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The Rise of Accelerated Seasoned Equity Underwritings

Summary

Seasoned equity offerings (SEOs) executed through accelerated underwritings have increased global market share recently, raising over \$850 billion since 1998, and now account for over half (two-thirds) of the value of U.S. (European) SEOs. We examine 31,242 global SEOs, executed during 1991-2004, which raise over \$2.9 trillion for firms and selling shareholders. Compared to fully marketed deals, accelerated offerings occur more rapidly, raise more money, and require fewer underwriters. Importantly, accelerated deals reduce total issuance cost by about 250 basis points. Accelerated deals sell equal fractions of primary and secondary shares, whereas in traditional SEOs primary shares dominate. Announcement period returns are comparable for traditional and accelerated offerings, while secondary and mixed offerings trigger more negative market responses than do primary offerings. We conclude that this rapid, worldwide shift towards accelerated underwriting creates a spot market for SEOs, and represents the long-predicted shift towards an auction model for seasoned equity sales.

Keywords: Equity Offerings, Underwriting, Investment Banking

JEL Classification: G15, G24

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THE RISE OF ACCELERATED SEASONED EQUITY UNDERWRITINGS¹

Introduction

The global investment banking industry has been transformed over the past fifteen years, reflecting the increased role of capital markets in funding and monitoring corporations around the world. This transformation is partly one of scale, as the total value of securities issued by businesses has (according to the *Investment Dealers' Digest's* annual league table summaries) risen from \$580 billion globally in 1990 to over \$7.6 trillion in 2006, and partly one of scope, reflected in the myriad activities conducted by Citigroup, Bank of America, JP Morgan Chase, CSFB, and other global banking groups. Yet even as capital markets have grown in size and sophistication, they have also converged in practices to a remarkable extent. Ljunqvist, Jenkinson, and Wilhelm (2003) show that U.S.-style bookbuilding has become the dominant method of executing initial public offerings in all major world markets, and Eckbo, Masulis, and Norli (2006) describe how this also seems to be occurring for other types of debt and equity sales. Even failed market experiments have prompted global convergence in banking practices, since Jagannathan and Sherman (2005) and Kutsuna and Smith (2004) show that IPO auctions have failed and been supplanted by bookbuilding in every major world market where firms may choose between auctions and other offering techniques.

In sharp contrast to the eclipse of auctions in IPO markets, we document movement in the opposite direction in the much larger global market for seasoned equity offerings (SEOs).² Seasoned common stock sales executed through accelerated underwritings, which are effectively auctions, have dramatically increased global market share recently, and now account for over half the value of U.S. seasoned equity offerings (SEOs) and over two-thirds of European SEOs.

¹ We wish to thank Luca Farinola, May Li, Lindsey Scott, Jeff Christensen, Scott Kleman, Kunal Tayal, Ramabhadran Thirumalai, and, especially, Valentina Milella for research assistance with this project. We also benefited from comments offered by Anup Aggarwal, Oya Altinkiliç, Paul Bennett, Susan Christofferson, Giacomo Ciampolini (Goldman Sachs, Italy), Shane Corwin, Louis Ederington, Chitru Fernando, Jie Gan, Kathleen Weiss Hanley, Rob Hansen, Dirk Jenter, Charles Jones, Inmo Lee, Marc Lipson, Carlo Michelini (Morgan Stanley, Italy), Brian McCall, Massimo Pappone (Lazard, Italy), Jay Ritter, Fredrik Schlegelman, Ann Sherman, John Scruggs, George Sofianos, Stephen Wei, Pradeep Yadav, and participants in the 2005 European Financial Management Association meeting (Siena), the 2005 World Federation of Exchanges Emerging Market Conference (Beijing), the 2006 Privatization of Infrastructure Conference in Abu Dhabi (UAE), the 2006 Australian Banking and Finance Conference (Sydney), the 2007 American Finance Association meeting, and seminar participants at Bocconi University, Indiana University, McGill University, the University of New Orleans, the New York Stock Exchange, the University of Oklahoma, and the University of Pittsburgh.

² Although relatively few companies raise capital through a seasoned equity offering in any given year, SEOs usually raise much more total annual financing than do IPOs, largely because seasoned offerings are much larger. For example, in 2004-2005 global SEO dollar volume was nearly double IPO volume. Fama and French (2005) show that only about 40 percent of large (30 percent of small) U.S. public companies execute an SEO as frequently as once per decade, and only about 11 percent of large (8 percent of small) public companies launch an SEO in any given year.

Two of the three forms of accelerated underwriting—block trades (BTs) and bought deals (BDs)—involve the very rapid sale of large blocks of shares, at an auction-determined market price, directly to an investment bank by the issuing firm or selling shareholder, with little need or capacity for information production with respect to pricing or demand. The winning bank is then responsible for reselling the shares to institutional investors. The third and most popular types of accelerated underwritings, accelerated bookbuilt offerings (ABO), are executed much more rapidly than conventional bookbuilds, but are similar to traditional underwritings in that banks are responsible for the quality of the order book, price stabilization, and transparency of the allocation. Yet, even ABOs have auction-like features, such as aggressive bidding by different banks in terms of the backstop clause, the minimum price guaranteed independently of the outcome of the bookbuilding process.

Accelerated transactions differ qualitatively from established SEO underwriting techniques, which have traditionally been marketed in much the same way as initial public offerings. Seasoned common stock issues must generally follow similar regulatory processes, though streamlined filing and disclosure rules are allowed in many countries. Besides its larger average size, a seasoned offering differs from an IPO in having an observable market value when the offering is priced—which obviously makes pricing much easier. While details differ between countries and across time, the basic features of traditional SEO underwriting practices have remained constant. A firm wishing to raise capital by selling newly issued shares—or a shareholder wishing to sell existing shares—negotiates underwriting terms directly with one or more investment banks, which then forms a syndicate of banks to actually distribute shares to investors. Top managers of companies executing primary, capital-raising offers accompany underwriters on road shows, during which managers tell the company story to potential investors. The underwriters assess institutional investor demand and determine an offer price by building an order book. Thus, in traditional underwritten offerings, the investment banks managing the offer assess investor demand and use the information received to generate an offer price, expressed as a discount to the closing price of the issuing firms' shares the day before the offering goes effective.

In accelerated underwritings, banks do not generate this information before firmly bidding for the shares, and their principal economic function is to resell the stock. In both block trades and bought deals, the underwriting bank purchases shares directly from the issuing firm or selling shareholder, and is then unconditionally responsible for re-selling the shares (the bank has no recourse to the original seller). In an ABO, the lead-manager bank is able to assess market demand before committing to an underwritten share price—though there is no time to conduct true due diligence before bidding for the underwriting mandate—and shares must be placed very rapidly [Mannix (2003)]. ABO issuers select the global coordinator based on the backstop clause, underwriting spread, and other profit-sharing agreements. The winning bank then elicits bids from a list of top tier institutional investors in order to ensure a more accurate price for the issue and often engages in price stabilization, at least for the larger ABOs. All three

types of accelerated deals thus place a great premium on investment banks' capital base and risk tolerance.

We document and seek to explain the cause of the dramatic rise of accelerated SEOs around the world since 1991.³ We also ask whether this evolution has been driven by value-maximizing motives for all parties (investors, firms and bankers), or whether it has been driven by predatory corporate behavior. One possibility is that accelerated deals were pushed on reluctant firms, and their shareholders, by increasingly powerful investment banks in order to increase banking revenues. This is similar to Loughran and Ritter's (2004) "analyst lust hypothesis," posited to explain the sharp rise in IPO underpricing during the late 1990s. We test whether banks have benefited at the expense of firms and investors by examining the costs and pricing of ATs versus traditional SEO deals, and we test whether these underwritings have transferred wealth from investors to corporate managers by examining the market impact of AT announcements.

Our task of describing ATs is especially challenging because the institutional and legal details of accelerated underwritings are so unfamiliar to commentators that even the simplest terminology is hard to nail down. No official descriptions of the three AT forms are provided on security regulators' websites, and the practitioner literature often uses the definitions of various accelerated deals interchangeably. The definition we use is that accelerated underwritings are (1) seller-initiated, underwritten seasoned equity offers; (2) that are completed very rapidly; (3) which do not involve a road show, the pre-issue publication of a detailed prospectus, or anything other than minimal registration with regulatory authorities and exchanges; and (4) are marketed primarily or exclusively to institutional investors. The seller typically announces its intent to sell a block of shares and solicits bids from investment banks. The winning bidder then either buys the block of shares on its own account, and takes responsibility for placing the shares (in a BT or BD), or rapidly assembles a small underwriting syndicate and places the deal within 48 hours (in an ABO). Ours is the first full-length study of accelerated underwritings, and the first to examine the global (rather than European) rise of accelerated deals. Besides documenting the growth of accelerated underwritings, we hope to codify this technique's terminology and begin structuring how this important new security-issuance process can be analyzed by economic, legal and financial scholars.

We find that ATs are faster, cheaper, raise more capital, and have comparable market impacts to traditional SEO underwritings, so there is little evidence that sellers have benefited at investor expense. While this innovation has transferred market power from banks to issuing firms and selling shareholders,

³ We became aware of the importance of accelerated underwritings while serving as members of the Italian government's Privatization Advisory Committee (the Comitato) from 2002 to 2005. The Italian Ministry of Economy and Finance launched two accelerated deals during this period that together raised about \$4 billion. To our knowledge, the only published article describing accelerated underwritings is Pappone and Ciampolini (2005), in the Privatization Barometer Newsletter (<http://www.privatizationbarometer.net/newsletter.php?id=3>).

we conclude that the larger banks have benefited since ATs have allowed them to gain market share due to their relatively larger capital bases and greater risk tolerance. The rise of ATs has unequivocally promoted the institutionalization of capital market trading and investment holdings, though this is not necessarily economically sub-optimal. We show that accelerated deals have become popular with issuers for several reasons, most notably because they are faster and cheaper than marketed deals, expose the issuer to less price risk during the short underwriting period, and have comparable announcement-period market impact. On the other hand, accelerated underwritings do not harm investors. We also show why large investment bankers have embraced accelerated underwritings. Since these deals require banks to have large capital bases and risk tolerances, they have helped the largest banks consolidate their grip on global equity underwriting.

We also contribute several important findings to the academic investment banking literature. Ours is the first truly global event study analysis of the market impact of SEO announcements, as well as one of the first to show that pure secondary and mixed primary and secondary SEOs yield significantly more negative announcement period abnormal returns than do capital-raising, primary offers. We also present a unique analysis of the size of SEO investment banking syndicates—illustrating that accelerated deals yield much smaller, more capital intense, and presumably riskier underwriting syndicates, but these generate comparable revenues over much shorter transactions periods and allow banks to effectively “buy” market share and league table rankings. Finally, we document that very rapid, auction-like underwriting is becoming the norm for seasoned equity offerings, in sharp contrast to IPOs. This should help resolve the academic finance debate on the relative merits of issuing securities by auction versus by intermediated sales. Sensibly, it appears that auctions have decided advantages of cost and speed for issuing securities with low information asymmetries (seasoned equity, bonds), but that intermediaries will always be required to certify IPOs, as Wilhelm (2005) and others argue.

This manuscript is organized as follows. Section I describes the evolution of block trades, bought deals, and accelerated book-built offering techniques in North America and Europe since 1982, while section II details our data and sample selection methodology. Section IV contrasts accelerated deals with traditional fully-marketed offerings, while section V econometrically examines whether accelerated deals are less costly than traditional seasoned equity underwritings. Section VI concludes. Extensive details about offer characteristics, industry, and selling methods are presented in the Appendix.

I. The evolution of accelerated underwritings

Accelerated underwriting practices developed independently in three separate national markets during the 1980s and early 1990s, and only began to evolve into a truly standardized global offering method during the late 1990s. In the United States, existing shareholders have long been able to dispose of some or all of their holdings in a firm using a registered, underwritten offering. Confusingly, these

secondary offerings—which are not the focus of our study—are also called block trades if they are sold in packages of 10,000 or more shares on one of the major U.S. stock exchanges. These are never primary offerings, but are instead share sales executed principally in upstairs markets by block trade specialists, who often break the offers into many smaller portions for further sale. These “upstairs market” block trades—which are modeled theoretically by Seppi (1990) and studied empirically by Dann, Mayers and Rabb (1977), Holthausen, Leftwich, and Mayers (1987, 1990), Keim and Madhavan (1996), and Madhavan and Cheng (1997)—are far smaller and more transaction-related than the trades we examine.⁴

The U.S. block trades we study, and the only offerings identified as such by the Securities Data Corporation New Issues database which we employ, are underwritten offerings by the firms themselves (primary offers) or by large shareholders (secondary offers). All of the U.S. primary share sales and all secondary sales executed by existing shareholders with a control relationship to the firm (officers, directors, and controlling corporate owners) must be registered with the U.S. Securities and Exchange Commission [Keegan (2000), O’Connor (2006)]. Capital-raising primary block trades are similar to the offerings examined in most U.S. seasoned equity offering studies—from Bhagat and Hess (1985) and Asquith and Mullins (1986) to Altinkiliç and Hansen (2003) and Heron and Lie (2004)—while the secondary block trades are most similar to the registered secondary distributions studied by Mikkelson and Partch (1986). The block trades in our sample occur only after the adoption of shelf registration (Rule 415) by the U.S. Securities and Exchange Commission in 1982. This regulatory change allowed companies to shelf register significant amounts of new equity, and then to sell blocks of shares as market conditions allowed any time over the next two years. The first major block trade involving shelf-registered shares, described in Masters (1982), was Houston Industries’ \$85 million primary share offering, underwritten by Goldman Sachs in April 1982.⁵ As we show in section 3, over 80 percent of U.S. accelerated underwritings involve shelf-registered shares.

⁴ The average size of the block trades examined in these studies ranges from \$340,000 in Keim and Madhavan to \$1.8 million in Madhavan and Cheng. The block transactions studied in Mikkelson and Regassa (1991) are also different from both the block trades cited above and the trades we examine in that they examine premiums paid in 37 negotiated third-party purchases and 117 negotiated share-repurchases (greenmail) executed between 1978 and 1987. Several authors also examine block trades in upstairs markets outside the United States, including Anderson, Cooper, and Prevost (2006, Australia), Smith, Turnbull, and White (2006, Canada), Booth, Lin, Martikainen, and Tse (2002, Finland), Bessembinder and Venkataraman (2006, France), and Gemmill (1996, Britain). As with the United States, the trades examined in these studies are far smaller than the BTs we study, involve different buyers and sellers, and are portfolio-rebalancing rather than corporate financing events.

⁵ Revealingly, the first two U.S. block trades recorded in the SDC database are the \$3.9 million Syncor and the \$45.5 million Electronic Data Systems offerings, launched in June and October 1982, respectively. This set a pattern where early block trades we identify by searching Lexis/Nexis are not recorded as such in SDC, and vice versa. To begin building our sample, we read articles from *Financial Times*, *Investment Dealers Digest*, the *Economist*, and numerous Canadian newspapers describing individual deals and the evolution of accelerated underwritings from 1982 to 2004. From these sources we obtained detailed institutional and legal descriptions of about 400 individual deals. This search verified early inconsistencies between SDC and contemporary news reports. By the early 1990s, however, most accelerated deals are recorded as such both in SDC and in the news articles presented in Lexis/Nexis, though as noted these reports often use the terms interchangeably. This observation, coupled with the fact that SDC

The block trade underwriting procedure that developed during the mid-1980s is still used today, and works as follows.⁶ The issuing firm (or selling shareholder) announces the amount of stock it wishes to sell, and invites banks to bid for these shares, which they do at a discount to the current market price. The bank offering the lowest discount wins the right to buy the shares, which it then re-sells on the open market—hopefully at a profit and hopefully within 24 hours (preferably overnight). Market risk is transferred unconditionally from issuer to bank with the auction, so issuers can sell shares very rapidly and with little or no price risk, which is a key reason why block trades have proven so popular with sellers. Initially, banks merely acquiesced in conducting block trades, but the larger and more ambitious banks soon realized that these trades offered them the chance to capture underwriting market share through quick, though risky trades.⁷ The banks also realized that they could retain all of the underwriting profits in block trades, rather than share these with other syndicate members [Wall Street Journal (1986)]. Additionally, the large banks realized that participating in accelerated underwritings allowed them to “buy” market share and quickly move up the league table rankings, since these were large deals that were typically sole-managed (not syndicated), so banks received full credit for the entire deal [Tunick (2003) and Skorecki (2004)].

The second major accelerated underwriting innovation occurred in 1983, when the Ontario Securities Commission (OSC) adopted its prompt offering qualification system, which allowed listed Canadian firms to file a short-form prospectus and sell seasoned equity very rapidly [see Critchley (1986) and Critchley and Gittins (1990)]. This spurred development of the bought deal, which has essentially the same features as the U.S. block trade, but is open only to Canadian issuers, banks and investors. Issuers announce their desire to sell a block of either existing or newly issued shares, and banks either negotiate directly with the issuer (if the bank and issuer have an existing relationship both wish to preserve) or bid for the shares on offer. The winning bank then files the required OSC short-form prospectus and takes title to the shares, with the entire sale typically being completed overnight. The subsequent resale of shares by the underwriter to final investors takes, on average, another 20 days. This is called a bought deal because of the lack of a “market out” clause in the underwriting agreement, meaning that the bank

only begins comprehensive coverage of non-U.S. issues in 1991 helped us decide to begin our study then rather than in 1982.

⁶ Descriptions of U.S. block trade procedures, and their historical evolution, are presented in Taylor (1982), Pratt (1992, 1994), Wirth (1997), Hahn (2000), Tunick (2003), Santini (2004), and Smith (2005).

⁷ Accelerated underwritings are inherently risky for investment banks, since this involves bidding for large blocks, priced at very small discounts to trading values, with no time to conduct due diligence, in hopes of quickly reselling these shares to institutional investors at a profit. The banks must purchase these shares directly from issuers, who may be better informed about the firm’s prospects than are the banks. Examples of accelerated deals that resulted in underwriter losses are provided in Hahn (2002), Barber and Skorecki (2003), and Chung (2006). Perhaps the worst such loss is one we observed first-hand: the Italian government’s \$2.5 billion ABO of a 6.6 percent stake in ENEL in November 2003, which Morgan Stanley purchased at market price (no discount) after winning a bidding contest with six other banks. ENEL shares fell sharply upon announcement of the ABO, leaving Morgan Stanley with a reported loss of almost \$7 million [Tunick (2003)].

assumes unconditional price risk once it buys the issuer's shares. The bought deal quickly came to dominate Canadian SEOs, and has remained essentially unchanged ever since, despite a stiff challenge mounted against the process by banks during 1992 [Simon (1992)].

Accelerated underwritings spread to Europe during the late 1980s, and slowly around the world thereafter.⁸ As described in Barber (1986) and Slovin, Sushka, and Lai (2000), the first major British deal occurred after the London Stock Exchange changed its rules to allow firms greater latitude to execute placings—sales of new shares to public investors—rather than rights issues, as was effectively required previously.⁹ In August 1986, Guinness PLC sold its entire 18.8 million share holding in British Petroleum for £108.3 million in a block trade priced at a mere three percent discount to BP's market price. The success of this deal and other early block trades caused accelerated underwritings to spread throughout Europe, slowly at first, then very rapidly during the late 1990s. In popular usage, the terms bought deal and block trade have always been used interchangeably, though SDC seems to adhere to the strict definition of BD as an offering that uses a short-form prospectus and selling techniques comparable to the option offered by the Ontario Securities Commission.¹⁰ For this reason, over 90 percent of all bought deals are Canadian issues.

The third major accelerated underwriting innovation occurred in February 1991, when Canada's Reichmann family divested their 9.5 percent stake in Britain's Allied-Lyons PLC in a \$900 million secondary offering that was classified as a bought deal at the time [Critchley and Gittins (1991)]. Years later, this offering became known as the first accelerated bookbuilt offering (ABO), though the first usage of that term in any news article covered by Lexis/Nexis occurred only in July 1997 (Warn (1997)). As noted, ABOs differ from BTs and BDs in that banks do not immediately purchase stock from the issuer at a fixed price, but instead submit bids for the right to underwrite sale of the block of shares over a short period—usually 48 hours or less. Banks submit competing bids that differ in terms of the backstop price guaranteed, underwriting spread, and placement capabilities. The winning bank then is responsible for very rapidly building an order book and setting a final offer price. In essence, the issuer continues to share price risk with the underwriting bank throughout the short underwriting period, but in return is able to execute larger share placements than with BTs or BDs, because the underwriters do not assume as much unconditional price risk.

⁸ Plueneke and Templeman (1986) and Shearlock (1994) describe an intriguing earlier (1986), truly international accelerated underwriting, the disastrous \$2.1 billion bought deal of two-thirds of the Libyan government's holdings in Italy's Fiat. Deutsche Bank took on this mandate as a way of breaking into investment banking's top tier, but the deal was executed so poorly that syndicate members suffered almost \$100 million in losses.

⁹ The evolution of accelerated underwriting techniques in Europe is described in Barber (1986), Stevenson (1991), Sharpe (1995a,b), Wright (2001), the Banker (2004), and Stafford (2005).

¹⁰ In fact, writers sometimes use the phrases "bought deal" and "block trade" to refer to the same transaction in a single article! See Santini (2002) and Loades-Carter (2003) for examples.

Although there were numerous accelerated underwritings in North America, Europe and elsewhere during the early and late 1990s, traditional fully marketed offerings dominated this period. This was partly due to the fact that, outside of North America, share issue privatizations (SIPs) were the largest and most important types of share issues. These naturally tend to be marketed deals because a key purpose of governments launching SIPs is to sell shares as widely as possible to the voting public—as discussed in Jones, Megginson, Nash and Netter (1999).¹¹ In fact, until the global stock market “break” in March 2000, it appeared that accelerated underwritings would remain fairly minor niche transactions. It has only been since March 2000 that accelerated deals, especially ABOs, have surged to preeminence, as Figure 1 shows.

**** Insert Figure 1 ****

II. Data and sample selection

As our base sample, we select all seasoned equity offerings listed on the SDC New Issues Database, launched between January 1, 1991 and December 31, 2004, that meet the following criteria: (1) offerings of shares of common stock of publicly listed companies; (2) underwritten offerings that are made in exchange for cash; and (3) issues that are not payments for takeovers. Although SDC covers U.S. seasoned offerings from 1970 on, we begin our study in 1991 because this is when SDC reliably begins covering European and Asian countries. The first selection criterion excludes IPOs, while the underwriting requirement excludes best efforts (BEST EFFORTS) and issues without offering type listed (UNKNOWN). The cash payment criterion excludes non-cash (CAPITALIZATION) issues, and the final criterion screens out TENDER issues. Our purpose is to create a truly global sample of underwritten seasoned equity offerings, which includes capital-raising pure-primary issues, pure-secondary sales of shares by existing stockholders, and mixed offerings including both newly-issued and existing shares, as well as both private-sector share offers and share issue privatization (SIP) sales executed by governments. In contrast to most published SEO studies, we include offerings from all industries (financial firms and regulated utilities, as well as industrial companies), and offers on public as well as private markets—though we examine many classifications separately in subsequent analyses to be comparable to existing research.

In all our analyses, we study both the full sample of all SEOs from around the world and country/regional sub-samples. We follow the example of Ljungqvist, Jenkinson, and Wilhelm (2003) and categorize offerings into one of three country/regional groups: the United States, Europe, and the rest of the world (ROW). Europe is defined in broad geographic terms to include the transition economies of

¹¹ The first major SIPs executed as accelerated underwritings were Britain’s £500 million sale of its remaining British Petroleum holdings in December 1995 and France’s \$619 million divestment of a 4 percent stake in Total in March 1996. Both sales are labeled bought deals in contemporaneous news reports [Sharpe (1996)], but are classified as block trades by SDC.

central Europe (including Russia) and Turkey, though over 90 percent of the 8,546 SEOs in this group involve shares of firms headquartered in Switzerland, Norway, or one of the 15 members of the European Union during 1991-2003. The ROW group, by definition, includes offerings from a large and heterogeneous set of countries, but over 60 percent of these offerings (by number and value) come from just four countries: Australia, Canada, Hong Kong, and Japan. Our final sample consists of 31,242 offerings from almost 100 countries that raise \$2.926 trillion (in 2004 dollars). There are 8,270 U.S. offerings (raising \$955.3 billion), 8546 European SEOs (raising \$1,089.5 billion), and 14,426 offerings of shares in companies headquartered in the rest of the world (raising \$881.4 billion). The global sample and regional sub-samples, categorized by offering method and region, are presented in Table I.

**** **Insert Table I about here** ****

We classify offerings based on the description given in SDC, and initially group these into two basic categories—accelerated and non-accelerated, or traditional, underwritings. The first category, **accelerated transactions**, includes any offer with accelerated bookbuilt (ABO), block trade (BT), or bought deal (BD) listed as an offering method anywhere in the SDC designation. SDC's offering classification method poses an important challenge, since the database frequently gives multiple designations to a single tranche.¹² For instance, many issues are classified as “block trade/negotiated sale,” “accelerated bookbuilt/firm commitment,” “bought deal/open offer,” or similar combinations. We classify all tranches with one of these terms included as an accelerated transaction (AT), and called these *mixed ATs*.¹³ We label as *pure ATs* all tranches that list ABO, BT, or BD exclusively as the offering technique. There are 5,110 accelerated underwritings, raising a total of \$647.6 billion, including 824 ATs (worth \$147.6 billion) involving shares of U.S. firms, 2445 European ATs (worth \$351.5 billion), and 5,133 ATs (worth \$148.4 billion) from the rest of the world.

The second category, **non-accelerated transactions**, incorporates all other offering techniques. Although we will compare ATs to this entire group of seasoned equity underwritings in the empirical analysis below, Table 1 also breaks the non-AT category down further into four additional classifications based on the offering type designations in SDC. **Firm commitment underwritings** include offers

¹² Another challenge we face is that there are a very large number of multi-tranche offers. These become much more common over time (most of the post-2000 deals have multiple tranches), and these tend to be the largest overall issues. Multiple tranches are especially frequent among privatizations (the 1987 DSM offering had seven individual tranches, and one of the British Telecom offers had five tranches). Many accelerated deals have multiple tranches as well; the very first ABO, Allied Lyons in 1991, has two tranches listed. Since the principal focus is on individual offerings, we examine each tranche separately using SDC's variable "amount raised in this market" as the offer amount rather than "amount raised, sum of all markets." This classification poses no problems in comparing issue characteristics (such as size, underwriter spread, percent primary shares, etc) between accelerated and traditional marketed deals, but it does complicate interpreting event study results—since every tranche of a share offering is announced simultaneously. We address this issue in section 5 below.

¹³ In the vast majority of cases, the AT designation is listed first (block trade/negotiated sale), rather than second (negotiated sale/block trade), which also supports designating all deals involving any of our three techniques as an accelerated transaction.

designated as firm commitment, firm commitment/negotiated sale, firm commitment/placement, and other offerings including the firm commitment designation. There are 11,010 firm commitment underwritings raising \$1,092.6 billion, of which 6207 (raising \$733.7 billion) are from the United States, 328 (raising \$36.4 billion) are European, and 4475 (raising \$322.5 billion) are from the rest of the world.

There are 1,121 SEOs (raising \$81.6 billion) that we categorize as **general cash offerings**, including 877 European, 242 ROW, and two US offers raising \$53.7 billion, \$14.7 billion, and \$56 million, respectively. This classification includes issues with the SDC designations of offer for sale, offer for subscription, open offers and other sales classified as “offers.” The third non-AT category, **placements and allotments**, includes offerings designated as placements, third party allotments (virtually all of which are Japanese) and other sales with “placements” in the offering designation. There are 7,205 placements and allotments, raising \$562.4 billion, mostly from Europe (2,651 offers, raising \$293.0 billion) and ROW (3,686 offers, raising \$220.8 billion). There are only 868 U.S. placements and allotments, which raise \$48.5 billion.

The three types of non-AT offering methods described above (firm commitment, general cash offers, and placements and allotments) are all similar in economic terms, since all three involve an underwritten, public offering of shares principally to investors who are not currently holders of the firm’s shares. This is also true for the three accelerated underwriting methods, though ATs differ in that they are conducted much more rapidly and generate either no (block trades and bought deals) or very little (ABOs) pricing information during the rapid underwriting and marketing process. The final non-AT underwriting method, **rights offerings**, differs from all others in being targeted exclusively at the firm’s existing shareholders. This grouping includes any offer with “rights” listed as one of the offering methods. Rights, firm commitment/rights, negotiated sale/rights, and rights offers with other names are all included in this category, which collectively encompasses 6,604 offerings (raising \$524.6 billion) from Europe (2114 offers, raising \$335.1 billion), the United States (364 offers, raising \$24.97 billion), and the rest of the world (4136 offers, raising \$163.8 billion). As described in Eckbo, Masulis, and Norli (2005), rights offerings are very common methods of issuing seasoned equity outside of the United States, though our screen of selecting only underwritten offers removes the more common uninsured rights issues from our sample and includes only underwritten (standby, or insured) offers.¹⁴

¹⁴ International seasoned equity offer studies that examine rights offers include Bigelli (1998, Italy), Bøhren, Eckbo, and Michalsen (1997, Norway), Cronqvist and Nilsson (2005, Sweden), Eckbo and Norli (2005, Norway), Gajewski and Ginglinger (2002, France), Loderer and Zimmerman (1988, Switzerland), Slovin, Sushka, and Lai (2000, United Kingdom), and Wu and Wang (2005, Kong Kong). Most of these studies document non-negative market reactions to announcements of all types of rights issues—and significantly more positive reactions to uninsured rights offer announcements versus insured rights. Despite this, most of these studies document that underwritten offers are gaining market share versus non-underwritten offers generally, and specifically that insured rights are being chosen over uninsured rights wherever regulations allow issuers a choice of offering methods.

A. The rise of accelerated seasoned equity offering underwritings

Figure 2 shows the evolution of seasoned equity offer underwriting methods from 1991 through 2004 for the three country/regional sub-samples. Table II presents the number and value of SEOs executed globally, broken down by offering type between those using traditional, fully marketed underwritings (non-ATs) and those employing some form of accelerated underwriting (Total ATs). Table II also presents this data separately for the three individual accelerated underwriting methods: accelerated bookbuilt offerings (ABOs), block trades (BTs), and bought deals (BDs).

****** Insert Figure 2 and Table II about here******

Four key patterns emerge from analyzing the data. First, accelerated underwritings have been gaining market share steadily since the late 1990s, and very dramatically since 2000. ATs represented only four percent of all SEOs during 1991-94 and this fraction grew only modestly over the next four years to 15.9 percent of all SEOs in 1998. As seasoned equity issuance surged to a record \$363 billion during 2000, accelerated deals continued gaining incremental market share, but their phenomenal growth began only after the new seasoned equity market crashed after March 2000. Whereas the total value of SEOs worldwide dropped by over 40 percent between 2000 and 2002, the absolute value of ATs continued to increase. By 2004, accelerated issues accounted for 38.6 percent of the number of underwritten SEOs, and over 53 percent of total value.¹⁵

Second, accelerated underwriting techniques remained largely region-specific until recently. Most conspicuously, over 90 percent of bought deals are Canadian, whereas two-thirds of ABOs have involved shares of European issuers. The first block trades were in the United States, and until 2004 the vast majority of U.S. accelerated underwritings were block trades. Similarly, all the early ABOs were European (principally British), but this method has been gaining global market share rapidly since 2000. This regional pattern suggests a regulatory factor in defining accelerated underwritings; in Canada accelerated offerings are structured as bought deals, in America as block trades, and in Europe as ABOs.

Third, accelerated underwritings are on average larger than traditional marketed SEOs in all regions, and in the U.S. national market. For example, American ABOs are on average half-again larger than the average SEO (\$186.5 million versus \$115.5 million), and the average size of ROW block trades (\$105.6 million) is 73 percent larger than the average ROW offering (\$61.1 million). Share issue privatizations (SIPs) are the one major exception to the general rule that accelerated underwritings are larger than marketed deals. SIPs are economically and statistically significantly larger on average than

¹⁵ The importance of accelerated underwritings was underscored when the *Investment Dealers' Digest* included a separate listing for "Global Block Trades and Accelerated Bookbuilds" for the first time in its January 9, 2006 annual summary of investment banking league tables. This shows there were 624 accelerated underwritings that raised \$161.2 billion in 2005 (out of \$288 billion in total seasoned offerings), versus 847 ATs worth \$167.5 billion in 2004 (out of \$275 billion total SEOs). The mid-year 2006 league tables, published in *IDD* on July 10, 2006, show that global block trades and accelerated bookbuilds accounted for \$70.4 billion of the \$158.3 billion raised around the world through SEOs during the first half of 2006.

private sector offerings, but this is what the empirical findings of Jones, et al. (1999) and Bortolotti, et al. (2005) would lead us to expect for political reasons.

Finally, ABOs have shown by far the most dramatic growth of the three accelerated offering methods. From two each in 1991 and 1992, and zero in 1993, these grew to surpass block trades in value for the first time in 2001, and by 2004 accounted for over two-thirds of all proceeds raised through accelerated underwritings. ABOs are likely gaining market share because they differ from block trades and bought deals in two key ways—speed of execution and assumption of market risk. In BTs and BDs, banks purchase shares directly from the issuing firm or selling shareholder, usually after winning an auction, and then sell the shares on to institutional clients as rapidly as possible. In an ABO, the issuing firm or shareholder awards the winning bank a mandate to very quickly (48 hours or less) arrange an underwriting syndicate to market the issue, thus allowing some price-risk sharing between issuer and underwriter. This presumably allows the issue to be placed at a higher net price or allows for larger offerings at a given price.

The analysis of non-U.S. equity issuance markets reveals wide variability in number and average size of SEOs, as well as in the market penetration of accelerated underwriting techniques. Whereas bought deals account for over half of Canadian SEOs between 1991 and 2004 (and over 95 percent of Canadian accelerated underwritings are BDs), and ABOs alone account for more than one-fourth of British and Dutch SEO values during this period, accelerated underwritings have been much less important in other developed markets, especially Asia. Accelerated underwritings account for only 15 percent of Australian SEOs, and less than 10 percent in Hong Kong, Japan and South Korea. In all these countries, however, accelerated deals have been gaining market share rapidly since 2000, and are almost always larger than traditional underwritten offers. The only country where accelerated underwritings are not significantly larger than non-accelerated deals is Canada, where the \$65.0 million average size of the 936 bought deals is insignificantly different from the \$66.5 million average size of non-accelerated underwritings. However, the median BD offer size of \$37.3 million is half again larger than the median \$23.2 million non-AT offer size, so a few very large traditional underwritings (mostly privatizations) are skewing the non-AT mean offering size upwards.

III. How do accelerated underwritings differ traditional underwritings?

The previous section's analyses show that accelerated transactions are gaining market share versus traditional methods of underwriting SEOs, but this alone does not indicate whether ATs are prospering because they are value-maximizing innovations. It seems plausible that ATs have instead been forced on issuing firms and selling shareholders by investment banks pushing a new product that benefits the banks at issuers' expense. In this section and the next, we examine whether ATs are value-maximizing innovations adopted by firms and their shareholders because they reduce issuance costs, or are value-

reducing products that transfer wealth to underwriters. We begin by presenting, in Table III, mean and median values of key underwriting variables for the full sample of all global SEOs, for non-accelerated deals, and for both pure accelerated deals (where this designation is assigned exclusively) and mixed deals, which are designated as a combination of traditional and accelerated underwriting methods. The table then makes univariate comparisons of these values between accelerated and traditional underwritings, both for the entire 1991-2004 study period and for the recent, post-crash 2001-2004 period. This allows us to identify trends in underwriting techniques, and perhaps identify how the rise of accelerated underwritings has prompted a competitive response from banks underwriting traditional SEOs. This table groups all accelerated methods together, and we also compute similar data for the three types of accelerated deals individually. We do not present these in the interest of space, though we note significant findings and the tables are available upon request. Table IV-VI present the same information and univariate tests as in Table III, but for the sub-samples of seasoned offers from the United States (US), Europe, and the rest of the world (ROW).

****** Insert Tables III-VI about here ******

A. Time required to complete underwritten seasoned offerings

Several key findings emerge from analyzing these tables. First, accelerated underwritings are arranged much more rapidly than other SEOs—which, given the label “accelerated” is important but hardly surprising. On average, 26.4 days elapse between launch and issuance for the global sample of 26,015 SEOs with available data, while the 3,179 pure accelerated deals are arranged in 10.2 days and the 1,038 mixed ATs take 21.1 days, versus 29.0 days for traditional underwritings. The median values probably provide better measures of the time-lapse typically observed between initiating and actually placing an SEO, and the differences in medians between ATs and non-AT deals are striking. Whereas the typical non-AT deal takes 15 days to progress from announcement to issuance, the median completion time for pure ATs is one day—and *mixed ATs are typically completed the same day they are launched* (elapsed time = 0 days)! All of the mean and median comparisons between ATs and non-ATs are highly significant, both economically and statistically. Interestingly, this is the first academic study we are aware of that has documented—much less focused on—the time required to actually launch seasoned offers around the world.

A fascinating pattern emerges from comparing the mean and median elapsed-time values for the years 2001-2004 (not reported in the table) to those reported in Table 6 for the full 1991-2004 study period. The average elapsed time between launch and issuance drops significantly for all SEO categories, but the declines in median elapsed times for all SEOs and non-AT deals are truly phenomenal. The average elapsed times fall by roughly one-third for all SEOs (from 26.4 to 16.8 days) and for the non-AT sub-sample (from 29.0 to 19.8 days), but the median elapsed times fall from 12 to *one day* for all SEOs

and from 15 to four days for non-ATs. The average elapsed times for pure and mixed accelerated deals also fall (to 7.4 and 14.4 days, respectively), but the median values are little changed—simply because these are so low to begin with. The median elapsed time for pure ATs drops from one to zero days, but remains at zero days (launch = issuance date) for mixed ATs. While we cannot conclusively state that the rise of ATs caused the massive reduction in mean and (especially) median time required to execute non-accelerated underwritings, the evidence suggests that from 2001 onwards firms and selling shareholders wishing or forced by regulation to sell stock through a traditional underwriting sped up their underwriting procedures in response to the success of accelerated underwritings.

Comparing the speed of execution for the three accelerated methods (results not reported), we find that pure ABOs and pure BTs are on average sold much more rapidly (5.3 and 6.9 days) than either pure bought deals (19.3 days) or all non-AT offers. Once again, median elapsed times are much lower than means—the typical pure and mixed block trades and ABOs all complete their offerings on the days they are announced (launch = issuance date), both for the full 1991-2004 study period and for the more recent 2001-2004 period. The sole outliers are bought deals. The average elapsed time between offer announcement and completion is 19.3 days for the 993 pure bought deals, which is significantly less than the 29.0 day average for non-ATs, but the pure BD median value is longer for the full study period (20 versus 15 days) and remains at 20 days during 2001-2004, when the non-AT median elapsed time drops to four days. Since 936 of the bought deals involve shares of Canadian companies, this long (and fixed) placement period is entirely a result of Canadian regulations. Even here, though, ATs are placed more rapidly than the alternative, since an in-depth analysis reveals that Canadian BDs take significantly less time to complete than traditionally underwritten Canadian SEOs.

Tables IV and V show that the same basic pattern of accelerated underwritings requiring less time to complete than non-accelerated deals holds in the United States and Europe, especially if one focuses on medians rather than means. The median elapsed time for U.S. and European pure ATs is zero days for both periods, while the median elapsed time for U.S. mixed ATs (we ignore the seven European mixed ATs) is five days for the full sample period and two days during 2001-2004. In comparison, the median U.S. non-accelerated underwriting requires a surprisingly long 31 days to complete during 1991-2004, and this drops only to 22 days during 2001-2004. In contrast, over the full study period European non-ATs are arranged in a median six days, which is significantly longer than for European ATs, but this falls to the same zero days as for ATs during 2001-2004. Assessing issue execution times in the ROW sample detailed in Table VI is once more complicated by the importance of the 936 Canadian bought deals in the sample of 1,218 pure ATs, which have a median 19 day elapsed time between launch and issuance for the full sample period, which falls only to 18 days during 2001-2004. The 11,118 ROW non-accelerated offers have a median elapsed time of 3 days during 1991-2004 (which is significantly longer than the zero day median for the 608 mixed ATs), but this falls to a median of zero days for 2001-2004. In other

words, the execution time for all categories of seasoned offerings is falling, and in most cases falling dramatically.

B. Offer size and issuing firm market capitalization

The second through fourth rows of Tables III-VI examine, respectively, SEO offer size (in 2004 U.S. dollars), relative issue size, and the pre-offering market capitalization of the firm selling new shares (in a primary offer) or the firm whose shares are being sold (in a secondary offering). The mean (median) size of a global SEO during 1991-2004 is \$94.6 million (\$26.4 million), it is executed by a firm with an average total market capitalization of \$8,907 million (\$383 million), and the relative issue size equals a mean 11.7 percent (7.0 percent) of the firm's pre-offer capitalization. We are unaware of an existing global SEO study to which we can compare these mean and median values, though as we will show the country/regional samples are comparable in size to what has been reported elsewhere.

For the full sample of all SEOs and for the country/regional sub-samples, accelerated offerings are always dramatically and significantly larger than traditional marketed deals, and are executed by (or involve the shares of) larger, more valuable companies—but are smaller in size relative to the firm's existing total capitalization. Comparing the absolute and relative sizes of accelerated and non-accelerated offers and offering firms reveals that global non-AT offerings raise an average of \$88.2 million (\$23.3), are executed by or with the shares of firms with an average (median) market value of \$6,863 million (\$287 million), and the offering is equal to a mean 12.7 percent (7.0 percent) of the firm's pre-offer market capitalization. Pure accelerated offerings are executed by firms with an average market value of \$15,656 million (\$788 million), and raise an average of \$116.6 million (\$34.3 million), with an average relative issue size of 8.4 percent (5.0 percent). Mixed ATs are even larger offers—\$24.3 million mean, \$52.1 million median—from firms with average market capitalizations of \$22,696 million (\$1,057 million), but the mean relative issue size of 5.9 percent (4.0 percent) for these ATs is also significantly smaller than for non-ATs. These patterns of larger absolute but smaller relative issue sizes—involving shares of more valuable companies—for accelerated deals are also observed for the individual accelerated techniques ABOs and BTs, though not for BDs. The average size of pure bought deals, \$67.9 million, is significantly smaller than the \$88.2 million average for non-ATs, though the pure bought deal median value of \$37.1 million is significantly larger than the \$23.3 million non-AT median offer size. This again reflects the peculiarity of Canadian bought deals, which are smaller on average than seasoned offers from other countries, but are larger than non-accelerated Canadian SEOs.

An intriguing pattern emerges from observing how mean and median offer sizes differ between the full 1991-2004 study period and the more recent 2001-2004 period. For all categories of offers other than U.S. issues, the average and median offer size declines substantially over time. The mean (median) offer size for the world's 30,945 SEOs with available data is \$85.2 million (\$15.6 million) during 2001-

2004, compared to \$94.6 million (\$26.4 million) for the full sample period. The same pattern is observed for global pure and mixed ATs, global non-ATs, all three individual accelerated transaction samples, and for all categories of European and ROW seasoned offerings. Only in the United States—where almost all categories of SEOs have larger mean and median offer sizes than their comparators in other countries—does one observe mixed evidence of changing issue sizes during 2001-2004 compared to 1991-2004. The mean and median size of U.S. non-AT offers increases over time, from \$108.5 million and \$58.9 million to \$124.8 million and \$73.3 million, respectively, as does (trivially, from \$70.5 million to \$71.6 million) the median pure AT offer size.¹⁶ The mean and median offer size of all other U.S. seasoned offering categories decline during 2001-2004 compared to the full period. There is no obvious explanation for this generalized, worldwide decline in offer size over time. This may reflect increasing efficiency of global capital markets, allowing ever smaller firms to issue stock over time, or it may simply reflect exchanges' eagerness to welcome seasoned offers to offset the dramatically reduced number of firms executing IPOs after the market crash in 2000.

C. Primary, secondary, and mixed offer fractions

Although few empirical studies examine the relative fraction of newly-issued primary shares and already-existing secondary shares in seasoned equity offerings, the handful that do show that primary shares account for between two-thirds and three-fourths of the typical SEO over time.¹⁷ Supplemental (unreported) analyses show that, with one exception (bought deals), accelerated offerings always have a smaller fraction of capital-raising primary shares than traditional SEOs. Whereas primary shares account for 73.3 percent of all global SEOs, and for an even larger fraction (77.1 percent) of the world's traditionally underwritten deals, primary shares represent only 54.4 percent of global mixed ATs and 51.6 percent of the world's pure ATs. This means that roughly half of all shares in accelerated underwritings are divestments of existing shareholdings by institutional or (usually) corporate investors. Accelerated deals involve much lower fractions of primary shares in all the country/regional markets as well. In the United States, primary shares account for 76.3 percent of non-accelerated SEOs during the full sample period, versus a weighted average 69.8 percent for all accelerated deals (62.3 percent for the 328 pure

¹⁶ Not surprisingly, these mean and median SEO offer sizes are comparable to those presented in other recent U.S. empirical studies. The average (median) constant dollar offer size of the 1,114 SEOs from 1975-2001 studied by Burch, Nanda, and Warther (2005) is \$104.8 million (\$61.3 million), while Butler, Grullon, and Weston's (2005) 2,387 SEOs from 1993-2000 have a \$130 million average (\$74 million median) offer size.

¹⁷ Most empirical studies screen out pure secondary offers, either by deliberate choice (to examine only shares issued by firms) or because the study has an inherent objective of examining capital-raising choices (as in studies of rights offerings or shelf registrations). Studies of U.S. seasoned offerings that include pure secondary offers include Asquith and Mullins (1986), Hess and Bhagat (1986), Krigman, Shaw, and Womack (2001), Smart and Zutter (2002), Altinkiliç and Hansen (2003), and Heron and Lie (2004). We are unaware of any non-U.S. seasoned offer studies emphasizing the relative fractions of primary and secondary shares, though Huyghebaert and van Hull (2006) make this choice the motivating feature of their study of Belgian IPOs.

ATs and 74.8 percent for the 496 mixed ATs). Primary shares account for 81.9 percent of non-accelerated ROW offerings, but for only 65.3 percent of the weighted average ROW accelerated deals (62.3 percent for the 328 pure ATs and 74.8 percent for the 496 mixed ATs).

The difference between primary and secondary share fractions in accelerated versus non-accelerated underwritings is especially striking in Europe, where primary shares account for 68.1 percent of traditional SEOs, but for only 38.7 percent of the shares in pure ATs (which account for all but two percent of European ATs). This comparison says much about how the rise of ATs has affected European corporate finance, since access to accelerated underwritings has allowed European corporate and institutional investors to aggressively unwind cross-shareholdings. Our supplemental readings of press releases from Lexis/Nexis indicate that many European sellers are using ATs for precisely this reason.¹⁸

Comparing the primary versus secondary share mix of individual accelerated underwriting methods reveals sharp differences. Whereas primary shares represent 77.1 of the world's non-AT offerings during 1991-2004, these shares account for only 58.1 percent of a weighted average of global ABOs and for a mere 24.1 percent of global block trades. On the other hand, primary shares represent the bulk (93.2 percent) of a weighted average of the 1,019 global bought deals, again reflecting the disproportionate influence of 936 Canadian BDs. Clearly, Canadian corporations have become very fond of raising new equity using bought deals.

D. Number of underwriters

The last offer characteristic we examine is the number of investment banks involved in the syndicate underwriting an SEO. To our knowledge, no other academic study has considered this variable, though we show its importance for both issuers and underwriters. The values in the sixth line of Tables III-VI show that accelerated underwriting syndicates involve significantly fewer investment banks than do syndicates for traditional SEOs. The average syndicate size for pure (mixed) accelerated deals is 2.52 banks (2.13 banks), versus 3.18 banks for traditional SEOs. Pure ABOs have especially small average syndicate sizes (1.75 banks), as do both pure and mixed block trades (averages of 1.17 and 1.09 banks, respectively). We also calculate that only 34.2 percent of accelerated transactions are syndicated to include more than one bank in the underwriting syndicate, whereas 45.8 percent of non-accelerated deals are syndicated. Both the smaller number of banks in the average accelerated underwriting syndicates and the lower frequency of syndicating ATs are even more remarkable because accelerated offers typically raise half again as much as do traditional offers, in half the time. This may be because far less information

¹⁸ Recent European secondary sales of inter-corporate holdings, executed using accelerated methods, are discussed in Bickerton (2002, Netherlands), Brown-Humes (2001, Sweden), Daniel (2001, France), Hall (2002, Switzerland), Jenkins (2001, Britain), Levitt (2003, Spain), Lucas (2004, European banks), and Major (2000, Germany).

gathering and marketing by underwriting banks is required for accelerated deals.¹⁹ Additionally, accelerated deals involve aspects of both competitive and negotiated underwriting contracts; banks must compete for underwriting mandates, but this competition is organized very quickly for issuing firms or selling shareholders.²⁰ Accelerated deals are also similar to private placements, in that shares are sold exclusively to institutional (non-retail) investors, but differ in that ATs involve underwritten offerings of fully tradable, listed shares.

IV. Are accelerated underwritings less costly for issuers?

Having documented how accelerated underwritings differ from traditional underwritings in terms of offering and placements characteristics, we can now examine whether accelerated deals are more or less costly for issuing firms and selling shareholders than are marketed deals. To make a direct cost comparison between AT and non-AT deals, it helps to define the components of issuing cost for a firm or shareholder selling stock to public investors. As discussed in Eckbo, Masulis, and Norli (2006) and Altinkiliç and Hansen (2003), empirical research has identified three separate valuation impacts relating to the typical seasoned equity offering, most of which are negative (costs). These are (1) the announcement period market impact, calculated as the abnormal return experienced by holders of the firm's stock following announcement of an SEO; (2) the underwriting spread—also called the offer price discount—calculated as the percentage difference between the stock's offering price and the previous trading day's closing price; and (3) the offering day return, or underpricing, defined as the percentage change in value experienced by investors who purchase shares at the offer price and hold these until the close of trading on the offer day.

Empirical evidence overwhelmingly shows that the announcement of an SEO typically causes a U.S. firm's stock price to fall, generally by 2-3 percent.²¹ However, empirical studies employing non-U.S.

¹⁹ Benveniste and Spindt (1989) explain how investment bankers provide investors with an incentive to reveal their demand for a firm's shares. This information revelation model is recently tested in Cornelli and Goldreich (2001, 2003), Aggarwal, Prabhala and Puri (2002) and Jenkinson and Jones (2004), with mixed results. Both Cornelli and Goldreich studies, and the Aggarwal, et al. study, support the idea that bookbuilding is informative and that informative bidders are rewarded with better share allocations, while Jenkinson and Jones find little evidence that bids are informative or that large bidders are rewarded with preferential share allocations. Finally, Sherman and Titman (2003) model the tradeoff a lead underwriter faces when increasing the size of the underwriting syndicate. They find that increasing the size of the syndicate by inviting in more investors increases pricing accuracy—by incorporating more information—but at the cost of greater underpricing.

²⁰ Bhagat (1986), Bhagat and Frost (1986), and Hansen and Khanna (1994) examine the choice between competitive and negotiated offerings and find lower costs in negotiated deals. However, competitive offers may only appear to be less costly because the types of firms that use them are different from the types of firms that use negotiated offers. Logue and Tiniç (1999) examine multiple offers by the same firm, AT&T, and find no cost differences in the two offer types. Fernando, Gatchev and Spindt (2005) develop and empirically verify a model demonstrating how issuing firms and IB underwriters associate by mutual choice. Though it seems obvious that firms and IBs should choose each other, previous theoretical models had in fact posited a unidirectional choice.

²¹ The following U.S. studies all show average announcement period cumulative abnormal returns of between -2.0 percent and -2.7 percent: Hess and Bhagat (1986), Asquith and Mullins (1986), Slovin, Sushka, and Hudson (1990),

samples generally show positive (or, at worst, insignificantly negative) announcement period abnormal returns.²² Underwriting spreads have also been extensively researched, and recent research suggests that spreads for U.S. seasoned offerings are in the range of 4.4 to 5.5 percent [Lee, Lochhead, Ritter, and Zhao (1996), Altinkiliç and Hansen (2000), Kim, Palia, and Saunders (2003), Mola and Loughran (2004), Butler, Grullon, and Weston (2005), and Butler, Nanda, and Warther (2005)], spreads are lower for shelf-registered than for traditionally underwritten offerings [Butler, Nanda, and Warther (2005)], spreads are lower for highly liquid firms than for firms with thinly traded stocks [Butler, Grullon, and Weston (2005)], and spreads have generally been declining over time [Kim, Palia, and Saunders (2003)]. There are far fewer empirical studies examining spreads on non-U.S. seasoned offerings, but Slovin, Sushka, and Lai (2000) show that average spreads for British placings (6.1 percent) are much higher than for insured (4.6 percent) and uninsured rights (0.4 percent) and Ljunqvist, Jenkinson, and Wilhelm (2003) document that spreads for non-U.S. initial public offerings average less than half those of American IPOs.

The principal source of variability in spreads on seasoned offerings revolves around whether the issue is a rights offering to current shareholders or a cash offering to outside investors. Non-U.S rights offerings generally have discounts of 20 percent or more [Slovin, Sushka, and Lai (2000, Britain), Gajewski and Ginglinger (2002, France), Wu and Wang (2005, Hong Kong), Bigelli (1998, Italy)], whereas discounts on comparable public offerings are in the 3-5 percent range. U.S. studies generally find discounts of 1.5-3.5 percent, which have been increasing over time [Altinkiliç and Hansen (2003), Corwin (2003), and Mola and Loughran (2004)].

Finally, the underpricing of U.S. seasoned offers has been initially studied by Eckbo and Masulis (1992) for a sample of firm commitments of utility and industrial firms over the 1963-1961 period, finding an average underpricing very close to zero. Several studies have documented an increase in SEO underpricing during the 90s. Altinkiliç and Hansen (2003) and Kim, Palia, and Saunders (2003), and Corwin (2003) finding average first day returns to investors who purchase shares at the offer price in the

Bayless and Chaplinsky (1996), Chaplinsky and Ramchand (2000), Altinkiliç and Hansen (2003), and Heron and Lie (2004). Mikkelsen and Partch (1986) find much more negative announcement period CARs, -3.56 percent, but their study only examines 80 SEOs, mostly from the 1970s. Schipper and Smith (1986) document the intriguing findings that equity carve-out announcements are associated with significantly positive (+1.8 percent) abnormal returns for parent-firm stocks, but announcements that parent companies are themselves issuing stock yield significantly negative returns (-3.5 percent). Finally, Bayless and Chaplinsky (1996) show that the market impact of SEO announcements is significantly less negative (-2.0 percent versus -3.3 percent) during hot issuance periods than during periods when fewer SEOs are executed.

²² Non-U.S. studies documenting significantly positive announcement period CARs for SEO announcements include Wu and Wang (2005, Hong Kong), Bigelli (1998, Italy), Cooney, Kato, and Schallheim (2003, Japan), Kang and Stulz (1996, Japan), Eckbo and Norli (2005, Norway), and Cronqvist and Nilsson (2006, Sweden). Slovin, Sushka, and Lai (2000) find that placings [general cash offers] are associated with significantly positive (+3.31 percent) announcement period CARs, whereas rights offering announcements yield roughly symmetrical, significantly negative (-3.09 percent) returns. Finally, Gajewski and Ginglinger (2002, France) document insignificantly negative announcement period CARs for public offers, but significantly negative CARs for both types of rights offers examined. These and other international studies are summarized in Eckbo, Masulis, and Norli (2006).

range of 2.6 – 2.9 percent, likely due to the increase in the share of more risky Nasdaq issuers.²³ To our knowledge, no single study provides systematic evidence on SEO underpricing in European issues or in the rest of the world. In the next, we will try to fill this gap.

Measuring an SEO's announcement effect, as well as the underwriting spread and underpricing associated with the offer, requires definitive announcement and issue dates. Altinkilic and Hansen (2003) report an issue date error rate of roughly 50 percent in the SDC database, so we follow their procedure of identifying the dates on which offers occur by searching Datastream for a significant volume spike near the SDC issue date. Specifically, we track volume over an 11-day window centered on the SDC issue date, and we identify the true issue date as the date on which trading volume is several times larger than the prior day. In most cases, there is no conflict between issue dates, and when we identify a conflict, it is typically a single day. Furthermore, since there is no systematic drift in the closing prices of offering firms during a three day window around the offering, misidentification of the true issue date should not bias our analysis of discounts and underpricing.

SDC identifies a "launch date" for each SEO which typically precedes the issue date. In an attempt to identify clean SEO announcement dates, we compared SDC launch dates to announcement dates found by searching Lexis/Nexis for a random subsample of deals. For each of the randomly selected transactions drawn from the full sample, we searched for SEO announcements on Lexis/Nexis over a two-month window centered on the SDC launch date. In the U.S., the dates we verified on Lexis/Nexis almost always fell within one or two days of the SDC launch date, so a relatively narrow announcement date window of -1,+1 around the launch date captures the true announcement effect of the deal in most cases. For SEOs conducted outside the U.S., the correspondence between Lexis/Nexis announcement dates (when we could find them) and SDC launch dates was much lower. This suggests that researchers conducting event study analysis of SEO announcement dates drawn from SDC may report abnormal returns biased toward zero. In our event study analysis, we report abnormal returns only for those transactions for which we have searched Lexis/Nexis to obtain announcement dates. We also calculate announcement period abnormal returns using several different event windows.

A. Underwriter spreads for accelerated versus traditional offerings

Table III shows that global accelerated offerings have significantly—both statistically and economically—lower gross spreads than do traditional SEOs. Whereas underwriting spreads for

²³ For completeness, we also note that several researchers [Kang and Stulz (1996, Japan), Loderer, Sheehan, and Kadlec (1991, United States), Median (2005, United States)] examine offer period return, defined as the return to investors from the close of trading the day before an SEO through the close of trading on the offer day, and generally find small though significantly negative CARs of about -1.0 to -2.0 percent. However, it is not clear that these returns really represent a true cost to the issuing firm or selling shareholder, at least not a cost distinct from that already captured by discounts and underpricing. We calculate offer day returns for all of our samples but do not report these, since they are usually quite small. These are available upon request.

traditional SEOs average 4.79 percent, spreads on pure ATs are 3.59 and mixed AT spreads average 4.21 percent of the offering price. While AT spreads are significantly higher than non-AT spreads in the United States (3.10 percent for pure and 3.15 percent for mixed ATs versus 2.53 percent for non-ATs) spreads on accelerated deals are only one-half those on marketed deals in Europe (3.46 percent for pure and 3.30 percent for mixed ATs versus 7.07 percent for non-ATs) and are significantly lower for mixed ATs (6.48 percent versus 5.54 percent for non-ATs) in the rest of the world.

Since ATs are substantially larger than non-AT underwritings, it is unsurprising that spreads are significantly lower on these offerings, since Altinkiliç and Hansen (2000) and others document major economies of scale—due to the importance of fixed costs—in securities underwriting. To examine whether AT offerings have significantly lower spreads after other factors, particularly issue size, are accounted for, we run several OLS regressions. The estimated coefficients are reported in Table VII.

****** Insert Table VII about here ******

These results suggest that even after controlling for other characteristics that affect the gross spread, accelerated transactions reduce spreads. As expected, larger offerings are associated with smaller spreads. U.S. seasoned equity offers have spreads that are, *ceteris paribus*, around 370 basis points lower than ROW offerings, while European offer spreads are about 20 basis points lower than ROW offerings. Most critically, accelerated transactions significantly reduce spreads; pure accelerated transaction spreads are, on average, 253 basis points lower than non-accelerated deals. Intriguingly, spreads on ABOs are statistically and economically significantly lower than spreads on the other two types of accelerated underwritings. Since the seller shares some price risk with underwriting banks while the ABO is being arranged—in contrast to BTs and BDs, which are pure auctions—this result suggests that the risk sharing reduces direct underwriting costs. This may partly explain why ABOs have been gaining SEO underwriting market share so strongly in recent years.

B. Underpricing of accelerated versus traditional offerings

Our data confirms that ATs also allow issuers to reap substantial savings in one of the main indirect floatation costs, namely underpricing. For the whole sample, we report an average underpricing of slightly less than 3 percent for ATs, while it is 4.8 percent for non-AT transactions. Thus accelerated deals leave less money on the table than other types of SEO. As Table 3 shows, as compared with non-ATs, average underpricing is quite similar when mixed or pure ATs are considered, while some interesting regional differences appear. As Tables IV-VI show, average underpricing in the U.S. is markedly lower than any other region of the world, and especially so as far as non-AT offers are concerned. The U.S. also reveals the lowest difference in underpricing between ATs and non-ATs (78 basis points) while ATs become particularly appealing in comparison to fully marketed offering in Europe, boasting a difference of 4.8 and 4.3 percentage points for mixed and pure ATs, respectively.

Regression analyses reported in Table VII corroborate the descriptive analysis. Reassuringly, we find that ATs are significantly less underpriced than any other type of SEOs. The same result holds when pure and mixed ATs are estimated separately, with an economically larger effect attributed to pure deals. U.S. markets stand out for being most competitive relative to the rest of the world, while the opposite holds for Europe and Canada. As in several other studies, we also find that larger deals are significantly less underpriced. Indeed, economies of scale appear relevant for a more accurate pricing of SEOs. Interestingly, capital raising offerings are shown to be particularly costly for issuers as a larger fraction of primary shares increases significantly underpricing. Interestingly, we find that ABOs are significantly less underpriced than other types of ATs.

C. Market impact of accelerated and traditional SEO underwriting announcements

For the randomly selected subsample of deals for which we verified announcement dates using Lexis/Nexis, we compute cumulative abnormal returns (CARs) over the three-day period from one trading day before to one trading day after the SEO announcement date (-1, +1). We compute abnormal returns using the market model, which defines expected return as a function of the stock's beta and the reference market's return. Table VIII presents mean and median announcement period abnormal returns for the full (global) sample of SEO announcements, as well as for the 326 accelerated and 1598 non-accelerated deals and regional sub-samples. For the full sample and for each sub-sample, this table also presents event study results for pure primary, pure secondary, and mixed primary and secondary offerings. We also test the robustness of our results by measuring abnormal returns over windows of (-2,+2) and (-3,+3), and by calculating market-adjusted returns rather than relying on the market model. None of these alternatives changes our results systematically.

****** Insert Table VIII about here ******

The overall average CAR for the global sample of 1924 seasoned equity offering announcements is a significant -1.17 percent, while the median is -1.46 percent. The 326 accelerated deals have average (median) announcement period CAR of -1.22 percent (-1.33 percent) versus -1.16 percent (-1.49 percent) for the 1598 non-AT offerings. While both of these average CARs are significantly negative, the small 0.06 percentage point difference between AT and non-AT deals is not. Examining announcement period abnormal results for the sub-samples based on whether the offering involves existing or newly-issued shares yields striking and highly significant results. The average -2.23 percent (median -2.08 percent) CAR for the 381 pure secondary offerings is 1.85 percentage points more negative than the -0.38 percent (-1.07 percent) average CAR for the 1236 pure primary offers, and this difference is significant at the one percent level. The 307 mixed primary and secondary offers also have much more negative CAR (-3.06 percent mean, -2.61 percent median) than do the primary share offerings. This suggests that global investors view announcements that current shareholders are selling stock to be much worse news than

announcements that the firm itself is selling new equity capital. As we are unaware of any existing multi-national SEO announcement period event studies, or *any* event studies (even of U.S. offerings) examining differential effects of primary versus secondary offerings, the findings detailed above are unique contributions to the empirical literature.

The average CAR for the U.S. sample of 875 SEO announcements is -2.89 percent, while the median is -2.28 percent. These values are reassuringly consistent with previous U.S. seasoned offering event studies that find CARs of between -2 and -3 percent. The 97 accelerated deals have average (median) announcement period CAR of -1.34 percent (-1.95 percent), which is insignificantly different from zero, whereas the 778 non-AT offerings have a highly significantly negative average CAR of -3.08 percent (-2.30 percent). Though substantial, this 1.75 percentage point difference between AT and non-AT deals is not statistically significant. Secondary, mixed, and pure primary offerings all have significantly negative average CARs—of -3.23 percent, -3.51 percent, and -2.45 percent, respectively—but the 0.77 percentage point difference between pure secondary and pure primary offerings is not statistically significant.

The average CAR for the European sample of 307 SEO announcements is -0.23 percent, which is not significantly different from zero, while the median is -0.15 percent. The 107 accelerated deals have average (median) announcement period CAR of -0.79 percent (-1.03 percent) versus +0.06 percent (-0.04 percent) for the 200 non-AT offerings. This 0.85 percentage point difference between AT and non-AT deals is insignificant at normal significance levels. Secondary offering announcements have significantly negative announcement period returns (-1.27 percent mean, -0.85 percent median), but the -1.49 percent and +0.69 percent CARs for mixed and pure primary offerings are not significantly different from zero and the 1.97 percentage point difference between pure primary and pure secondary offering CARs, though large, is insignificant.

Finally, the average CAR for the rest-of-world sample of 742 SEO announcements is +0.47 percent, which is not significantly different from zero, and the median is -0.87 percent. The 122 accelerated deals have significantly negative average (median) announcement period CAR of -1.51 percent (-1.25 percent) versus +0.86 percent (-0.78 percent) for the 620 non-AT offerings. For the first time, this 2.36 percentage point difference between AT and non-AT deals is statistically significant. The 120 pure secondary offering announcements have much more negative announcement period CAR (-2.15 percent mean, -2.14 percent median) than do the 596 primary offers (+0.99 percent mean, -0.68 percent median), and this 3.13 percentage points difference is significant at the one percent level.

In Table 12 we present a cross-sectional analysis of the announcement CARs. The first regression model uses dummy variables to distinguish the effects of pure and mixed AT deals versus non-AT transactions. The second specification replaces the pure AT dummy with dummies for each of the different types of accelerated transactions: accelerated bookbuilt offers, block trades, and bought deals.

The results indicate that AT offerings have announcement effects comparable to non-AT deals. Announcement effects are significantly more negative for U.S. deals and for deals with a higher fraction of secondary shares.

We can summarize these event study results as indicating that announcements of accelerated offerings have market impacts that are generally similar to announcements of traditional SEOs. The CARs for ATs are insignificantly higher in the U.S., insignificantly lower in Europe, and significantly lower in ROW, but the average overall market reaction is virtually identical between AT and traditional offers. Most dramatically, we find that secondary share offerings (offers of existing shares by selling shareholders) have a far larger and more negative market impact than do primary, capital-raising offers of newly created shares in the full sample, and in the ROW subsample.

V. Summary and conclusions

Seasoned common stock sales executed through the three types of accelerated underwritings—block trades, bought deals and accelerated bookbuilt offerings—have raised over \$850 billion since 1998, and now account for over half of U.S. seasoned equity offerings (SEOs) and over two-thirds of European SEOs. We examine offering terms and announcement-period market impacts of 31,242 SEOs executed around the world during 1991-2004, which raised over \$2.9 trillion for issuing firms (in primary offers) and selling shareholders (in secondary offers). We show that accelerated deals have become popular with issuers for several reasons, most notably because they are faster and cheaper than marketed deals, expose the issuer to less price risk during the short underwriting period, and have comparable announcement-period market impacts. On average, accelerated deals reduce total issuance costs by about 250 basis points, but the cost reduction for European sellers is closer to 400 basis points. Our analysis of European accelerated SEOs suggests that these techniques are helping unwind the traditional cross-shareholdings that have typified European corporate finance for a century.

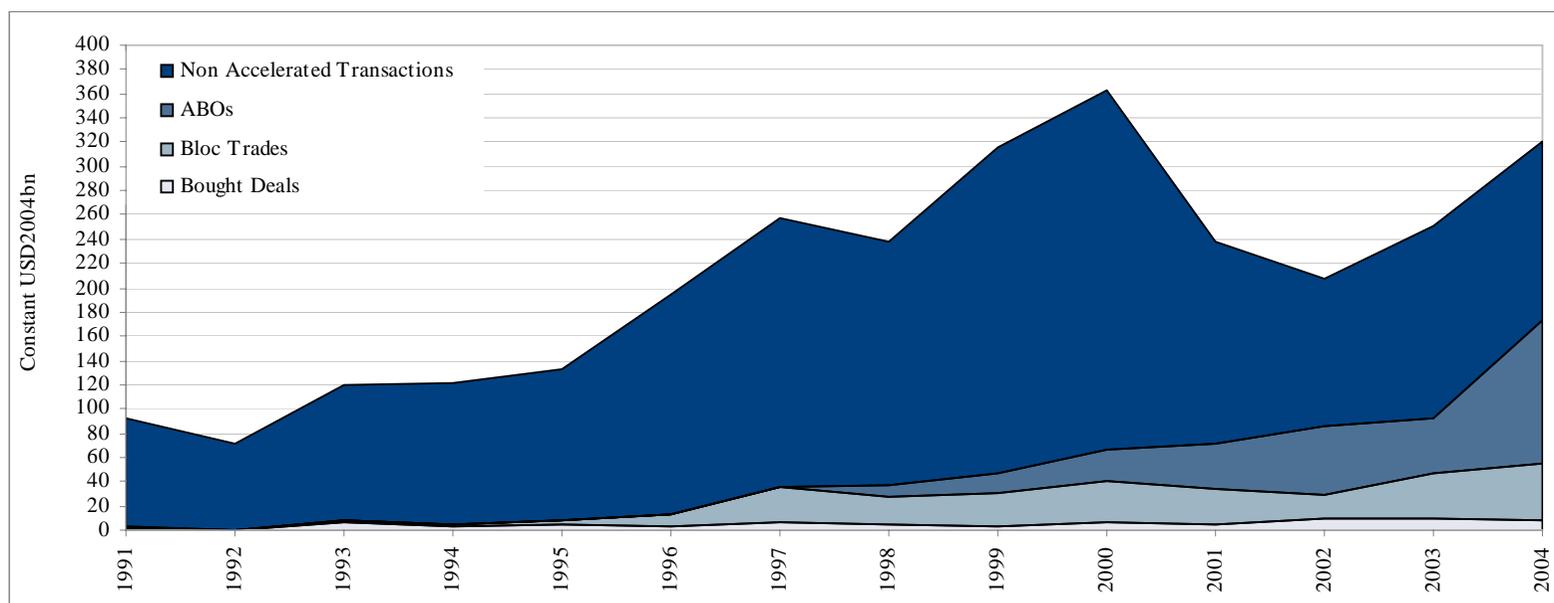
Ours is the first truly global event study analysis of the market impact of SEO announcements, as well as one of the first to show that pure secondary and mixed primary and secondary SEOs yield significantly more negative announcement period abnormal returns than do capital-raising, primary offers. We also present a unique analysis of the size of SEO investment banking syndicates—illustrating that accelerated deals yield much smaller, more capital intensive, and presumably riskier underwriting syndicates, but these generate comparable revenues over much shorter transactions periods and allow banks to effectively “buy” market share and league table rankings. Finally, we document that rapid, auction-like underwriting is indeed becoming the norm for seasoned equity offerings, but not for IPOs. This should help resolve the academic finance debate on the relative merits of issuing securities by auction versus by intermediated sales. We conclude that this rapid, worldwide shift towards accelerated

underwriting is commoditizing seasoned equity sales, and creating a spot market for SEOs. This represents the long-predicted shift towards an auction model for seasoned equity sales.

Taken together, our findings highlight three major trends that are shaping global investment banking. First, the fact that accelerated deals are marketed almost exclusively to institutional investors, and that these underwriting methods are gaining market share, suggests the declining importance of retail investors to equity markets everywhere. Second, the rise of accelerated deals both promotes and reflects increasing concentration in the investment banking industry, since only the largest banks have the capital base and risk tolerance required to buy large share blocks outright and assume all or almost all of the price risk of later resale. Finally, increasing use of accelerated underwritings for seasoned equity offerings points to the commoditization of financial transactions with low asymmetric information. Since ATs can only be employed for shares of large and well known companies, these offerings are executed very quickly and cheaply—in much the same way plain vanilla corporate bonds are sold—and with minimal need for the placement and marketing services investment banks employ for IPOs and other non-transparent security offerings.

Figure 1. Global Seasoned Equity Offerings, Total Deal Value by Type (1991-2004)

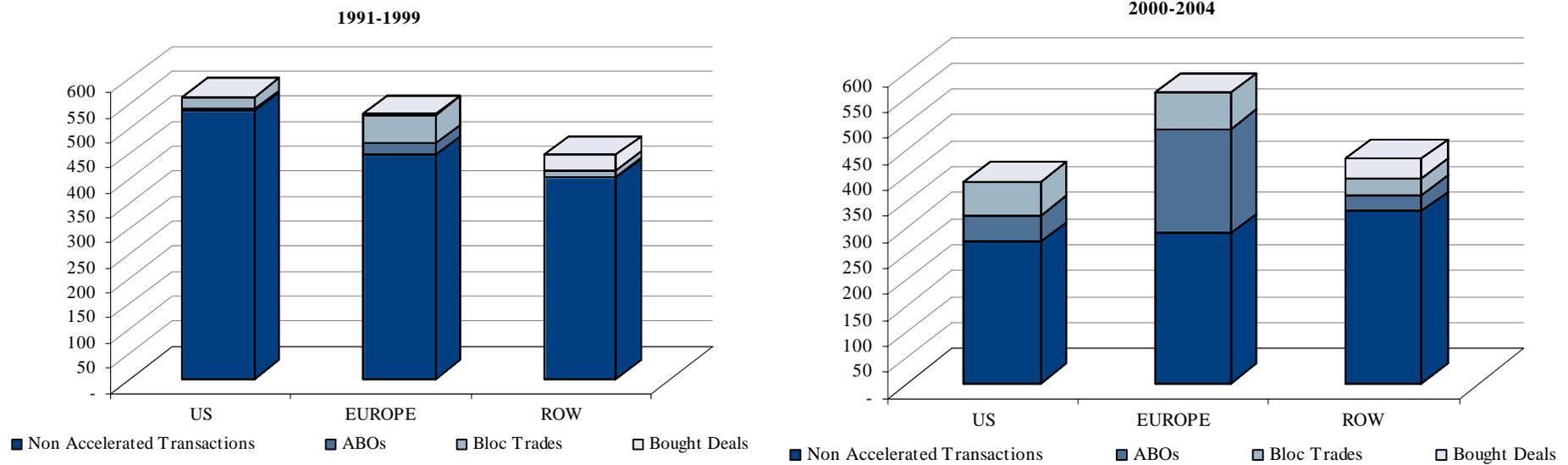
This chart shows the evolution of global seasoned equity offerings for the 1991-2004 period. The series refer to the total deal value (in constant US\$2004 billions) raised by accelerated (mixed and pure) bookbuilt offerings (ABO), block trades, bought deals and all other types of non accelerated transactions.



Source: *Securities Data Corporation, Global New Issues Database*

Figure 2. Global Seasoned Equity Offerings, Deal Value by Region and Type (1991-1999 and 2000-2004)

These charts show the regional distribution of seasoned equity offerings for the 1991-1999 and 2000-2004 sub-periods. The histograms refer to the total deal value (in constant US\$2004 billions) raised by accelerated (mixed and pure) bookbuilt offerings (ABO), block trades, bought deals and all other types of non accelerated transactions.



Source: Securities Data Corporation, Global New Issues Database

Table I: Underwritten Seasoned Equity Offerings, Classified by Offering Technique, 1991-2004

This table classifies underwritten seasoned equity offerings (SEOs), executed between January 1, 1991 and December 31, 2004, by offering technique, as described in the Securities Data Corporation New Issue Database. Data are presented for global SEOs, as well as offerings by issuers from the United States, Europe, and the rest of the world. The first row presents the number of offers, followed by the total value [in US\$ millions] of all such offers, and their average size [in US\$ millions].

| Offering classification | Global | United States | Europe | Rest of world |
|--|--|---|--|--|
| Total | 31,242 \$2,926,204 (\$93.7) | 8270 \$955,274 (\$115.5) | 8,546 \$1,089,482 (\$127.5) | 14,426 \$881,447 (\$61.1) |
| I. Accelerated transactions | 5,110 \$647,598 (\$126.7) | 824 \$147,633 (\$179.2) | 2,445 \$351,529 (\$143.8) | 1,841 \$148,436 (\$80.6) |
| Pure accelerated book-built offerings (ABO) | 1,754 \$237,605 (\$135.5) | 69 \$8,062 (\$116.8) | 1,598 \$220,797 (\$138.2) | 87 \$8,746 (\$100.5) |
| Mixed accelerated book-built offerings (ABO) | 596 \$73,119 (\$122.7) | 250 \$46,583 (\$186.3) | 32 \$2,650 (\$82.8) | 314 \$23,886 (\$76.1) |
| Pure block trades (BT) | 51,197 \$184,411 (\$154.1) | 238 \$37,901 (\$159.2) | 790 \$124,891 (\$158.1) | 169 \$21,619 (\$127.9) |
| Mixed block trades (BT) | 542 \$80,744 (\$149.0) | 251 \$54,193 (\$215.9) | 12 \$1,452 (\$121.0) | 279 \$25,099 (\$90.0) |
| Pure bought deals (BD) | 997 \$67,524 (\$67.7) | 16 \$894 (\$55.9) | 13 \$1,739 (\$133.8) | 968 \$64,891 (\$67.0) |
| Mixed bought deals (BD) | 24 \$4,195 (\$174.8) | 0 0 0 | 0 0 0 | 24 \$4,195 (\$174.8) |
| II. Firm Commitment underwritings | 11,010 \$1,092,587 (\$99.2) | 6,207 \$733,704 (\$118.2) | 328 \$36,375 (\$110.9) | 4,475 \$322,509 (\$72.1) |
| Firm commitment offers (FC) | 3,602 \$200,892 (\$55.8) | 53 \$3,830 (\$72.3) | 201 \$6,932 (\$34.5) | 3,348 \$190,130 (\$56.8) |
| Firm commitment/Negotiated sales (FC/NS) | 6,600 \$833,727 (\$126.3) | 6,153 \$729,873 (\$118.6) | 119 \$29,321 (\$246.4) | 328 \$74,533 (\$227.2) |
| Firm commitment/Placements | 747 \$38,390 (\$81.0) | 0 0 0 | 0 0 0 | 747 \$38,390 (\$81.0) |
| Other firm commitment offers | 60 \$19,578 (\$326.3) | 1 \$0.4 (\$0.4) | 8 \$122 (\$15) | 51 \$19,456 (\$381.5) |

| | | | | |
|--------------------------------------|--------------------------------|-----------------------------|---------------------------------|--------------------------------|
| III. General Cash Offerings | 1,121 \$81,649 (\$72.8) | 2 \$56 (\$28) | 877 \$53,744 (\$61.3) | 242 \$27,849 (\$115.1) |
| Offer for sale | 265 \$51,218 (\$193.3) | 0 0 0 | 125 \$36,518 (\$292.1) | 140 \$14,700 (\$105.0) |
| Offer for subscription | 158 \$16,198 (\$102.5) | 1 \$38 (\$18) | 95 \$3,251 (\$34.2) | 62 \$12,909 (\$208.2) |
| Open offer | 305 \$5,482 (\$18.0) | 1 \$18 (\$18) | 271 \$5,236 (\$19.3) | 33 \$228 (\$6.9) |
| Other offers | 393 \$8,751 (\$22.3) | 0 0 0 | 386 \$8,739 (\$22.7) | 7 \$12 (\$1.7) |
| IV. Placements and Allotments | 7,205 \$562,375 (\$78.1) | 868 \$48,542 (\$55.9) | 2,651 \$293,037 (\$110.5) | 3,686 \$220,796 (\$59.9) |
| Placements | 6,154 \$469,701 (\$76.3) | 868 \$48,542 (\$55.9) | 2,647 \$292,838 (\$110.6) | 2,639 \$128,321 (\$48.6) |
| Other placements | 99 \$5,223 (\$52.8) | 0 0 0 | 4 \$199 (\$49.8) | 95 \$5,024 (\$52.9) |
| Third party allotments | 952 \$87,451 (\$91.9) | 0 0 0 | 0 0 0 | 952 \$87,451 (\$91.9) |
| V. Rights Offerings | 6,604 \$524,602 (\$79.4) | 364 \$24,966 (\$68.6) | 2,114 \$335,840 (\$158.9) | 4,126 \$163,796 (\$39.7) |
| Rights | 4,936 \$460,832 (\$93.4) | 40 \$3,872 (\$96.8) | 2,089 \$328,094 (\$157.1) | 2,807 \$128,866 (\$45.9) |
| Firm commitment/Rights | 1,301 \$31,920 (\$24.5) | 0 0 0 | 2 \$106 (\$53.0) | 1,301 \$31,814 (\$24.5) |
| Negotiated sale/rights | 352 \$31,312 (\$89.0) | 324 \$21,094 (\$65.1) | 11 \$7,106 (\$646.0) | 17 \$3,112 (\$183.1) |
| Other rights | 13 \$538 (\$41.4) | 0 0 0 | 12 \$534 (\$44.5) | 1 \$4 (\$4) |

Table II: Summary Statistics, Global Seasoned Equity Offerings, 1991-2004

This table shows the number and value of all underwritten and all accelerated underwritten seasoned equity offerings (SEOs), executed between January 1, 1991 and December 31, 2004, around the world by year and by accelerated underwriting technique, as described in the Securities Data Corporation New Issue Database.

| Year | Global SEOs | | Total ATs (pure and mixed) | | All ABOs (pure and mixed) | | All Block Trades (pure and mixed) | | All Bought Deals (pure and mixed) | |
|--------------|---------------|-----------------------|-------------------------------|-----------------------|------------------------------|-----------------------|--------------------------------------|-----------------------|--------------------------------------|-----------------------|
| | # Issues | US\$ mn (constant) | # Issues | US\$ mn (constant) | # Issues | US\$ mn (constant) | # Issues | US\$ mn (constant) | # Issues | US\$ mn (constant) |
| 1991 | 1,099 | 91,904 | 10 | 2,509 | 2 | 1,022 | 6 | 1,319 | 2 | 168 |
| 1992 | 1,283 | 71,745 | 9 | 730 | 2 | 48 | 5 | 443 | 2 | 238 |
| 1993 | 1,564 | 120,306 | 68 | 7,847 | 0 | 0 | 14 | 1,669 | 54 | 6,178 |
| 1994 | 1,603 | 121,957 | 55 | 4,880 | 1 | 52 | 8 | 780 | 46 | 4,048 |
| 1995 | 1,540 | 132,171 | 71 | 8,052 | 5 | 203 | 25 | 2,798 | 41 | 5,050 |
| 1996 | 2,209 | 193,921 | 106 | 13,160 | 6 | 408 | 48 | 9,160 | 50 | 3,549 |
| 1997 | 2,386 | 256,888 | 250 | 35,374 | 8 | 296 | 166 | 28,583 | 76 | 6,495 |
| 1998 | 2,140 | 237,946 | 257 | 37,710 | 72 | 9,850 | 110 | 22,276 | 73 | 5,554 |
| 1999 | 2,491 | 316,549 | 313 | 46,215 | 81 | 15,272 | 163 | 28,073 | 69 | 2,870 |
| 2000 | 2,869 | 363,295 | 365 | 66,532 | 101 | 26,553 | 184 | 33,970 | 80 | 6,009 |
| 2001 | 3,012 | 238,636 | 618 | 71,969 | 249 | 37,638 | 257 | 29,952 | 112 | 4,379 |
| 2002 | 2,836 | 208,754 | 697 | 86,593 | 387 | 55,381 | 155 | 20,032 | 146 | 9,846 |
| 2003 | 2,987 | 251,418 | 1,047 | 92,950 | 644 | 45,911 | 258 | 37,101 | 141 | 9,188 |
| 2004 | 3,223 | 320,714 | 1,244 | 173,078 | 784 | 116,952 | 326 | 47,513 | 128 | 8,086 |
| Total | 31,242 | 2,926,204 | 5,110 | 647,598 | 2,342 | 309,587 | 1,725 | 263,668 | 1,020 | 71,658 |

Table III: Univariate Comparisons between Accelerated Transactions (AT) and Traditional (Non-AT) Underwritings, Global Seasoned Equity Offerings, 1991-2004

This table shows the mean, the median values of the main variables of interest for the global seasoned equity offerings, non-accelerated transactions, pure and mixed accelerated transactions (AT) and their difference in means between non accelerated and pure AT, and non accelerated and mixed AT. t-statistics are reported in brackets. a indicates significance at the 1%, b at the 5% level, respectively.

| Measure | | Global SEOs | Non-AT | Pure AT | Mixed AT | Difference of Means | |
|--|----------------|-------------|----------|---------|----------|--------------------------------------|---------------------------------------|
| | | | | | | Non-AT minus Pure | Non-AT minus Mixed |
| Time from launch date to issue date [days] | Means | 26.37 | 28.98 | 10.18 | 21.07 | 18.79^a [21.24] | 7.91^a [5.02] |
| | <i>Medians</i> | 12.00 | 15.00 | 1.00 | 0.00 | | |
| | Obs. | (26,015) | (21,798) | (3,179) | (1,038) | | |
| Issue proceeds [constant 2004US\$ millions] | Means | 94.56 | 88.16 | 124.08 | 137.19 | -35.93^a [-7.21] | -49.03^a [-5.53] |
| | <i>Medians</i> | 26.39 | 23.25 | 42.39 | 55.93 | | |
| | Obs. | (30,945) | (25,847) | (3,952) | (1,146) | | |
| Relative Issue Size [%] | Means | 11.71 | 12.68 | 8.35 | 5.90 | 4.33^a [11.16] | 6.78^a [12.00] |
| | <i>Medians</i> | 7.00 | 7.00 | 5.00 | 4.00 | | |
| | Obs. | (13,632) | (11,029) | (1,806) | (797) | | |
| Pre-offering market capitalization of issuing firm [constant 2004US\$ millions] | Means | 8,907 | 6,863 | 15,656 | 22,696 | -8,793^a [-2.92] | -15,834^a [-3.25] |
| | <i>Medians</i> | 383 | 287 | 788 | 1,057 | | |
| | Obs. | (14,073) | (11,443) | (1,829) | (801) | | |
| Fraction of primary shares in total offering [%] | Means | 73.25 | 77.10 | 54.04 | 51.62 | 23.06^a [32.75] | 25.49^a [21.03] |
| | <i>Medians</i> | 100.00 | 100.00 | 100.00 | 100.00 | | |
| | Obs. | (31,066) | (25,993) | (3,926) | (1,147) | | |
| Underwriting syndicate structure: number of all managers | Means | 3.06 | 3.18 | 2.52 | 2.13 | 0.66^a [9.92] | 1.05^a [8.71] |
| | <i>Medians</i> | 2.00 | 2.00 | 1.00 | 1.00 | | |
| | Obs. | (31,222) | (26,113) | (3,958) | (1,151) | | |
| Underwriting spread [%] | Means | 4.58 | 4.79 | 3.59 | 4.21 | 1.20^a [3.62] | 0.58^a [2.12] |
| | <i>Medians</i> | 4.22 | 4.45 | 3.23 | 3.91 | | |
| | Obs. | (17,152) | (13,738) | (2,531) | (883) | | |
| Underpricing: Price change from offer to first-day closing price [%] | Means | 4.48 | 4.86 | 2.97 | 2.98 | 1.89^a [3.95] | 1.88^a [4.88] |
| | <i>Medians</i> | 4.12 | 4.46 | 2.71 | 2.74 | | |
| | Obs. | (17,152) | (13,738) | (2,531) | (883) | | |

Table IV: Univariate Comparisons between Accelerated Transactions (AT) and Traditional (Non-AT) Underwritings, U.S. Seasoned Equity Offerings, 1991-2004

This table shows the mean, the median values of the main variables of interest for the U.S. seasoned equity offerings, non-accelerated transactions, pure and mixed accelerated transactions (AT) and their difference in means between non accelerated and pure AT, and non accelerated and mixed AT. t-statistics are reported in brackets. a indicates significance at the 1%, b at the 5% level, respectively.

| Measure | | Non-AT average | Pure AT average | Mixed AT average | Difference of Means | |
|---|----------------|-------------------|--------------------|---------------------|---------------------------------------|--|
| | | | | | Non-AT minus Pure | Non-AT minus Mixed |
| Time from launch date to issue date [days] | Means | 48.67 | 9.82 | 46.43 | 38.84 ^a [11.17] | 2.24 ^a [0.73] |
| | <i>Medians</i> | 31.00 | 0.00 | 5.00 | | |
| | Obs. | (7,165) | (300) | (423) | | |
| Issue proceeds [constant 2004US\$ millions] | Means | 108.51 | 145.16 | 201.65 | -36.65 ^a [-3.51] | -93.14 ^a [-10.33] |
| | <i>Medians</i> | 58.86 | 70.46 | 101.80 | | |
| | Obs. | (7,443) | (328) | (496) | | |
| Relative Issue Size [%] | Means | 10.50 | 6.50 | 7.67 | 4.00 ^a [4.46] | 2.83 ^a [3.99] |
| | <i>Medians</i> | 7.00 | 5.00 | 6.00 | | |
| | Obs. | (2,719) | (167) | (267) | | |
| Pre-offering market capitalization of issuing firm [constant 2004US\$ millions] | Means | 5,248 | 8,170 | 10,339 | -2,922 [-1.36] | -5,090 ^b [2.56] |
| | <i>Medians</i> | 931 | 1,984 | 1,511 | | |
| | Obs. | (2,736) | (168) | (267) | | |
| Fraction of primary shares in total offering [%] | Means | 76.34 | 62.31 | 74.81 | 14.03 ^a [6.73] | 1.53 [0.89] |
| | <i>Medians</i> | 100.00 | 100.00 | 100.00 | | |
| | Obs. | (7,419) | (328) | (496) | | |
| Underwriting syndicate structure: number of all managers | Means | 4.75 | 1.98 | 2.89 | 2.77 ^a [9.68] | 1.85 ^a [7.87] |
| | <i>Medians</i> | 3.00 | 1.00 | 1.00 | | |
| | Obs. | (7,446) | (328) | (496) | | |
| Underwriting spread [%] | Means | 2.53 | 3.10 | 3.15 | -0.57 [-1.45] | -0.62 ^b [-1.81] |
| | <i>Medians</i> | 2.32 | 2.82 | 2.91 | | |
| | Obs. | (6,363) | (243) | (461) | | |
| Underpricing: Price change from offer to first-day closing price [%] | Means | 2.54 | 1.76 | 2.06 | 0.78 ^b [1.89] | 0.48 ^b [1.69] |
| | <i>Medians</i> | 2.30 | 1.60 | 1.92 | | |
| | Obs. | (6,363) | (243) | (461) | | |

Table V: Univariate Comparisons between Accelerated Transactions (AT) and Traditional (Non-AT) Underwritings, European Seasoned Equity Offerings, 1991-2004

This table shows the mean, the median values of the main variables of interest for the European seasoned equity offerings, non-accelerated transactions, pure and mixed accelerated transactions (AT) and their difference in means between non accelerated and pure AT, and non accelerated and mixed AT. t-statistics are reported in brackets. a indicates significance at the 1%, b at the 5% level, respectively.

| Measure | | Non-AT average | Pure AT average | Mixed AT average | Difference of Means | |
|---|----------------|-------------------|--------------------|---------------------|---------------------------------------|--------------------------------------|
| | | | | | Non-AT minus Pure | Non-AT minus Mixed |
| Time from launch date to issue date [days] | Means | 15.92 | 5.12 | 46.43 | 10.80^a [11.56] | -30.51^b [-2.34] |
| | <i>Medians</i> | 6.00 | 0.00 | 36.00 | | |
| | Obs. | (3,515) | (1,661) | (7) | | |
| Issue proceeds [constant 2004US\$ millions] | Means | 122.04 | 144.67 | 108.65 | -22.64^b [-2.29] | 13.39 [0.18] |
| | <i>Medians</i> | 19.92 | 39.87 | 62.01 | | |
| | Obs. | (6,047) | (2,402) | (37) | | |
| Relative Issue Size [%] | Means | 13.56 | 8.43 | 10.40 | 5.13^a [8.35] | 3.16 [0.84] |
| | <i>Medians</i> | 7.00 | 4.00 | 10.00 | | |
| | Obs. | (2,036) | (976) | (20) | | |
| Pre-offering market capitalization of issuing firm [constant 2004US\$ millions] | Means | 2,707 | 21,874 | 4,991 | -19,167^a [-4.16] | -2,284 [-0.49] |
| | <i>Medians</i> | 110.47 | 769.68 | 257.52 | | |
| | Obs. | (2,145) | (993) | (20) | | |
| Fraction of primary shares in total offering [%] | Means | 68.05 | 38.69 | 56.20 | 29.36^a [25.96] | 11.84 [1.56] |
| | <i>Medians</i> | 100.00 | 0.00 | 10.00 | | |
| | Obs. | (6,004) | (2,379) | (37) | | |
| Underwriting syndicate structure: number of all managers | Means | 2.58 | 1.53 | 2.00 | 1.05^a [14.09] | 0.58 [0.99] |
| | <i>Medians</i> | 1.00 | 1.00 | 1.00 | | |
| | Obs. | (6,101) | (2,407) | (38) | | |
| Underwriting spread [%] | Means | 7.07 | 3.46 | 3.30 | 3.61^a [4.44] | 3.77^a [4.62] |
| | <i>Medians</i> | 6.45 | 3.12 | 2.94 | | |
| | Obs. | (3,160) | (2,119) | (35) | | |
| Underpricing: Price change from offer to first-day closing price [%] | Means | 7.32 | 2.97 | 2.45 | 4.34^a [4.98] | 4.86^a [5.36] |
| | <i>Medians</i> | 6.55 | 2.67 | 2.22 | | |
| | Obs. | (3,160) | (2,119) | (35) | | |

Table VI: Univariate Comparisons between Accelerated Transactions (AT) and Traditional (Non-AT) Underwritings, Rest of the World Seasoned Equity Offerings, 1991-2004

This table shows the mean, the median values of the main variables of interest for the seasoned equity offerings from the rest of the world outside western Europe and the United States, non-accelerated transactions, pure and mixed accelerated transactions (AT) and their difference in means between non accelerated and pure AT, and non accelerated and mixed AT. t-statistics are reported in brackets. a indicates significance at the 1%, b at the 5% level, respectively.

| Measure | | Non-AT average | Pure AT average | Mixed AT average | Difference of Means | |
|---|----------------|-------------------|--------------------|---------------------|--------------------------------------|---------------------------------------|
| | | | | | Non-AT minus Pure | Non-AT minus Mixed |
| Time from launch date to issue date [days] | Means | 20.42 | 17.18 | 3.13 | 3.24^a [2.75] | 17.29^a [10.41] |
| | <i>Medians</i> | 3.00 | 19.00 | 0.00 | | |
| | Obs. | (11,118) | (1,218) | (608) | | |
| Issue proceeds [constant 2004US\$ millions] | Means | 59.32 | 77.95 | 86.75 | -18.63^b [-2.52] | -27.43^a [-2.61] |
| | <i>Medians</i> | 10.46 | 39.36 | 23.81 | | |
| | Obs. | (12,357) | (1,222) | (613) | | |
| Relative Issue Size [%] | Means | 13.37 | 8.70 | 4.79 | 4.64^a [6.93] | 8.55^a [11.24] |
| | <i>Medians</i> | 7.00 | 7.00 | 2.00 | | |
| | Obs. | (6,274) | (663) | (510) | | |
| Pre-offering market capitalization of issuing firm [constant 2004US\$ millions] | Means | 8,894 | 8,295 | 29,804 | 599 [0.11] | -20,910^a [-2.62] |
| | <i>Medians</i> | 192.61 | 655.04 | 918.27 | | |
| | Obs. | (6,562) | (668) | (514) | | |
| Fraction of primary shares in total offering [%] | Means | 81.88 | 81.78 | 32.60 | 0.10 [0.08] | 49.28^a [31.37] |
| | <i>Medians</i> | 100.00 | 100.00 | 0.00 | | |
| | Obs. | (12,570) | (1,219) | (614) | | |
| Underwriting syndicate structure: number of all managers | Means | 2.54 | 4.62 | 1.51 | -2.08^a [-21.75] | 1.03^a [7.91] |
| | <i>Medians</i> | 1.00 | 4.00 | 1.00 | | |
| | Obs. | (12,566) | (1,223) | (617) | | |
| Underwriting spread [%] | Means | 6.48 | 5.99 | 5.54 | 0.49 [1.55] | 0.94^b [1.72] |
| | <i>Medians</i> | 5.77 | 5.55 | 5.08 | | |
| | Obs. | (4,215) | (169) | (387) | | |
| Underpricing: Price change from offer to first-day closing price [%] | Means | 6.51 | 4.63 | 4.13 | 1.88^a [2.22] | 2.38^a [2.77] |
| | <i>Medians</i> | 6.02 | 4.21 | 3.78 | | |
| | Obs. | (4,215) | (169) | (387) | | |

Table VIII: Cumulative Abnormal Returns around the Verified Announcement Date for Global, U.S., European, and Rest-of-World (ROW) Seasoned Equity Offerings, 1991-2004

This table presents cumulative abnormal returns around announcement dates of seasoned equity offerings around the world and in various regional sub-samples, using announcement dates that have been verified as the earliest mentions of seasoned equity offers through a manual search of Lexis/Nexis. Abnormal returns were generated using market-model expected returns.

| Sample or sub-sample | Number of observations | CAR (-1, +1), mean % | CAR (-1, +1), median % |
|---|------------------------|--------------------------|------------------------|
| Panel A: All seasoned equity offerings | 1,924 | -1.17^a | -1.46 |
| All accelerated (AT) SEOs | 326 | -1.22^a | -1.33 |
| All non-accelerated (non-AT) SEOs | 1,598 | -1.16^a | -1.49 |
| Difference (AT-non AT) | | -0.06 | |
| All pure secondary SEOs | 381 | -2.23^a | -2.08 |
| All mixed primary/secondary SEOs | 307 | -3.06^a | -2.61 |
| All pure primary SEOs | 1,236 | -0.38 | -1.07 |
| Difference (pure primary-pure secondary) | | 1.85^a | |
| Panel B: U.S. seasoned equity offerings | 875 | -2.89^a | -2.28 |
| U.S. accelerated (AT) SEOs | 97 | -1.34 | -1.95 |
| U.S. non-accelerated (non-AT) SEOs | 778 | -3.08^a | -2.30 |
| Difference (AT-non AT) | | -1.75 | |
| U.S. pure secondary SEOs | 133 | -3.23^a | -3.36 |
| U.S. mixed primary/secondary SEOs | 266 | -3.51^a | -2.87 |
| U.S. pure primary SEOs | 476 | -2.45^a | -1.81 |
| Difference (pure primary-pure secondary) | | 0.77 | |
| Panel C: European seasoned equity offerings | 307 | -0.23 | -0.15 |
| European accelerated (AT) SEOs | 107 | -0.79 | -1.03 |
| European non-accelerated (non-AT) SEOs | 200 | +0.06 | -0.04 |
| Difference (AT-non AT) | | -0.85 | |
| European pure secondary SEOs | 128 | -1.27^a | -0.85 |
| European mixed primary/secondary SEOs | 15 | -1.49 | -0.66 |
| European pure primary SEOs | 164 | 0.69 | 0.05 |
| Difference (pure primary-pure secondary) | | 1.97 | |
| Panel D: Rest-of-world (ROW) seasoned equity offerings | 742 | +0.47 | -0.87 |
| ROW accelerated (AT) SEOs | 122 | -1.51^a | -1.25 |
| ROW non-accelerated (non-AT) SEOs | 620 | +0.86 | -0.78 |
| Difference (AT-non AT) | | -2.36^a | |
| ROW pure secondary SEOs | 120 | -2.15^a | -2.14 |
| ROW mixed primary/secondary SEOs | 26 | +0.63 | +1.36 |
| ROW pure primary SEOs | 596 | +0.99 | -0.68 |
| Difference (pure primary-pure secondary) | | -3.13^a | |

^a Indicates significance at the 1% level.

^b Indicates significance at the 5% level.

Table IX: Regression Analysis of Cumulative Abnormal Returns around SEO Announcement Dates

This table reports the estimated coefficients from a regression in which the dependent variable is the cumulative abnormal return surround the SEO announcement date (-1, +1) using the market model to estimate abnormal returns. The sample includes 1,924 announcement dates verified on Lexis/Nexis. Offer size is the natural log of gross offer proceeds. Pure AT and Mixed AT are dummy variables equal to one for pure or mixed accelerated offers respectively. ABO, BT, and BD are dummy variables for accelerated bookbuilt offers, block trades, and bought deals respectively. % primary is the fraction of the offer presenting primary shares. U.S. and Europe are dummy variables equal to one for deals offered in the U.S. or Europe respectively.

| | Coefficient | t-stat | Coefficient | t-stat |
|-------------------------|--------------------|---------------|--------------------|---------------|
| Intercept | -0.007 | -0.84 | -0.005 | -0.72 |
| Gross proceeds | -0.000 | -0.08 | -0.000 | -0.07 |
| Pure AT | -0.014 | -1.21 | | |
| Mixed AT | 0.011 | 0.69 | 0.009 | 0.59 |
| ABO | | | -0.16 | -1.31 |
| BT | | | -0.009 | -1.11 |
| BD | | | -0.007 | -0.89 |
| % primary | 0.016*** | 2.07 | 0.015*** | 2.21 |
| US | -0.030*** | -3.83 | -0.029*** | -3.65 |
| Europe | 0.001 | 0.13 | 0.002 | 0.18 |
| | | | | |
| Adjusted R ² | 0.011 | | 0.015 | |

*** Indicates significance at the 1 percent level.

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