theory by Myers (1984), which explained that companies with higher profit levels had smaller debt levels because of the abundant internal funding sources.

5.4 The Analysis Result of the Multiple Linear Regression of the Effects of Bond Issues and the Internal and External Factors Towards the Stock Prices

The results of the partial test of the issuance announcement of bonds, dividends per share, NIM and the exchange rate rupiah to USD revealed the significant and positive influence on the stock prices. The average bank stock price after the announcement of the bond issuance was also larger than before the announcement, as seen in figure 8 below.
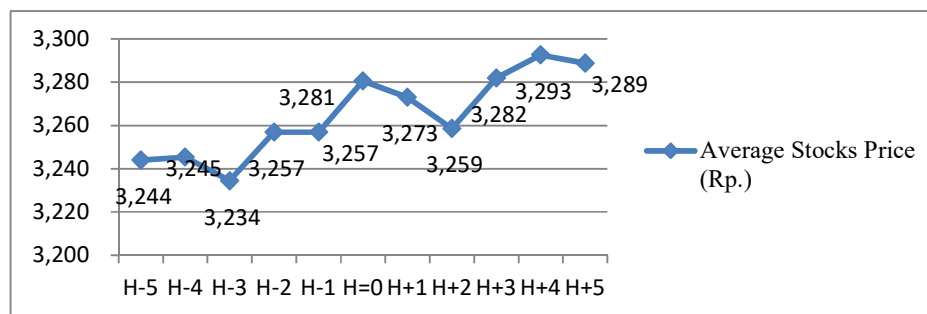
*Source: IDX Yearly Statistic (2013-2017)*

Figure 8 The Average of the Stock Prices in Bond Issuing Banks

The market believed that the issuance of bonds could reflect a good prospect for the company, therefore that market participants could respond positively to the announcement of bonds and were indicated by the increase in share prices after the issuance of bonds. A study by Ervina and Rachman (2017) confirmed such statement, stating that the impacts provided positive signals from the announcement of bonds to the stock market performance indicated by the increase in stock prices. The dividends per share had a positive effect on stock prices. If the dividend per share produced was in accordance with the expectations of investors, the desire of investors to invest their capital would also increase stock prices. Based on the Bird in Hand theory by Myron Gordon and John Lintner (1963), investors wanted a high dividend payment from company profits in accordance with the investor's goal of investing their stocks to get dividends. Another research by Mulyati (2003) also stated that the reaction of stock prices was positive towards the increase in dividends paid. A bank with a high NIM ratio could mean having a large profit from lending and obtaining interest income, which could encourage investors and would further increase stock prices, as also stated through a theory by Weston and Brigham (2001). The results were also in accordance with the research by Larasati et al. (2017), stating that the NIM ratio had a significant positive effect on stock prices. When exchange rate rupiah to USD was weakened, the share price continued to increase and the stock price did not decrease because of several internal factors, such as company performance, that affected the increase in stock prices. These were also similar to previous researches by Lubis (2010) and Nurlina (2017), stating that exchange rate rupiah to USD had a positive effect on the stock prices.

The results of partial testing of NPL, DER, CAR, BI interest rates and inflation revealed a significant and negative influence on the stock prices. The NPL ratio compared the non-performing loans with the total credit (Taswan 2010), in which a bank in a high NPL condition could increase the risk of bank losses and reduce the profits received by the investors, as stated by a theory put forward by Weston and Brigham (2001) that such level of risk would affect the stock prices. Other researches by Wismaryanto (2012) and Ilham (2011) also revealed that the NPL ratio had a significant negative effect on the stock prices. A higher DER causing a decrease investors interests in the company's stocks. When companies borrow funds from outside lenders, the cost of debt will increase and the return of and the stock price would decrease (Robert, 1997). There were other studies that supported these results. One study by Munira et.al. study. (2018) revealed that the DER partially had a significant, negative effect on stock prices. The CAR also had a significant negative effect on stock prices, as revealed by researches by Satria (2015) and Widowati (2015). Overbudgeted capitals would also burden the company if it was not productive in generating profits and ultimately does not contribute to the bank's operating income, as it would increase the cost of the capitals instead. As stated by Brigham and Houston (2004) the cost of capital is generally calculated using the Weighted Average Cost of Capital (WACC). WACC is a weighted average of the component cost of debt, preferred stock and common stock., the optimal capital structure is estimated by calculating the mix of debt and equity that minimize the WACC while maximizing it's market value. The optimal capital structure will be found in the lowest WACC and the maximum value of the company. Tandelilin (2010) stated that interest rates affected the stock prices in reverse or cateris paribus, similar with another research stating that the BI interest rates negatively affected the stock prices (Lubis, 2010). According to Samuelson and Nordhaus (2001), inflations with stock prices had a negative relationship, as a high inflation was not favored by capital market players and triggered a decline in stock prices. The results were also similar with the research by Rosana (2016), stating that the inflation variable had a partial effect on stock prices, while inflation could correct the income received by the bank.

5.5 The Analysis Result of Paired Sample t-test of the Effects of Bond Issues and the Internal and External Factors Towards the Abnormal Stock Returns

The results of the paired sample t-test showed that the bond issuance events had a significant and positive influence

on the abnormal stock returns. The average abnormal return of a bank stock after the announcement of the issuance of bonds was also greater than before the announcement, as seen in figure 9 below.
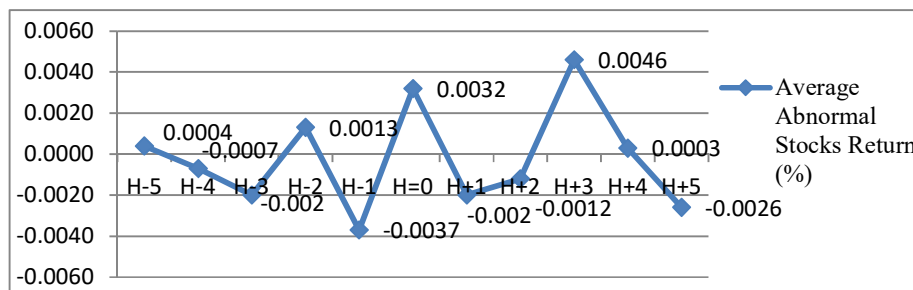


*Source: IDX Yearly Statistic (2013-2017)*

Figure 9 The Average of the Abnormal Stock Returns of Bond Issuing Banks

The results showed significant negative abnormal stock returns at H-1 and positive abnormal stock returns H=0. The significant and negative abnormal returns on H-1 indicated that investors had first known the information regarding the issuance of bonds before the date of the announcement and then reacted to such information. According to Husnan (2004), negative abnormal returns could be caused by several investors who paid less attention to such information, resulting in investors bought stocks at a more expensive price when the stock price declined. Another result was investors reacted significantly and positively at H=0. At H=0 the abnormal return changed positively, meaning that when the bond was offered, investors had captured the information well and a market correction of the stock existed. The investor also assumed this information on the issuance of bonds as good news, believing that the company's plan to increase the debt would generate future profits. As stated by Ross (1977), a company with a high level of debt could be implemented as a positive signal that indicated optimism for the company's prospects and future. A previous research by Nafiah (2007) supported this statement, stating that a negative abnormal return on the t-1 announcement of bond issuance, and other researches by De Roon and Veld (1998) and Kim and Abdullah (2012) stated the stock market reacted positively after the announcement of the bond issuance.

5.6 The Managerial Implication

The results of this study could be implemented for banks as a reference that funding decisions through bonds would obtain a positive side of publication and a positive influence on stock prices. It was also essential for banks to always maintain a high level of profitability and have business prospects with potentials for developments. The results could also be implemented for considerations and recommendations for investors in investing the stocks and bonds. In order for investors to benefit greatly from stock capital gains, investors were required to consider several factors such as corporate action, the condition of the company's performance and other external factors in the decision to buy or sell stocks. The results also showed that there was a very high development of bank bond issuance in the last 5 years, therefore the government was required to provide support for banks in lending. Bank of Indonesia and the OJK were also required to increase supervisions in bond issuance in order to avoid the risk of default that might be encountered when the bonds were due.

## 6. Conclusions

*The stock bond markets in the banking subsector of Indonesia had been developed from 2013 to 2017. The partial test results indicated that the issuance announcements of corporate bonds, dividends per share, NIM and the exchange rate rupiah to USD had a significant, positive influence on stock prices. On the other hand, NPL, DER, CAR, the BI interest rates and inflation had a significant negative influence on stock prices. Based on the results of different paired average test also revealed that the bond issuance events raises a significant negative abnormal stock returns on H-1 and a significant positive abnormal stock returns on H=0 on the announcement of the bond issuance.*

## 7. Suggestions

Future researches could analyze the condition of the capital structure before and after issuing the bonds, analyze how the effects of capital stucture from bonds towards the bank profitabilities, and analyze how the influence of

other external fundings, such as the issuance of new stocks for shareholders and investors.

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