A REVIEW OF IPO SELLING METHODS: IS THERE A CLEAR WINNER?

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Abstract

After the hot IPO market of 1999/2000, numerous U.S. underwriters have been sued in connection with unfair IPO allocation schemes. In these lawsuits, plaintiffs contend that the underwriters engaged in illegal tactics by soliciting and receiving kickbacks in exchange for allocations of portions of a company's IPO, required tie-in purchases creating an artificial demand for the stock, and artificially inflated the price of the stock through "laddering" (requiring purchases of additional stock in the aftermarket at escalating prices). The proliferation of these laddering schemes has inspired several government agencies and regulatory bodies to seek alternatives for a fairer way to sell IPO shares to the public. While auctions such as that used by Google alleviate issues related to unfair share allocation, they are associated with other problems which make them unattractive for many issuers. Our study discusses the advantages and disadvantages of the existing selling methods. While there is no clear-cut answer as to what constitutes the best selling method, our study should provide corporate managers with the necessary insights that are needed to choose the method that best meets their objectives. In addition, our study aims to open the door for further academic discussion that is required to address a number of questions that to date remain unanswered in this area.

Keywords: Initial Public Offerings; IPO Auctions; Bookbuilding; Public Offers

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1. Introduction

Once a firm reaches a certain point in its corporate life its founders face the question whether they should take it public through an initial public offering (IPO) or continue as a privately-held corporation. While an IPO allows a firm to attract significant amounts of new equity capital, there are also disadvantages. Instead of having to deal with a small group of investors, for example, the actions of the firm's managers are suddenly judged by a large group of shareholders. At the same time, managers are suddenly subjected to a whole new set of regulatory burdens. Their firm has to be audited on a regular basis, they have to abide to the listing requirements of the stock exchange on which their stock is traded, and have to comply with the reporting requirements of their country's securities commission such as the Securities and Exchange Commission in the U.S., the Commission des Opérations de Bourse (COB) in France or the regional exchange supervisory authorities (Börsenaufsichtsbehörden) in Germany. Faced with these pressures, founders often step back (sometimes voluntarily, other times involuntarily) and let professional managers run their new public firm (see Arcand, Martens, and Walker, 2005).

Another problem is that of agency conflicts. While a founder who owns and runs his business is fully responsible for his actions and spending habits, the roles of ownership and management are disentangled for publicly traded firms. As a result, managers may not always run a firm in the best interest of the owners, i.e. the shareholders. While the goal of shareholders is the maximization of the stock price and thus their personal wealth, managers frequently incur both direct and indirect agency costs that are not in the shareholder's best interest. Direct agency costs include overspending and costs associated with the need to monitor management's actions through, among other things, external auditors. A prominent example for the former is the case of Dennis Kozlowski, former CEO of Tyco International, who cost the firm's shareholders approximately $600 million. Among other things, he bought an opulent Manhattan apartment through company funds and furnished it with such luxuries as a $6,000 shower curtain. Indirect agency costs

include opportunity costs related to the fact that managers often act too risk averse, i.e. do not take on risky, yet profitable, projects in order to protect their job[1] and costs associated with a manager's desire to have his company grow (which allows him to draw a higher salary), even though the company would do better if it remained smaller.

Founders who have weighed these factors but do decide to take their firm public face another hurdle: they have to select an underwriter and, depending on the country in which they want their stock to be traded, have to decide on the method through which they want to sell it. The extant finance literature discusses a variety of advantages and disadvantages associated with different IPO selling methods. The goal of this study is to review the recent findings in this area and to provide practitioners with a practical guide to help them choose the method that is best suited for their firm. At the same time, our study aims to provide academicians who want to pursue additional research in the area with a comprehensive literature review. One form of selling that has been somewhat unpopular in many countries but has received a lot of attention in the past year is the Dutch auction mechanism that was used for Google's highly successful IPO in August 2004. Based on Google's success, we start our discussion by examining global trends in IPO auctions. We then compare auctions to other forms of selling methods such as public offers and bookbuilding.

2. Literature review

2.1. Auctions are less popular around the world

IPO auctions have been tried repeatedly in many different countries and most if not all countries have abandoned them. Some countries, such as Japan and arguably France, gave up auctions only after unrestricted bookbuilding was allowed. More recently, countries such as Singapore, the U.K., Italy, Switzerland, Portugal and Taiwan gave up auctions to return to public offerings. The public offer method has lost considerable ground over the last decade but is still used regularly, mainly in small countries where IPOs are infrequent, and for smaller local issues in other countries. Auction-like mechanisms such as tenders in the United Kingdom, the Netherlands, and Belgium, or 'offers publiques de vente' in France, are generally associated with low levels of underpricing; most Chilean IPOs have also used auctions, and have been modestly underpriced, at least by emerging-markets standards. This is not surprising, given that, unlike bookbuilding, tenders allow market demand to at least partially influence the issue price. What is curious, though, is that we do not observe a shift towards a greater use of auctions (see Jenkinson and Ljungqvist (1996) and Derrien and Womack (2003)). Degeorge, Derrien, and Womack (2004) provide evidence that in France where in the 1990s the market was roughly equally split between auctioned and bookbuilt IPOs, auctions are now virtually extinct. In Japan, when bookbuilding was made available to issuers, IPO auctions instantaneously disappeared (see Kutsuna and Smith (2001)). Similarly, Sherman (2005) reports that in virtually all countries where bookbuilding has been introduced recently, pre-existing auction mechanisms have disappeared or lost significant market share. In the U.S., competitors to bookbuilding underwriters such as W.R. Hambrecht that have attempted to create Dutch actions for selling shares have not, as yet, been successful in gaining meaningful market share. Nevertheless, due to the successful Google IPO, auctions have gained much more attention from the public. Both bookbuilding and public offerings are common worldwide, while auctions are rare. Hybrid bookbuilding/public offer sales are more popular than "pure" bookbuilding. The rarity of IPO auctions is not due to unfamiliarity, however. Auctions were used in Italy, Portugal, Switzerland and the U.K. in the 1980s and in Singapore in the 1990s, but were voluntarily abandoned in all of these countries even before bookbuilding was introduced. In Japan and France, auctions were used for many years, but they vanished almost immediately in Japan and dried up gradually in France (except on the unregulated over the counter market) once unrestricted bookbuilding was allowed. Argentina abandoned auctions for privatization IPOs after a bad experience in 1992. After many years of experimentation, issuers in Taiwan have largely given up on auctions to return to the public offer method. Israel is the only country in which auctions are currently the primary IPO method. Bookbuilding is not allowed in Israel, so we cannot tell what method issuers would choose if they were given a choice. Hybrid bookbuilding/auctions on the exchange have been used in Chile (because of regulations requiring an auction tranche). It is possible that IPO auctions will be used in Peru in the future, although bookbuilding has been gaining popularity there. Because IPO markets in Peru, Chile, and throughout South America have been slow for the past few years, it is hard to predict whether auctions will reemerge in that region once the markets recover. Out of more than 40 countries that allow for both types of selling methods there is no country in which auctions are dominant. Many types of IPO auction methods have been tried under various market conditions, in both "advanced" and "developing" markets, but virtually all have eventually been abandoned. The absence of IPO

[1] Risky projects frequently involve high returns which benefit otherwise well-diversified shareholders. While such projects, if successful, increase shareholders wealth, they are normally associated with a disproportionately small increase in the manager's salary. Unsuccessful projects, on the other hand, may jeopardize a manager's job if he is made responsible for the project's failure or if the losses are so big that that they force a firm into bankruptcy.

auctions today can be more easily explained by familiarity with auction methods than by a lack of knowledge about these methods. A recent exception to the disappearance of IPO auctions is the use of uniform price auctions to sell IPO shares through the Internet. W.R. Hambrecht distributed its eleventh U.S. IPO through an online auction in August 2004, while Ord Minnett's eCapital distributed shares in two Australian IPOs through a similar method. Both underwriters used uniform price, sealed bid dirty auctions,[2] although eCapital called its process a "book build". In South Korea, several direct public offerings have used internet auctions, although this method cannot legally be used if the company wants to list on the KSE or KOSDAQ.

2.2. Disadvantages of bookbuilding

Bookbuilding offers lower risk for both issuers and investors; as a consequence, it should lead to less underpricing (holding information costs constant). In contrast, the flexibility that bookbuilding gives issuers in term of controlling information expenditure should lead to either more or less underpricing, depending on the preferences of the issuer.

Since bookbuilding allows shares to be preferentially allocated and thus the underwriter has complete discretion over the bookbuilding mechanism and over the allocation of shares to investors, small investors are shut out of the allocation process. This feature of bookbuilding recently made financial headlines in the context of several IPO scandals. Underwriters' unlawful practices include "spinning", i.e. giving underpriced IPO shares to executives of prospective investment banking clients in the hope of winning future underwriting business from them, and "laddering", the practice of giving generous IPO allocations to clients in exchange for the promise that they will buy more shares of the IPO company in the aftermarket.

The discretion underwriters enjoy in the allocation of bookbuilt IPO shares gives them a substantial amount of power. Degeorge, Derrien, and Womack (2004) find that unaffiliated analysts issue positive recommendations on IPOs taken public by an underwriter if this underwriter is about to take another company public soon (using bookbuilding). However, they do not observe this behavior for underwriters of IPO auctions.

[2] W.R. Hambrecht allows dirty auctions at the discretion of the issuer, but only one issuer has exercised this option. A Dutch auction is an open, descending bid auction, such as the method that is often used to sell flowers and produce in the Netherlands. First a high price is called out, and then progressively lower prices are called until someone agrees to purchase at least some of the units. These units are sold at that price and then the auction is restarted often at many different prices. Therefore, the closest sealed-bid equivalent to a Dutch auction would be a discriminatory, not a uniform price, auction.

2.3. Why is bookbuilding so widely used?

Sherman (2005) argues that bookbuilding reduces risk for both issuers and investors. Bookbuilding gives underwriters control over the allocation of shares. The ability to allocate shares freely makes the advance gathering of indications of interest possible. The underwriter's discretion in allocating shares can be used to favor regular investors, allowing the underwriter to average returns over time. Sometimes, underwriters require investors to participate in an unwanted offering to remain part of the group that will participate in future offerings. The threat of cutting investor off from future offerings can be used to reduce the chance that the current issue will fail. Since underpricing must be sufficient to compensate investors for the time they spend on evaluating an offer, bookbuilding can be used either to minimize underpricing, or to induce investors to more carefully evaluate the issue, resulting in a more accurate issue price. Moreover, in bookbuilding, underpricing can be adjusted to the preferences of each individual issuer, and can adapt to the circumstances of various countries or time periods. Hence, bookbuilding gives issuers and underwriters more control over the process. Furthermore, IPO proceeds are expected to be higher in bookbuilding because there is a greater chance of undersubscription in an auction. With bookbuilding, the underwriter coordinates the number of investors that will participate, guaranteeing that a sufficient number of investors is involved. Since underpricing must be sufficient to compensate investors for the time they spend on evaluating an offer, bookbuilding can be used either to minimize underpricing, or to induce investors to more carefully evaluate the issue, resulting in a more accurate issue price.

Degeorge, Derrien, and Womack (2004) study French IPO data and conclude that the ostensible advantages to the issuer using bookbuilding are advertising-related quid pro quo profits. They find that bookbuilt issuers are more likely to be followed and positively recommended by the lead underwriters and are also more likely to receive "booster shots" post issuance if the shares have fallen. Even non-underwriters and analysts appear to promote bookbuilt issues more, but only when their underwriters stood to gain from acquiring shares in future issues from the recommended firm's lead underwriter. Bookbuilt issuers also appear to garner more press in general (but only after they have chosen bookbuilding, not before). They conclude that underwriters using the bookbuilding procedure have convinced issuers of the questionable value of advertising and promotion of their shares. Nevertheless, they do not find any evidence that companies choosing bookbuilding benefit from the additional promotion they enjoy. Bookbuilt offerings do not exhibit better long-term performance, are priced at lower multiples, and have lower stock price

performance in the year following good recommendation. On the other hand, Kutsuna and Smith (2001) study IPO auctions in Japan and conclude that bookbuilding enables larger and better-established firms to reduce issue costs. The earlier requirement to use the auction method, as implemented in Japan, tends to foreclose smaller and less well-established issuers from the market. The shift to bookbuilding in Japan appears to have been value-enhancing for large and small issuers.

Chemmanur and Liu (2003) develop a model in which the goal of issuers is to maximize the long-term value of their stock. In this model, company insiders are informed and outsiders are uninformed but can acquire information at a cost. The gains from acquiring information are competed away in auctions, whereas the bookbuilding mechanism allows underwriters to reward informed investors with underpriced shares. Therefore, the bookbuilding process generates more information production than an auction. A natural prediction of this model is that in equilibrium, firms of higher "quality" (i.e., of higher intrinsic value) choose bookbuilding over auctions, in order to maximize information production and consequently long-term value.

Even though the initial price of auction offerings incorporates more information about current and recent market conditions than the price in bookbuilt offerings (see Derrien and Womack (2003)), factors other than underpricing are clearly important to both issuers and underwriters. While mitigating underpricing is a worthy objective to issuers, it is not their only objective. Controlling underpricing is clearly not the most important issue to underwriter who suffer an agency conflict of interest. The underwriter's benefit of access to investors' capital for future offerings through underpricing may dominate the "cost" of potential future punishments by underpriced issuers.[3]

2.4. Advantages of auctions

Derrien and Womack (2003) use French data and show that both the mean and the variance of underpricing are lower in IPO auctions compared to those sold through bookbuilding. In a model developed by Chemmanur and Liu (2003), the offering price in an IPO auction aggregates the information produced by outsiders, so that in IPO auctions this price is greater for firms with a larger intrinsic value (and lower for firms with a smaller intrinsic value). At the same time, there is less information production in auctions compared to fixed-price offerings, which implies that a lower amount of information is reflected in the opening price in the secondary market. Since increased information production results in a wider separation between higher and lower intrinsic-value firms in the secondary market, the price movement from the IPO to the secondary market is therefore larger for IPO bookbuilding than for auctions, leading to both a higher mean and a higher variance in the underpricing of IPOs in bookbuilding relative to auctions. Jenkinson and Mayer (1988) show that, in British privatizations, the extent of underpricing was much lower in the auction sample than in the non-auction sample. Jenkinson (1990) and Kaneko and Pettway (1996, 2003) compare underpricing for Japanese IPO auctions and non-auctions and find that underpricing in IPO auctions is much lower. Lin and Sheu (1997), Liaw, Liu, and Wei (2001), and Ritter (2003) study IPOs in Taiwan; Aggarwal, Leal and Hernandez (1993) and Celis and Maturana (1998) consider IPOs in Chile; MacDonald and Jacquillat (1974), Jacquillat (1986), Derrien and Womack (2003), and Degeorge, Derrien and Womack (2004) examine IPOs in France; and Kandel, Sarig, and Wohl (1999) evaluate IPOs in Israel. All of these studies document that the extent of IPO underpricing in IPO auctions is much lower than under non-auction mechanisms. Biais, Boassaert and Rochet (2002) and Biais and Faugeron-Crouzet (2002) show that well-designed auction mechanisms allow underwriters to extract investors' information and to incorporate this information into the IPO price at a limited cost, a virtue previously attributed to bookbuilding (Benveniste and Spindt (1989), Benveniste and Wilhelm (1990), and Sherman (2000)).

Besides having a lower mean and variance of underpricing, auctions are designed to put more shares into the hands of individual investors and eliminate the near-certain first-day gains for "hot" IPOs that became a central feature of recent investment scandals. The auction approach threatens to minimize the key role that investment bankers have played in deciding who gets highly coveted IPO shares. It leaves issuers and underwriters with little or no control because the allocation of shares is based on current bids, without regard to any past relationship between certain bidders and the auctioneer. It is also open more or less to anyone.

2.5. Why have auctions been so unpopular for new issues?

Sherman (2005) suggests two major problems with IPO auctions. The underwriter cannot control entry to the auction, therefore guaranteeing the "right" number of participants, and cannot give an appropriate number of investors an incentive to carefully evaluate the offering.

[3] While Dunbar (2000) shows that investment banks lose future business if they underprice too much, Beatty and Welch (1996) and Krigman, Shaw, and Womack (2001) show that in the 1990s, the largest and most reputable underwriters have the highest underpricing. In fact, Krigman, Shaw, and Womack find that firms switching underwriters have far lower underpricing than those that do not switch when conducting their first seasoned deal. See Michaely and Womack (1999) for other aspects of this agency cost. Cliff and Denis (2004) provide evidence consistent with the hypothesis that issuers use IPO underpricing to "purchase" analyst coverage.

2.5.1. Undersubscription

Many IPO auction flops have been blamed on either too many or too few bidders entering the auction. Jenkinson and Mayer (1988) report that half (3 out of 6) U.K. privatization tenders between 1982 and 1987 were undersubscribed, while one was 500% oversubscribed. In 1994, the auction tranche of Sunright, the last IPO auction is Singapore, was 82% undersubscribed (i.e. bids equaled only 18% of available shares); even though the public offer tranche a few days earlier had been oversubscribed. In August of 2000, the Chunghwa Telecom IPO auction in Taiwan was only 72% subscribed, leaving 80.8 million shares unsold. One would think that the risk of undersubscription would more or less disappear with a large number of bidders, due to the "law of large numbers". However, the number of bids must be compared to the number of eligible bidders. For Taiwan's discriminatory IPO auctions, the average number of bidders is around 1,150 (Liaw, Liu and Wei (2001)). More than 16 million adults are eligible to bid in each auction. Hence, if the participation rate of the eligible population shifts by just seven-one thousandths of one percent in either direction, bids will either almost double or almost vanish. Moreover, a large average number of bidders will not eliminate the risk of undersubscription if there is some coordination, or "leakage" of information (Chowdhry and Sherman (1996)). The lack of investor coordination in auctions leads to increased risk for both issuers and investors. Both sides must make decisions without knowing how many bidders will choose to participate. Ex post, there may be too few entrants and the offering may fail, or there may be too many entrants that bid away all of the potential profits, preventing investors from recovering their information costs (Levin and Smith (1994)).

2.5.2. Free-riders

Too many entrants to an auction will not be a problem if each of the bidders has carefully evaluated the offering and chosen a reasonable bid price. Since auctions such as the W.R. Hambrecht "Open IPO" are open to all, including free-riders with no clue about the value of the offering, too many entrants can greatly distort the offering price, leading to the overpricing and subsequent first week crash that have been frequently observed in IPO auctions. Under bookbuilding, underwriters devote substantial time and effort to withholding shares from those who will "flip" or "stag" them. Although the underwriter wants liquidity in the aftermarket, flippers are a problem, not primarily because they are willing to sell shares quickly, but because they are trying to take advantage of the high average initial returns of IPOs without giving the underwriter anything in exchange. In other words, they are free-riders, and much of the investment bank's effort is devoted to weeding them out of the investor pool. Although underwriters are free to do road shows and to ask for indications of interest under the auction mechanism, without the ability to make allocations dependent on the information reported, there is no way for underwriters to give investors the incentive to accurately report their information. In addition, the underwriter has virtually no power to block free-riders. If potential investors expect IPO shares to be underpriced, they can avoid the cost of evaluating an issue by simply placing an extremely high bid. In a uniform price auction, this guarantees that they will receive shares at the "market clearing" price from the auction. Nevertheless, if too many bidders follow this strategy, the shares will be overpriced.

One prominent example for the free-rider problem occurred in Argentina in March 1992. The "disastrous" Telecom privatization was blamed on free-riders in the "Dutch" auction system, who pushed up their price to make sure they would get shares. Many retail investors, upset at losing money on what had seemed like a sure thing, pulled out of the stock market completely, causing a market crash, subsequent extreme volatility and the cancellation of up to 20 other planned equity issues. As a result, Argentina gave up on IPO auctions and began using bookbuilding for privatizations.

2.5.3. Overpricing

There are many examples of overpricing in uniform price IPO auctions. Jenkinson and Mayer (1988) report that, of 26 mostly uniform price tender offers in the United Kingdom from 1983 to 1986, the average initial return was -2.2%. Therefore, on average the price fell when trading began, in spite of the fact that U.K. tenders often "left something on the table" by pricing below the market-clearing level. In Singapore in 1994, people joked that IPOs had been struck with "tenderitis" – a tendency for shares sold through uniform price auctions (tenders) to trade below their auction price within their first few days of trading. Lee, Lin and Liu (2003) show that in Taiwan, auctions with low institutional participation have had large negative initial returns and fewer bidders, relative to auctions with more institutional participation and positive initial returns. In bookbuilding, the issuer and underwriter have substantial control over information acquisition, but little or no control in the auctions. This control can be used either to maximize expected proceeds from the current offering, or to induce investors to more carefully evaluate the issue, resulting in a more accurate aftermarket price. The disadvantage of auctions is not that they always lead to either too much or too little evaluation (or underpricing), it is that they seldom, except by chance, lead to the optimal level (Sherman (2005)).

2.5.4. Volatile trading

IPO auctions could lead to more volatile trading. The risk is that the pricing could be determined by crowd psychology, complicating the underwriters'

traditional system of stabilizing a new issue's price by bidding for shares that come up for sale in the first few days of trading. Underwriters often pledge to buy shares of an IPO if the stock begins trading down. If selling gets out of hand, it could be very costly for the underwriters. For example, Salon.com came to market in a 1999 Dutch auction. Without underwriter efforts to prop up the stock, Salon fell 50 cents a share, to $10, on the first day of trading, and eventually declined by more than 40% over the next several months.

2.6. The Proceeds Puzzle

Sherman (2005) argues that expected IPO proceeds under bookbuilding are strictly higher because auctions sell fewer shares on average and have the probability of undersubscription. In contrast, Chemmanur and Liu (2003) develop a model showing that IPO auctions maximize IPO proceeds. They argue that if the objective of the firm's insiders is not to maximize the proceeds from a one-shot equity offering, it is indeed optimal for younger and smaller firms, and those selling smaller fractions of equity to go public using bookbuilding. The fact that on average firms sell only about one third of their equity in IPOs in the U.S. seems to indicate that insiders may indeed not to be focused on maximizing proceeds from a one-shot equity offering. In practice, companies face a dynamic choice: they want to obtain high proceeds from the sale of stock, but they also care about the secondary market price of their stock after the IPO. Assuming that a large majority of firms going public in the U.S. as well as most other countries fall into this category, it is not surprising that IPO auctions are not gaining market-share in these countries. Although auctions may maximize the proceeds from a one-shot offering, they do not maximize long-run firm value since not enough investors will choose to produce information about the firm in equilibrium. Firms will prefer to go public using bookbuilding rather than IPO auctions since such offerings allow the firm to induce the optimal extent of information production (Chemmanur and Liu (2003)).

3. Discussion

IPO selling methods differ in a variety of aspects and there is no clear answer to the question what constitutes the best IPO method. Proponents of IPO auctions point out that it is fairer than the traditional bookbuilding method because it does not allow for arbitrary pricing and preferential allocation of shares to the underwriter's favored clients. On the other hand, opponents of IPO auctions argue that they provide incentives for investors to "free-ride", i.e. to indicate demand for a firm's shares without performing proper research about the company and without providing any reasonable pricing information to the underwriter when placing their bid. While recent U.S. findings by Pukthuanthong, Varaiya and Walker (2005) show that auctioned IPOs leave less money on the table, are subject to less aftermarket volatility and succeed in attracting longer-term investors, they also reveal that the benefits are primarily on the issuers' side. The almost guaranteed underpricing that investors in bookbuilt IPOs have come to rely on is no sure thing in IPO auctions. Arguably, the lack of rationing limits the typical first-day pop and the aforementioned free-rider problem makes it difficult for the underwriter to ascertain if the auction clearing price provides a good indication of the equilibrium price in the aftermarket. What may provide a boost to the IPO auction market is the success of Google's IPO. In addition to providing a handy first-day return to investors, Google's shares have done very well in the secondary market so far. Whether its success is likely to entice other firms to choose auctions over bookbuilding, however, remains to be seen.

4. Suggestions for future research

Future research should identify more effects, positive or negative, of allocation flexibility. Empirical work may help to pinpoint the relative importance of each. More research is also needed on auctions in a multi-unit, common value setting with costly information and endogenous entry. For instance, do dirty auctions where the issue price is set below market-clearing provide underwriters with sufficient flexibility? Biais and Faugeron-Crouzet (2002) and Parlour and Rajan (2002) show that dirty auctions have advantages in a setting with serendipitous (endowed) private information, but these results have not yet been extended to a more general setting in which investors have to expend effort to learn about a new issue. More research is also needed on hybrid methods, which are becoming increasingly common. By the end of the 1990s, hybrid bookbuilding/public offers have become the most common IPO method worldwide, despite the fact that hybrids are still rare in the U.S. Little work has been done on how hybrids differ from pure bookbuilding. The possibility that forcing issuers to use auctions may prevent some issuers from going public should be examined (following the example for Japan set by Kutsuna and Smith (2001)). The IPO issuer has changed in countries such as France that made a more gradual transition from predominantly auctions to predominantly bookbuilding. The "customized" approach allowed by bookbuilding should lead to a wider range of deliberate underpricing levels, and to a wider range of issuers being able to access equity markets. Price adjustments during the first week of aftermarket trading should be examined. Academics like to focus on the first aftermarket price (either the opening or closing price on the first day of trading). Lee, Lin and Liu (2003) study Taiwanese IPOs and show that there was a systematic, statistically significant drop in prices during the first few days of aftermarket trading following IPO auctions. This supports anecdotal evidence for Japan and Singapore that suggested that the trading price tends to fall

during the first few days of aftermarket trading following IPO auctions. More attention should also be given to learning over time for IPO auctions. Many countries adopted auctions enthusiastically, used them for several years, and then dropped them. How did the number of bidders and the initial return change over time? The problems with IPO auctions in other countries imply that W.R. Hambrecht has been lucky so far. Before the U.S. considers pushing issuers to use a method that has failed repeatedly elsewhere, we need a better understanding of the relevant advantages of the various methods.

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