

Rumors of an eclipse are exaggerated. The PE model is here to stay

Article (Accepted Version)

Wright, Mike and Jelic, Ranko (2020) Rumors of an eclipse are exaggerated. The PE model is here to stay. *Annals of Corporate Governance*, 5 (3). pp. 208-236. ISSN 2381-6732

This version is available from Sussex Research Online: <http://sro.sussex.ac.uk/id/eprint/94885/>

This document is made available in accordance with publisher policies and may differ from the published version or from the version of record. If you wish to cite this item you are advised to consult the publisher's version. Please see the URL above for details on accessing the published version.

Copyright and reuse:

Sussex Research Online is a digital repository of the research output of the University.

Copyright and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable, the material made available in SRO has been checked for eligibility before being made available.

Copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

Rumors of an Eclipse are Exaggerated. The PE model is here to stay

Mike Wright, Center for Management Buyout Research, Imperial College London

Ranko Jelic, University of Sussex

1. Introduction

In a seminal article, published at the peak of the first leveraged buyout (LBO) wave, Michael Jensen (1989) famously laid out the role of leveraged buyouts in the eclipse of the public corporation. More recently, academic literature examines a sharp drop in number of US listed firms (see Kahle and Stulz, 2016; Ribstein, 2009; Doidge et al. 2017) and the role of PE firms in the possible demise of public corporations (Ljungqvist et al., 2016). Ljungqvist et al. (2016), for example, suggest that by facilitating companies' departures from the stock market, PE firms can trigger a chain of events leading to long-term reductions in investment, productivity, and employment.

As LBOs metamorphosed into private equity (PE) new types of buyout deal were created, such as management buyins, investor led buyouts and secondary buyouts producing phenomenal growth in the market over the ensuing three decades (Wright et al., 2018). As a result, buyouts now account for more than half of the total value of PE investments worldwide.¹ This growth reflected a massive international diffusion of the phenomenon, first to developed economies beyond the UK and US, and subsequently to emerging markets. Thus PE has become a global phenomenon (Kaplan and Stromberg, 2009; Wright et al., 2018). Furthermore, quantitative easing (in US, Europe and Japan) has kept yields and interest rates down thus providing inexpensive funding for PE investments.

Rather controversially, as the second buyout wave reached its apotheosis, Cheffins and Armour (2008) were predicting the eclipse of PE. They conjectured that this would occur even if conditions were to remain favorable, suggesting that PE would likely be increasingly carried

¹ Source Preqin, as cited in The Economist, 22nd October 2016. Other elements of the total PE market include venture capital investment in earlier stage deals and growth capital investments.

out by broadly based financial groups under the umbrella of public markets, including the importance of IPOs as an exit route.

In this article we discuss recent developments and argue that rumors of the eclipse of PE are exaggerated.

2. Demise of public corporations?

Although Rappaport (1990) strongly contested Jensen's original arguments, the number of listed corporations has declined. Since the introduction of Sarbanes Oxley, Reg FD, in the US costs of being public listed firm significantly increased (see Zhang, 2007; Engel et al., 2007). The increasing costs of being public have contributed to a decline in the numbers of US IPOs and consequently listed companies. For example, there are fewer US listed companies now than there were in the mid-seventies and it appears that the benefit of listing has declined relative to the cost so that only larger companies can bear the cost of being public (Mauboussin, 2017). Delistings and an unusually low level of IPO activity were the key contributors to the decline (Doidge et al., 2017). Going private, facilitated by PE firms, is also an important contributor to this trend. Access to capital and control considerations are among main factors in the choice of going private (Bharath and Dittmar, 2010). The number of listed firms has decreased in the UK as well. For example, the average annual number of IPOs on the main London Stock Exchange (LSE) market was 33 in the 1990s compared to 17 and 14 in the last two decades respectively (see Table 1). The corresponding figures for the Alternative Investment Market (AIM) were 34, 81 and 32.

Insert Table 1 here

The changes in corporate governance regulation were echoed in other parts of the World, with the overall benefits of a public listing going down (Gomes et al., 2007; Engel et al., 2007). Due to privatization programs the number of listed companies has actually increased in China and in (Central and Eastern) European countries, since early 1990s. A shift from banks to more market driven financial systems has also contributed to an increase in importance of stock markets in some European countries (e.g. Germany). Due to the above factors, and the existence of cold and hot periods in IPO markets, the European evidence on the decreasing number of listed firms should be treated carefully (see Table 2). Overall, the significant decrease in the number of listed companies seems to be mainly a US and UK phenomenon.

During the 1970 to mid-1990s period, IPOs counted for about one-quarter of all PE exits (Mauboussin et al., 2017; Wright et al., 1994). In 2016, however there were only 30 IPOs of PE-backed companies in the US, the lowest level since 2009. IPOs counted for less than 10% of all US PE exits in the last decade. European data also suggests fewer IPO exits in the last decade. For example, there were only 21 IPO exits of European PE-backed companies in 2016 compared to 201 SMBO and 210 trade sale exits in the same year (see Table 2).

Insert Table 2 here

More recently, PE backed IPO activity exhibited a big jump World-wide in 2017. The buyout-backed IPO market benefited from more stable markets, especially in North America, where IPO value nearly doubled its 2016 level (Bain, 2018) (See Table 3). More research is therefore needed regarding so-called the “demise” of public markets.

Insert Table 3 here

Despite the decline in the number of listed corporations, it is difficult to see this as the result only of a paradigm shift towards buyouts and private equity. For example, although the value of public companies being taken private has risen in last two decades, relatively few deals are of this type. Indeed, public-to-private buyout (P2P) deals represented less than 7% of all buyout transactions, during 1970-2007, worldwide (Stromberg, 2008). More recent data during, 2005-

2017, suggests that P2P deals represent around 16% of all buyout transactions (See Table 4).² Hence the focus on P2P deals gives a particularly partial view of PE.

Insert Table 4 here

Further, while Cheffins and Armour (2008) emphasize the IPO exit route there are far fewer listings of PE backed buyouts nowadays compared to the 1980s and 1990s. Secondary buyouts (SBOs) and trade sales have always been a more important exit route for PE deals in Europe (see Table 2).

Cold IPO markets, high listing costs and modest sized deals with limited growth prospects make the IPO route less attractive (Jenkinson & Sousa, 2015). As PE firms have raised significant funds in a mature environment with limited primary buyout opportunities from divestments from corporate groups in particular, secondary buyouts (SBOs) offer both an attractive investment opportunity for incoming PE firms as well as an attractive exit route for existing PE investors such that UK data, for example, shows that SBOs are now running at around the same level as primary buyouts (see Figure 1). Tertiary buyouts have also increased in numbers. For example, they represent one third of all exits from UK SBOs (Zhou et al., 2014).

Insert Figure 1 here

The sharp drop in IPOs is not the only reason for fewer listed firms. Other organizational forms such as private partnerships are on the increase. For example, a third of tax paying US businesses are now organized as private partnerships which can now offer limited liability and issue tradable shares (Ribstein, 2009). Private markets not only became more sophisticated in providing funds but they also seem to allow company founders to adopt a long-term perspective. There is also evidence that public markets are no longer always well suited for young, R&D intensive companies (Doidge et al., 2018). Many new companies are also less formal technology intensive thus requiring less investment in fixed assets. This further reduces the need for large funding obtained in public markets and allows them to remain private for a

² Estimated by authors based on data provided in Bain (2018).

longer period. The private companies therefore grow larger and remain longer in private status. Some of them exhibit values in excess of \$1 billion. According to The Wall Street Journal (cited in Mauboussin, 2017), as of March 2017 there are 155 companies with a value in excess of \$1 billion. This is nearly triple the 54 such companies in March 2014. Increasingly, those companies attract investments directly from leading “mainstream” fund managers (e.g. Fidelity). The potential danger of this trend is that the unicorns are not required to meet the same accounting and disclosure standards as public-companies and are therefore difficult to regulate (The Economist 22nd April 2017).

Overall, the above presented evidence seems to suggest that companies increasingly prefer a private to a public corporate governance model. This seems to be at odds with the prediction of Cheffins and Armour (2008). Rather than the eclipse of PE, as foretold by Cheffins and Armour, the market has shown considerable resilience in its evolution of deal sources and structuring types over the past three decades. In the next section we will discuss recent developments in the PE market.

3. Demise or transformation of the PE model?

3.1. Performance of PE model

PE firms establish limited life funds (typically about 10 years in duration) to raise capital for the purpose of acquiring a portfolio of existing firms via a LBO. Private equity funds generally hold companies for three to seven years. There is evidence that UK PE-backed buyouts exhibit higher exit rates, fewer early exits and liquidations compared to their pure (i.e. non-PE backed) counterparts (Jelic, 2011).³ In Europe, the mean time to exit by vintage year (i.e. the year in which a deal was done) by PE-backed deals has generally hovered around the 5-6 year level (see Figure 2: Panel A). However, there is some indication that deals done during recessions tend to exit sooner than those completed during peak periods. This may be due to the former deals being completed at lower price multiples and benefiting from an upturn in performance when the economy recovered than is the case with the latter. Correspondingly, the mean months exit by calendar year has risen of late as it has generally taken deals completed at the peak of the market longer to exit (see Figure 2: Panel B).

³ For recent survey on buyout longevity see Jelic et al. (2018). For evidence on exits from venture capital investments see Cumming and Johan (2010).

Insert Figure 2 here

Although UK PE-backed firms exhibit a higher percentage of early exits than their European counterparts, there seems to be no evidence of the alleged short-termism of UK PE firms. The UK early exits tend to be associated with AIM IPO exits of relatively smaller buy-outs. The UK evidence seems to be in line with the World-wide evidence. For example, during the industry's heyday in the mid-2000s, the median holding period for portfolio companies was less than four years (Bain, 2018). PE firms were exiting around 40% of all buyout-backed deals in less than three years. More recently, those "quick flips" have retreated to around 20% (Bain, 2018).

It is however not clear how the PE model performs relative to the public market model. In general, it seems there is a declining performance trend since returns for buyout funds from the 1980s are higher than for those raised subsequently. However, considerable debate surrounds the performance of recent buyout funds relative to an appropriate market benchmark. In part, the conclusions to be drawn depend on whether performance relative to the S&P 500 is measured gross or net of fees. Also, when sample bias and overstatement of accounting values for non-exited investments is corrected, average funds underperform relative to the S&P 500 (for a recent review see Appelbaum and Batt, 2018). Top decile funds rather than top quartile funds experience enduring out-performance but it seems that with a maturing market excess returns are being competed away.

Sensoy et al's. (2014) analysis of the performance of limited partners' (LPs') PE investments finds superior performance of endowment investors during the 1991–1998 period, mostly due to their greater access to the top-performing venture capital partnerships. In the subsequent 1999–2006 period, endowments no longer outperform, no longer have greater access to funds that are likely to restrict access, and do not make better investment selections than other types of institutional investors. However, the authors also report that all types of PE investments continue to display superior performance compared to public markets, on average. They interpret the results as evidence of the general maturing of the PE industry. For example globally, the number of PE firms has risen steadily each year in the last decade reaching 7,775

in 2017. The number of active buyout firms exceeded 1,000 in all years during the 2006-2017 period.⁴

While there has been net growth in the number of PE firms over the past two decades, there is considerable churn (Gilligan and Wright, 2010). The secondary funds market has also grown substantially and evolved over time in purchasing portfolios where the GP needs a liquidity solution, where funds of funds are selling older portfolio or pension funds are selling non-core relationships, and distressed sellers which are now a now smaller part of the market.

Evidence regarding economic performance (i.e. profitability, productivity, employment) of portfolio companies suggests a decline over time, especially for public to private buyouts. While numerous studies confirm improvements in profitability, with PE firms expertise being important in adding value, these gains appear to be below those for first wave deals, especially for buyouts involving the delisting of corporations (for recent reviews, see Wright et al., 2018; Alperovych, 2018). Regarding total factor productivity, studies show significant increases post buyout with plants out-performing their sector post-buyout in contrast to the picture before the change in ownership (Lichtenberg and Siegel, 1990; Harris et al., 2005).

Regarding financial (i.e. stock market) performance, US evidence suggests a better performance of large PE-backed reverse LBOs than other IPOs (Cao and Lerner, 2009). UK evidence seems to be in line with the US evidence (Jelic et al. 2005). Furthermore, UK buyout IPOs do not significantly underperform in the long run. Interestingly, the performance of PE-backed buyout IPOs is not different from non-PE backed IPOs. This warrants further research as to what extent the benefits of the PE model continue once firms exit the buyout structure (Jelic et al. 2018).

With respect to employment, firm-level evidence is mixed but establishment level data accounting for job creation and destruction at establishment levels show that PE-backed buyouts are catalysts for a process of creative destruction not captured in firm-level studies (Amess, 2018). LBOs are heterogeneous in terms of whether they are driven by internal (MBOs) or external (MBI) management and investors (IBO), as well as with respect to their

⁴ Excludes PE firms that do not manage and invest out of distinct funds. PE firms are considered active for 10 years after raising their last fund. Source: Preqin as cited in Bain (2018).

vendor source. This variety has implications for employment effects. Employment on average increases in MBOs and declines in MBIs and IBOs. Growth in employment tends to be higher in divisional buyouts, private-to-private deals, and secondary buyouts (SBOs) compared to public to private buyouts and buyouts of firms in distress. Reductions in employment are most marked for nonproduction workers and employees performing offshorable job tasks, rather than for production workers and those performing routine and less human capital specific tasks. PE backed buyouts have been claimed to be followed by adverse effects on employee working conditions for employees. However, systematic evidence provides little support for such claims (Bacon et al., 2013; 2018). On the contrary, anecdotal evidence suggests that PE backed companies tend to employ more people than public listed companies. For example, The Carlyle Group and KKR & Co, each have more than 720,000 employees in their portfolio companies which compares favorably with any listed US company, except for Wal-Mart Stores, Inc. (The Economist, October 22, 2016).

PE backing can also enhance entrepreneurship and innovation in buyouts, helping to improve growth. New product development, process improvements and more effective patenting activity have been identified, although regarding R&D expenditure the evidence is less clear (Wright, 2018; Bruining, 2018; Bertoni, 2018).

Overall, the evidence on the recent performance of the PE model is mixed. More research is needed using deal rather than fund level data. There is also a relative paucity of research on private-to-private and private-to-public as opposed to public-to-private buyout transactions. This is surprising given that the vast majority of buyout targets are private companies and these transactions often use little leverage. It is, therefore, important to understand the economic rationale and performance of non-public-to-private buyouts. Similarly the economic rationale for buyout specialists that are engaged primarily in private-to-private transactions and do not require high leverage, is not well understood (Metrick and Yasuda, 2011).

3.2. Recent changes in the PE model

Globally, private equity investments during 2012-17 reached the highest level in history (see Table 4). There is however a disconnect between the value and number of deals reflecting record levels of dry powder, especially uncalled buyout capital. While PE funds globally raised record capital, they do not find enough attractive targets for their investments.

Public to private buyouts have always accounted for a modest share of the PE market in Europe, though there has been something of an increase over the last couple of years. In general there has been a recovery in overall PE deals numbers and value in Europe since the financial recession to above pre-2005-7 peak levels, though not in the UK (see Table 5). Two important transformations of the market are, firstly, that the previous dominance of the UK market has declined as other markets in Europe have developed. Secondly, the types of vendor sources of deals have changed (see Table 6). Secondary buyouts have grown both in terms of the number of deals and in relation to their share of the market. Similarly, private transactions, often involving the purchase of whole family firms, have become more important. In contrast, divestments to buyouts have tended to decline, as the peak of corporate restructuring programs to reduce diversification has passed.

Insert Table 5 here

Insert Table 6 here

In the last decade, institutional investors (including pension funds) significantly increased their allocation to PE. For example, their allocations increased from 3% (1997) to 12% (2007) (TheCity UK, 2010). The trend has continued since 2010. For example, sovereign wealth funds, public pension schemes, endowments and family offices now account for \$1.5trillion representing more than half of all private equity money (see The Economist, 7 August 2018). These institutions are playing more active roles as limited partners.

Although recent years have seen significant fund raising by PE firms, downward pressure on returns may in future mean that PE firms face reduced cash investment from certain investors that used PE firms as a third party service. Pension funds and sovereign wealth funds both use PE as a risky asset in their portfolio of investments. Increasingly, these institutions are making direct investments in their own portfolio firms (Wright & Amess, 2017). These direct investments could be co-investments (i.e. investments in a deal originated by a PE fund manager) or solo investments (i.e. investments originated and invested by institutional investors alone). Fang et al. (2015) find that these direct investments perform better than public market indices. This seems to especially be the case for investments in buyouts and those made in the 1990s. Evidence regarding outperformance of these deals relative to the corresponding PE benchmarks is less conclusive and tends to be concentrated in buyout transactions. The

authors also report that co-investments underperform the corresponding funds with which they co-invest whilst solo transactions outperform fund benchmarks.

Jelic (2011) reports an increasing trend in both the number of syndicated deals, number of financing rounds and the average investment per deal during the 1990s and early 2000s. More recently, however, PE firms increasingly prefer to invest alone. For example, the number (and value) of deals where more than one PE firm is involved has fallen by half since 2006. When PE firms invest together, the average number involved tends to be smaller than it was. The reasons for this were highlighted in the case of the purchase of Nielsen Media. This deal involved seven PE firms. The “high” number of PE firms alarmed antitrust regulators, complicated management and made it hard to exit from investments, since many potential buyers were already co-owners (The Economist, 26 July 2018).

After a sharp decline in the mean senior debt in buyout deals during the financial recession, especially in 2009, there has been a substantial recovery with the percentage of European senior debt almost back to peak levels seen in 2006-7 (see Figure 3). Traditional subordinated or mezzanine debt has evaporated as debt players provide unitranche debt and the entry of debt funds into the market provide another non-traditional lending source.

Insert Figure 3 here

Investment banks (e.g. Goldman Sachs, Morgan Stanley, JPMorgan Chase, etc.) are also allocating more resources to PE firms (The Economist, 26 July 2018). Their increased involvement is related to low interest rates but also changes in the banking industry as well as the availability of deal opportunities in the context of a generally stagnant M&A market. For example, the sharp rise in Fintech is taking away some of the services traditionally provided by banks. The extent of the impact on the market of the recent establishment of debt funds is as yet unclear as systematic data collection is limited and their regulation is subject to some debate. However, European data indicates that as yet the overall the trend to bank involvement in PE shows only a modest rise (see Figure 4). A further notable recent development is the growth of family offices as family-owned firms seek to diversify their portfolios through direct investment in private equity (see Figure 4). There is also a growing number of successful entrepreneurs setting up large funds rather than joining a PE fund or becoming an angel. For

example, Stanhope Capital is an £89m fund set up by 5 anchor investors who are successful entrepreneurs.

Insert Figure 4 here

As noted earlier, there has been a significant decline in IPOs. Correspondingly, SBOs have become a preferred exit route for PE investors. This transfer to a new set of investors effectively extends the longevity of the buyout governance structure. However, while some SBOs generate significant returns the evidence on the general returns from these deals is decidedly mixed at best. In a mature and competitive market, with significant new funds raised and existing funds needing to exit as well as a dearth of primary deals, investors may be funding poor secondary deals at inflated prices (Arcot et al., 2015). Success at organic growth in SBOs appears limited (Wang, 2012) but these portfolio firms are more likely to generate returns if they are funded by deal and sector experienced GPs (Degeorge et al., 2016) who can bring financial and consultancy expertise to the portfolio firm board (Jelic et al., 2019). Jelic et al. (2019), for example, show that the governance benefits in the SBO phase depend on the nature of the human capital of the PE directors on the portfolio company's board, especially regarding the balance between monitoring and advisory roles.

At present, evidence of the ability of PE firms to enable internationalization by SBOs as a growth route is lacking. This lackluster performance of SBOs raises questions about their own ability to achieve a successful exit. Indeed, the market is seeing a growth in third or fourth time buyouts whose performance has yet to be analyzed. At the same time, the regulatory environment remains favorable for the PE industry. For example, US tax reforms were mooted and new rules did not focus on carried interest and only slightly reduced the benefits of debt (see *The Economist*, 26 July 2018).

4. Conclusion

The private equity model consists of several contracting and governance layers. First, between limited and general partners. Second, between general partners and portfolio companies. Third, between different private equity funds and firms. There have been significant changes in each of the above aspects of governance during the last decade. For example, the relative anonymity

the PE industry enjoyed for a long time is no longer sustainable given the industry's global reach. Similarly, given the recent trends such as the increase in PE fund size and direct investments of institutional investors, the traditional management fees plus profit share model is difficult to justify.

Notably, exits have been dominated by SMBOs. Evidence of an evaporation, on average, of fund out-performance and a lack of primary deals calls into question market sustainability. Parity between secondary and primary buyouts and evidence on the challenges in realizing gains on the former to match those on the latter raise concerns about where future returns are going to come from. Furthermore, the growth in secondary buyouts has been accompanied by pre-emptive scouring of PE firms' portfolios by other GPs aiming to identify possible attractive secondary deals. This widespread activity suggests that, where potentially attractive deals are identified, prices will be bid up to a level where realizing sufficient gains becomes challenging.

Large institutional investors such as pension and sovereign wealth funds are increasingly making direct investments in their own portfolio firms thus changing LLP-GP dynamics. In an environment of a reduced number of attractive deals, especially primary buyouts, a greater focus on bilateral deals is emerging. These are distinct from traditional proprietary deals. Rather, they involve pre-emption rather than risking an auction where the deal might fall over as bidders are not prepared to pay the agreed price after due diligence has been carried out. PE firms as GPs may have an increasing role to play in the acquisition of portfolios of other GPs who need liquidity and/or are in distress. This raises possibilities to add value to more traditional secondary funds players.

PE firms typically invest in portfolio companies that are under-performing in some way but which tend to have higher than average cash flow for their sector (Wilson, 2018). A need for funds to be used to engage in entrepreneurial activities may place pressures on these cash flows and hence the ability to service higher debt levels. It is however not clear for how long the favorable regulatory and interest rate environment will remain. Interest rates are likely to go up and policy makers may remove distortions in taxation that give debt preferential tax treatment over equity. If the relative advantages of debt financing were to disappear, the PE industry will be forced to make further changes.

PE firms appear to have several options. First, they can aim to purchase at lower price multiples. Second, they can use more debt to leverage up returns. Third, they can seek deals with opportunities to increase gains from efficiencies. Fourth, they can seek profitable growth. Fifth, they can seek to realize gains through routes with higher exit multiples.

While there have been claims that listed corporations are now more likely to consider selling underperforming divisions to PE firms, the reality is that the first wave of the market was dominated by buyouts of divested divisions (CMBOR, 1990). This type of deal activity has since declined as the peak in corporate restructuring programs has passed. There are always likely to be fall outs from major M&A activity that generate divestment buyout opportunities, but the extent depends on the buoyancy of the general takeover market. The increasing role of hedge fund investors in listed corporations may help stimulate divestment deals. Acquiring under-performing divisions is also a possibility. Shareholder value strategies of recent decades would suggest that the scope for costs efficiencies is reduced. Coupled with auctions to enable corporate divestors to achieve sales prices that avoid EPS dilution of the parent, this situation places pressure on PE investors to seek gain from either organic or acquisitive growth. PE firms then need both governance expertise in the form of executives who can monitor and add value in order to identify upside possibilities that corporates could not. More complex opportunities might involve PE firms taking on larger corporate divisions that are in need of restructuring, themselves divesting parts of these deals rather than the corporate parent engaging in lengthy activities that are a distraction from their core business.

While there has been something of a growth in public to private deals, notably in the US, the evidence on the performance of these deals in the second wave compared to those completed in the first wave is less encouraging (Renneboog and Vansteenkiste, 2018).

The growth in PE equity and debt fund-raising as well as the almost unprecedented amounts of dry-powder waiting to be invested suggests we are far from seeing the eclipse of the PE market as some have argued. There has also been little evidence of the ‘stripping and flipping’, that is divesting assets and exiting within a short time period, that critics have accused the PE industry of. There is no evidence that the PE industry contributed to the financial crisis while evidence seems to be conclusive on how (regulated) banks contributed to the recent crisis. PE-backed deals are also no more likely to fail than comparable non-PE backed firms, with failed buyouts have higher debt recovery rates than failed listed corporations (see Wilson, 2018 for a review).

The claimed adverse effects of PE on employment and job quality also seem misplaced. Although there have been some stock market listings of PE firms to join the long-standing group of listed private equity (LPEQ) firms we have yet to witness a wholesale shift in this direction (Cumming et al., 2011).

The benefits of the PE governance model are also having spill-over effects as many directors of listed companies who, in the past, viewed PE firms as barbarians, are now replicating the beneficial aspects of PE. For example, they are clarifying the role of boards and taking on additional debt. Regulators recognize that private equity offers a compelling business model with significant potential to enhance the efficiency of companies both in terms of their operations and their financial structure (FSA, 2006).

Finally, recent developments in equity crowdfunding and other forms of fintech may have implications for the future of the PE model. These new sources of funding blur the distinction between public and private entrepreneurial finance. To some extent, by competing with traditional early stage venture capital, they may threaten to eclipse this form of funding (Mayer et al., 2018). However, while challenges arise for incoming investors due to the dispersion of ownership in firms financed by equity crowdfunding, PE may offer a preferable opportunity for later stage scale-up investment for entrepreneurs as well as an exit route for crowdfund investors compared to a public IPO or trade sale (Cumming et al. 2018; McCahery & Vermeulen, 2016).

In sum, rumors of the eclipse of private equity are exaggerated. The PE model and its accompanying governance role is here to stay but it will need to adapt, as it always has done.

References

- Alperovych, Y. 2018. The impact on productivity of management buyouts and private equity. Ch. 25 in Wright, M., Amess, K., Bacon, N. & Siegel, D. 2018. *Routledge Companion to Management Buyouts*. London: Routledge, pp.475-491.
- Amess, K. 2018. Leveraged buyouts: their impact on jobs and wages. Ch. 26 in Wright, M., Amess, K., Bacon, N. & Siegel, D. 2018. *Routledge Companion to Management Buyouts*. London: Routledge, pp.492-507.
- Appelbaum, E. & Batt, R. 2018. Are lower private equity returns the new normal? Ch. 14 in Wright, M., Amess, K., Bacon, N. & Siegel, D. 2018. *Routledge Companion to Management Buyouts*. London: Routledge, pp.248-277.
- Arcot, S., Fluck, Z., Gaspar, J.-M. & Hege, U. 2015. Fund managers under pressure: rationale and determinants of secondary buyouts. *Journal of Financial Economics*, 115: 102-135.
- Bacon, N., Wright, M., Ball, R. & Meuleman, M. 2013. Private equity, HRM and Employment. *Academy of Management Perspectives*, 27(1), 7-21.
- Bacon, N., Hoque, K. & Wright, M. 2018. Is job insecurity higher in leveraged buyouts? *British Journal of Industrial Relations*, forthcoming.
- Bain & Company, 2018. Global private equity report, 2018.
- Bertoni, F. 2018. Innovation in private equity leveraged buyouts. Ch. 19 in Wright, M., Amess, K., Bacon, N. & Siegel, D. 2018. *Routledge Companion to Management Buyouts*. London: Routledge, pp.375-389.
- Bharath, S. T. & Dittmar, A.K. 2010. Why Do Firms Use Private Equity to Opt Out of Public Markets? *Review of Financial Studies*, 23, 5, 1771-1818.
- Bruining, H. 2018. Resource orchestration post-management buyout. Ch. 22 in Wright, M., Amess, K., Bacon, N. & Siegel, D. 2018. *Routledge Companion to Management Buyouts*. London: Routledge, pp.418-440.
- Cao, X.J. & Lerner, J. 2009. The Performance of Reverse Leveraged Buyouts. *Journal of Financial Economics*. 91, 139-157.
- Cheffins, B., & Armour, J. 2008. The eclipse of private equity. *Delaware Journal of Corporate Law*, 33: 1-67.
- CMBOR. 1990. *Management Buyouts: Annual Review from CMBOR*. Nottingham: CMBOR.
- Cumming, D., Fleming, G. & Johan, S. 2011. Institutional Investment in Listed Private Equity. *European Financial Management*, 17, 594-618.
- Cumming, D. J. & Johan, S. 2010. Venture Capital Investment Duration. *Journal of Small Business Management*, 48, 228-257.

- Cumming, D., Johan, S. & Zhang, Y. 2018. Public policy towards entrepreneurial finance: spillovers and the scale-up gap. *Oxford Review of Economic Policy*, 34: 652–675,
- Degeorge, F., Martin, J., & Phalippou, L. 2016. On Secondary Buyouts. *Journal of Financial Economics*, 120, 1, 124-145.
- Doidge, C., K.M. Kahle and et al. 2018. Eclipse of the public corporation or eclipse of the public markets? 547, January, Working paper ECGI.
- Doidge, C., Karolyi, G.A. & Stulz, R.M. 2017. The U.S. Listing Gap, *Journal of Financial Economics*, 123, 3, 464- 487.
- Ellen Engel, E. Hayes, R.M., & Wang, X. 2007. The Sarbanes-Oxley Act and Firms' Going-Private Decisions, *Journal of Accounting and Economics*, 44, 1-2, 116-145.
- Fang, L, Ivashina, V. & Lerner, J. 2015. The Disintermediation of Financial Markets: Direct Investing in Private Equity. *Journal of Financial Economics*, 116, 1, 160-178.
- Financial Services Authority (FSA), 2016. Private equity: a discussion of risk and regulatory engagement, Discussion paper 06 (http://www.fsa.gov.uk/pubs/discussion/dp06_06.pdf).
- Gilligan, J. & Wright, M. 2014. *Private Equity Demystified*, London: ICAEW, 3rd edition.
- Gomes, A., Gorton, G., & Madureira, L. 2007. SEC Regulation Fair Disclosure, Information, and the Cost of Capital. *Journal of Corporate Finance*, 13, 2-3, 300-334.
- Harris, R., Siegel, D.S., & Wright, M. 2005. Assessing the impact of management buyouts on economic efficiency: Plant-level evidence from the United Kingdom. *The Review of Economics and Statistics*, 87(1): 148-153.
- Jelic, R., Saadouni, B. & Wright, M. 2005. Performance of Private to Public MBOs: The Role of Venture Capital. *Journal of Business Finance and Accounting*, 32, 643-681.
- Jelic, R. 2011. Staying Power of UK Buyouts, *Journal of Business Finance and Accounting*, 38, 7-8, 945-986.
- Jelic, R. & Wright, M. 2011. Exit, Performance, and Late Stage Capital: the Case of UK Management Buyouts, *European Financial Management*, 17, 3, 560-593.
- Jelic, R., Zhou, D., & Wright, M. 2019. Sustaining the buyout governance model: Inside secondary management buyout boards. *British Journal of Management*, forthcoming.
- Jelic, R., Ahmad, W., Murinde, V. & Wright, M. 2018. Buyout Longevity and post-exit performance, Ch.27 in Wright, M., Amess, K., Bacon, N. & Siegel, D. *Routledge Companion to Management Buyouts*. London: Routledge.
- Jensen, M. C. 1986. Agency costs of free cash flow, corporate finance and takeover. *American Economic Review*, 76, 323-329.
- Jensen, M.C. 1989. Eclipse of the public corporation. *Harvard Business Review*, 67, 5, 61-74.

- Jenkinson, T. & Sousa, M. 2015. What determines the exit decision for leveraged buyouts? *Journal of Banking & Finance*, 59, 399-408.
- Kahle, K. & Stulz, R.M. 2016. Is the American Public Corporation in Trouble? *Fisher College of Business Working Paper 2016-03-023*, November.
- Kaplan, S. N. & Strömberg, P. 2009. Leveraged buyouts and private equity. *Journal of Economic Perspectives*, 23: 121-146.
- Lichtenberg, F. & Siegel, D. 1990. The effect of leveraged buyouts on productivity and related aspects of firm behaviour. *Journal of Financial Economics*, 27(1): 165-194
- Ljungqvist, A., Persson, L. & Tåg, J. 2016. Private Equity's Unintended Dark Side: On the Economic Consequences of Excessive Delistings," *IFN Working Paper No. 1115*, November 23, 2016.
- McCahery, J. & Vermeulen, E. 2016. Venture Capital 2.0: From Venturing to Partnering. *Annals of Corporate Governance*, 1: 95-173.
- Mauboussin, J. M., Callahan, D., & Majd, D. 2017. The incredible shrinking universe of stocks – The causes and consequences of fewer US equities, Credit Suisse – Global Financial Strategies, 22 March.
- Mayer, C., Siegel, D. & Wright, M. 2018. Entrepreneurship: The Assessment. *Oxford Review of Economic Policy*, 34: 517–539.
- Metrick, A. & Yasuda, A. 2011. Venture Capital and Other Private Equity: a Survey, *European Financial Management*, 17, 4, 2011, 619-654.
- Rappaport, A. 1990. The staying power of the public corporation. *Harvard Business Review*, 68, 96-104.
- Renneboog, L. & Vansteenkiste, C. 2018. Public to Private Leveraged Buyouts. Ch. 7 in Wright, M., Amess, K., Bacon, N. & Siegel, D. *Routledge Companion to Management Buyouts*. London: Routledge.
- Ribstein, L.E., *The rise of the unincorporation*, Oxford University Press, 2009.
- Sensoy, B.A., Wang, Y., & Weisbach, M.S. 2014. Limited Partner Performance and the Maturing of the Private Equity Industry. *Journal of Financial Economics*, 112, 320-343.
- Stromberg, P. 2008. The New Demography of Private Equity. In Lerner, J. and A. Gurgun (Eds). *The Global Impact of Private Equity Report 2008, Globalization and Alternative Investments*, (Working Papers, World Economic Forum), 1, 3-26.
- TheCity UK, 2010. Private equity.
- The Economist, 2018. Barbarians grow up: As private-equity firms mature, the way they buy and sell is changing, 26 July 2018.

The Economist, 2017. Why the decline in the number of listed American firms matters, 22 April 2017.

The Economist, 2017. Alarms grows about over-exuberance in corporate lending, 1 July 2017.

The Economist, 2016. Private Equity: The Barbarian Establishment, 22 October, 2016.

Wang, Y. D. 2012. Secondary Buyouts: Why Buy and at What Price? *Journal of Corporate Finance*, 18, 5, 1306-1325.

Wilson, N. 2018. Distress, Failure and Recovery in Private Equity Buyouts. Ch. 28 in Wright, M., Amess, K., Bacon, N. & Siegel, D. *Routledge Companion to Management Buyouts*. London: Routledge.

Wright, M. 2018. Entrepreneurship, context and buyouts. Ch. 21 in Wright, M., Amess, K., Bacon, N. & Siegel, D. *Routledge Companion to Management Buyouts*. London: Routledge, pp.406-417.

Wright, M., & Amess, K. 2017. SWF and private equity. In G. Wood, Cumming, D. & Filatotchev, I. (Eds.) *Oxford Handbook of Sovereign Wealth Funds*, Oxford, UK: Oxford University Press.

Wright, M., Amess, K., Bacon, N. & Siegel, D. 2018. *Routledge Companion to Management Buyouts*. London: Routledge.

Wright, M., Thompson, S., Starkey, K. & Robbie, K. 1994. Longevity and the Life-Cycle of Management Buy-outs. *Strategic Management Journal*, 15 (3), 215-228.

Zhang, I.X. 2007. Economic Consequences of the Sarbanes-Oxley Act of 2002, *Journal of Accounting and Economics*, 44, 1-2, 74-115.

Zhou, D. R. Jelic, R. & Wright, M. 2014. SMBO: Buying Time or Improving Performance? *Journal of Managerial and Decision Economics*, 35, 2, 88–102.

Table 1: UK IPOs

Year	LSE-Total	LSE - Main	LSE - AIM
1998	74	40	34
1999	60	26	34
2000	196	70	126
2001	79	9	70
2002	57	14	43
2003	52	5	47
2004	161	17	144
2005	182	15	167
2006	143	22	121
2007	91	14	77
2008	20	4	16
2009	4	1	3
2010	37	11	26
2011	39	5	34
2012	34	7	27
2013	55	13	42
2014	87	30	57
2015	41	24	17
2016	44	12	32
2017	50	14	36
2018	32	11	21

Notes: Source LSE (2018). Classifications made by authors. Includes: UK incorporated financial and non-financial companies. Includes: PE-backed and non-PE backed IPOs. IPOs of investment funds (e.g. VC funds, REITS, investment trusts), investment companies and investment related instruments (e.g. preference, non-equity instruments) excluded. 22 IPOs from Specialist Fund Segment of the LSE excluded.

Table 2:
European PE-backed exits of Buy-outs/Buy-ins

Year	Number			Value €m		
	IPO	Secondary Buy-out	Trade Sale	IPO	Secondary Buy-out	Trade Sale
1998	46	59	153	4,159.0	2,822.0	4,736.0
1999	41	56	173	8,119.0	5,932.0	6,002.0
2000	28	60	182	5,420.0	8,251.0	10,182.0
2001	12	58	162	4,452.0	3,192.0	13,401.0
2002	16	81	163	6,945.0	10,647.0	7,025.0
2003	9	109	154	5,408.0	12,136.0	5,626.0
2004	38	158	206	9,007.0	20,395.0	17,783.0
2005	38	195	263	16,189.0	34,172.0	32,204.0
2006	39	246	270	21,846.0	53,937.0	36,405.0
2007	36	261	315	23,770.0	65,154.0	35,708.0
2008	2	148	227	27.0	22,031.0	26,281.0
2009	3	66	129	1,686.0	3,399.0	7,965.0
2010	15	148	145	21,957.0	26,848.0	19,885.0
2011	5	214	222	1,087.0	33,131.0	52,280.0
2012	2	156	184	3,777.0	28,422.0	25,671.0
2013	21	182	217	25,058.0	34,294.0	22,183.0
2014	45	206	228	44,385.0	30,721.0	41,808.0
2015	46	213	239	50,071.0	44,696.0	66,880.0
2016	21	201	210	19,101.0	34,657.0	47,311.0
2017	28	222	216	15,988.0	49,437.0	53,211.0
2018	9	167	137	7,530.0	34,843.0	31,091.0

Source: CMBOR/Equistone Partners Europe/Investec Bank (Year 2018 to end Q3 only).

Table 3 IPOs around the World

Year of IPO	Value of global buyout-backed IPOs	Priced within or above range (%)
2008	10	91
2009	17	75
2010	36	70
2011	40	83
2012	22	72
2013	58	79
2014	84	73
2015	60	80
2016	32	76
2017	42	78

Notes: IPO values are offer amounts in \$100 billion. Source: Dealogic as cited in Bain (2018).

Table 4: Global buyout investments, dry powder and P2P deals

Year	Buyout investments	Buyout dry powder	P2P
2005	352	0.26	63
2006	756	0.38	211.5
2007	762	0.44	202
2008	217	0.48	23
2009	101	0.48	13.5
2010	240	0.42	44.5
2011	287	0.39	37
2012	254	0.36	24.5
2013	301	0.43	54
2014	395	0.45	29
2015	559	0.48	50
2016	369	0.52	49.5
2017	440	0.63	90

Notes: All values in \$1,000 billion. Data for dry powder and P2P, rescaled by authors. Global buyout investments exclude loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change (Source: Dealogic). Global public-to-private deals includes add-ons; based on announcement date; includes announced deals that are completed or pending, with data subject to change (Source: Bain global public-to-private deal database, as cited in Bain,2018). Dry powder data represents year-end values (Source: Preqin as cited in Bain, 2018).

Table 5: Number and value of European PE-backed Buy-outs/Buy-ins

Year	Total Number	Total Value (€m)	Of Which UK Total Number	Of Which UK Total Value (£m)
1998	636	36,769.5	385	12,545.2
1999	706	51,946.8	355	14,760.0
2000	616	67,965.2	281	21,174.0
2001	563	56,711.1	261	15,501.5
2002	538	62,775.7	213	12,833.4
2003	580	62,947.4	211	14,472.5
2004	706	76,399.9	252	17,148.8
2005	856	127,401.0	259	22,676.5
2006	970	172,129.6	296	25,185.9
2007	1,021	173,112.2	333	44,046.2
2008	782	72,333.9	231	18,432.1
2009	438	21,446.1	115	5,026.7
2010	629	60,967.0	201	20,541.8
2011	638	65,835.8	197	13,477.7
2012	626	56,269.3	218	17,023.5
2013	594	60,605.7	199	15,884.0
2014	720	74,294.9	247	17,302.9
2015	712	91,395.5	224	20,992.6
2016	688	61,438.6	195	11,781.4
2017	711	100,432.8	195	27,453.2
2018	575	74,102.7	151	13,287.8

Source: CMBOR/Equistone Partners Europe/Investec Bank (Year 2018 to end Q3 only).

Table 6: Vendor sources of PE backed buyouts in Europe

Panel A: Number of deals

Deal Source	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Foreign Divestment	42	46	49	53	60	68	75	42	40	34
Insolvency	29	32	23	38	26	26	19	10	15	6
Local Divestment	97	114	107	99	118	137	102	95	70	44
Private	188	266	257	269	216	293	295	325	347	315
Privatisation	3	2	0	0	1	2	1	2	1	0
Public Buy-In	4	1	2	1	0	1	1	0	1	0
Public to Private	17	22	14	21	7	12	14	13	17	10
Secondary Buy-out	58	146	186	145	166	181	205	201	220	166
Total	438	629	638	626	594	720	712	688	711	575

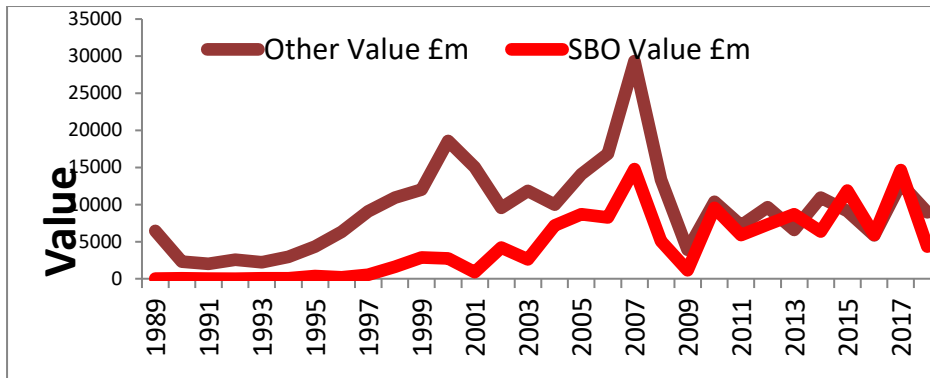
Source: CMBOR/Equistone Partners Europe/Investec Bank (Year 2018 to end Q3 only).

Panel B: Value (€m)

Deal Source	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Foreign Divestment	3,139	4,922	6,437	7,552	5,643	8,598	11,921	4,479	9,732	14,519
Insolvency	1,975	625	699	2,714	487	552	242	181	213	64
Local Divestment	5,111	8,873	12,549	7,679	10,450	21,902	15,892	7,047	12,417	4,001
Private	5,316	10,929	9,551	7,843	7,650	10,895	16,398	13,305	13,523	10,350
Privatisation	558	225	0	0	232	184	399	198	1,000	0
Public Buy-In	181	20	193	6	0	1	439	0	42	0
Public to Private	3,051	7,597	3,884	4,368	2,498	3,061	4,594	3,882	14,926	11,377
Secondary Buy-out	4,515	29,680	34,250	27,665	35,635	31,058	45,452	34,420	50,263	35,034
Total	23,847	62,872	67,563	57,827	62,594	76,252	95,337	63,512	102,116	75,344

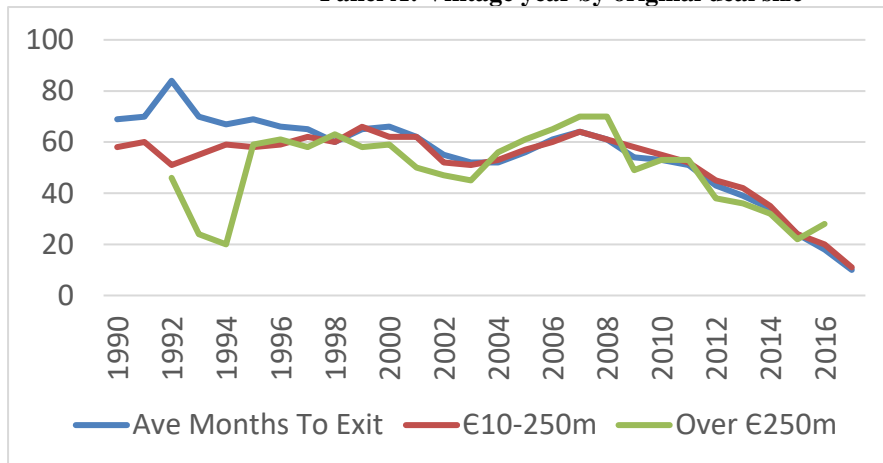
Source: CMBOR/Equistone Partners Europe/Investec Bank (Year 2018 to end Q3 only).

Figure 1: Secondary and Primary UK Buyouts



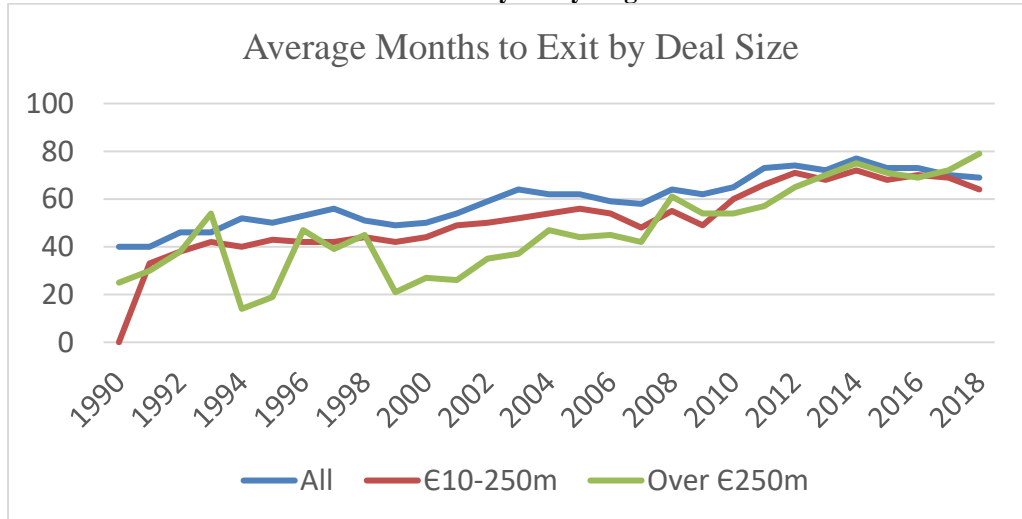
Source: CMBOR/Equistone/Investec

**Figure 2: Times to exit of European PE-backed buyouts
Panel A: Vintage year by original deal size**



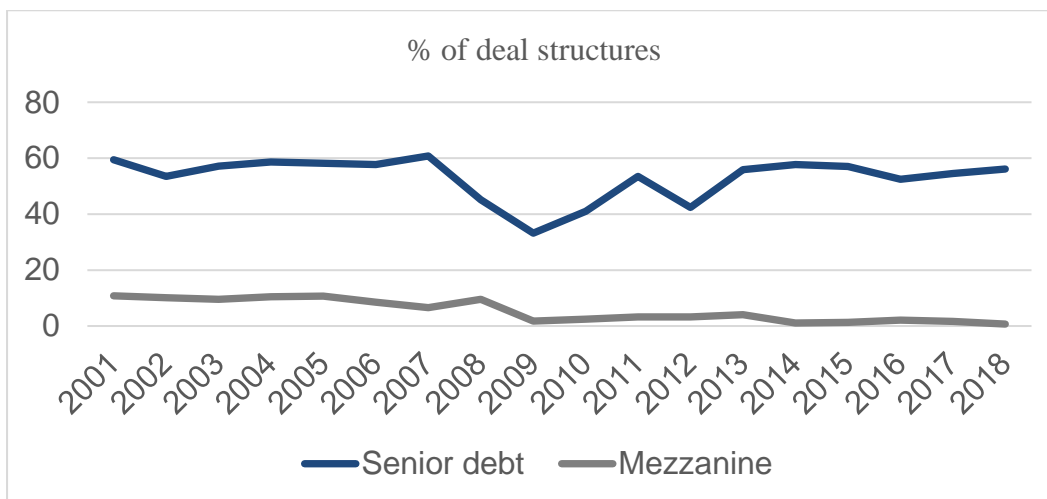
Source: CMBOR/Equistone/Investec

Panel B: Exit year by original deal size



Source: CMBOR/Equistone/Investec

Figure 3: Debt in financing structures of European deals

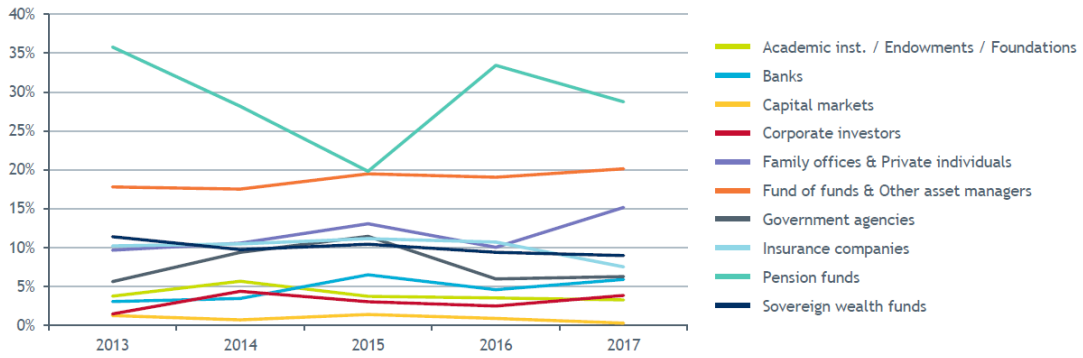


Source: CMBOR/Equistone Partners Europe/Investec Bank

Figure 4: European Private Equity Fund Raising by type of investor (2014-2017)

All Private Equity - Funds raised by type of investor

2013-2017 - Incremental amount raised during the year - % of total amount



Source: Adapted from Invest Europe