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# Introduction

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The purpose of this handbook is to provide an updated source of reference based on recent empirical research on some of the key issues related to IPO trends that should be relevant to a wide audience including company directors, investment bankers, financial analysts, regulators and institutional investors. The book is organized into six parts each addressing different stages and issues of the IPO process. A brief synopsis of the handbook's contents follows.

## PART I WHY AND WHEN FIRMS GO PUBLIC

Chapters 1–4 provide an insightful view on the recent trends in IPO activity across Europe and the long trend in the decline of IPOs in recent years, the emerging patterns in the structure of venture capital (VC) exits, the motivation for going public, and the timing of such decisions. The European evidence on these issues, although broadly consistent with the USA, nevertheless highlights some subtle differences related to the institutional frameworks and the overall structure of the markets.

Jay R. Ritter, Andrea Signori and Silvio Vismara investigate the IPO volume in European markets, and report a decline in the number of IPOs similar to the USA. Controlling for the impact of market valuations, their evidence suggests a downward trend in European IPOs over time. Although Europe is characterized by more fragmented regulation and by the existence of second markets with lower compliance costs, they argue that the decline in the number of IPOs is consistent with the economies of scope explanation. The 'Panic' of 2008 and the 'Eurozone crisis' of 2011 have also temporarily depressed IPO volume, consistent with the market conditions hypothesis. They also present evidence of increased difficulty for small firms to remain profitable, under-performance and their higher propensity to be acquired soon after the IPO, with respect to large firms. They show that these patterns persist even among second market IPOs, where the regulatory overreach hypothesis does not apply.

Susan Chaplinsky and Swasti Gupta-Mukherjee show that in line with the overall decline in the volume of IPOs there has also been a gradual shift of venture capital exits from IPOs to M&As. They find that the average return to IPO exits is significantly higher than the average return to M&A exits; this has raised concerns about how the lower returns from M&A exits can sustain the industry. In fact they find that 40 per cent of exits fail to recover the full amount of capital invested in the portfolio company, with M&A exits accounting for a disproportionately larger share of these. High M&A returns require VCs to have more discipline in capital allocation, while achieving good exit market valuations, which in turn requires VCs to have greater skill in managing all stages of their investments. By contrast, high IPO returns are more a function of market timing and having companies ready when the 'window is open'. In short, the evidence

raises questions about the viability of the venture capital industry and suggests that, if IPOs continue to be scarce and M&A exits are the predominant form of exit, VCs will face a large challenge adapting to this new market reality.

The decline of IPOs, however, may have wider implications for the growth of some firms as going public offers multiple benefits to the issuing company. On the basis of a comparison on the evidence of managers' surveys in Europe and USA, Franck Bancel and Usha R. Mittoo report that most European chief financial officers (CFOs) identify enhanced visibility and access to financing as the major benefits of going public. Managers also value the role of IPO in creating a currency for mergers and acquisitions and to facilitate an exit strategy but view cost of capital considerations as less important. They also attempt to time the initial public offering based on hot market and industry conditions. The European CFOs' views about major benefits are largely similar to those of their US peers but differ significantly regarding the IPO costs. The European CFOs are less concerned about the IPO costs than their US peers and view outside monitoring as a major benefit, whereas their US peers consider it as a major cost.

Shantanu Banerjee, Ufuk Güçbilmez and Grzegorz Pawlina, on the basis of their investigation of the cyclical nature of IPO activity in the UK, provide further support to the importance of timing an IPO in the best interests of the issuer. Their results indicate a lead-lag relationship between IPO initial returns and volume. Initial public offering volume is sensitive to recent changes in market conditions. There is evidence of industry concentration in hot markets, and firms raise more equity during these periods. Overall, IPO waves in the UK share similar characteristics with those in the USA. The findings are consistent with rational explanations of IPO waves. However, explanations based on investor sentiment and market timing cannot be ruled out, since there is a strong positive relationship between IPO volume and the market's price-to-book ratio.

## PART II PREPARATION FOR THE IPO

Chapters 5–8 discuss some aspects of the regulatory framework and its implications for the functioning of the markets, the underlying quality of the admitted firms as well as some critical decisions in terms of pricing and type of listing.

Chitru S. Fernando, Vladimir A. Gatchev and Paul A. Spindt show how the role of institutional investors in monitoring and information gathering can substitute for the benefits derived from a broad-based ownership of the firm, including more information generation by analysts. Firms that can benefit more from institutional ownership selecting higher IPO offer price levels. Furthermore, they argue that the IPO offer price level provides investors a robust measure of a firm's quality, with higher-quality firms selecting higher offer prices and lower share floats than equal-sized lower-quality firms. The empirical tests confirm that the positive association between IPO offer prices and institutional ownership persists after controlling for liquidity and size differences.

J. Ari Pandes and Michael J. Robinson investigate the implications of the regulatory framework on the development of an IPO market by focusing on the junior equity market in Canada, the Toronto Venture Stock Exchange (TSX-V), which has evolved over the past 100 years to become one of the world's largest markets for development-oriented, early-stage firms to go public. While the average IPO size of TSX-V firms is

small compared with IPOs in other international junior markets, the absolute number of firms going public on the TSX-V is substantially higher than the number of IPOs in these other junior markets. One key aspect of Canada's junior market has been the development of its Capital Pool Company (CPC) programme, which is a highly regulated blind pool programme. Unlike the blind pool experience in the USA, the Canadian experience with blind pools illustrates how effective regulation and the presence of high-quality underwriters can balance the capital needs of early stage, entrepreneurial firms, while still serving to protect the interests of investors.

Mattia Cattaneo and Michele Meoli address another important aspect of the institutional framework by examining the impact of investor protection on the survival of all the IPOs in the Italian capital markets, from the birth of the Reign of Italy, in 1861, until 2011. Their results suggest that the improvement in the level of investor protection that occurred in Italy increased the IPO survival over time. In particular, the punctual evaluation of the level of investors' rights with respect to some of the regulatory innovations implemented in the Italian context, like the establishment of Commissione Nazionale per le Società e la Borsa (CONSOB) and the Draghi Reform, highlight that the level of shareholders and creditors' protection contributes to explain the improvement of the IPO survival, and therefore the development of the Italian capital market.

Hugh M.J. Colaco and Shantaram P. Hegde study the role of underwriters during the book-building process, primarily their impact on the duration of initial public offering (IPOD), defined as the waiting time firms spend from the filing of the preliminary prospectus to the final public offering of shares. High-reputation underwriters are more efficient than their low-reputation counterparts during the book-building process and generate greater incremental value both in terms of price and proceeds for their clients, while taking them public quicker. They also find that short-IPOD firms are more likely to have buy analyst recommendations than long-IPOD firms, which adds further evidence to the claim that short-IPOD firms are intrinsically stronger.

### PART III TRANSACTION STRUCTURE AND GOVERNANCE AT THE IPO

Chapters 9–12 explore some of the key characteristics of IPOs' structure at the time of their public listings and their potential implications on investors' perceptions.

David B. Audretsch and Erik E. Lehmann offer a reflective survey of corporate governance mechanisms in entrepreneurial and newly listed companies and of why and how governance mechanisms differ from those in large and publicly traded corporations. They focus on a set of corporate governance mechanisms more prevalent in newly listed companies, such as the product and capital market, the market for corporate control, boards of directors and the capital structures. They conclude that academic research is still far away from providing sufficient solutions about the pros and cons of the different mechanisms in corporate governance, and how these differ across newly listed companies and large and established firms. They provide a number of important suggestions for future research, including the role of universities and research institutes as large shareholders of entrepreneurial firms.

Fabio Bertoni, Matteo Bonaventura and Giancarlo Giudici discuss an additional

intriguing dimension of the role of information collection during the book-building process on the decision about the final allocation and pricing when both small retail investors and professional institutions are invited to join the offer (hybrid IPOs). They show that underwriters preserve their discretion also when demand from institutions is poor. Optimistic information collected during book-building is reflected in a preferential treatment for institutional investors. The data suggest that underwriters are more likely to increase the number of shares allotted to institutions when the overallotment option is exercised and when retail investors undersubscribe the offering. On the contrary, underwriters are more likely to increase the IPO price when the demand from retail investors is strong. This maximizes their bargaining power over professional investors.

Jean-Sébastien Michel examines the role of VC investment timing on short-run IPO pricing. Lower file delay is associated with higher short-run IPO performance. Furthermore, lower file delay is associated with VCs that are younger and book-building periods which are longer. Overall, this evidence is consistent with the grandstanding hypothesis, but it is also consistent with a modified 'market' grandstanding hypothesis where grandstanding is associated with IPO overvaluation instead of information asymmetry. Research about the impact of venture capitalists on IPO pricing is important given venture capitalists have first contact with the firms they bring public, and so are arguably the most informed investors in the company.

Katrin Migliorati and Stefano Paleari compare the role of investment banks taking companies public on the Alternative Investment Market (AIM) unique market model relative to those on second-tier regulated markets in continental Europe. The AIM regulatory structure entails the outsourcing of substantial part of regulations on the Nominated Advisors (that is, Nomads) who are not just underwriters but act as 'regulators'; they are in fact required to advise and guide AIM-companies at all time. As a result they find that Nomads that are smaller and with higher expertise in IPOs (that is, higher IPO relevance) reduce underpricing. In sharp contrast, underwriters in Paris, Frankfurt and Milan, increase significantly their number of IPO mandates by being established banks. They also find Nomads that are smaller and with higher expertise in IPOs (that is, higher IPO relevance) reduce underpricing.

## PART IV TRADING IN THE AFTERMARKET

Chapters 13–16 investigate four different aspects of post-IPO activities, that is, analyst coverage, directors' trades at lock-up expiration, VC strategies and implications of ownership structure.

Romain Boissin compares the long-run performance of firms that do not receive analyst coverage (orphans) to those that do (non-orphans). This abnormal long-run performance is considerably more severe for orphan IPOs than for non-orphan IPOs given a three- to five-year horizon. The evidence suggests that analyst coverage is indeed important to the issuing firm but the market does not fully incorporate the perceived value of this coverage. Once they control for other characteristics that have been shown to influence the long-run performance of IPOs, we find that investors and market participants pay attention to analyst coverage when IPOs have large underwriting syndicates and are highly underpriced.

Susanne Espenlaub, Marc Goergen, Arif Khurshed and Marko Remenar use a sample of UK IPOs, to examine the stock price behaviour and the volume and pattern of directors' trades around the expiry of lock-up agreements. In contrast to the US evidence, they find that the average cumulative abnormal return around the lock-up expiry is not significantly different from zero. As is to be expected, there is a substantial increase in share sales by 'unlocked' directors in the weeks immediately after the lock-up expiry. Surprisingly, the stock price reaction to share sales by unlocked directors around the expiry of lock-up agreements is not unfavourable. The subsample of companies that report directors' sales around the expiry date has positive average cumulative abnormal returns, albeit not statistically significant. By contrast, the subsample of companies without directors' sales shows negative average cumulative abnormal returns.

Wolfgang Bessler and Martin Seim show that exit strategies of venture capitalists in the USA and Europe underwent dramatic changes in recent years. They analyse venture capital-backed IPOs in Europe for the last two VC and IPO waves. During the 'new economy' period (1996–2003) IPOs were more underpriced, had higher valuation multiples and a superior financial performance. Second period IPOs (2003–10) reveal a superior operating performance, suggesting that venture capitalists only took the most profitable firms public. These findings differ from the US evidence. Since the last IPO waves ended in the USA in 2001 and in Europe in 2007, interesting questions about the future of VC and IPO activities remain.

Aharon Cohen Mohliver, Gitit Gur-Gershoren and Shinjinee Chattopadhyay explore the potential links between firm ownership structure and the average IPO underpricing. They highlight some new avenues of exploring the effects of market competition, information asymmetry, power and conflicts of interest on IPO pricing. Using a cross-country analysis based on two independent data-sets, they show that the amount of money 'left on the table' for investors decreases with the degree of concentration of ownership within the economy. They also report that the greater the degree of separation between power and equity ownership, the smaller the average IPO underpricing.

## PART V THE AFTERMARKET PERFORMANCE OF IPOs

Chapters 17–20 focus on long-term aftermarket underperformance that remains one of the most debated and puzzling issues in the IPO literature.

Naagush Appadu, Anna Faelten and Mario Levis investigate the implications of the type and pattern of follow-on activities like acquisitions, seasoned equity offerings (SEOs) and divestitures during the three-year period of going public on long-run performance. They find that such corporate events follow periods of significant stock price movements and positive market sentiment, suggesting that the timing of such events is important either in terms of taking advantage of temporary overvaluations or responding to feedback received from market participants at certain points in time. Their evidence suggests that post-IPO corporate activity is directly related to long-term aftermarket performance. Controlling for firm specific characteristics, IPO firms pursuing future growth opportunities through a series of corporate events of the same or different types during the first three years of going public, outperform their passive counterparts by the end of the three-year period after flotation.

Jerry Cao examines the impact of IPO timing of buyout sponsors in listing leveraged buyouts (LBOs) publicly on firm performance and exit strategy post IPO. Although the evidence indicates that reverse leveraged buyouts (RLBO) companies experience no significant deterioration in operating performance in post-IPO years, there is evidence that buyout sponsor's LBO restructuring duration is affected by IPO timing; RLBOs with shorter duration experience more deterioration in operating performance following their IPOs. Furthermore, buyout sponsors (quickly) flip LBOs to time both operating performance and market conditions. Hence, compared with other RLBOs, quick flips experience worse operating performance and greater probability of bankruptcy. Initial public offering timing drives RLBO decisions but does not affect sponsor's exit post-IPO, while lock-up provisions and concern for reputation help align buyout sponsor incentives to public investors. In short, buyout sponsor's IPO timing has important value implications for investors: listing immature LBOs destroys value and leads to financial distress, while sponsor's reputation partially mitigates this problem.

Sian Owen and Jo-Ann Suchard investigate the long-term performance of Australian venture capital and private equity (PE) backed initial public offerings. They find that on average, Australian IPOs underperform the market index over two years post listing but have similar performance after three years. However, there is no significant difference in the market adjusted stock performance of VC/PE backed and non-VC/PE backed IPOs, except in the first year of listing where VC backed IPOs perform worse than non-VC/PE backed IPOs. The operating performance is similar for non-VC/PE backed IPOs and VC/PE backed IPOs. Thus, although most VC/PE investors retain some ownership in the firm post listing, VC/PE backing does not have a sustained impact on the long-term stock or operating performance of Australian IPOs. These results are in contrast to US and UK markets and may be driven by less experienced managers operating in a relatively smaller and earlier-stage VC/PE market.

Dimitrios Gounopoulos and Johannes Hoebelt use an expanded sample of German IPOs listed between 1992 and 2012 covering two major amendments on the financial market, IFRS adoption and the recent financial crisis. Their results indicate that International Financial Reporting Standards (IFRS) adoption has reduced underpricing in Germany and has significantly affected their long-term performance. This clearly suggests the advantages of preparing IFRS accounts which might be an incentive for private companies to use IFRS voluntarily. Similarly, firms that have gone public during the recent financial crisis offered significantly less initial returns to their aftermarket investors.

## PART VI SPECIAL TYPES OF IPOs

Chapters 21–24 address four different issues related to VC IPOs, reverse takeovers, cross listing of previously stated-owned enterprises and the implications of the recent financial crisis on the capital structure and performance of IPOs.

Douglas Cumming and Sofia Johan investigate the pattern of VC investments and IPO exits in Canada, in comparison to other countries. They report that during the period 2000 to 2008 the amount of capital commitments to newly established funds focused on investment in seed, early and expansion stage entrepreneurial ventures in

Ontario was considerably lower than in some parts of the USA. Moreover, a significant part of the VC activity in Canada is dominated by US funds while there are problems with the quality of VC investment in Canada. Such apparent deficiencies raise questions about government's initiatives to encourage VC investment, the complementary roles of local and foreign investors in stimulating local innovation and entrepreneurship, and targeted measures to address the apparent shortage of skilled VCs.

Philip Brown, Andrew Ferguson and Peter Lam investigate the pattern and characteristics of reverse takeovers (RTOs), one of the less researched topics in the IPO research in spite of the considerable increase in the volume and public attention of such transactions in recent years. Reverse takeovers, or backdoor-listings (BDL) as they are sometimes referred to, are private firms that choose to go public by backing their assets into the shell of listed companies. They find that, compared with a matched sample of IPOs, such firms are more likely to be start-up endeavours, concentrated in industries with high information asymmetry, less liquid and less profitable. Contrary to common belief, BDL transactions generally take a longer time to complete and are associated with more sell-down by private firm owners. Backdoor listings firms also raise less equity capital when going public and are less likely to use an underwriter.

Juliet D'Souza, William L. Megginson and Robert Nash, provide evidence on another important group of relatively under-researched IPOs, that is, cross-listings of privatizations of state-owned enterprises. Using a unique sample comprising 822 privatizations from 78 countries during 1985–2007, they find that the protection of shareholder rights, commonly recognized as an important factor in cross-listing by private firms, generally plays no significant role in governments' decisions to cross-list. This suggests that the effect of private benefits of control on cross-listing choices may differ when the state, rather than a private investor, is the controlling shareholder. Also, factors determining cross-listings vary significantly between developed and developing economies. In developed nations, firm-level factors most significantly affect cross-listing privatizations, while in developing nations, institutional factors are the primary determinants of such cross-listings.

Kazuo Yamada, in the final chapter of this handbook, highlights an intriguing dimension of the recent banking crisis on the decision-making process of firms planning to go public. He shows that poor-health banks in Japan lend more money to their client firms that are planning to go public. To resolve such over-lending, firms issue more shares than they need at the time of the IPO or at a later point through SEOs. Such practices, however, appear to have a negative impact on long-term performance.

