CHAPTER 2

THEORETICAL FOUNDATION

2.1 Theoretical Foundation

The first part of this chapter will cover the literature reviews and fundamental theories that will serve as a guide and basis of this paper. The second part will cover the theoretical framework that will serve as a basis of this research based on literature reviews and fundamental theories. The first section of this part would cover the definition of IPO then the process of conducting IPO in Indonesian Capital Market. Next, it would discuss the phenomenon of underpricing, long run returns and factors incorporated in the performance of IPOs. Third part will cover the different marketing methods in determining the price of the IPOs. In the fourth section, it discusses the nature and value of investors' information in one of the marketing method, and in the last section, the author will elaborate the characteristics of firms that might influence their choice in marketing method.

2.1.1 Definition of Initial Public Offering

Before shares can be traded in the capital market, it will first be offered to the public in the form of an Initial Public Offering (IPO). Foerster *et al.* (2001) states that IPO is a transition from a private company to become a public company. According to Ritter (1991), IPO is an event where the securities of the company are offered to the general public for the very first time. Companies who offer IPOs usually have expectations that a liquid market will be developed along with the offering by listing it in the stock exchange (Geddes, 2003). From all of the definition mentioned above, IPO could be defined as a transition from a private company to public company, by offering

their shares to the general public for the very first time, which then will be listed in the stock exchange in hope that it will achieve a liquid market.

When a company decided to go public, it needs to write a report called prospectus. Prospectus information is written information in relation with the public offering in order to provide valuable and complete information as well as attract potential investors to buy the shares. It contains both financial and non-financial information in regards for the company going public.

2.1.2 Process of Conducting an Initial Public Offering in Indonesia

When a company decided to be publicly listed, the company needs to follow the requirement at Badan Pengawas Modal dan Lembaga Keuangan (BAPEPAM-LK). BAPEPAM-LK is an institution under the Indonesian Ministry of Finance which will serve to develop, direct and oversee the capital market daily activities, convey and implement policies and standards in the financial industry (Indonesia Stock Exchange, 2010). Indonesian Stock Exchange has listed requirements and criteria that need to be fulfilled by the companies who want to be listed publicly.

2.1.2.1 Listing Requirements

When a company has decided to go public, it needs to appoint one or more underwriters to help the company to prepare all needed requirements to conduct the public offering. The Indonesian Stock Exchange has listed the requirements and categorized it in four steps.

1. Preparation step

Initially, the potential company needs to prepare all documents that are required to conduct a public offering. The lists below are the preparation that needs to be done.

A. Potential company needs to have been operating the same core business for at least one full year.

B. Potential company should have at least Rp. 5,000,000,000 (Five billions Rupiah) in net tangible assets. Net tangible assets being total assets deducted by intangible, deferred tax assets and total liabilities.

C. Approval from the majority of existing shareholder through general meeting of shareholders.

D. Appoint one or more underwriter after receiving approval from the existing shareholders.

E. Prepare all the required documents with the help from appointed underwriter, such as:

   a. Latest financial report statement that has been audited by a certified public accountant that is registered in BAPEPAM-LK.
   b. A report on the corporate budgets that has been prepared by a rightful notary and approved by a skilled authority.
   c. Legal audit report from a consultant that is registered in BAPEPAM-LK.
   d. An independent appraiser could produce a report of the company if needed.

e. A prospectus of the company, which will include information about the offering.

f. Any other supporting documents that is needed as arranged in the fundamental requirements.

2. Registration – Statement Submitting Step

When the preparation step has been completed, the issuing company will hand over all of the supporting documents to BAPEPAM-LK. The issuing company has to wait until BAPEPAM-LK states that the registration is effective.

3. Shares Offering Step

When the statement has become effective, the issuing firm will offer the stock for the first time to the public investors. Investors can buy their demand of shares through the appointed authorized selling agents. The offering period usually last for three trading days.

4. Shares Listing Exchange

When the shares have been sold, the company is then publicly listed in the Indonesian Stock Exchange.

2.1.3 Phenomenon of Underpricing in IPOs

In the process of gaining more liquidity by selling the shares to a large number of diversified investors, it will come at a cost. One of the drawbacks and obligations a public company must adhere to is the constant release of information about the company’s strategies and finances on a regular basis to

the investing public. The disadvantage of course will be an additional ongoing cost that will be incurred upon the firm. In the process of going public, it will be up to the company and the appointed underwriter in determining how many shares and at what price it will be offered. The value of the shares after it is publicly listed will be driven by the market mechanism. If during the initial market-trading day, the IPO offering price is lower than the initial market price, this will be known as underpricing.

Underpricing of initial public offerings has been researched and documented in many studies. In the United States of America new issues market, Ibbotson (1975), Ritter (1984) and Welch (1989) have provided some evidence in underpricing with average initial return of 22%. Dimson (1979), Buckland *et al* (1981) and Bank of England (1986) stated that the underpricing phenomenon does not restrict itself in the United States market, since the London Stock Exchange Market also reported an average of initial return from 8.5% to 17% (Levis, 1990).

There are many different reasons why an IPO will be underpriced. Some of the major and underlying reasons lie in asymmetric information theory, signaling theory and overreaction of investors. Asymmetric information theory is just one of the many theories that attempts to explain why there are differences between the offering prices of the IPO and actual ending price on the initial market-trading day. This theory explains that the quality and amount of information released by the managers (of the company) and that of outside investors are not the same. In addition of this asymmetric information, the action that was taken by the managers in valuing a firm, can also affect the value of the share. The best-known asymmetric information model is Rock's

(1986) winner's curse.

Rock's (1986) studies have explained that investors are divided into two groups, informed investors and uninformed investors. As a general rule of thumb however, investors are typically uninformed. These uninformed investors have limited access to information about the company's prospects, than the issuer and its underwriter. Despite this wide gap in information differences, some investors are willing to participate in an IPO when the offer price is low. Informed investors on the other hand, are only willing to participate in an IPO when they know the chances are good that the company will perform well and generate positive returns in the long run, while the uninformed investors will mostly be participating in shares that have been left by the informed investors. This imposes a 'winner's Curse' on the uninformed investors. In an attractive offering, the informed investors will increase their demand for the shares, and in an unattractive offering uninformed investors will receive all the shares that they have bid.

Issuers will always have better information about the company's financial condition than outside investor. When a company wants to go public, issuers will signal the true value of the shares by discounting the prices of the issues, and keeps a fraction of the share for their own portfolio (Grinblatt & Hwang, 1989). Within the signal models, when a fraction of shares being kept by insiders, it will signal the true value of the company. This model will convey insider's private information about the company to the outside investors. Since in signaling theory, the issuer discounted the issue shares, therefore, in the initial market trading day, which will results in initial return, will provide a signal of the true quality of the IPO.

Ritter (1991) believes that the phenomenon of underpricing that has been widely documented all over the world seems to be a short run trend. Some investor can be very optimistic on the shares that will be issued, and will take use of this opportunity for an initial return (Ritter, 1991). When firms go public and potential investors are very optimistic with the shares this will create overreaction towards the shares. This overreaction will create a strong short-term momentum, which will increase the demand of the shares, hence increasing the market price, which will yield high initial return.

2.1.4 Long Run Performance of IPOs

Since the underpricing of IPOs seems to be in the initial return phase, therefore it appears to be a short-run phenomenon. There are some reasons that investigating long-run performance is interesting. In IPO, if it generates an initial return, investor's investment are usually short terms, but most investors are looking for a long-term investment. Therefore, there is an active trading which might drive the prices up in the long run; some investors might be able to produce a superior return depending on their trading strategies (Ritter, 1991). Shiller's (1990) believes that equity market and IPO market are subjected to trends and investor's optimism, which may affect the market price of the shares. From this statement, the efficiency of the information in IPO market could be questioned (Ritter, 1991). Thirdly we could see how many IPOs that were offered during a particular year, if there is high volume of new IPO that has a poor long run performance, the issuer might have chosen the correct timing of offering new shares to the public. Issuers might see this as "window of opportunity" to gain capital during that particular year (Ritter, 1991).

Prior research in United States of America has been done by Ritter (1991), it stated that long run performance of IPO has underperformed relatively to every dollar invested; investors received eighty-three cents in return. Reilly (1977) has investigated the United States of America IPOs from 1972 to 1975 with 486 samples, and over 1 year period, it was underperformed by 11.60%. Another supporting evidence that has been done by another researchers in Turkey, it shows that there are underperformances in the long run. IPOs were significantly underperforming the Istanbul Stock Exchange Index 100 (Erdogan, 2010). In Spanish Capital Market, some evidence showed that there are negative long run returns (Otero & Mendez, 2005).

2.1.5 Factors Incorporated in IPOs Market Performance

Investors might be interested in different area; one might be interested in a long-term investment, while the other might be interested in a short-term investment. When IPO shares are underpriced, during the initial market-trading day, the closing price might increase by a significant amount. For short-term investors, this will results in a higher initial return. The fact that underpricing occurs which will results in low or high initial returns, there are some factors that are incorporated in this after market performance.

Three distinct factors that affect the aftermarket performance are, information asymmetry, signaling theory and overreaction. Based on Rock's (1986) arguments, information symmetry occurs when a group of investor has more information than the other. The informed investor will be able to pick out the good shares and left the bad shares to the uninformed investors. Beatty and Ritter (1986) has extended Rock's (1986) model on the uncertainty of the value

of the shares on signaling theory. When investors are uncertain on the value of the firm, the greater underpricing will attract the uninformed investors. The signaling theory proposes that underpricing will signal their quality of the firms to the investor. This gap for the underpricing is intended to compensate the loss by selling the shares at a higher price in the future. Another factor that might affect the market performance is investors' overreaction on the shares being offered. Depending on the time when IPOs are offered, some investors are overly over optimistic about the potential future growth of certain industries (Ritter, 1991). This over optimism will drive the demands for the offered shares to increase hence, greater initial return during the first market-trading day.

All of these factors are directly related to information asymmetry. Issuing a prospectus from potential company, and also their choice of marketing methods in pricing their IPOs can reduce information asymmetry. A prospectus needs to include information within their companies and their offers of the shares. Minimum requirement of the information that needed to be included in a prospectus are, their main reason to go public, their company structures (board of directors and commissioner), offering periods and important dates regarding their offers, their appointed underwriters, a summary of financial report and the industry they are operating in (Kasmir, 1998). Prospectus will be distributed to potential investors. Investors can use this prospectus to know more about the company and hopefully reduce the information asymmetry between investors and issuers, which will reduce the underpricing of the shares. Another method to reduce information asymmetry is the issuer's choice of marketing method in pricing their IPOs.

2.1.6 Marketing Methods in Determining the Price of IPOs

In the financial world, there are varying marketing methods for the IPOs pricing, however, book building and fixed priced marketing methods are the most popular ones that are used. Fixed price marketing methods have been used for so many years, up until the last decade. Book building has been steadily gaining popularity in pricing IPOs. The main difference of these two methods lays on the price discovery of the IPO. It can result in a higher or lower underpricing, depending on which method are being used. Using different mechanisms of pricing may also influence the post-IPO trading behavior. Up to this point, it has been widely accepted that IPO could results in an abnormal return in the first market-trading day. As stated by Loughran *et al* (1994), this underpricing phenomenon has happened in almost every country.

2.1.6.1 Fixed Price

In the process of fixed price marketing method, the appointed investment bank and the firm itself will set a price based on the projection of the company's performance. This method determines the price prior to, and without finding information about the investors demand for the stock at a particular price. This price is established without having any valuation from the investors (Benveniste & Busaba, 1997). Usually the price discovery takes place in the aftermarket, which is the initial trading market day (Busaba & Chang, 2002). The fixed price method has been historically dominant in the United Kingdom, and most other European countries. The prices of the shares are mostly based on the company's projection for its next

year's performance, using their own calculative formula. This price could generate an initial return in the initial market-trading day. An empirical study in India has proved that there were trends where the fixed price method yields a positive initial return (Gopalaswamy *et al*, 2008).

With the fixed price method of valuation, not included in it is the valuation of potential investors. Since the firm's underwriters have to take serious considerations before release, if the price of the offering is too high, there is a chance that there might not be enough investors interested in purchasing the shares (Benveniste & Busaba, 1997). So if they do decide to undervalue the offering, the amount of investors that will be interested in the IPO should increase. The primary disadvantage of this devaluation of the share is that during the initial trading day, the value of the stock could increase significantly, compared to its fixed offering price. This in turn is a huge disadvantage to the company, who could have received much more capital if the valuation of the stock was higher. The fixed price marketing method offers a potential to exploit the market structure.

By selling the shares at a low price (underpriced), it will create a very strong interest amongst uninformed investors. This strong interest in low IPO prices would create a selling frenzy, resulting in a winner's curse as mentioned before. Underpricing is needed in fixed price offerings, since they need to compensate the uninformed investor's for the winner's curse (Busaba & Chang, 2002). Having underpriced the stock it will leave money on the table, meaning that the issuer

could gain a higher capital if the offering price is higher. Despite these downfalls of fixed pricing, underpriced shares and cascading demand, it can still guarantees the investors with a certain amount of proceeds

2.1.6.2 Book Building

Book building is a method for price discovery of the shares. In this method of valuation, the appointed underwriter will do several roadshows, or pre-marketing of the shares, to different investors that might be interested in the shares within a specific price range. Using the book building method, the underwriter would include investor’s information into the price of the offering. According to Benveniste & Wilhelm (1996), book building is more than just polling investors information for the price discovery, it is also an attempt to know the demand of the issue. By knowing the demand from investors, it is then used to determine the size, price and allocation of the offering.

Through careful collection and publicizing of the investor’s information, the book building method could diffuse a possibility of cascading demand and prevent the winner’s curse effect (Busaba & Chang, 2002). Also, by including information within the share price, it will neutralize the power of individual investors, between the informed and uninformed. Book building is an efficient strategy of pricing to many of the other alternative since it makes better use of the information acquired from the investors about the demand of the shares (Benveniste & Wilhelm, Jr, 1996). A price band is fixed

instead of a single price. After analyzing the demand and supply of the shares, the underwriters will determine and fix a final price. Book building can also issue additional shares up to 15% of its full value. This however will expose the company to a greater risk since the additional shares might not be fully sold (Benveniste & Busaba, 1997). Book building has been the dominant choice in the United States of America financial market due to its many benefits.

There are many benefits in using book-building method. Book building method allows the company to exercise discretion over the final issue size (Sherman, 2000). Many countries have chosen book building because it gives better and more accurate valuation in the value of the company (Kutsuna & Smith, 2003). The final issue size can be set after the road shows to the investors, and it does not have to be finalized before submitting the initial prospectus. Book building method also allows issuance of additional share up to 15%, when the demand for the share are strong, this benefits will help the company to gain more capital (Benveniste & Busaba, 1997).

Book Building eliminates the possibility of a winner's curse, since it has investor's valuation within the offer price, therefore most of the investors will be well informed about the company. This is a benefit to both issuer and investor since it eliminates information asymmetry. One of the main advantages of using book-building method is that the managing underwriter can choose multiple book runners. Having multiple book runners will help the underwriting firms and the company to be able to acquire more information from the investors,

which will be included in the valuation of the offer price (Hu & Ritter, 2007). Using book built method, the price of the share could be revised using the information from the investors. The price could be revised upwards, and then discounted to induce investor's valuation and interests rather than revised downwards and then discounted, which would left more money on the table rather than gaining more capital. Despite its advantages and many benefits, it does come at a cost.

The main cost of the book building method is the amount of effort an underwriter has to exert, in attempt to do the road shows for the investors. Having multiple book-runners also come with an extra cost. The continuing analyst coverage of the company and its potential investors, require extra time and effort. Another disadvantage of book building involves underpricing in the offer itself. Underpricing still occurs in book building since it is a required sum of money that will be left on the table to induce investors with valuable information to be truthful in their indication of interest for the shares. Kaneko and Pettway (2003) believes that in respect to the Japanese market, book building is the reason of higher underpricing in new issues, since issuers need to lower the price as an incentive for the investor's valuation. However, many researchers (Benveniste & Busaba, 1997 and Hu & Ritter, 2007) have proved that using book building have higher expected proceeds in the long run.

2.1.7 Natures and Value of Investors' Information in Book Building

When it comes to book building, it is simply a method of price discovery by polling potential investors. A benefit of this marketing strategy is taken from the possession of unique information by investors that could be used to resolve the problem of pricing ambiguity. Data mining information, taken from potential investors comes in two forms. One is the "hard" information and the other is the "soft" information (Benveniste & Wilhelm, Jr, 1996). Stein (2002), Peterson and Rajan (2002), Goetzmann *et al*. (2007) and Engelberg (2008) believed that the distinction between "hard" and "soft" information are important in order to gain financial information which will affect on pricing of shares and assets (Arnold *et al*, 2010).

The "hard" information is the insight about the company's prospect of the future. It is generally agreeable that an investor's insight about the issuer might be negligible at best, however, each investor will know his or her demand for the issue. This demand is the second form of the information, the "soft" information. "Soft" information is valuable since it will aggregate the information at road shows, to the actual pricing of the issue. This demand does more than just aggregating information to the price. Some investors just have more power than other investors. It is from this particular group of powerful investors, that have market power, and their level of interest can influence, or persuade other investors that would determine the success or failure of the issue. (Benveniste & Wilhelm, Jr, 1996).

2.1.8 Characteristic of Firms in Choosing The Marketing Method

This paper will also determine whether or not there are any differences in choosing marketing methods for IPOs based on the firm's characteristics. According to Chemmanur and Paeglis (2004), the quality of a firm and management is measured, based on the value of the company, which includes the stakeholders such as the employee, shareholders, customers, and the industry of the business. Each of these stakeholders has their own corporate image embedded to their firms. Better management can signal a value of the firms to outsiders, which might reduce information asymmetry regarding their firms in the capital market (Chemmanur & Paeglis, 2004). These characteristics might influence the post-IPO performance.

The quality of a firm could affect the IPO market in several ways. A firm with good quality and reputation of management are able to signal the value of their firm. Especially in the capital market, when the senior managers have repeatedly deals with the financial markets, it will increase the value of their firms in the public eyes (Welch, 1989). Firms with higher quality management have a lower extent of information asymmetry since they are able to certify the value of the firm better (Chemmanur *et al*, 2010).

Information asymmetry is one of the major reasons why IPOs results in underpricing. Book building method has been proven that it will reduce the information asymmetry by having the quality of price discovery (Benveniste & Busaba, 1997). Company who wants to go public will issue a prospectus; prospectus will include information about the company, which will signal the value of the issuer's quality. Potential investors will gain insight on the

company therefore there will be less uncertainty and less information asymmetry (Daily *et al*, 2003). Information from potential investors is extracted through the book building method, which will definitely reduce the information asymmetry (Cornelli & Goldreich, 2003).

The five main firm's characteristics that this paper will address are the size, age, industry that they operate in, the ownership of the issuers and the risk factors that the company will face in the future.

2.1.8.1 Size of The Firms

In terms of size, large companies have much easier time to collect and gain from the capital market, compared to smaller companies. Large companies have the added advantage of being able to spend more money on their roadshows, during the book building process of their IPOs. Having a larger sized company would also attract a higher level of quality, talented management, which is essential in operating the business on that scale. Traditionally, the total tangible assets of a company are a clear indicator of the company's size, and their quality of management.

Larger firms in terms of their tangible assets will present less uncertainty and less information asymmetry since they have greater resources to reduce information asymmetry (Daily *et al*, 2003). Size of the firms sends a value to potential investors that they are less risky (Bhabra & Pettway, 2003). Larger firms will also attract more larger investor and able to extract more information from potential investors through the book building marketing method. Also, large issuers will

have better access to investment capital, since they are most likely to be backed up by informed investor, hence reducing information asymmetry (Bhabra & Pettway, 2003). The size and the amount of capital that the firm needs to gain could be an indicator that they are aiming to reduce the information asymmetry, which might affect their decision between the marketing methods.

2.1.8.2 Age of The Firms

A firm's age is an indicator of how long the company has been operating prior to its IPO. It shows how long the company has survived. This length of time that companies have managed to conduct their businesses for a long time, for example, is also an indication that the company has been able to run their operations with some success. The older the company is, the higher-level quality of their management, these factors are also able to increase the value of the issue pre and post-IPO.

When a company decided to go public, it is important to take notes on how long the company has been operating. For young and smaller firms, they are more likely to suffer a higher degree of informational asymmetry than an older company (Chemmanur & Paeglis, 2004). A mature firm with high quality management and reputation could appoint a reputable underwriter, and given the quality of management certification, it could lower the cost of acquiring and transmitting information (Chemmanur & Paeglis, 2004).

Established firms send a signal to the public that it is less risky than the young and new firms. According to Rasheed, Datta and Chinta (1997), older firms are most likely to be assessed by financial analyst, which will reduce the information asymmetry (Bhabra & Pettway, 2003). Ritter (1991), Jegadeesh, Weinsten, and Welch (1993), Hensler, Rutherford and Springer (1997) believe that the duration of the firm that has been operating before conducting an IPO are in better position to reduce the information asymmetry because they are able to provide several years of data of their operating performance to potential investors (Bhabra & Pettway, 2003).

2.1.8.3 Industry of The Firms

Another characteristics of firm that the author would address are the industry where they have operated. For this particular study, the author would like to divide the industries to two sectors, the finance and non-finance industry. Finance industry is heavily regulated, and when a financial company has been operating for quite some time, it reflects on the quality of the firm's management (Chemmanur & Paeglis, 2004). High quality management is able to reduce information asymmetry.

The Central Bank of Indonesia and Indonesian Ministry of Finance regulate the finance industry; they have the advantages in reducing the information asymmetry due to the rules and regulation. Main purpose of the Indonesian Ministry of Finance is to prepare and implement standardization in accordance to the laws and regulation (Ministry of

Finance, 2009). Some researchers agreed that information asymmetry has decreased since the industry has been regulated (Eleswarapu *et al*, 2004). Especially in the finance industry they have a Regulation of Fair Disclosure that improved the informational efficiency to the public (Heflin *et al*, 2003).

2.1.8.4 Ownership of the Firms

Last characteristics the author would like to analyze are the ownership of the company, which will be divided into two groups, private company and State Owned Enterprises (SOE). Difference in ownership can affect the information asymmetry level, which could influence their choice of marketing method in processing the IPOs.

Government owned companies or SOE has a built up reputation over the years, therefore they will have less information asymmetry to the public (Huang & Levich, 1999). Private company on the other side might experience more information asymmetry to the public, since their reputation is not as high as SOE.

Moreover, SOE has to include economic and political factors that might affect the offer price. Both factors might influence the investor's valuation of the shares. Therefore, SOE has a tendency to choose fixed price marketing method (Jones *et al*, 1999).

2.1.8.5 Risk Factors of the Firms

When preparing the prospectus, underwriters and issuers will include relevant risk factors that are associated with the prospects of the

business. The purpose of including risk factors in the prospectus are to provide potential investors with the uncertainty that will face the firms and able to asses the value of the shares accordingly. Firms with greater risk factors will face higher uncertainty, which will have higher information asymmetry between issuers and investors (Daily *et al*, 2003).

2.2 Theoretical Framework

Based on the theoretical foundation described in the previous section, the author has mentioned the concepts of the book building method, initial return, long run performance, and characteristics of the firms.

Book building is a marketing method that has a nature to help in reducing the information asymmetry in the IPO market. Since book building are able to reduce information asymmetry more than fixed price methods, it is expected that book built IPOs will be less underpriced than fixed price IPOs.

H_1: Book Built IPOs will be less underpriced than fixed price IPOs.

Since there is less information asymmetry problem in the book built IPOs, it is expected that there will be less overreaction in the initial market-trading days, which will affect the long-run performance, due to the reduced volatility. Therefore, it is expected that book built IPOs will have lower underperformance than fixed price IPOs.

H_2: Book built IPOs will results in lower underperformance in the long run than fixed price IPOs.

For the third hypothesis, the author would like to investigate the characteristics of firms that might influence the issuer's choice of marketing method in hope that their choice will reduce the information asymmetry. The characteristics of the firms that will be included in this research will be the size, age, industry and ownership of the firm.

H_3: Companies that are smaller, younger and operates in non-finance industry, privately owned and have high risk factors tends to choose book building marketing method to reduce information asymmetry.

Companies with large tangible assets tend to have greater resources to reduce information asymmetry. Larger firms are able to attract larger investor and extract information from them. In the other side, smaller firms have fewer resources and have higher uncertainty in their valuation than larger firms. Therefore book built IPOs are suitable for smaller firms to reduce information asymmetry.

$H_{3.a}$: Smaller companies tend to choose book building as their marketing method to reduce information asymmetry.

Established firm has more reputation in the public's eye. Companies that has operated for such a long time before going public, shows the quality of the firm to the general public. Also, a financial analyst is more likely to analyze an established firm, which will reduce the information asymmetry. A young firm in the other hand, are more likely to suffer a high degree on informational asymmetry (Chemmanur & Paeglis, 2004). Therefore book built IPOs are more suitable to younger firms to reduce information asymmetry.

$H_{3.b}$: Younger companies tend to choose book building as their marketing method to reduce information asymmetry.

Since the Central Bank of Republic of Indonesia and Ministry of Finance heavily regulates the finance industry, they will most likely have less information asymmetry than non-finance industry. Therefore the book built IPOs are the main option for companies who operated in non-finance industry

$H_{3.c}$: Non-Finance companies tend to choose book building as their marketing method to reduce information asymmetry.

Reputation of SOE, political and economic factor has decreased the tendency to choose book building marketing method. Private company will suffer from more information asymmetry, since the reputation level is lower than SOE. Therefore book built IPOs are the first choice for the marketing method for private owned issuers.

$H_{3.d}$: Privately owned companies tend to choose book building as their marketing method to reduce information asymmetry.

High risk factors will increased the uncertainties in the company's future prospects. Company with higher risk factors will suffer from more information asymmetry between issuers and investors, since investors will face higher ambiguities in valuing the shares. Therefore book built IPOs are the first choice for the marketing method for high-risk companies.

$H_{3.e}$: Companies with high risk factors tend to choose book building as their marketing method to reduce information asymmetry.