Initial Public Offerings

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Despite the significant institutional and legal differences that exist across countries, the last few years has witnessed the establishment of book building method as the default mechanism for conducting an initial public offering (IPO)[1] . Close to 80% of non-US IPOs were marketed using book building[2] .What led to this trend? Is it there because of its efficiency or is it just an outcome of the attempts to duplicate what the developed countries (read USA) follow? This paper, on the basis of various theoretical studies in this field, tries to find answers to the above questions.

The study is divided into four parts. Part one discusses and compares the various mechanisms for conducting an IPO. Part two discusses in brief the way in which the book building process gained ground in the non-US countries. It also discusses the legal framework for going public through the book building process for the selected countries. The focus then shifts to the efficiency of the various IPO processes in the next section. The last section before concluding delves upon the policy implications of the discussed inefficiencies and suggests some recommendation.

1. Going Public- The Alternatives

Various methods exist to go for an Initial public offering (IPO). Broadly, they can be categorized as traditional and non-traditional methods[3] . The first category comprises of the auction method and the fixed price offerings. Book building and the hybrid offerings constitute the other category.

1.1 The Mechanisms The **auction method** was popular in many countries like the UK, Japan, France and others before the process of book building became popular. Though variants of this model exist in the form of single price auction, discriminatory price auction etc. a common feature in all is that price and allocation is made according to some pre-set rules after indication of interest is received from the prospective buyers.

The uniform price auction or the single price auction as practiced in French IPO market[4] involves submission of quantity / price bids by the investors after the issuer and the underwriter has declared a minimum price. Based on the bids received the regulatory authority computes a cumulative demand curve. The underwriter and the issuer then negotiate with the regulatory authority to reach at the offer price and the maximum price. All bids above the maximum price are eliminated and investors who placed their bids between the offer and the maximum price are allocated shares on a pro rata basis.In the discriminatory (pay- what- you- bid) auction procedure, which was made compulsory in Japan between 1990 and 1997 after the Recruit Cosmos scandal, shares are allocated to highest bidders first until either the entire allocation is exhausted or the minimum bid value is reached.[5]

The other traditional method known as **fixed price offerings** is different from the auction method in the sense that issues are priced without first soliciting investor's demand. Price discovery mainly takes place in the aftermarket. In simpler words, first, the underwriter chooses an IPO price[6] and then orders of the investors in the form of bids are collected. If the issue is under-subscribed, then all bids can be met in full with the underwriters taking up any unallocated shares. However, if the issue is over-subscribed then some allocation rule is necessary. These allocation rules reflect regulation imposed by the securities regulators. These rules can be fair allocation rules, which require all bids to be scaled down to pro rata until supply equals demand. Typically (not necessarily), such rules also require that bidders pay in advance for part or all of the shares that are ordered. This is done to limit the extent of strategic over bidding[7] . Sometimes unlike the fair allocation rules, a country can allow discrimination in favour of investors who bid for limited number of shares, specifically the retail investors. Random allocation rules is yet another way to allocate shares in this mechanism where the investors are essentially chosen by lottery.

The third alternative or the **book building** procedure like the auction method assesses the market before fixing up the prices. It involves three distinct steps. After the appointed underwriter sets an initial price range, road shows are organized to publicize the imminent offering. These road shows help to raise interest as well as to reduce information asymmetry among the various categories of investors. In the second stage, the investors submit their non-binding orders / indication of interest to the merchant bankers. These bids provide the issuer with valuable information about the market demand of the concerned security as well as the prospects of the firm. These indications of interest are called a book and the process of polling potential investors is called book building.

The indications can take a number of forms. Least informative are the *strike bids*. It simply means that that the bidder is prepared to take a given number of shares at any price within the initial price range. In other words, the bidder presents the investment banker with a completely inelastic demand curve, leaving it to others to set the price. More informative are the *limit bids*, where the bidders submit a price-quantity combination. A single investor might submit a number of *limit* bids-sometimes known as step-bids-which amounts to revealing that investor's demand curve as a step function to the investment bank. Generally, investors can submit bids at any time until the book closes, and are free to revise, or even cancel, their bids. If, during the process, it becomes clear that demand is either very strong or weak, the price range can be revised and new bids can be invited from the investors. In practice, it will usually be necessary that to submit the price bid to the regulatory authorities.

In the last stage, the underwriter fixes up a price with the help of the demand curve constructed from the information contained in the bids. This information is also used to decide the final allocation of the shares. However, the important point to be noted here is that the final price is not determined by mechanistic crossing of the supply and the demand curve. The investment banker, in consultation with the issuing companies retains considerable control over the issue price and allocation. This discretion enjoyed by the investment bankers sets apart the book building procedure from the rest of the mechanisms as mentioned above. This aspect is also one of the most controversial aspects of the book building procedure; in part, because not all investors are able to take part in this the process[8] .

The above three methods are the basic ways to go for an IPO. When two of the above-mentioned methods are combined then it results in **hybrid offering**. There have been hybrid auction / fixed price and hybrid auction / book building IPOs , but by far the most common combination is book building / fixed price offer. For most hybrids, book building is used to set the price and allocate shares to institutional and foreign investors while fixed offer is reserved for local retail investors who do not participate in the price setting process.

1.2 <u>What sets them apart</u>? Though, sometimes it may appear that there is an overlap in the above procedures, there exists firm grounds of distinction amongst them. These features, which distinguish the processes (in the context of the three basic procedures), are discussed below.

Role Of Different Actors-Fixed price and auction mechanisms are investor driven mechanism aimed at giving significant decision to investors. Comparably, the investors play a greater role in the auction mechanism because the final price and the allocation, though dependent on the pre-set rules, are ultimately determined on the basis of demand as indicated in the bids received from the investors. In case of the fixed price mechanism, the investor's bid play role in the allocation of the shares as the prices are fixed before hand.

In sharp contrast to the above two procedures, the book building mechanism gives a lesser role to the investors. The underwriter has full discretion over the pricing and allocation decisions.

The final price, despite having a good idea about the demand for the shares on offer, is not determined by the mechanistic crossing of supply and demand. Underwriters decide the price and relatively little is known about how the merchant bankers use the information in the book. They tend to keep their books shut to the outsiders[9].

He also has *control* over the *allocation of shares* and can refuse any order. This is in contrast, as auctions require allocations in response to current bids according to some pre set rules, without regards to the past relationship between certain bidders and the auctioneer. The fixed price offer also normally includes "fairness" rule, which limits discrimination. To be brief, investors' bid represents a commitment in the last two mechanisms while it is just an indication of interest in the former.

Degree of risk **-** The degree of risk varies from one process to another. Auctions are the most risky as the final price and level of subscription remains uncertain till the last moment. An issuer simply sets the reservation price and waits to see what happens.

The fixed price offerings are less risky as the price is known from the beginning. The pay in advance feature of fixed price (if it is there) allows orders to be collected from many unknown investors without a risk of subscriber defaults. It thus guarantees the issuer a specific level of proceeds a feature that might appeal to risk adverse issuer.

The book building procedure lies somewhere in middle as it is less risky than the auctions but are not as certain as the fixed price. This is so because in this case once the final allocations are decided upon, the investors who participated are contacted to confirm their bids. Till that point the bids are not legally binding. The probability of defaulter subscribers is high and may lead to situations where the issuer is unable to raise the targeted amount.

Evidences also suggest that auctions sell fewer shares in comparison to the book building. This in turn implies that expected proceeds from the sale of shares are strictly higher for book building , holding constant the amount spent on information acquisition[4]. Thus, for risk averse entrepreneurs that have an enormous investment in their company, the reduced risk of book building may be attractive.

Cost Involved **-** Any IPO mechanism involves both direct and indirect costs. The *direct costs* are very similar to fixed cost and result due to the costs of marketing, legal and auditing work etc. They involve considerable economies of scale as the costs of going public, expressed as percentage of the fund raised, tend to fall with the size of issue. *Indirect costs* are associated with under pricing. That is, the shares in companies that go public are offered to investors at prices considerably below the price at which they subsequently trade on the stock market. Consequently, the initial owners have to “leave money on the table” for the investors who purchase shares.

Book building is the most expensive mechanism as far as the direct cost is concerned. Fixed price is a low cost way to distribute shares to retail investors as it avoids the high fixed cost of road shows (road shows are only associated with the book building process). Moreover, the fees of underwriters are higher when book building is used than with auctions or fixed prices.

Indirect cost in the form of underpricing is associated with all mechanisms of IPOs (Loughran, Ritter and Rydqvist, 1994 report that under pricing occurs virtually in all IPOs). In fact, it is an obligatory cost to the issuer. However, the degree of under pricing differs from on method to other. Most of the papers argue that while book building is associated with highest level of under pricing, the auction method results in the lowest level of under pricing (this topic would be dealt in detail afterwards).

So in brief, the features can be broadly summarized as following:

Basis of distinction/Method	Fixed price	Auction	Book building
Price determination and dependence on the investor’s bid.	Prices at which the securities are offered are known in advance to the investors. It does not depend on indications of demand received in the bids.	Though price depends on the indication of interest, pricing rule is pre defined. Prices are not known in advance and are fixed up only after the bids are received.	Offer price conditioned on the indication of demand received. No pricing rule exists. Final prices are known when the final prospectus is published.
Demand	Can be known only after the closure of security.	Can be known only after the closure of security	Can be known every day as the book is built.
Payment	It can require payments to be made at the time of subscription wherein refund is given only after allocation.	Payment only after allocation.	Made only after allocation of shares is made.
The main player	Investors are important as their bids decide the *allocation* according to the pre defined rules as set by the regulatory authority.	Investor’s bids are important as *prices* as well as *allocation of shares* are decided on the basis of bids.	Underwriters are the most important as they have sole discretion in pricing as well as the allocation of shares.
Road shows	Not an integral part.	Not an integral part	Integral part of the whole process. Purpose is to collect information about investor’s interest in that offer at the indicated price range and then use it to arrive at the final price.
Cost			
A) Direct Cost.	Road shows are absent and the underwriter’s fee is low. The resulting direct cost is thus low.	Underwriters’ fees less in comparison to the book building process but greater than fixed price process. As road shows are also absent here direct costs are greater than fixed price but less than book building process.	Highest on account of the underwriter’s fees as well as road shows.
B) Indirect Cost	Under pricing higher than auctions but less than the book building procedure.	Least in comparison to the other methods.	Highest under pricing observed.
Allocation rules.	Pre set rules prevents discretionary allotment. Contracts are binding and allocations made on the basis of bids submitted.	Allocation rules are pre set. Past relation ship do not play a role in the allocation process.	Discretionary allocation as allocation depends on the investment banker.

2) The Rise and Demise of Mechanisms

There has been a marked change in the techniques used to take companies public in many countries. In particular, the book building technique, which is primarily a US phenomenon, has spread to many countries.

The initial impetus for the spread of book building was the wave of privatizations, which were first made fashionable by Margaret Thatcher of the UK. Until the mid-1980’s, auctions were frequently used to conduct IPOs in the UK. According to Jenkinson and Ljungqvist (2001), in 1983, 15 of the 24 public IPOs (excluding the large number of placings that public cannot generally subscribe) were conducted by auctions (known at that time as offers for sale by tender). However, no private sector IPOs by auction have taken place in the UK since1986, although a part of the British Airports Authority (BAA) privitasation in 1987 was conducted via a discriminatory price auction. Though the reasons for the demise of the auctions in the UK are unknown, it is certain that it was not caused due to the introduction of any regulatory impediments.

In Japan regulatory changes in the wake of the Recruit Cosmos Scandal made auctions compulsory for IPOs between 1990 and 1997. The Japanese system was interesting during this period in the sense that a formal auction was used for a portion of the issue, and the price determined by the auction was then used to fix the price for the rest of the issue. In 1997, when it was permitted to select either of the pricing method, the Japanese market quickly changed to hundred percent book building, even though the auction method was available officially. Auctions were also used in other countries like Italy, Portugal, Switzerland in 1980s and Singapore in 1990s. However, they were abandoned gradually after other alternatives became available. Regulatory compulsion has still kept the auction mechanism in practice in few countries like Taiwan, Israel etc. France is the only European country where auctions still exist by the name of *offer a' prix minimal.* In fact, it is unique, as all the three procedures co-exist in the primary market.

Though the fixed price method is very common world wide, it is used less particularly for larger issues and more active markets. This is evident from the documentation of the global trends in the IPO process by Bierbaum and Grimm (2002)(Refer Table2).

Table 2

Country patterns in IPO methods						
	Book Building			**Public Offer**		**Auction**
	Used atleast sometimes	**Dominant or gaining popularity**	Hybrid BB / PO used	Used in Past	Used today (not incl. hybrids)	Used today
Europe						
Austria	yes	**yes**	yes	yes	?	
Czech Republic				yes	yes	?
Finland	yes	**yes**	yes	yes	yes	
France	yes	**yes**	yes	yes		occasionally
Germany	yes	**yes**	yes	yes		
Hungary	yes	**yes**	yes	yes	yes	
Ireland	yes		yes	yes	yes	
Italy	yes	**yes**	yes	yes		
Netherlands	yes	**yes**	yes	yes		
Norway	yes	**yes**	yes	yes		occasionally
Portugal	yes	**yes**	yes	yes	yes	
Spain	yes	**yes**	yes			
Sweden	yes	**yes**	yes	yes	yes	
Switzerland	yes	**yes**	yes	yes		
United Kingdom	yes	**yes**	yes	yes	yes	
N. & S. America						
Argentina	yes	**yes**	yes			
Barbados				yes	yes	
Brazil	yes	**yes**	?	yes	yes	
Canada	yes	**yes**	yes			
Chile	yes	**yes**				hybrid
Mexico	yes			yes	?	
Paraguay				yes	yes	
Peru	yes	**yes**	yes	yes	yes	occasionally
United States	yes	**yes**	yes			occasionally
Asia/Pacific						
Australia	yes	**yes**	yes	yes		
Bangladesh				yes	yes	
China	yes	**yes**	yes	yes	yes	
Hongkong	yes	**yes**	yes	yes	yes	
India	*yes*		*yes*	*yes*	*yes*	
Indonesia				yes	yes	

	Book Building			Public Offer		Auction
	Used atleast sometimes	**Dominant or gaining popularity**	Hybrid BB / PO used	Used in Past	Used today (notincl. hybrids)	Used today
Japan	yes	**yes**	yes			
Korea	yes	**yes**	yes	yes		
Malaysia				yes	yes	
New Zealand	yes	**yes**	yes	yes	yes	
Philippines		**yes**	yes	yes		
Singapore	yes		yes	yes	yes	
Sri Lanka				yes	yes	
Taiwan				yes	yes	yes
Thailand				yes	yes	
Africa/Middle East					yes	
Kenya				yes	yes	
Israel				yes	yes	yes
Jordan				yes	yes	
South Africa	yes		yes	yes		
Turkey				yes	yes	

Table 2 summarizes the IPOs methods used in various countries. It can be seen that both public offers and book building are commonly used worldwide, while auctions are rare. In all the developed capital markets, except Singapore, book building is the dominant method or is gaining popularity. Table 2 shows that there is not even a one country where auctions are dominant even though book building is freely available. In few places where auctions are still used frequently, there are legal restrictions on the book building method. Hybrid book building / public offer is more popular than "pure" book building.

It should be however kept in mind that though countries may have book building as the main mechanism for conducting a IPO, the framework within which it operates differs from one country to another. One instance in this regard is the participation of the retail and institutional investors in the bookbuilding efforts. In India, retail participation is encouraged and the issuing company has to offload a certain percentage of the shares in their favour. However, in USA the retail investors do not have any role to play in the process. The issuers allocate all shares to the institutional investors who in turn allocate them to the retail investors. Various other differences exist between the frameworks within which the book building effort takes place. One thus needs to remain careful while drawing comparisons between them.

3. The Question of Efficiency

3.1 Why is this question important? The question of efficiency in case of IPO processes has been the subject of considerable academic research. It is necessary to address this issue because this efficiency / inefficiency has an impact on the economy as well as on the company that floats an IPO. On the macro level, if the primary market is efficient that is going public is inexpensive and easy, the availability of equity finance will increase and its cost will be lowered. Additionally, it has been observed that although considerable international variations exist, majority of companies raise external equity finance only once-at the time of IPO. Thereafter they tend to rely upon retained earnings and debt to finance their operations and the importance of stock exchange as a source of additional finance becomes less important. Thus, it is necessary that both should gain the maximum from the one time process in the lifecycle of any company.

3.2 Manifestation of Inefficiencies in the IPO Process Two apparent empirical anomalies namely *underpricing* and *long run underperformance* exist in the case of IPO process.

What is underpricing? Underpricing occurs when the shares of a company that go public is offered to investors at a price much below the price at which they subsequently trade on the stock market. It raises cost to the companies, as they have to leave money on the table for the investors who purchase shares at the IPO. For instance, if a company sell shares equivalent to 20 percent of its total equity capital and if they are priced 10 percent below the market price then the amount left on the table is 2 percent. However if entire equity capital were sold through IPO then the loss would be 10 percent.

The Plausible Reasons: Limited amount of undrepricing is expected because of two reasons. One is that any change in the portfolio requires expenditure in the form of transaction cost. Thus, if an investor is to be enticed to change her portfolio some amount of discount in the form of underpricing is required. It can be also interpreted as a return for bearing risk. There is a risk that the market price may fall after below the issue price. If IPOs were priced with zero discount then the risk averse investor would prefer to trade in the after market. Hence an incentive needs to be given to this section of the investors. But empirical findings show that underpricing is typically too large to be explained in this way.

What is long run underperformance? Long run underperformance occurs when relative to other quoted companies, investors appear to lose out by continuing to hold the shares of companies that have recently gone public. Thus, any initial gain due to underpricing is wiped off. It is of concern because it lasts for a longer period and ultimately results in abnormal negative return over the period. Some studies suggests significant poor returns up to five years after the initial flotation. In case of initial underpricing one can think of reasons why one might want to place the issue at a lower price. But if a recently listed firm performs worse than expected consistently, then there must be something amiss in the way in which risk and performance is measured or with the asset pricing theories used to form expected returns. Economists till now do not know the causes responsible for the long run under performance of the IPOs.

Why are these two patterns inefficient? It is so because both violate the fundamental tenet of 'no arbitrage'. According to this, the existence of any systematic trading should be at best, transitory in nature. That is, if long run underperformance exists, then investors, in order to avoid losses, should sell the shares almost immediately they start trading. In this way investors, fortunate enough to be allocated shares at the IPO would benefit from the underpricing and would also not suffer the losses due to long run underpricing. This trading rule will be highly profitable. However, what perplexes economist is that despite the existence of such profitable trading opportunities, investors hold on to their allocations.

3.3 Empirical evidences on the two anomalies

Underpricing implies on one hand profit for those investors lucky or privileged enough to obtain stocks in the offering and on the other hand, an opportunity cost of going public for the owners of the company. This phenomenon exists in every nation irrespective of the mechanism adopted.

Which method is efficient of all? One of the studies on comparative evidence of IPO underpricing from a large number of countries categorized under three heads-the USA, other developed countries and the emerging markets throws up some interesting results. It shows that first day premium typically averages more than 15 percent in industrialized countries and 60 percent in emerging countries. It also indicates that countries where auction is used for instance in France, Israel etc. the degree of underpricing is very less.It also indicates that fixed price offerings lead to higher underpricing in comparison to the book building procedure.

Various explanations exist to explain underpricing is the IPO mechanisms. It is needed in fixed price offerings to compensate the uninformed retail investors for the winner's curse they face as informed investors crowd them out of good deals (Rock,1986). While winner's curse is not a concern in book building–because the underwriter solicits investor information prior to pricing – a discount is still required to reward investors for surrendering information (Benveniste and Spindt, 1989). Several papers have compared, in theoretical settings, the underpricing required under two methods, and consensus finding has been that book building requires on average a lower discount (e.g., Benvensite and Wilhelm,1990, Spatt and Srivastav , 1991, Benvensite and Busaba, 1997,and Biais and Faugeron-Crouzet, 2001). Wommack and Derrien (2001) compare the degree of underpricing associated with the above-mentioned mechanisms in the French stock market as all the three mechanisms are used here. Using 1992-98 data, they conclude that auction procedure is associated with less underpricing. The result is consistent with the theoretical work by Biais, Bossaerts and Rochet(1996) who suggest that auction is optimal.

On the other hand Benveniste and Spindt(1989) suggest that American bookbuilding procedure is more efficient as it encourages investors to reveal their beliefs about the issue's value , at a cost of initial underpricing. Welch (1992) focuses on the fixed price procedure used in some European countries and shows that this procedure can cause informational cascade investors who observe the investment choice made by previous investors can update their beliefs about the values of the issued shares. This possibility forces issuing firms to underprice their shares, choosing price that is likely to create a positive informational and price cascade. Ljungqvist, Jenkinson, Wihelm(2000) analyse both direct and indirect costs (associated with underpricing) using a unique dataset containing information on 2051 IPO in 61 non US markets during the period 1992-99. They conclude that compared to fixed price offers, bookbuilding efforts though more expensive produces far less underpricing. This benefit was more pronounced when the market included US investors, when US listing was sought and when US banks were a part of syndicate. Table 3 gives a summary of equally weighted average initial return on IPOs in a number of countries around the world. This international evidence shows that countries using fixed price typically have more underpricing than countries using bookbuilding procedure.

A seminal study by Ritter(1991)found evidence of *substantial negative abnormal returns over longer time horizon*;

a comprehensive sample of 1,526 US companies that came to the market between 1975 and 1984 underperformed, control firms of a similar size and in the same industries by some 29 percent after three years of trading. Another study shows that except Malaysia, Singapore, Sweden and Turkey, in other countries long run market adjusted returns, typically measured over a three-year investment horizon, are negative. These findings are consistent with the view that new issues are profitable investment opportunity if bought at floatation and that they should not be held much beyond the first few weeks or months of trading and if possible should be shorted to profit from the negative return drift. One of the interpretations for the long run underperformance is that firms go public after period of fast growth that they are not able to sustain after floatation. This result in negative after market returns. Another reason could be that investors are sometimes over optimistic about the prospects of a firm coming to the market. This will only constitute a minority of the total investors present. But this small number of investors are able to absorb the firm's entire float. Thus the resulting price would not reflect the opinion of the market as a whole but of the minority shareholders. This results in initial price jump but as there is a convergence in the views of the investors the trading price falls and declines overtime as information pours over. Another reason could be related to measurement problems.

Evidences in this case are not large in comparison to the evidence on the underpricing. In fact, the economists are themselves not sure about the reasons responsible for this phenomenon. Thus, a comparison in terms of the different processes is difficult.

As far as the direct cost (indirect cost is associated with underpricing) is concerned however, bookbuilding appears to be more expensive. It may be due to higher underwriter's fees, roadshow expenses etc. Chen and Ritter (2000) report that for almost 90% of IPO raised between $20 million and $80 million have a gross spread of exactly seven percent. Outside USA Ljungqvist(2000) analysed the gross spread of around 1000 bookbuilding efforts and 600 fixed price offers. Once factors like issue size , US listing , US marketing and specific country effect were controlled for, bookbuilding efforts costed about 1.3 percent more than fixed price offers. The general result found by Ljungqvist *et.al* are that Anglo capital markets have a significantly lower costs for average , while the costs of IPO in Germany, Sweden , Italy, Japan , Canada are significantly higher than average.

One of the most controversial issues related to the three processes is related to allocation of the shares. A number of empirical papers provide insight into the allocation outcome of the IPOs. As mentioned above the allocation rules are preset in the other two processes (fixed price and auction procedure namely). Thus, question of discretionary allocation relates to the book building procedure only. It is usually said that book building leads to discretionary allocation as it gives the underwriters a lot of discretion in the allocation of shares.

Ljungqvist and Wilhelm (2002) find that institutional investors are favoured in IPO allocation but that underwriter's discretion enables issuers to minimize the level of underpricing. Cornelli and Goldreich(2001) find that investment banker awards more shares to bidders who provide information in their bids .Regular investors also receive favourable allocations , especially when the issue is heavily oversubscribed. In another empirical reasearh by Jenkinson (2001), it has been shown that underwriters and lead managers favour the frequent or repeated investors and high quality[10] investors. Benveniste and Spindt(1989) also argue that by not announcing the allocation rule, the investment banker can use his discretion to reward regular investors who act as a form of insurance by buying shares in both badly received and well received issues.

In his survey of European IPO market, Ritter (2003) summarizes the viewpoints into three categories. The pitch book view, named because it is found in almost all pitch books (set of slides used by underwriters when they are making presentation to the issuing firms explaining why this underwriter should be hired as the lead underwriter) states that underwriters will use the discretion to allocate shares to institutional investors who are likely to buy and hold investors. Academic views states that regular investors will be allocated shares in return for truthfully revealing their estimate of share value. The profit sharing view, exposited by Long and Ritter (2002,2003) states that underwriters allocate hot IPOs to investors in return for commission business. The more money that is left on the table, the higher is the profits that the underwriters receive from the resulting commission business.

4. Policy Implications and Suggestions

The above three patterns have important implications for the policy formulation.

Discretionary allocation on the surface may seem to be unfair to a section of the investors, especially the retail investors. However according to research, it is a reward for revelation of information. Any company in order to go public needs to get itself valued in the market. This information is important and as there exist no free lunches in this world, the investors revealing this information need to be compensated in the form of better allocation. If they are not rewarded it is possible that they will not be willing to part with their information next time. Dealing with large number of retail investors will also increase the cost of the issuers. Thus ,any regulation, which tries to make allocation more favourable to retail investors, without weighing the cost and benefit associated with it would hamper the capital raising process as the retail investors neither have the expertise nor the financial capabilities to arrive at the true value of the company. Thus, importance should be given more to the issue of efficient valuation rather than the issue of 'equal treatment'.

Underpricing and long run underperformance could be reduced if disclosures norms are made more stringent. This is so because one of the most important reasons for the above two patterns was information asymmetry. More disclosure would reduce this information gap. According to Jenkinson and Ljungqvist (2001) one of the ways to reduce underpricing is to make the underwriter's fees contingent on the excessive level of underpricing. As investors require incentive to participate in the IPO process a target level of underpricing of say 0-5 percent should be permitted. If undrepricing is large then the underwriter's could be made to pay money to the company. Along with this, economies should try to disintermediate the process via the internet. This will help to reduce the whole process transparent. It would also reduce the direct cost of conducting an IPO by reducing the distribution , monitoring cost etc.

Many theorists suggests that as auctions lead to less underpricing and are a heavily disintermediated process, policy formulators should design IPO auctions to promote information production and overcome strategic behaviour by large investors.

5. Conclusion

The bookbuilding procedure in a number of ways is better than the other two processes. There is no doubt that it still has a long way to go, as many improvements are desirable and expected in the future but few of its features have given it an edge over the others.

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1 Ljungqvist , Jenkins on and Wilhelm (2002). "Has the introduction of book building increased the efficiency of international IPOs?"
2 Francois Darien and Kent l. Womack(2001): "Auction vs. Book building and control of under pricing in hot IPO markets
3 This classification rests on what was more popular in the past and what is in practice in the present.
4 Francois Darien and Kent l. Womack(2001): "Auction vs. Book building and control of under pricing in hot IPO markets."
5 Kaneko ,Takashi, and Richard H. Pettway(2003): "Auctions vs. Book building of Japanese IPOs."
6 This price is most probably reached by gathering information from the potential investors on a less formal basis in comparison to the book building process (Tom Jenkinson and Alexander Ljungqvist :Going Public- Theory and Evidence on How Companies Raise Finance-2 edition.)
7 Existence of such rules can lead to strategic behaviour by investors if it becomes clear that the issue is going to be extremely "hot". In such circumstance the rational response to pro rata allocation is to submit inflated bids for shares, in the hope of gaining a higher allocation. Clearly, everyone has same incentive and the issue in this case can become hugely over subscribed. (Tom Jenkinson and Alexander Ljungqvist: Going Public- Theory and Evidence on How Companies Raise Finance-2 edition.)
8 In most of the countries where book building is used , small investors are not included in the bookbuilding efforts, although a tranche of shares may be reserved for the retail investors who then pay the price resulting form the book building efforts. This is done because it is not feasible to invite and discuss issues with the large number of retail investors. Moreover, it is also true that retail investors are typically less informed about the true value of the company than the professional investors.
9 The only exception is a study by Cornelli and Goldreich(2000).
10 High quality refers to the bidder who is likely to hold the allocated share for a long time(Benveniste and Spindt-1989)