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CLAREMONT MCKENNA COLLEGE

**The Price is Book-built: The Decision to Use Book-building Pricing Mechanisms for
IPOs in the Philippines**

SUBMITTED TO

PROFESSOR JANET K. SMITH

AND

DEAN PETER UVIN

BY

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FOR

SENIOR THESIS

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Abstract

In 1998, the Philippines introduced book-building pricing mechanisms for Initial Public Offerings. Almost all capital raised through IPOs in the Philippines is done using a book-building pricing method, however a significant number of IPOs still occur using non-book-building methods. Understanding why book-building has become the dominant pricing mechanism but yet non-book-building methods still survive is the aim of this paper. I find that unlike other countries where the introduction of book-building leads to higher total issue costs for individual issuers and unlike theory which suggests the increased effort of book-building should come with increased costs, IPOs that use book-built pricing in the Philippines actually have a lower total issue cost as a percentage of the total issue size compared to issuers who use non-book-building methods. This being the case, explaining why non-book-built IPOs still occur is even more interesting. I find that the large variance in size and the low volume of IPOs in the Philippines creates a bifurcated market where it is uneconomical for underwriters to use book-building to service small firms who want to IPO. The harder phenomenon to explain is the choice by firms who are large enough to book-build to use non-book-built methods. I suggest that the developing sophistication of the local market as well as the relationship driven aspect of business in the Philippines are two possible explanations.

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I. Introduction

Though public offerings have been out of fashion in the US market recently with large private funding rounds allowing companies to stave off an appetite for the public markets, the Initial Public Offering (IPO) market in Asia-Pacific hasn't gotten the memo. The APAC region leads in terms of deal number and proceeds through the first 9 months of 2015 and Japan is on course to have the best year for IPOs since 2007¹.

An Initial Public Offering is the first offering of a company's equity to public investors and is a major source of capital for growing firms. The decision to IPO is a major event in the life of any company. IPOs are complex processes that can take several months as the company works with their retained teams of several parties including banks, law firms and accountants on the offering. Arguably the biggest decision the offering firm has to make after making the decision to IPO is how to price the offering. In a small set of countries, regulatory bodies only allow one type of pricing method. Indonesia, for example, only allows companies to IPO using a fixed-price mechanism. The majority of countries with functioning public equity markets however allow firms to choose between the three types of pricing methods or a combination of them, these being: fixed², auction, and book-building. Globally, book-building is the pricing method of choice. Sherman (2000) shows that in more than forty markets where book-building is available it has become the pricing mechanism of choice. Understanding why has been

¹ "EY - IPO Global Trends 2015 Q2 - Asia-Pacific Is the Standout Region." Ernst Young. Accessed November 30, 2015. <http://www.ey.com/GL/en/Services/Strategic-Growth-Markets/ey-ipo-global-trends-2015-q2-asia-pacific-is-the-standout-region>.

² By "fixed price", I refer to any method where the final offer price is determined through calculations performed by the underwriter. The calculations and formulas used do not have to be standardized however and thus the fixed price calculation for one IPO may be different from another.

the subject of various different theoretical and empirical studies which will be explored in more depth in section 2 of this paper.

Nevertheless, the consensus so far seems to be that in developed markets the benefits of pricing via book-building are clear empirically. In the US (whether the book-building system originated) or Japan for example, there has been little push back on the dominance of book-building. Attempts to disrupt the system by firms such as W.R. Hambrecht who offers auction-priced IPOs in the US have resulted in, at most, moderate success. In developing markets however there the evidence is still unclear as to whether book-building has helped the market. In India, Kumar (2008) finds that from a total cost point of view, issuers are neither better nor worse off under the Indian book-building system. In Bangladesh, Islam *et al.* (2006) find that the benefits to the market are unclear given the shortage of large, sophisticated investors and in 2011 Bangladeshi regulators suspended book-building as a pricing mechanism, blaming it for the market debacle that the country experienced in 2010.

As a student of the developed markets but a native of the Philippines, whether or not a recently introduced financial mechanism makes the market, its participants and ultimately the greater economy better or worse off concerns me on a personal level. This study seeks to add value to the developing field of literature on the topic in the Philippines by answering two questions: 1) Why do most firms in the Philippines choose to use a book-building method as opposed to a non-book-building method (including auctions, fixed-price or any other method that does not use an explicit book-building

process) and 2) What firm-specific variables predict whether a firm will use book-building pricing methods or non-book-building pricing methods.

II. Literature Review

A significant volume of literature is devoted to trying to explain why the overwhelming majority of issuers elect to use book-building mechanisms rather than auctions or fixed price offerings when they have the choice of using any of the three. Broadly, in markets free markets where IPO pricing isn't directly determined by regulators, there are three major parties that could influence the decision. The first is the investors in the market whose response to different IPOs influences the type of IPOs the market chooses, the second is the underwriting banks who provide the pricing services and will usually recommend a certain type to the issuing company if retained, and third is the issuing company themselves who directly makes the decision of what type of IPO to pursue.

Jagannathan *et al.* (2010) hypothesize that it is investors, specifically sophisticated and institutional investors that make up most of the market volume, that drive the decision and that the difficulty associated with auction based methods leads to investor behavior that is detrimental to the issuer. They argue that the primary investors in the market, large institutional investors, discourage non-book-built pricing methods since they allocate shares on a prorata basis leading to a smaller allocation on average for institutional investors compared to book-building. Furthermore, Jagannathan and Sherman (2006) in another paper argue that the free rider problem and winner's curse discourage informed investors from participating in auction-based IPOs. Informed

investors, usually institutional investors, prefer book-building because it rewards them for their sophistication by getting more shares at a better price at the time of IPO since underwriters take into account institutional investors's information during the price setting period. In an auction IPO, uninformed investors are also allowed to bid which creates a lot of noise when setting the price and because shares are allocated from highest bid to lowest, investors who overbid not only move the price away from the "correct" price but also take away potential allocation from those who bid at the "correct" price. In terms of fixed-price offerings, even if bids aren't solicited from uninformed investors, all sophisticated investors still aren't rewarded for their information and thus, as Sherman (2005) puts it, they feel like their time evaluating the offer is wasted.

Alternatively, some authors argue it is the underwriting banks that drive the choice of regime. Ausubel (2002) states that investment banks have an incentive to pressure issuers to choose book-building because of the higher fees banks receive in return for the additional effort and time spent on book-built offerings. Additionally, as documented by Sherman (2002), given that underwriters determine the allocation of the shares in a book-built process and there is strong evidence that underwriters underprice³, banks also have the incentive to pressure issuers to use book-building so that they can allocate the underpriced shares to important clients in order to build and deepen relationships. Degeorge *et al.* (2007) states that the information gathering process of book-building, which includes public presentations of the company by management and more disclosure of company information prior to final pricing, and longer time frame

³ Ausubel (2002), Aggarwal et al. (2001), Hanley and Hoberg (2011) all find underpricing in their samples of book-built IPOs and cite causes such as litigation risk for underwriting banks and a desire for issuers to see a "pop" as reasons for systematic underpricing

results in more coverage from analysts. This enhances the demand for the deal, but also gives the underwriters themselves more publicity and better relationships with analysts.

The last major stakeholder that could drive the decision is issuers themselves. Sherman (2002) finds that expected number of shares sold under book-building is higher, risk of undersubscription is lower, and book-building allows the issuer to control spending on information acquisition (thus giving control over expected proceeds). In an expansion of her paper, Sherman (2005) concludes that because more control over the offering and less risk are qualities sought by any issuer, this explains why global trends of issuer choice of book-building are so consistent. After looking at the case of Japan, Kutsuna and Smith (2003) argue that net issue proceeds are what determine the regime that results in the most capital raised from the IPO minus total issue costs. Because the individual total issue cost of most issuers in their sample is higher under book-building, individual total issue costs savings cannot explain the shift to book-building and individual issuer preference alone cannot answer the why book-building seems to drive all auctions out of favor in Japan. Kutsuna and Smith conclude that the benefits to the whole market and not a specific group of stakeholders due to the lower *aggregate* total issue cost (when results are weighted by issue size rather than equally weighting and taking into account opportunity costs related to underinvestment) and due to partly redistributive effects of more-accurate pricing is what determines the regime of IPO pricing that prevails. Kutsuna and Smith however end on the statement that whether or not there is a role for other IPO processes outside book-building “depends partly on the mix of potential issuers”.

Considering previous literature reveals nuances to the questions of why book-building becomes the pricing mechanism of choice and what firms choose it. First, it seems undisputed that book-building should result in less uncertainty and thus better performance of IPOs, the tradeoff in other markets however is the higher cost associated with book-building. Thus examining whether the tradeoff exists in the Philippine market and, assuming it does, assessing whether the higher costs are justified is one of the important objectives of this paper. Second, the benefits of book-building are repeatedly found to be dependent on the scale of issuing firms, whether that be in terms of issue size or market cap, and the information asymmetry associated with the company. Thus, another important objective in this paper is examining whether the size of a firm and the amount of information asymmetry of a firm in the Philippines predict the decision to book-build. In the pursuit of these objectives, understanding the institutional backdrop of the Philippines is of high importance.

III. Institutional Overview⁴

The Philippine stock market:

The current Philippine Stock Exchange (PSE), the sole stock exchange in the Philippines, started in 1992 as a result of the unification of the Manila Stock exchange, which was organized in 1927, and the Makati Stock Exchange, which was organized in 1963. Companies on the exchange are classified according to 7 sector categories: financial, industrial, holding firms, property, services, and mining and oil. As of June 8

⁴ As a result of poor online documentation of many PSE and SEC requirements, most information is taken from interviews with industry professionals which are cited in the References section.

2015, there were 263 companies listed with an aggregate market capitalization of 14,496B Php⁵.

Originally, companies IPO-ed and were listed on the First Board, Second Board, or the Small and Medium Enterprises Board with the board determined by profitability, growth, market capitalization, age and net tangible assets. In 2013, the PSE adopted a new listing board structure, consolidating the 3 previous boards into the Main Board and the SME Board each with more comprehensive listing requirements. In general, larger companies with longer operating histories are listed on the Main Board while smaller and younger companies are listed on the SME Board (for more details refer to tables 1 and 2).

Tax considerations:

Preferential tax treatment is granted to sales of shares during an IPO. A tax rate of 50bps of transaction value is applied during the IPO compared to the capital gains tax of 10% - 20% one would have to pay on the sale of shares normally. In exchange for this preferential tax treatment policy, the government set in place IPO distribution requirements intended to allow Filipino retail customers to share in the upside of the company.

IPO distribution requirements:

In general, the SEC requires underwriters to distribute 20% of the base deal to Trading Participants (TP's) who are a collection of mostly small, PSE-registered brokers, 10% to local small investors (LSI's) with the remaining 70% to be sold to the general

⁵ <http://www.pse.com.ph/stockMarket/marketInfo-marketActivity.html?tab=0>

public (the majority of this tranche is usually allocated to Qualified Institutional Buyers (QIB's)). This 70% allocation to QIBs is also referred to as the book-building process however this does not refer to the *pricing* process of the IPO rather it just refers to the determination of allocation. Taking a fixed price IPO as an example, the price may be determined through a fixed-price method however if the offering is oversubscribed, meaning the number of shares demanded by investors is greater than the number of shares being sold, how many shares each QIB receives is determined through what is also called the book-building process. These percentage distribution requirements are unique to the Philippines and both underwriters and the PSE have called for reform for what they say is an antiquated and unfair securities code. Underwriters claim the option for TP's to return their allocation to underwriters essentially gives the trading participants a free option on the shares. Furthermore, the 10% allocation requirement to small local investors frustrates underwriters due to the low take-up rates from the tranche (which can be as low as 2%). In practice, this motivates underwriters to prefer a book-building pricing mechanism since it allows them to try and get demand to cover 100% of the deal with institutional investors so that the deal is still covered in the case of weak demand from the TP and LSI tranches.

Listing by way of introduction:

Listing by way of introduction applies to situations where a company will list on the PSE but no public offering will be undertaken because the securities for which the listing is sought would be of such an amount and would be so widely held that their adequate marketability when listed can be assumed. Broadly, listing by way of

introduction can also occur when listing in an exchange or public offering is mandated by law or be the SEC or other government agencies.

The non-book-building regime:

Pre-1998, IPO issuers in the Philippines had the choice between fixed-price, auction, or hybrid offering methods. With a fixed-price offering, if the company was to be listed on the Third Board the shares of the company were required to be priced at par value (1 Php). Most companies however listed on the First or Second Boards where the underwriter would determine a price based on their own determined factors such as PE ratio, prevailing market conditions, historical performance, estimates of the business potential and earnings prospects, assessment of company's management and consideration of above factors in relation to the market valuation of companies in related businesses. This price would be the final price shares were offered to investors at during an IPO.

In contrast, with an auction-price offering, bids which are solicited from investors who want allocation from the IPO are used to set the price of the shares. A hybrid-price offering would be an IPO that utilizes both methods to set the price of different tranches of shares during the offering. During the non-book-building regime, fixed price offerings dominated. In fact, in my data set only one company during the non-book-building regime did not use the fixed price method.⁶ During this regime, pricing methods did not prevent systematic underpricing. Sullivan and Unite (1998) found that during the 11 year period of 1987-1997 first day initial returns of 104 IPOs averaged 22.69%.

⁶ Petron Corporation's (PCOR) IPO in Sept. 1994 utilized a hybrid-price offering, with a fixed-price offering tranche and a "tender-price" offering tranche (auction-based)

The book-building regime:

Under book-building, the underwriter gathers information from primarily institutional investors. Similar to the fixed-price method, the underwriter will independently determine a price range that they expect the IPO to price at. Subsequently, unlike other pricing methods, through discussions undergone during a “road show”, a typically one to two week long process that involves management presentations and one-on-one meetings with selected investors, the underwriter will assess the level of interest / demand from investors and determine where in the range the price should be set. The higher the demand, the closer to the upper part of the price range the offering price is set. In exceptional cases, the underwriter may even chose to create a new range of prices if demand turns out to be much higher or lower than expected. In the case of exceptionally low demand, the issuer may choose not to issue, thus firms that end up IPO-ing usually price within the expected range or better. Under the Philippine book-building method, the offer price need not be linked to the value of comparable companies. Furthermore, perhaps the biggest differentiator for book-building is that gives underwriters greater control over allocation of the shares. Under non-book-building mechanisms shares are allocated prorata, however in the book-building process the underwriter has discretion over the allocation of the shares. This incentivizes truthful bids from investors during a book-building process as their potential reward is the allocation of underpriced shares, as discussed in Benveniste and Spindt (1989). Thus while nothing bars underwriters from going on a roadshow and asking for indications of interests during a non-book-building process, because underwriters have no control over allocation investors have no incentive to give accurate representations of price. In general, the book-building process is

associated with higher effort on the part on the underwriter to market the IPO and gather information on demand.

The IPO of Philippine Seven Corporation (SEVN) in February 1998 is the first time a book-building method is mentioned in regards to setting the offering price of the IPO. It is unclear what specifically motivated the introduction of book-building pricing, however the time period of the late 1990's was a time of major change in the Philippine markets and in East Asian markets in general, among these changes were: The increase in Western institutional investors opening East Asian (ex-Japan) emerging market funds and migration of talent from Wall Street and London to Asia, increase in privations which needed broader and deeper institutional investor support, the Asian Financial Crisis of 1997-2004 and the emergence of smaller, earlier-stage companies. These factors point to a spread of Western capital markets knowledge, a growing sophistication in institutional investors and an era of increased complexity and uncertainty in the public markets. Book-building, which gives underwriters and issuers more control over the offering and relies on sizable and knowledged institutional investors, would logically be a sought after tool. Sherman's (2002) empirical findings that book-building has become the preferred pricing method for IPOs in 44 countries and Ljungqvist *et al's* (2003) and Sherman's (2005) conclusions that book-building tends to drive out other pricing methods in markets that it has been introduced are testaments to this. While companies still have the option of choosing fixed-price or auction-based pricing methods, Book-building since introduction has become the favored method of IPO pricing in the Philippines with 42 out of the 70 IPOs from 1998-2015 choosing to use a book-building process. Nevertheless, unlike markets like Japan where book-building since introduction has completely driven out

other pricing methods, the Philippine market still has a significant amount of IPO's utilizing non-book-building methods. As can be seen in figure 5, the prominence of book-building has grown as time has progressed however even in recent years non-book-built offerings are still observable.

IV. Data Description

To study the book-building regime in the Philippines, I use a sample of all 70 companies that IPO-ed on the PSE from the start of 1998 through August of 2015. The data set does not include companies that listed by way of introduction or listed through way of a reverse merger⁷ due to the significantly different nature of the transactions. As can be seen in figure 5, over recent years there still have been a number of non-book-built IPOs however, as figure 6 shows, they make up a small amount of the volume.

Data on proceeds, price, board, sector, aftermarket price and market cap at issuance was provided by the library of the PSE. Additional details such as historical financials, nature of shareholders, underwriter details and fees, use of proceeds, firm age, number of employees, and classification of pricing mechanism were collected from the final prospectuses filed with the PSE by the IPO-ing companies. Underwriter fees are inclusive of fees paid to selling agents due to most prospectuses not stating the distinct portion that would go only to the underwriters. IPOs were classified as either book-built or non-book-built by looking at the "Determination of Offer Price" section of each prospectus. While the wording of the section is left to the discretion of the issuer and its advisors, the SEC requires firms to explicitly mention if a book-building process was

⁷ The acquisition of a listed public company by a private company

used to price the shares (as can be seen in figure 4). Thus if a prospectus did not explicitly mention book-building in the “Determination of Offer Price” section, examples of which can be found in figure 1 and 2, then the IPO was classified as non-book-built.

Table 3 shows a summary of the data divided by book-built IPOs and non-book-built IPOs. Additionally, because of the historically observed difference in performance of IPOs of public utilities, the results for book-built and non-book-built IPOs excluding three IPOs of privatized public utility and public financial companies⁸, which are the only privatizations in the sample, were also generated. Because the differences of mean values in this no-privatizations sample from the sample containing all IPOs were found not to be statistically significant, the generated statistics for the no-privatizations sample are not shown.

Capital market uncertainty:

Capital market uncertainty is a possible reason firms would elect to use a book-building method rather than a non-book-building method. To measure capital market uncertainty, I measure the runup of the market index over the 90 day period prior to the final issue date of the IPO. The market index I use is the Philippine Stock Exchange Index (PSEi) which is the main index of the PSE and is comprised of a fixed basket of the 30 largest and most active common stocks on the PSE.

Issuers want to ensure there is adequate demand for the offering and that the issue is priced correctly. Book-building’s process of information gathering reduces uncertainty

⁸ Manila Water Corporation (2005), Electric Development Corporation (2006) and National Reinsurance Corporation of the Philippines (2007)

regarding demand for the issuance and allows the underwriter to easily revise the price. Panel a in table 3 gives evidence for this theory, showing that on average there is a larger amount of uncertainty during periods when book-built IPOs occur.

Issue cost:

In answering the question of why book-building is preferred by issuers, previous literature from developed markets suggests there is a trade-off between the higher issue cost associated with book-building due the higher effort expended by the underwriter, and the benefits of greater information on demand. Congruent with other studies on issue cost such as that of Kutsuna and Smith (2003), I define total issue cost as the sum of underwriting fees and underpricing. In panel b of table 3 I standardize total issue costs by offer price as is commonly done. Kutsuna and Smith (2003) however argue that this standardization technique econometrically weights outlier issues too heavily and that conceptually, total issue cost is better measured as the percentage difference between market value and net issue proceeds. Thus, in panel c of table 3 I standardize total issue cost by the first aftermarket price.

In contrast to most literature from developed countries on total issue cost between book-building and non-book-building IPOs, my data shows that book-building is than non-book-building from a total issue cost perspective. Looking at the components of total issue cost, underwriter fees is not the driver of the difference in cost with underwriter fees set at about 3.1% for both book-building and non-book-building. This is consistent with my interviews with industry professionals who cite intense competition and the SEC mandated cap on underwriter fees of 5% of issue size as the reasons for the tight band

around fees. Thus, the driver of the difference in total issue cost in the Philippines is underpricing. Compared to underpricing as measured by first day initial returns in the US from 1980-2001 as measured by Ritter and Welch (2002) of 20%, and Kutsuna and Smith (2003) in Japan of 36%, underpricing in my data set is significantly less at around 11% across all IPOs.

Given the advantage of book-building of greater information, less uncertainty and the ability to allocate shares, it is puzzling why underwriters would not charge a premium above non-bookbuilt offerings or why an issuer would have chosen a non-bookbuilt option if they appear to be more expensive. Practitioners from large banks in the Philippines point to size of the offering as the explanation. Speaking with an investment banker from Deutsche Bank in the Philippines and another at Bank of the Philippine Islands Capital Markets, both said that their banks did not look at deals the size of those that were non-bookbuilt in my data set as the economics did not make sense even if priced at the 5% underwriter fee cap.

Offering size:

Looking at panel d of table 3, the difference in offering size between book-built and non-book-built IPOs corroborates the colloquial evidence taken from the interviews with practitioners. In terms of total capital raised, primary capital raised, and secondary capital raised, bookbuilt offerings are at least one order of magnitude larger than non-bookbuilt offerings. Correspondingly, this means an order of magnitude of order difference in underwriting fees. Even with the lesser amount of work required from an underwriter during a non-bookbuilt deal, the smaller economics of non-bookbuilt deals in

the Philippines means that most of the larger banks do not participate in the market. This leaves the space open to more niche competitors who may have different cost structures that allow the economics of the small, non-bookbuilt deals to work. Abacus Capital and Investment Corporation, ranked 115th in the Philippine Equity deals league table according to Bloomberg by deal volume since 1999, performed 1 of every 3 non-bookbuilt deals in the sample and has been the lead underwriter on the last five non-bookbuilt deals in the country. In general, it seems that there is less of a “choice” for issuers between book-building and non-book-building which helps to explain the conundrum with total issue costs. Small issuers, even if willing to pay in the upper range of fees, are overlooked by banks who have the resources and network of investors to perform a book-building process and thus turn to niche underwriters to IPO. These niche firms, with less competition from traditional underwriters, are able to charge a slight premium in fees. Conversely, traditional underwriters who book-build offerings face more competition (increasingly from large multinational banks) and thus are unable to charge a higher fee.

Additionally, panel d seems to refute the statement that issuers looking to simply exit their investment in a company and thus don't care about the aftermarket performance of the shares would choose a non-bookbuilt option. The amount of secondary proceeds as a percentage of total equity in non-bookbuilt offerings is less than that in book-built offerings. Given the low cost of book-building in the Philippines, it can be speculated that the lower amount of underpricing from bookbuilt IPOs (and thus less money left on the table) outweighs the lower fee that issuers would pay if they elected to use a non-book-built IPO.

Company characteristics:

The last panel of table 3, panel e, displays the company characteristics of issuing companies. Unsurprisingly, given the results related to offer size, larger companies in terms of market cap, who tend to have more employees and a longer operating tenure, elect to use book-building more. In terms of operating metrics, column 2 which includes all 28 observations of non-bookbuilt IPOs is misleading due to the inclusion of the 2007 IPO of Anchor Land Holdings, Inc (ALHI) which IPO-ed with 381B Php in revenue and a net income of 56B Php. Removing the outlier in column 3 gives a clearer picture of the data and doesn't change any of the conclusions mentioned above so far. The only material difference is in the mean of sales revenue, net income and sales growth for non-bookbuilt firms. Once again, as expected with a sample of younger, smaller firms, the mean amount of revenue and income for companies that choose not to book-build are significantly less than those who do. Correspondingly, these non-book-built have higher sales growth metrics.

While the benefits of book-building seem most suited to firms with high asymmetric information, such as new, smaller, high growth firms, these types of firms seem to use non-book-building methods. As discussed above, the lack of choice may be driving these high-information asymmetry firms to use non-book-building methods. Given this, as can be seen in figure 8, it is no surprise that the vast majority of firms that have IPO-ed in the Small and Medium Enterprise sector (SME) decided not to book-build.

V. Regression Results

To further empirically investigate the choice to bookbuild and determination of issue costs, I regress select company and issue characteristics against the binary variable of bookbuilt versus non-bookbuilt in tables 4 and 5, against underwriter fees in table 6 and against underpricing in table 6. All regressions exclude the outlier of ALHI due to the reasons previously mentioned.

The choice to book-build:

Table 3 presents the results of a linear regression with the binary choice to book-build or not as the dependent variable and select company and offering characteristics. The regression gives similar results to Kumar (2008) in the Indian market who found that only size and underwriter's reputation were statistically significant in determining whether a firm chose to use a book-building process or not. I omit my measure of underwriter reputation, a binary variable of whether or not the underwriter was in the top 10 of the league table by deal volume, since all top 10 underwriters in my sample only use book-building. My linear regression finds that only the constant is significant at the 1% level. Market cap and the SME sector are significant at the 5% level while the property sector is significant at the 10% level.

For comparison, the marginal effects of a probit regression are displayed in Table 4. At the 10% level, age of the firm and the mining and oil sector are significant. At the 5% level, market cap is significant. At the 1% level the holding firm sector is significant. Unlike the linear regression, has easily interpretable regression coefficients where a 1 unit change in the independent variable results in a percentage increase in the conditional

probability of the dependent variable occurring equal to the magnitude of the coefficient on the independent variable, all else being equal. Using holding firms as an example, because all holding firms in my sample chose to use book-building, the model predicts that holding all other explanatory variables constant, a firm that registers their sector as a holding company is 100% more likely to use book-building compared to a company that does not register their sector as a holding company. Between the two regressions, only market cap remains statistically significant. The sign is in the expected direction, indicating that the larger the company, the more likely book-building is used. Nevertheless, the magnitude of the marginal probability is extremely small. In order for a the conditional probability of book-building to increase by 1.00%, the market cap (given in mm Php) of a company would have to *increase* by about 50 *trillion* Php. Given that the range between the largest IPO in the sample (Travelers International Hotel Group, Inc.) and smallest (Information Capital Technology Ventures) is about 180B, the magnitude of the effect of market cap seems insignificant once other variables are controlled for.

Interestingly, a more sophisticated shareholder base at the time of IPO, proxied here by a firm having a large amount of foreign shareholders and / or having the majority of the firm owned by non-individuals (such as funds or other companies) and / or being a subsidiary of a foreign corporation, does not seem to be significant in determining the book-building decision. Worth noting as well is that in both regressions, the secondary proceeds as a percentage of the market value of equity at the time of offering just misses being significant at the 10% level, coming in at between 11% - 12% in the linear and probit models. The sign is the opposite direction than expected. An offering with a large

secondary amount would mean a large amount of shareholders looking to liquidate their investment in the company. It could be argued that these shareholders would not care about the aftermarket performance of the shares of the company and thus they would not be willing to pay for the more accurate pricing of book-building. In this case however, it can be speculated that for companies that have the option of using both book-built and non-bookbuilt methods, the increase in secondary proceeds from greater marketing and less underpricing associated with book-building outweighs the cost savings that would come with using a non-book-built process.

Total issue cost:

The observation from the summary statistics in table 3 that book-building does not have a higher total issue cost than non-book-building is puzzling. The more effort that the underwriter expends on due diligence and the better their reputation, the more they should be able to charge either in the direct form of higher fees, or in the form of greater underpricing which represents a lower cost of investment in marketing and information gathering. The larger the problem of asymmetric information, the greater the effort required on both the marketing and information gathering front. Firms with longer track records and larger revenues should be arguably more well-known and less difficult to market and perform due diligence on. Furthermore if underwriters are able to compete on reputation and not just price, then they should justifiably be able to charge a premium. Kutsuna and Smith (2003) find that with auction IPOs (non-bookbuilt) they are unable to explain total issue cost, however with book-built IPOs the factors above are significant. They additionally find that the issue size is significant in determining total issue cost in

book-built IPOs, implying an economies-of-scale effect for underwriting. I add the binary variable of whether or not there is an international tranche of the issue, expecting that the greater disclosure requirements and additional marketing should allow foreign underwriters to charge a greater fee. Unfortunately, fees paid to in relation to international offerings are not disclosed however an interview with an investment banker at Deutsche Bank Philippines revealed that usually the disclosed fees to domestic underwriters are similar to those paid to international ones. For the regression on underpricing I also include underwriter fees which would be expected to be a factor in determining the level of underpricing if the two are substitute components of total issue cost and the determination of price would occur after agreement on the fee in the IPO process. I standardize the data by issue price, so that the underwriter fee model is not affected by underpricing.

Table 6 shows the linear regression results for total issue cost. Like Kutsuna and Smith (2003), I am unable to explain total issue cost from both a fee and underpricing perspective with only the constant being significant in both regressions. Unlike Kutsuna and Smith (2003) however, I am also unable to explain total issue cost for book-built issues as well. International and my measure of underwriter reputation, whether or not is in the top 10 of the league table, have either their corresponding interacted or non-interacted variable omitted since all international offerings were book-built and top 10 underwriters only performed book-built IPOs. In aggregate, the model explains less than 25% of the variation in underwriting fees, however this lack of explanation, I believe, is a useful result. The lack of effect of any variables that have explanatory power in developed markets like Japan signals that underwriters, even those with global

operations, operate differently in the Philippines. While it is argued underwriters should favor book-building because it gives underwriters more control over their compensation structure, it doesn't seem that book-builders in the Philippines possess that form of market power.

VI. Further empirical investigation

Given the entire sample of firms that have IPO-ed in the Philippines since the introduction of book-building as a pricing method in 1998, I am led to four conclusions: 1) The size of a company determines whether a company uses book-building to price their IPO or not, 2) however not small companies do not have the choice to book-build due to the absence of service provided by underwriters who find their issue size uneconomical. 3) Book-building is cheaper from a total issue cost perspective and has a lower amount of underpricing. Along with the marketing and discretionary allocation benefits book-building offers, this seems like a plausible explanation as to why book-building has become the dominant pricing mechanism in the Philippines, however 4) I am unable to empirically explain why book-building is has a lower issue cost as a percentage of total offering proceeds.

The wide variance of firm size in the Philippines combined with the low volume of deals creates the bifurcated market that leads to conclusion (2). Figure 13 charts the logged market cap of all 70 firms against the binary decision variable of book-built or not. At the edges, there is a clear tendency for the smallest firms to not use book-building and for the largest firms to use book-building. There is an overlapping area however in market caps with the magnitude of 100 mm Php to 10 B Php. This subset of firms is

interesting given that they are firms of relatively equal size in terms of market cap who presumably had the true choice of using book-built pricing or not. This may not be precise given that it may be the case that over time more underwriters entered the book-building market and thus allowed smaller firms to issue or that early in the period large firms elected to still use the legacy non-book-built method because of lack of education on the new method. Nevertheless the sample presents a better opportunity to study the choice to book-build or not. To gain a rough empirical understanding of this set of firms, I create an adhoc sample consisting 17 of firms that are in in one of the two buckets: 1) used book-building *and* had a market cap less than 1 B Php, or 2) used non-book-building *and* had a market cap greater than 1B Php.

Table 7 shows the results of the linear regression of the sample for the choice of firms to book-build or not. Unlike the low explanatory power of the table 4 which includes the whole sample of firms, the linear regression of the subset of firms has strong explanatory power with an R^2 over 90%. Market cap comes out significant again but with a negative sign which is expected given that the sample was created so that all book-built firms were smaller than non-book-built ones. Interestingly, the only other variable significant at the 10% level is the binary variable of large foreign shareholders. I define a firm with a large amount of foreign shareholders to be a firm with more than 30% of its common equity held by persons or institutions of a nationality outside of the Philippines at the time of IPO. Given that book-building is relatively new to the Philippines but has been used extensively abroad, and that foreign investors tend to be more sophisticated than local Filipino investors, it makes sense that companies with more foreign investor pressure would use a book-building process. This would also seem to imply, that as

Filipino businesses and investors continue to become more sophisticated, the existence of non-book-building methods will tend in the same direction as countries like Japan and become extremely scarce as companies that truly have the option of choosing their IPO pricing mechanism elect to use the book-building method.

VII. Conclusion

While the continued moderate appearance of non-book-built IPOs in the Philippines over recent years is a rarity on the global scale, the Philippines is not an exception to the rule that is the tendency of book-building to dominate non-book-building methods in IPO pricing. The heavy competition for business in South East Asia equity market, the regulatory cap on fees, and the precedent set by historically low fees before book-building increases willingness of domestic and international underwriters to accept low-single-digit fees. Interestingly, underwriters don't seem to substitute lower fees with more underpricing as is found abroad. Equally interesting, is the fact that investors are willing to reveal truthful information to such an extent given the Philippine regulations on allocation. Given that the argument for more accurate pricing under book-building is the information gathered from (primarily) institutional investors, and that the incentive for investors to reveal information is allocation, in a system that reduces the potential allocation that institutional buyers can receive, one would expect there to be more underpricing. Abnormally strong demand for Philippine public shares could be one reason, looking at the run-up of the PSEi in figure 7 over the period supports the claim. An alternative explanation is the youth of the market. Loughran and Ritter (2002) find that in the US, average initial underpricing in 1980 was about 7% which is where the

Philippines is now. Over the course of 20 years however the number rose to about 65%. The increasing valuations of companies over time and agency problems between underwriters and issuing firms are the primary factors they attribute this to. Figure 11 shows book-built IPO underpricing in the Philippines trending up as time has progressed, suggesting that the infancy of the market is responsible for the anomaly of issue costs in the market.

Nevertheless, given that book-building in the Philippines was cheaper from a total issue cost perspective and results in better deal performance (figure 10 shows the majority of deals for which oversubscription occurred were for book-built IPOs), what explains why 40% of IPOs since 1998 didn't use book-building?

The first reason is that very small firms with small offering sizes do not have access to banks who offer book-building services. The percentage fees of small offerings are unattractive to book-building banks and thus these offerings are overlooked. Because the volume of deals is tight, the strategy of middle market banks, like those in the US, who operate by doing more deals of smaller sizes, is also unviable. In addition, it is difficult for a niche player to enter the space and provide book-building services to small players due to the high barriers of entry that exist within the book-building space such as a network of investors and relationships with advisors such as law firms (who the underwriter can introduce to the issuer for the offering) both of which usually require scale.

For firms large enough to choose between book-building and non-book-building, the developing nature of the market and investors at a macro level and the concentration

of foreign shareholders at a firm-specific level are possible explanations. Change can be difficult, especially for a developing market with unclear regulations and processes. In aspects, doing things as they have always been done is a viable argument. In support of this, given the heavily relationship-driven nature of finance and the fact that only domestic underwriters provide non-book-built offerings, legacy relationships could lead a firm to choose not to use a book-building pricing process. The virtual non-existence of a private equity market in the Philippines also means that most firms IPO with limited foreign ownership, only allowing foreign capital to flow in through the public markets. The more sophisticated shareholder base and management teams of countries such as Japan that understand the book-building process may be the reason why non-book-built IPOs disappeared rapidly in the country after the introduction of book-building at relatively the same time as the Philippines.

In conversations with investors and underwriters in the Philippines, the introduction of book-building has been over all a good thing for the Philippine economy. Book-building encourages firms that may not have succeeded in a fixed-price offering or auction due to a high amount of information asymmetry to access the public markets for funding. IPO volume is clearly a sign of a more functional market. More importantly, the scrutiny that comes with being a public company, which ironically recently has been criticized for being a corrupter of incentives and a major friction in the US, in my opinion is healthy for companies in the Philippines. Accountability and transparency forced upon public firms are two qualities that a country that ranks in the top quartile for corruption⁹ should desire. Undoubtedly the IPO market in the Philippines in the next decade will not

⁹ According to Transparency International's Corruption Index as of 2014

exhibit the same features as I find in this paper. Institutional pressure against the SEC to change the allocation requirements to local investors and to raise the fee cap will have large effects if pushed through. The Philippines is projected to be the fourth fastest growing economy of 2015 and inflows of both talent and capital from abroad will occur. Balancing the needs of a bifurcated market consisting of multibillion dollar multinational conglomerates and couple-of-million dollar SMEs will be a huge challenge, and the more academic and practical research that is devoted to the topic, the better prepared my country will be.

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IX. Figures

Figure 1: This page shows the different situations through which a company may list in the PSE by way of introduction. Information is from Pg 1 of the March 9, 2011 memorandum by the PSE to the investing public and market participants on the subject of Amended Rules on Listing by Way of Introduction

Listing of securities by way of introduction may be appropriate in the following circumstances:

- (a) where securities for which listing is sought are already listed or traded or will simultaneously be listed on another stock exchange or, subject to the approval of the Exchange, ARE listed on another trading market;
- (b) where the securities of an unlisted issuer are distributed by way of property dividend by a listed issuer to shareholders of that listed issuer;
- (c) where a holding company is formed and its securities are issued in exchange for the securities of one or more listed issuers and the listing of the listed issuer or issuers is withdrawn at the same time as the securities of the issuer are listed;
- (d) where listing of securities in an exchange is mandated by law or by the SEC, in the exercise of its powers under the Securities Regulation Code;
OR
- (e) where public offering of securities is mandated by law or applicable regulations; Provided, that the applicant company secures a clearance from the relevant agency stating that such agency does not object to the listing by way of introduction of the securities of the company; *Provided further,* that a company which is considered as a "closely-held corporation", as such term is defined under Section 127 (B) of the National Internal Revenue Code of 1997, is NOT qualified to list by way of introduction under this SUBSECTION (e). A SUBSIDIARY COMPANY THAT IS QUALIFIED TO LIST UNDER SUBSECTION (E) HEREOF CANNOT LIST ITS HOLDING COMPANY WHICH DOES NOT MEET THE REQUIREMENTS OF THIS SECTION.

Figure 2: This page is from the “Determination of Offer Price” section of the prospectus of Crown Asia Chemicals Corporation (2015). It is an example of a non-book-built offering, classified as such because the section doesn’t explicitly mention book-building. Instead the final issue price is set by the underwriter and doesn’t incorporate information from investors in pricing.

DETERMINATION OF OFFER PRICE

The Offer Shares are being offered at the Offer Price of One Peso and Forty-One Centavos (₱1.41) per share. Prior to the Offer, there has been no public trading market for the Offer Shares. The Offer Price was established by the Company in consultation with Abacus Capital.

The factors considered in determining the Offer Price were the following:

- a. The Company’s capability to generate and increase revenues of its current operations;
- b. The Company’s capability to prospective revenues based on its business plans;
- c. The estimates of the potential incremental revenues on the Company’s expansion plans;
- d. The additional capital required by the Company for its expansion plans;
- e. The dilution of the existing stockholders;
- f. The prevailing market conditions; and
- g. The market price of listed comparable companies in the PSE and in foreign stock exchanges.

Figure 3: This page is from the “Pricing and Dilution” section of the prospectus of Jolliville Holdings Corporation (2002). It is an example of a non-book-built offer, classified as such because it doesn’t explicitly mention book-building. Instead the issue price is determined by an NAV calculation by the underwriter.

PRICING AND DILUTION

PRICING

The Offer Price is PhP1.09 per Share. Prior to the Offer, there has been no public trading market for the Offer Shares. Among the factors considered in determining the Offer Price, in addition to prevailing market conditions, are the Company’s historical performance, estimates of the business potential and earnings prospects of the Company, an assessment of the tangible worth of the Company’s assets and of its management, and the relative valuation of similar holding company businesses.

A discount to net asset value (“NAV”) per share approach was employed. This involved the valuation of the Company’s shares based on the net asset value of the enterprise. The net asset value of an enterprise is the sum total of all its assets less the sum of all of its liabilities and minority interests. As of end 2001, the estimated net asset value of the Company has been arrived at as follows:

Total Assets	PhP475,357,050
Less: Total Liabilities (including Minority Interests)	<u>15,916,232</u>
Net Assets	PhP459,440,818

Net Asset Value Per Share
(based on issued and outstanding of 251,500,000 shares) PhP1.83

The sale of JRDCI in 2001 (refer to page 61 for a detailed discussion) did not affect the NAV per share of the Company. The transaction was made at book value thus not affecting NAV since the changes in the related assets and liabilities are offsetting. Below is a pro-forma NAV calculation had JRDCI not been sold:

Total Assets	PhP 587,924,456
Less: Total Liabilities (including Minority Interests)	<u>128,483,638</u>
Net Assets	PhP 459,440,818

Net Asset Value Per Share
(based on issued and outstanding of 251,500,000 shares) PhP1.83

A discount in the level of about forty percent (40%) of the computed net asset value for end-2001 was applied and deemed sufficient by management to attract investors’ interest.

The resulting Offer Price of PhP1.09 per share, which is a 40.4% discount to the computed end-2001 NAV per share of PhP1.83, translates also to a Price-Earnings Multiple of 28x 2001 earnings per share (“EPS”).

Figure 4: This page is from the “Determination of Offer Price” section of the prospectus of SBS Philippines Corporation (2015). It is an example of a book-built offering as identified from the explicit mention of a book-building process in the first sentence of the prospectus. Though the underwriter may perform calculations to determine a price range, the final price takes into account information gathered through the book-building process.

DETERMINATION OF OFFER PRICE

The Offer Price for the Offer Shares was determined through a book-building process and discussions between the Company and the Sole Issue Manager, Lead Underwriter & Bookrunner. The Offer Price range was established primarily through the use of market-based valuation methodologies, particularly the price-to-earnings (P/E) multiple valuation approach. Since the Common Shares have not been listed on any stock exchange, there has been no market price for the Common Shares derived from day-to-day trading.

The factors to be considered in determining the Offer Price will be, among others, the Company's ability to generate earnings and cash flow in the context of expected market and economic conditions, prevailing conditions in the local and international equities markets, the size of the primary issuance of Common Shares required to raise the additional capital for the Company, its short and long-term prospects and the market price and price performance of companies listed in the PSE and other exchanges and the dilution to existing stockholders.

Under the P/E multiple valuation approach, the Company and the Sole Issue Manager, Lead Underwriter & Bookrunner assessed the prevailing valuation of companies listed on the PSE and on other exchanges in other countries that the Company and the Underwriter deemed to be comparable to the Company. Specifically, the P/E multiples of these comparably listed companies were used to provide a valuation benchmark. This P/E multiple benchmark was adjusted for certain considerations, including the Company's prospective earnings growth rate, general and business risks, and other factors, and was then applied to the prospective earnings after tax of the Company.

Figure 5: This figure shows the number of book-built IPOs, non-book-built IPOs and total number of IPOs on the PSE in the Philippines per year since 1998.

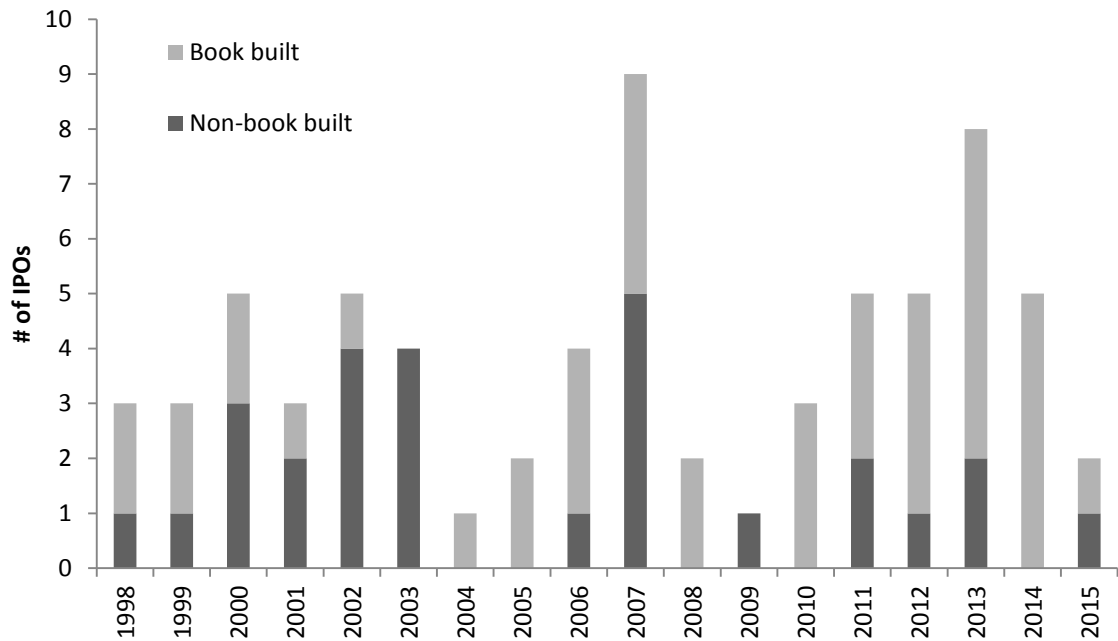


Figure 6: This figure shows the volume of total capital raised of book-built IPOs, non-book-built IPOs and total number of IPOs on the PSE in the Philippines per year since 1998.

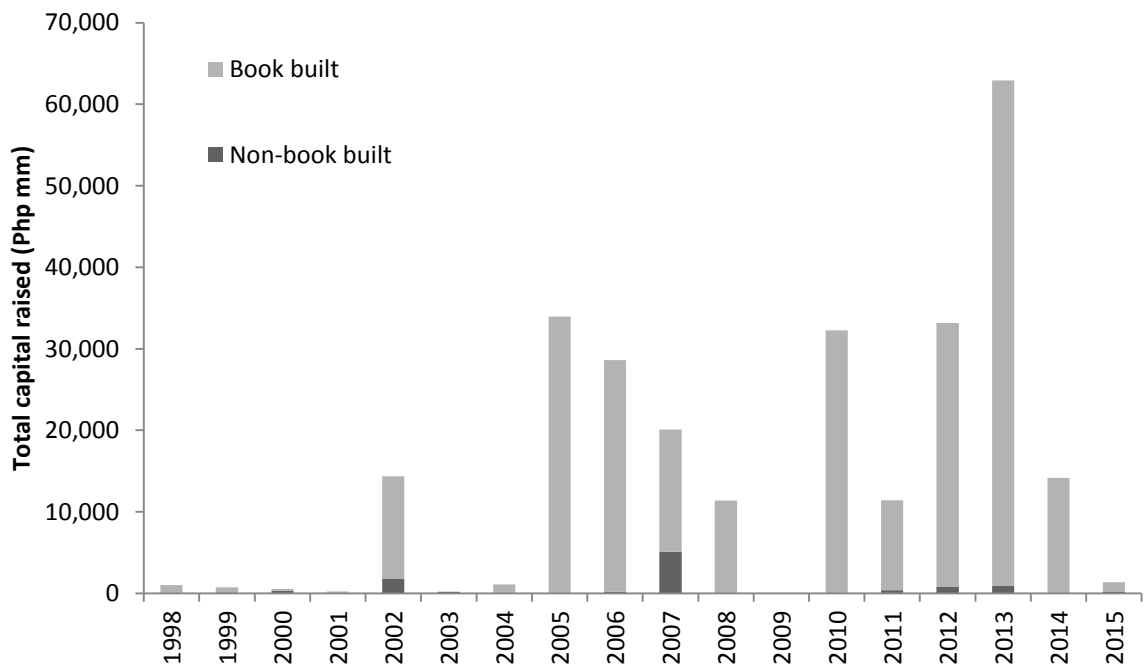


Figure 7: This figure shows the sum of annual trading volume (left hand side axis) and the closing price on the last day of the year (right hand side axis) for the Philippine Stock Exchange Index (PSEi).

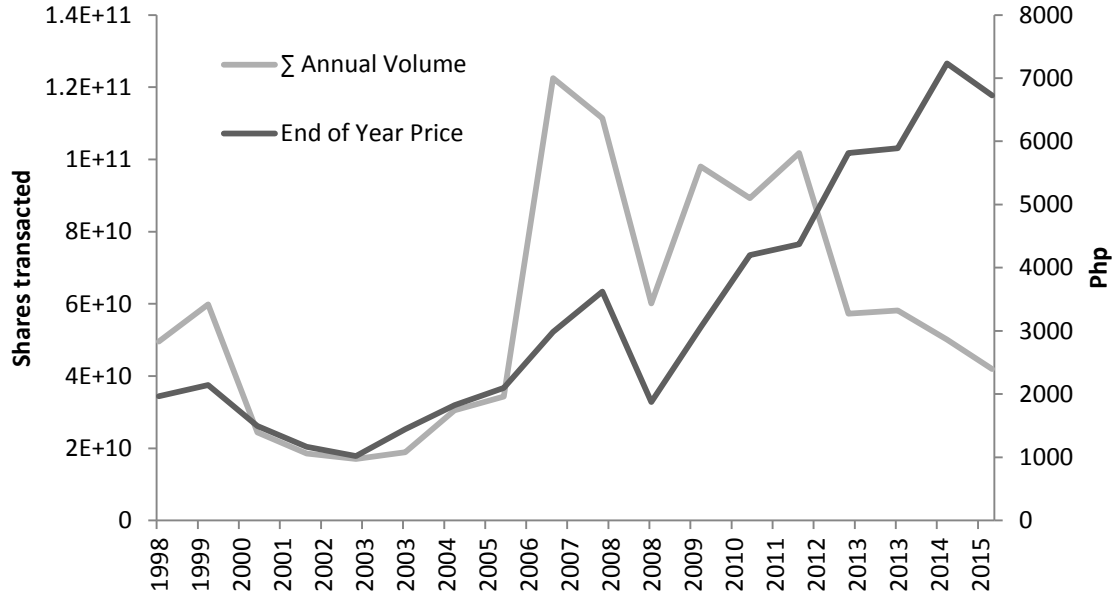


Figure 8: This shows all IPOs on the PSE during the time period of January 1998 - August 2015, both book-built and non-book-built, categorized by the primary sector the company registered for their IPO.

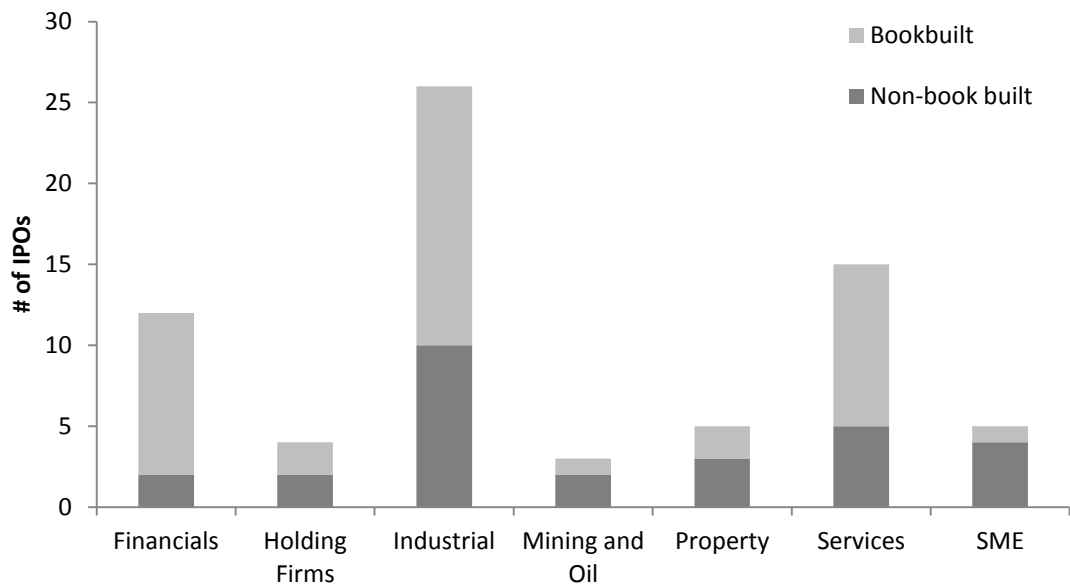


Figure 9: This shows all IPOs on the PSE during the time period of January 1998 - August 2015, both book-built and non-book-built, categorized by the use of proceeds mentioned on the IPO prospectus in the “Use of Proceeds” section. IPO prospectuses that stated more than one use for the proceeds or said that the proceeds were for general use were classified as “General”. IPO prospectuses that stated that the proceeds were only going towards one specific business project, such as the purchase of a factory or an acquisition of another company, were classified as “Specific project investment”. IPO prospectuses that stated that the proceeds were only being used to pay down debt were classified as “Debt repayment”.

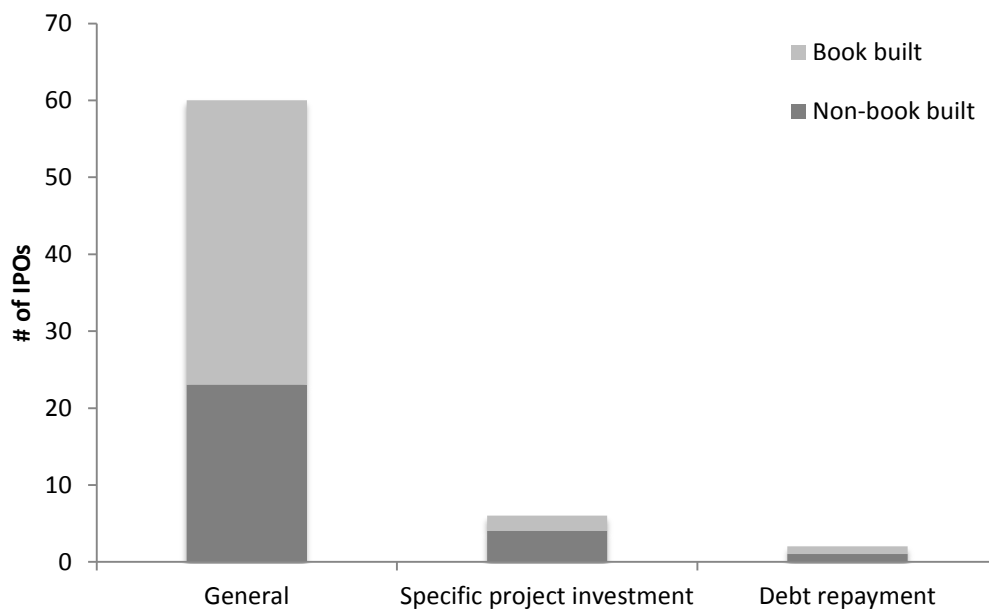


Figure 10: This figure shows additional information on IPOs on the PSE during the time period of January 1998 - August 2015, both book-built and non-book-built. An IPO is classified as oversubscribed if there was a follow-on offering for the IPO, meaning during the original IPO there were more shares demanded than offered and the issuer decided to offer more shares on either the same date or slightly later date. The average number of underwriters shows how on average how many banks were listed as underwriters, including the lead underwriter(s), on deals over the period. An IPO was classified as having a top 10 lead underwriter if the lead underwriter on the IPO was in the top 10 on the league table of equity deal volume in pesos in the Philippines from 1999 – 2015. An IPO was classified as an international offering if there were shares offered and sold outside of the Philippines.

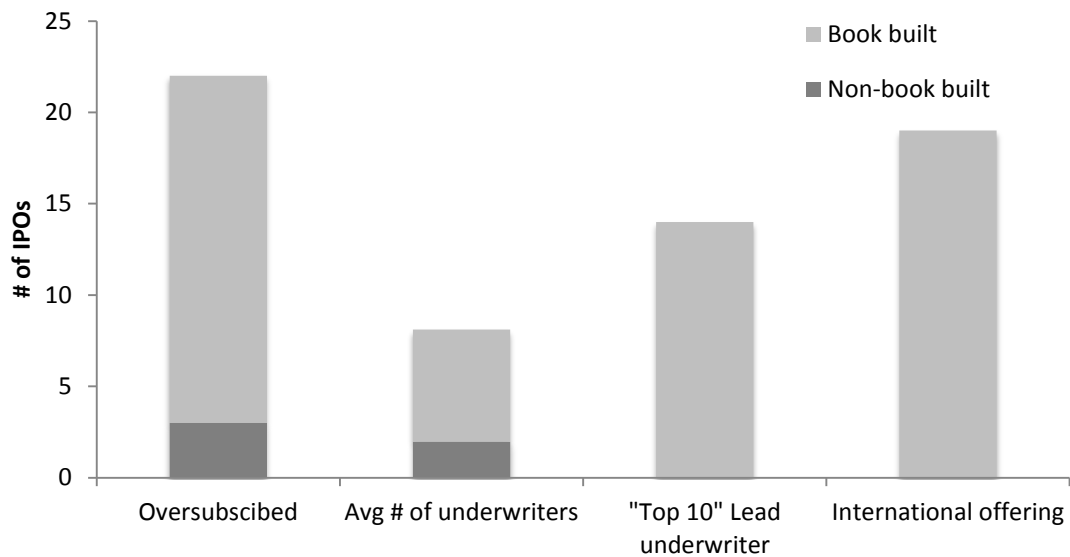


Figure 11: This figure shows the average underpricing of book-built IPOs during each year, as measured as the percentage return using the IPO offering price and first aftermarket trading price, during the time period of January 1998 – August 2015.

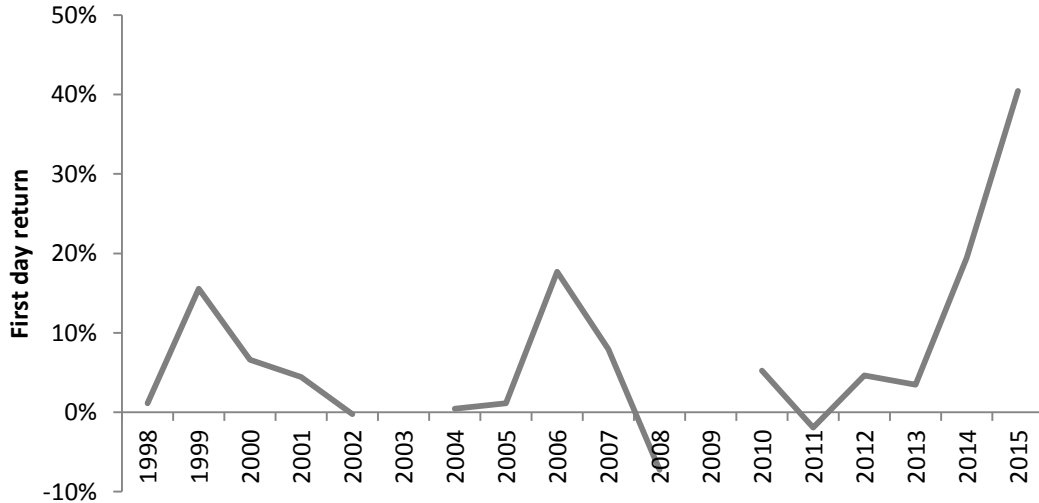


Figure 12: This figure shows additional information on IPO-ing companies on the PSE during the time period of January 1998 - August 2015, both book-built and non-book-built. A company was classified as a subsidiary of a foreign corporation if in the “Business overview” (or similar section) section of the IPO prospectus it is explicitly mentioned that the company is a subsidiary of a company headquartered outside of the Philippines. A company was classified as having majority non-individual shareholders if more than 50% of the holders of common stock pre-IPO were not individual people. A company was classified as having large foreign ownership if more than 30% of the holders of common stock pre-IPO were registered as having a non-Filipino nationality.

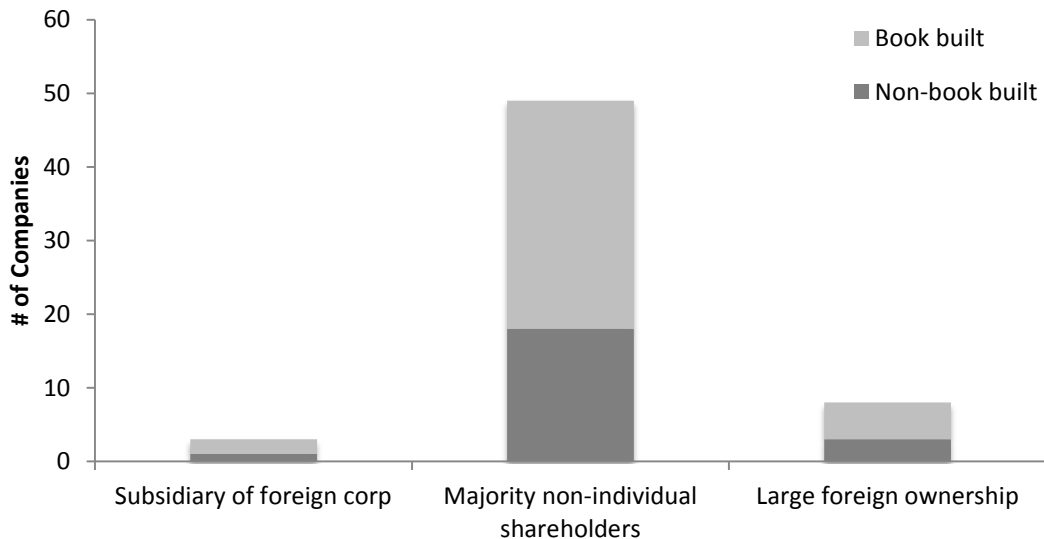
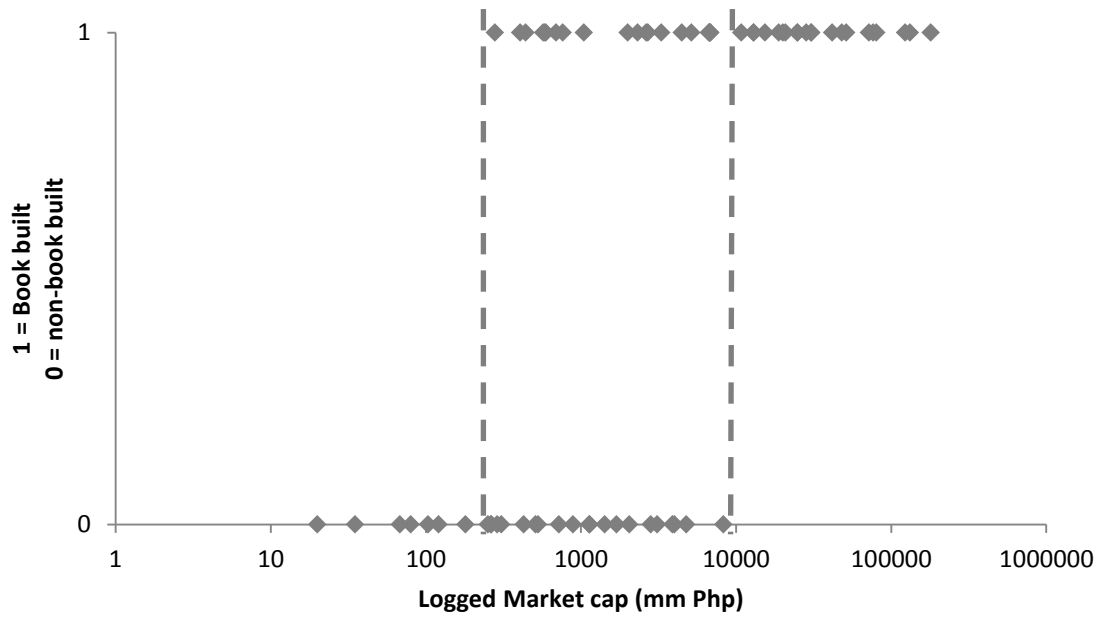


Figure 13: This figure charts all IPOs on the PSE during the time period of 1998 – 2015, with the binary variable of whether or not the offer was book-built on the vertical axis, and the log of the market cap of the IPO-ing company on the horizontal axis. The dotted lines are a rough approximation of the range of companies which have similar market caps but have a mix of book-built and non-book-built IPOs.



X. Tables

Table 1: This table shows the criteria for listing on the different boards on the PSE prior to 2013. Information was gathered from the “Philippine Stock Exchange” section of multiple IPO prospectuses pre-2013.

	First Board	Second Board	SME board
Minimum years of operation	5	1	1
Market Capitalization (mm)	500 Php	100 Php	N/A
Other board specific	<ul style="list-style-type: none"> • Track record of profitable operations for 3 years • Net tangible assets of at least 500 Php 	<ul style="list-style-type: none"> • Demonstrate potential for superior growth • Minimum capital requirement of 100 Php 	<ul style="list-style-type: none"> • Prospects of further growth and profitability • Authorized capital stock of 20 Php - 100 Php • Track record of at least 1 year of positive EBITDA

Table 2: This table from the PSE website (www.PSE.com.ph) shows the criteria for listing on the two different boards on the PSE post-2013.

MAIN BOARD	SME BOARD												
GENERAL CRITERIA													
<p>a. The Applicant Company must have a positive stockholders' equity in the fiscal year immediately preceding the filing of the listing application.</p> <p>b. The Applicant Company operating history of at least three (3) years prior to its listing application.</p> <p>c. The Applicant Company shall cause all its subscribed shares of the same type and class applied for listing to be paid in full.</p> <p>d. The minimum offering to the public for initial listing shall be based on the following schedule:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Market Capitalization</th> <th style="text-align: center;">Public Offer</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Not exceeding P500M</td> <td style="text-align: center;">33% or P50M, whichever is higher</td> </tr> <tr> <td style="text-align: center;">Over P500M to P1B</td> <td style="text-align: center;">25% or P100M, whichever is higher</td> </tr> <tr> <td style="text-align: center;">Over P1B to P5B</td> <td style="text-align: center;">20% or P250M, whichever is higher</td> </tr> <tr> <td style="text-align: center;">Over P5B to P10B</td> <td style="text-align: center;">15% of P750M, whichever is higher</td> </tr> <tr> <td style="text-align: center;">Over P10B</td> <td style="text-align: center;">10% of P1B, whichever is higher</td> </tr> </tbody> </table>		Market Capitalization	Public Offer	Not exceeding P500M	33% or P50M, whichever is higher	Over P500M to P1B	25% or P100M, whichever is higher	Over P1B to P5B	20% or P250M, whichever is higher	Over P5B to P10B	15% of P750M, whichever is higher	Over P10B	10% of P1B, whichever is higher
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<p>e.</p> <p>f. When required by the Exchange, the Applicant Company shall engage the services of an independent appraiser duly accredited by the Exchange and the Securities and Exchange Commission ("SEC") in determining the value of their assets.</p> <p>g. The Applicant Company shall have an investor relation program to ensure that information affecting the company are communicated effectively to investors. Such program shall include, at the minimum, a corporate website that contains, at the minimum, the following information:</p> <ul style="list-style-type: none"> i. Company information - organizational structure, board of directors, and management team ii. Company news - analyst briefing report, latest news, press releases, newsletter (if any) iii. Financial report - annual and quarterly reports, at least for the past two (2) years 													

MAIN BOARD	SME BOARD
<ul style="list-style-type: none"> iv. Disclosures - recent disclosures to PSE and SEC for the past two (2) years v. Investor FAQs - commonly asked questions of stockholders vi. Investor Contact - email address for feedback/ comments, shareholder assistance and service vii. Stock Information - key figures, dividends, and stock information 	
TRACK RECORD REQUIREMENT	
<ul style="list-style-type: none"> a. A cumulative consolidated earnings before interest, taxes, depreciation and amortization (EBITDA), excluding non-recurring items, of at least P50 Million for three (3) full fiscal years immediately preceding the application for listing; b. A minimum EBITDA of P10 Million for each of the three (3) fiscal years; and c. The applicant company must be engaged in materially the same business(es) and must have a proven track record of management throughout the last three (3) years prior to the filing of the application. <p><i>Exceptions to the 3-year track record requirement:</i></p> <p><i>The Applicant Company has been operating for at least ten (10) years prior to the filing of the application and has a cumulative EBITDA of at least P50 Million for at least two (2) of the three (3) fiscal years immediately preceding the filing of the listing application;</i></p> <p><i>The Applicant Company is a newly formed holding company which uses the operational track record of its subsidiary. However, the newly formed holding company is prohibited from divesting its shareholdings in the said subsidiary for a period of three (3) years from the listing of its securities. The prohibition shall not apply if a divestment plan is approved by majority of the Applicant Company's stockholders.</i></p>	<ul style="list-style-type: none"> a. A cumulative earnings before interest, taxes, depreciation and amortization (EBITDA), excluding non-recurring items, of at least P15 Million for three (3) fiscal years immediately preceding the application for listing; b. A positive EBITDA was generated in at least two (2) of the last three (3) fiscal years, including the fiscal year immediately preceding the filing of the application; and c. The Applicant Company must be engaged in materially the same business and must have a proven track record of management throughout the last three (3) years prior to the filing of the application for listing. <p>The Applicant Company shall demonstrate its stable financial condition and prospects for continuing growth by providing a business plan indicating the steps that have been taken and to be undertaken in order to advance its business over a period of five (5) years.</p> <p>As a general rule, financial projections are not required, but should there be references made in the business plan to future profits or losses, or any other item that would be construed to indicate forecasts, then the Applicant Company is required to include financial projections in the business plan duly reviewed by an independent accounting firm.</p>

MAIN BOARD	SME BOARD
MINIMUM CAPITAL REQUIREMENT	
<p>Minimum authorized capital stock of P500M, of which, at least 25% is subscribed and fully paid. At listing, the market capitalization of the Applicant Company must be at least P500M.</p>	<p>Minimum authorized capital stock of P100M, of which, at least 25% is subscribed and fully paid.</p>
MINIMUM NUMBER OF STOCKHOLDERS	
<p>Upon listing, at least 1,000 stockholders each owning stocks equivalent to at least one (1) board lot.</p>	<p>Upon listing, at least 200 stockholders each owning stocks equivalent to at least one (1) board lot.</p>
RESTRICTIONS	
<p>a. No divestment of shares in operating subsidiary - A newly formed holding company which invokes the operational track record of its subsidiary to qualify for the track record requirement of profitable operations, is prohibited from divesting its shareholdings in the said subsidiary for a period of three (3) years from the listing of its securities. The prohibition shall not apply if a divestment plan is approved by majority of the Applicant Company's stockholders.</p> <p>b. No secondary offering for companies invoking exemption of track record and operating history requirements, such as mining, petroleum and renewable energy companies and newly formed holding companies during the initial public offering.</p>	<p>a. No listing of holding, portfolio and passive income companies;</p> <p>b. No change in primary purpose and/or secondary purpose for a period of seven (7) years following its listing; and</p> <p>c. No offering of secondary securities for companies exempt from the track record and operating history requirements such as mining, petroleum and renewable energy companies.</p>
LOCK-UP	
<p>An Applicant Company shall cause its existing stockholders who own an equivalent of at least 10% of the issued and outstanding shares of stock of the company to refrain from selling, assigning or in any manner disposing of their shares for a</p>	<p>An Applicant Company shall cause its existing stockholders to refrain from selling, assigning, encumbering or in any manner disposing of their shares for a period of one (1) year after the listing of such shares.</p>

MAIN BOARD	SME BOARD
<p>period of:</p> <p>One hundred eighty (180) days after the listing of said shares if the Applicant Company meets the track record requirements; or</p> <p>Three hundred sixty-five (365) days after listing of said shares if the Applicant Company is exempt from the track record and operating history requirements.</p> <p>If there is any issuance or transfer of shares (i.e., private placements, asset for shares swap or a similar transaction) or instruments which lead to issuance of shares (i.e., convertible bonds, warrants or a similar instrument) done and fully paid for within One hundred eighty (180) days prior to the start of the offering period, or, prior to listing date in case of companies listing by way of introduction, and the transaction price is lower than that of the offer price in the Initial Public Offering, or listing price for a listing by way of introduction, all shares availed of shall be subject to a lock-up period of at least Three hundred sixty-five (365) days from full payment of the aforesaid shares.</p> <p>The lock-up requirement shall be stated in the Articles of Incorporation of the Applicant Company.</p>	<p>If there is any issuance or transfer of shares (i.e., private placements, asset for shares swap or a similar transaction) or instruments which lead to issuance of shares (i.e., convertible bonds, warrants or a similar instrument) done and fully paid for within six (6) months prior to the start of the offering period, or, prior to listing date in case of companies listing by way of introduction, and the transaction price is lower than that of the offer price in the initial public offering, or listing price for listing by way of introduction, all shares subscribed or acquired shall be subject to a lock-up period of at least one (1) year from listing of the aforesaid shares.</p> <p>The lock-up requirement shall be stated in the Articles of Incorporation of the Applicant Company.</p>

Table 3: This table shows descriptive statistics for the dataset of IPOs on the PSE from January 1998 – August 2015. There are summary statistics for these four different sample populations of the dataset: All IPOs in the dataset, only book-built IPOs in the dataset, only non-book-built IPOs in the dataset, and only non-book-built IPOs in the dataset excluding the IPO of ALHI. The table also displays the results of t-tests testing for the difference between means of the different sample populations.

# of observations	Entire sample	All		Excluding ALHI	T-test value	
		Book-building (1)	Non-book-building (2)	Non-book-building (3)	1 = 2	1 = 3
	70	42	28	27		
Panel (a) Capital market uncertainty						
PSEi market runup (day -90 to day 0)	3.4%	3.8%	2.8%	2.9%	(0.37)	(0.33)
<i>Std. Deviation</i>	10.8%	11.0%	10.5%	10.7%		
Panel (b) Total issue cost (% of IPO gross proceeds)						
Average underwriter fees	3.1%	3.0%	3.1%	3.1%	0.53	0.40
<i>Std. Deviation</i>	0.5%	0.4%	0.7%	0.7%		
Average Initial Return	10.7%	8.7%	13.8%	14.6%	1.20	1.40*
<i>Std. Deviation</i>	17.3%	15.9%	19.2%	19.0%		
Total Cost	13.8%	11.7%	16.9%	17.7%	1.23	1.42*
<i>Std. Deviation</i>	17.3%	15.9%	19.2%	19.0%		
Panel (c) Total issue cost (% of first aftermarket value)						
Average underwriter fees	2.8%	2.9%	2.8%	2.7%	(0.36)	(0.60)
<i>Std. Deviation</i>	0.7%	0.6%	0.8%	0.8%		
Average Initial Return	9.1%	7.4%	11.6%	12.4%	1.19	1.41*
<i>Std. Deviation</i>	14.6%	13.6%	16.0%	15.7%		
Total Cost	11.9%	10.3%	14.4%	15.8%	1.21	1.42*
<i>Std. Deviation</i>	14.6%	13.6%	16.0%	15.3%		
Panel (d) Offering characteristics						
Total capital raised (Php mm)	\$3,823	\$6,130	\$362	\$347	(3.70)***	(3.64)***
<i>Std. Deviation</i>	\$6,961	\$8,229	\$556	\$548		
Primary capital raised (Php mm)	\$2,759	\$4,391	\$311	\$347	(3.16)***	(3.12)***
<i>Std. Deviation</i>	\$5,619	\$6,792	\$545	\$561		
Secondary capital raised (Php mm)	\$1,064	\$1,739	\$51	\$53	(2.32)**	(2.27)**
<i>Std. Deviation</i>	\$3,078	\$3,841	\$155	\$158		
Average % of company equity offered total	28.1%	27.0%	29.8%	30.0%	1.14	1.19
<i>Std. Deviation</i>	10.2%	10.7%	9.3%	9.4%		
Average % of company equity offered secondary	5.7%	7.9%	2.4%	2.5%	(2.06)**	(1.99)**

<i>Std. Deviation</i>	<i>11.1%</i>	<i>13.1%</i>	<i>5.9%</i>	<i>6.0%</i>		
Panel (e) Company characteristics						
Market cap (Php mm)	\$16,550	\$26,640	\$1,407	\$1,340	(3.33)***	(3.27)***
<i>Std. Deviation</i>	\$33,290	\$40,020	\$1,916	\$1,920		
Number of employees	1,416	2,224	159	163	(2.79)**	(2.74)**
<i>Std. Deviation</i>	3,142	3,822	288	292		
Age of issuing firm	15	18	10	10	(2.29)**	(2.20)**
<i>Std. Deviation</i>	15	17	10	10		
Sales revenue (Php mm)	\$12,080	\$10,110	\$15,180	\$522	0.42	(3.37)***
<i>Std. Deviation</i>	\$47,390	\$14,170	\$74,770	\$855		
Net Income (Php mm)	\$1,706	\$1,417	\$2,145	\$72	0.42	(2.98)***
<i>Std. Deviation</i>	\$6,948	\$2,290	\$10,770	\$176		
Last year's sales growth	25.4%	16.9%	39.7%	40.4%	2.17**	2.19**
<i>Std. Deviation</i>	41.9%	23.7%	59.2%	60.4%		

*** p<0.01, ** p<0.05, * p<0.1

Table 4: This table shows the results of a linear regression of different factors against the binary dependent variable of whether an IPO is book-built or not. The outlier of ALHI is excluded from the sample. Because of the binary nature of the dependent variable, the signs on the coefficients can indicate the direction of the relationship but the magnitudes of the coefficients are not directly interpretable.

VARIABLES	(1) book-built
runup	0.774 (0.599)
negativeearnings	0.264 (0.372)
age	0.000588 (0.00459)
mcap	5.55e-06** (2.18e-06)
shareofequity_s	0.964 (0.596)
largeforeignshareholders	-0.106 (0.276)
nonindividual	-0.0966 (0.137)
subsidiaryofforeigncorp	0.155 (0.375)
HoldingFirms	-0.414 (0.287)
Industrial	-0.160 (0.170)
MiningandOil	-0.475 (0.299)
Property	-0.564* (0.304)
Services	-0.183 (0.182)
SME	-0.609** (0.256)
Projectinvestment	-0.360 (0.224)
Debtrepayment	0.416 (0.304)
Constant	0.719*** (0.172)
Observations	69
R-squared	0.355

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Table 5: This table shows the marginal effects of a probit regression of different factors against the binary dependent variable of whether an IPO is book-built or not. The outlier of ALHI is excluded from the sample. In this regression, the coefficients represents the marginal increase in probability that the binary variable equals 1 given a 1 unit change in the independent variable and holding all else equal.

VARIABLES	(1) book-built
runup	-8.44e-05 (0.000574)
age	-3.59e-06* (2.31e-05)
mcap	2.14e-08** (1.37e-07)
shareofequity_s	0.000401 (0.00267)
largeforeignshareholders	-0.000145 (0.00111)
nonindividual	-3.74e-05 (0.000244)
subsidiaryofforeigncorp	1.42e-05 (9.93e-05)
HoldingFirms	-1.000*** (0.000641)
Industrial	-5.24e-05 (0.000365)
MiningandOil	-0.297* (0.633)
Property	-0.00578 (0.0302)
Services	-5.74e-05 (0.000429)
SME	-0.000938 (0.00595)
Projectinvestment	-3.39e-05 (0.000290)
Debtrepayment	1.51e-05 (0.000105)
Observations	69

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 6: This table shows the results of linear regressions on the two components of total issue cost: underwriter fees (here as a percentage of issue price) and underpricing (here as a percentage return of first traded price from issue price). The outlier of ALHI is excluded from the sample.

(1)		(2)	
VARIABLES	uwfees_issue	VARIABLES	return_offer
runup	-0.00184 (0.00664)	runup	0.269 (0.215)
age	0.000131 (0.000102)	age	-7.35e-05 (0.00335)
lyrev	1.30e-06 (2.02e-06)	lyrev	6.64e-05 (6.53e-05)
top10uw	0.00280 (0.00286)	top10uw	-0.0200 (0.0931)
o.international	-	o.international	-
capitalraised_t	-3.64e-06 (2.84e-06)	capitalraised_t	-5.00e-05 (9.31e-05)
bbage	-8.79e-05 (0.000108)	bbage	0.000703 (0.00352)
bblyrev	-1.39e-06 (2.03e-06)	bblyrev	-6.94e-05 (6.57e-05)
o.bbtop10uw	-	o.bbtop10uw	-
bbinternational	-0.000525 (0.00342)	bbinternational	-0.0464 (0.110)
bbcapitalraised_t	3.69e-06 (2.85e-06)	bbcapitalraised_t	5.17e-05 (9.33e-05)
Constant	0.0297*** (0.00100)	uwfees_issue	-5.528 (4.205)
		Constant	0.286** (0.129)
Observations	69	Observations	69
R-squared	0.083	R-squared	0.157
Standard errors in parentheses		Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1		*** p<0.01, ** p<0.05, * p<0.1	

Table 7: This table uses a sub-sample of 17 IPOs which are either 1) book-built and have a market cap under 1 billion Php or 2) non-book-built and over 1 billion Php. The results of a linear regression, which is the same as that run in table 4, of different factors against the binary dependent variable of whether an IPO is book-built or not are shown. Because of the binary nature of the dependent variable, the signs on the coefficients can indicate the direction of the relationship but the magnitudes of the coefficients are not directly interpretable.

VARIABLES	(1) bookbuilt
runup	-0.238 (1.698)
negativeearnings	0.352 (0.380)
age	-0.0233 (0.0254)
mcap	-7.14e-10* (3.07e-10)
shareofequity_s	-0.730 (2.066)
largeforeignshareholders	1.173* (0.543)
nonindividual	0.0793 (0.237)
o.subsidiaryofforeigncorp	-
3.sector	-0.546 (0.288)
4.sector	1.163 (1.124)
5.sector	1.863 (1.252)
6.sector	-0.0142 (0.338)
2o.useofproceeds	-
3.useofproceeds	-1.620 (1.522)
Constant	1.620*** (0.264)
Observations	17
R-squared	0.931

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 8: This table uses a sub-sample of 17 IPOs which are either 1) book-built and have a market cap under 1 billion Php or 2) non-book-built and over 1 billion Php. The results of linear regressions, the same as those shown in table 6, on the two components of total issue cost: underwriter fees (here as a percentage of issue price) and underpricing (here as a percentage return of first traded price from issue price) are shown.

	(1)		(2)
VARIABLES	uwfees_issue	VARIABLES	return_off er
runup	0.00401 (0.00676)	runup	1.731** (0.596)
age	-8.55e-05 (6.09e-05)	age	- 0.0244*** (0.00601)
lyrev	-2.71e-12* -1.35E-12	lyrev	-6.19e- 10*** (1.50e-10)
o.top10uw	-	o.top10uw	-
o.international	-	o.international	-
capitalraised_t	-8.93e-12* (4.00e-12)	capitalraised_t	-1.53e- 09** (4.63e-10)
bbage	4.61e-05 (0.000141)	bbage	0.0341** (0.0122)
bblyrev	0 (0)	bblyrev	8.43e-10 (4.36e-10)
o.bbtop10uw	-	o.bbtop10uw	-
o.bbinternational	-	o.bbinternational	-
bbcapiatalraised_t	-0 (0)	bbcapiatalraised_t	-8.02e- 09*** (1.99e-09)
Constant	0.0371*** (0.00286)	uwfees_issue	-98.87** (34.96)
		Constant	4.520** (1.321)
Observations	17	Observations	17
R-squared	0.544	R-squared	0.862
Standard errors in parentheses		Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1		*** p<0.01, ** p<0.05, * p<0.1	