
Boom in Private Markets is No Private Matter

Role of PE in a Changing World

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Executive Summary

Over the past two decades, developed markets, especially the United States (US), have seen a decline in the number of public companies and a significant expansion in the universe of companies managed under private equity (PE) structures. PE has become an established source of capital for companies and an attractive source of portfolio return for a wide range of investors. In this report, we examine the underlying causes of this growth trend in PE and assess its implications for investors and policymakers.

In the first section, we review the scale of this trend to assess its importance, particularly in the US. We find that while PE assets under management (AuM) are still a fraction of those managed under public equity, they are rapidly growing. At the same time, public markets are getting increasingly concentrated, containing fewer companies and facing reduced inflows from initial public offerings (IPO).

In the second section, we attempt to understand how the behavior of individual stakeholders — investors, companies and regulators — contributed to this growth in PE. We find that PE has benefited from a unique combination of regulatory support and return-seeking investors willing to face some illiquidity.

In the third section, we look at the implications of this growth for investors, policymakers and the broader economy.

Section four concludes that the PE industry delivers positive macro outcomes in terms of innovation, value creation, productivity growth and overall changes in living standards. PE generates higher returns with illiquidity and has carved a distinctive place as an asset class in the investment landscape. However, we also believe that the scale and the systemic importance of PE are underappreciated and the regulatory approach toward private markets is in need of an update, with many reforms actually centered on boosting the appeal of listed equities.

1 What Happened? Changing Asset Landscape

While PE AuM is still a fraction of that managed under public equity, it is rapidly growing. At the same time, public markets are getting increasingly concentrated, containing fewer companies and facing reduced inflows from IPOs. Below, we review the scale of this trend to assess its importance.

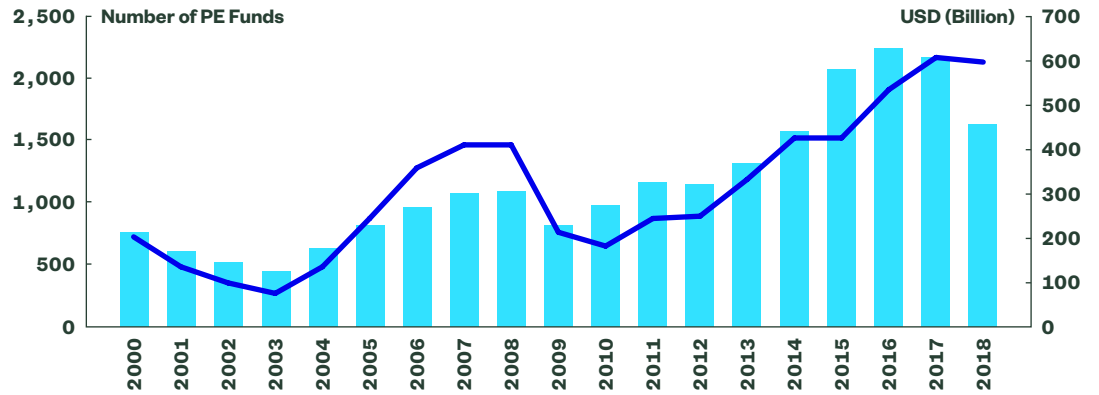
Since the turn of the millennium, the market capitalization of global listed public equity has increased by approximately 2.5 times — roughly the same increase as global nominal GDP¹. In contrast, AuM in PE has grown by more than six times over the same period², indicating a relative shift in growth toward PE in the global equity landscape³.

This rapid growth of the PE industry was foreseen by the leading capital structure expert Michael Jensen in his 1989 paper “The Eclipse of the Public Corporation”⁴. Jensen contended that private buyouts created a better incentive alignment and addressed the long-standing agency problem faced by shareholders of public corporations. At the time, PE had just completed its first boom phase, before shrinking in the early 1990s due to the collapse of the high-yield industry as a funding source⁵. The asset class then recovered in the mid-2000s.

The 2008 Global Financial Crisis (GFC) also affected the PE industry along multiple dimensions: (i) debt became scarce and expensive, (ii) buyouts started using less debt, (iii) the buyout size decreased and (iv) buyouts started focusing more on emerging markets, distressed debt, carve-outs and sales of non-core assets by parent companies. But by 2014, the PE industry exceeded its 2008 fundraising peak and quickly accelerated thereafter (Figure 1). Despite a sustained bull market, global equity market capitalization in June 2019 exceeded the 2007 watermark by only 44%, while the AuM of PE grew by 135%⁶. The PE industry faced favorable conditions such as a supportive economic environment, favorable credit financing and continued investor demand for larger funds.

Figure 1
PE Fundraising

■ Aggregate Capital Raised (RHS)
■ Number of Funds (LHS)

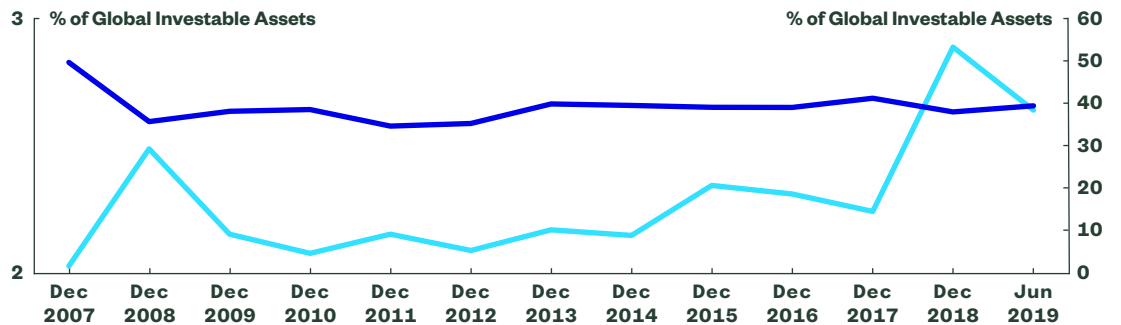


Source: Preqin, as at 31 December 2018.

Other private markets have grown even faster, albeit from a lower base — investable private real estate has grown 15 times since 2000, private debt has grown 18 times and private infrastructure 76 times. However, these asset classes are notably smaller in terms of AuM compared with PE. While the growth in private debt is an important trend, it coincided with a boom in public bond issuance (both sovereigns and corporates)⁷. Conversely, the growth in PE coincided with a number of developments in the public equity markets, which indicated a shift in favor of the former. The share of listed equities in the global investable asset universe fell in 2008 and then flattened out while that of PE continued to gradually climb up (Figure 2), although new flows into PE are subject to cyclical volatility⁸ (Figure 1).

Figure 2
Global Private and Public Equity — Share of Global Assets

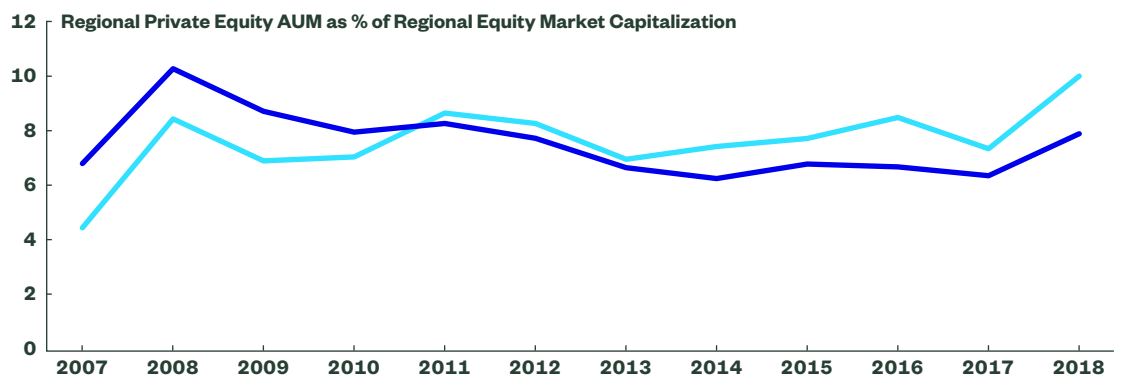
■ Public Equity, % of Global Investable Assets (RHS)
■ Private Equity, % of Global Investable Assets (LHS)



Source: MSCI, Preqin, State Street Investment Solutions Group, as at 31 December 2018.

Figure 3
Regional Patterns in PE

■ US and Canada
■ Europe



Source: Preqin, MSCI, State Street Global Macro Policy Research, as at 31 December 2018.

Between 1985 and 1989, 89% of all buyouts took place in the US, Canada or the United Kingdom (UK)⁹, but since 2010, the growth in European PE has been higher than that of the US and Canada (Figure 3). However, European PE is quite concentrated: in 2018, the UK, France and Germany attracted 69% of investments, with the Nordics and the Netherlands also having the most developed PE markets¹⁰. PE activity is also growing fast in emerging markets, but it still needs to gather greater momentum to be a good source of consistent extra returns for investors.

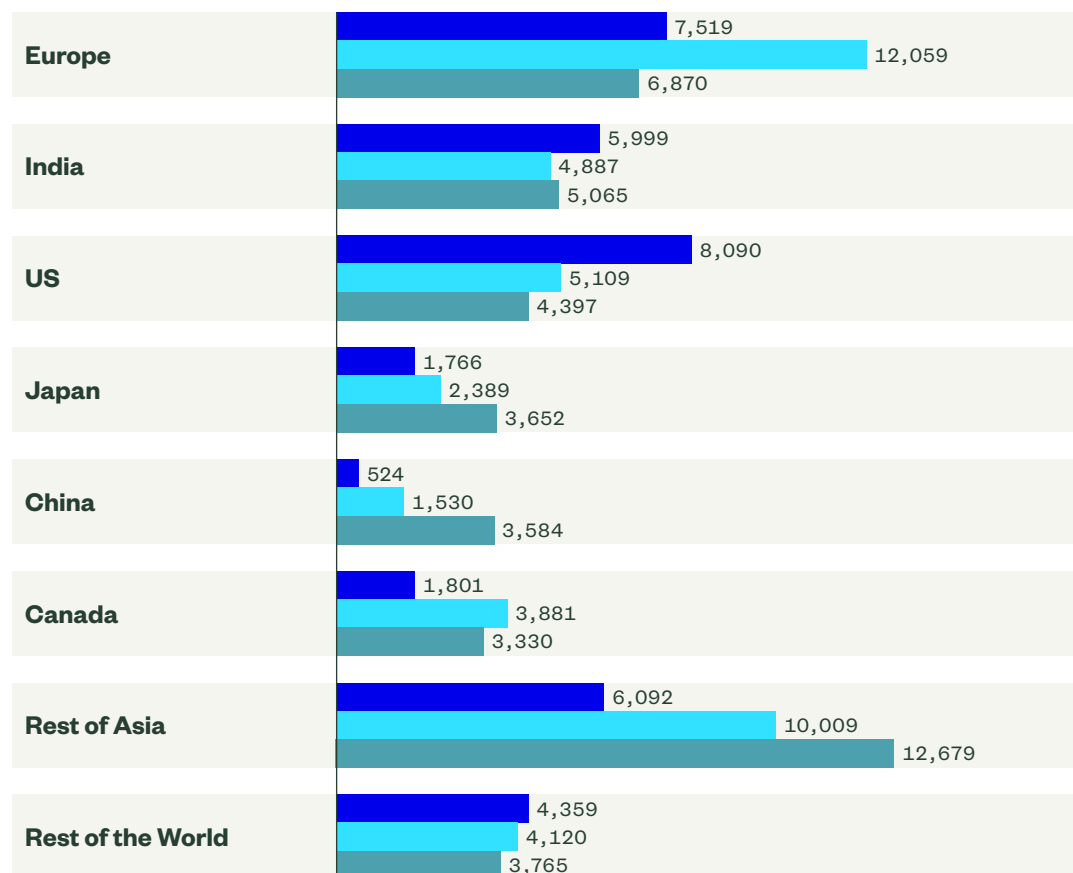
In fact, the 8%–10% ratio of PE to public equity market in Figure 3 does not capture the fact that there are more assets behind every dollar of PE than that of public equity. Companies managed under PE structures tend to have higher debt-to-equity ratios—up to three times higher than what is typical of public firms¹¹.

Debt is a part of the story in a much broader way. Some of the shift in the companies' capital structure has not been within equity but from equity to debt. Post GFC, corporations took advantage of the low interest rate environment, issuing debt in part to explicitly buy back equities, with the top-50 US companies doubling their leverage ratios between 2007 and 2017¹². However, for companies that specifically looked for equity funding, public markets have clearly become a less critical source. Milken Institute estimates that in 2018, US companies raised less than a quarter of their total equity capital through IPOs, down from three-fifths in 1999¹³.

The shift from public to private markets is further confirmed by the number of publicly listed firms. Globally, the number has more or less stagnated since 2006, but in developed markets it mostly fell in the last decade, Japan being the major exception (Figure 4)¹⁴.

Figure 4
Number of Publicly Listed Firms in Selected Regions¹⁵

■ 1996
■ 2007
■ 2018

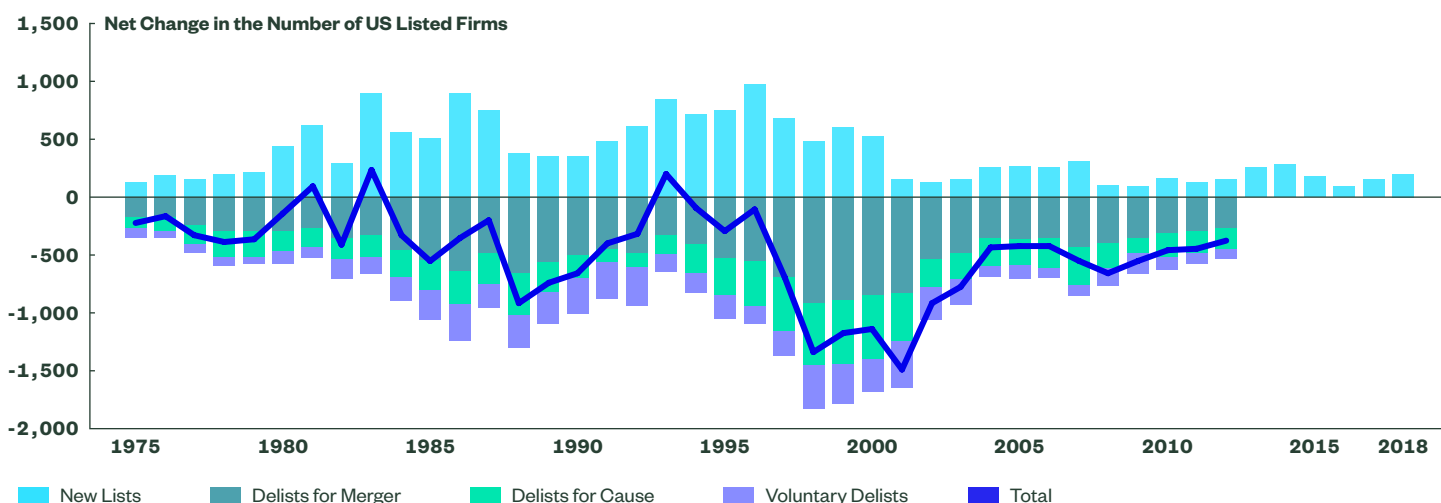


Source: World Bank World Development Indicators Database, as at 31 December 2018.

The shift in the number could be driven either by the lower entry of new companies or by the exit of companies from the public market. Doidge, Karolyi and Stulz (2017)¹⁶ estimate that there was a structural break in 1997, after which the number of US-listed companies started deviating from the earlier multi-decade trend. According to the authors, 54% of the 'listing gap' could be explained by lower 'new lists' and 46% by higher 'delists'. Some of their data is reproduced in Figure 5, which shows that 'delists' are dominated by M&A activities. The same authors attribute the increase in non-US IPOs to an increase in financial globalization as well as a decline in US IPOs.

M&As by themselves do not change the size of the public equity market, unless a public firm is acquired by a private one, although it may have other implications for the market's functioning. However, the slight uptick in the voluntary delisting rate and the significantly lower number of new lists do indicate that companies are able to source alternative capital on acceptable terms.

Figure 5
**Historical Drivers
 Behind Number of Public
 Companies in the US**



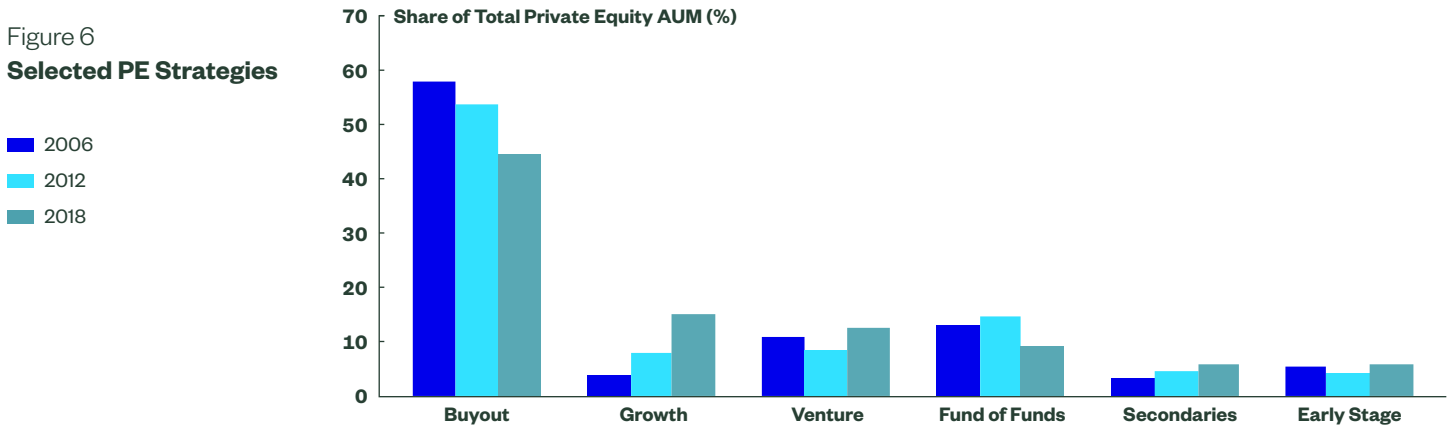
Source: Centre for Research in Security Prices as used in Doidge, Karolyi and Stulz for 1975–2012, World Federation of Exchanges for 2013–2018, for new listings only.

While only 0.5% or less of public companies get delisted every year, examples of voluntary delistings include some prominent names such as Axel Springer (2019), Burger King (twice — 2006 and 2012), Dell (2013), Hilton (2007) and Sotheby's (2019). Sometimes, they are taken over by private investors via leveraged buyouts (LBO)¹⁷ — a common PE strategy involving a debt-financed takeover of an established company, which helps explain some of the 'outflow'.

However, public companies are not the only targets of LBOs. Even in the late 1980s, only half of the companies targeted by LBOs were in the public markets — which went down to a third during 2005–2007. In any case, the share of buyouts in total PE assets is declining (Figure 6).

The lack of 'inflow' is associated with the availability of capital under different PE strategies, targeting firms in the earlier stages of their development — specifically *early stage (seed/start-up), venture* and *growth*. Such funds use equity capital to expand companies' product portfolios, acquire bolt-on businesses or achieve economies of scale.

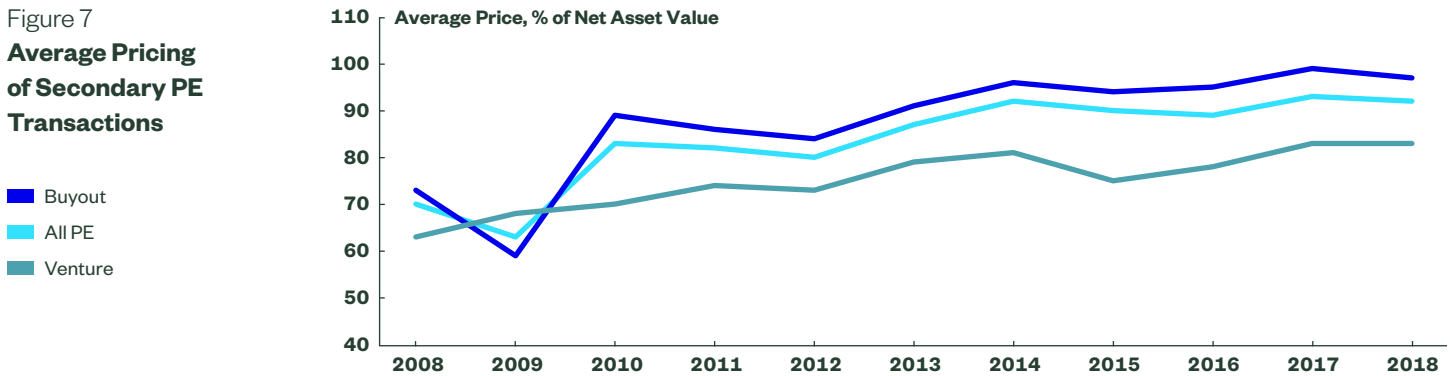
Figure 6
Selected PE Strategies



Source: Preqin.

Two further insights from Figure 6 are the decline in the fund of funds model, indicating increasing investor sophistication and growth in secondary markets. PE investments are inherently illiquid, lacking centralized exchanges, but the growth in the industry's scale has created more opportunities for investors to sell their stakes. The volume of secondary transactions has increased tenfold since 2005¹⁸ and pricing has exceeded its pre-crisis levels of 80%–90% after recovering from a trough in 2009 (Figure 6). The role of secondary markets is growing more important as IPOs are becoming less and less relevant as a form of PE exits¹⁹: there are more general partner (GP) led secondary transactions now, which used to be earlier dominated by limited partners (LP) selling their stakes.

Figure 7
Average Pricing of Secondary PE Transactions



Source: Greenhill, as at 31 December 2018.

As the PE industry increases in complexity and its scale goes up, the role of larger players increases as well. From 2012 onward, more than half of all PE fundraising has been done by funds with over US\$1 billion in assets²⁰. McKinsey estimates that the share of top-20 private market firms had gradually declined in 2000-2014 but is now steadily going up. Within PE, the top-20 players raised 23% of LP capital in the past 10 years but sit on 30% of dry powder today²¹. The scale of those firms allows them to service bigger institutional clients and often co-invest with those clients directly into specific companies, as the share of co-investments in total AuM grew from 0.3% in 2000 to 2.1% in 2018. That said, the PE industry remains fragmented relative to certain segments of the financial industry: for comparison, the top-20 asset managers account for 54% of the worldwide AuM²².

Why Did it Happen? Factors Behind the Shift Toward PE

Here, we attempt to understand how the behavior of individual stakeholders — investors, companies and regulators — contributed to this growth in PE. We find that PE has benefited from a unique combination of regulatory support and return-seeking investors willing to face some illiquidity.

Any transaction requires two willing parties. Irrespective of companies leaving public markets for private ones or not even considering public markets in the first place, it is clear that they respond to objective incentives to raise capital privately, thereby creating the *supply* of private investment opportunities. The viability of this model requires investors who are willing and able to place capital into private markets — i.e., the *demand* for private investments. Let us examine the supply factors first.

Supply Factors

Raising large-scale equity capital requires interaction between a company and a number of investors. This process has been regulated in some shape or form since at least the 1930s, and the specific aspects of *regulations* have affected the capital structure incentives, as they affect the relative costs of going public or staying private.

The landmark piece of legislation aimed at protecting public equity investors in the US was the Sarbanes-Oxley (SOX) Act passed in 2002 in the wake of major corporate scandals including that of Enron. It enhanced disclosure and auditing requirements for public companies, affecting the relative incentive to list in terms of related compliance costs. Such costs exceeded original expectations by 4 times²³; one paper²⁴ estimated the costs to be at 0.29%–0.62% of annual sales as of 2008, which would have almost certainly gone up due to additional requirements of the 2010 Dodd-Frank Act.

However, the translation of SOX into fewer listings is not entirely clear. SOX was passed in 2002, but the number of listed companies in the US peaked in 1996 and has been falling gradually, rather than falling off a cliff after the Act was passed. Private companies have to comply with many provisions of SOX as well²⁵, while smaller public companies can rely on a variety of exemptions; some governments (for example, the UK) have even encouraged the creation of second-level exchanges with lighter regulations.

Government regulations are not the only costs associated with a public listing. Exchanges impose their own requirements²⁶, while IPOs can potentially be very costly, constituting only 9%–11% of the amount raised, according to the Organization for Economic Co-operation and Development (OECD)²⁷. Additionally, there are friction costs imposed by investors, with C-suite executives perceiving short-termism of public market investors to be a significant problem²⁸. A report by McKinsey and Focusing Capital on the Long Term (FCLT)²⁹ estimates that 'long-term firms' (i.e., firms that manage to avoid the problem) generate 47% more sales growth and 36% more earnings growth. The medium-term equivalent of this issue is activist investors trying to accumulate stock and have an aggressive impact on companies' governance³⁰. Finally, many investors demand further, non-mandatory disclosures around environmental, governance and social (ESG) issues, while firms bear costs related to investor relation activities.

However, while the aforementioned costs may well make companies more cautious about going public, they would not be able to avoid them without the regulatory feasibility of raising similar amounts of capital privately. Elisabeth De Fontenay (2017) points out that before 1982, large companies could choose to stay private if they were controlled by a small number of partners/founders, but wider equity-raising exercises were difficult to conduct without burdening them with legal requirements applicable to public companies³¹.

This started changing with a 1982 rule permitting offerings, which were not to be registered with a regulator, to 'accredited investors'. Over time, the definition of accredited investors widened and the cap on maximum number of investors (initially 100) was relaxed; a 1990 regulation permitted such private investments to be syndicated and re-sold to institutional investors. The JOBS Act of 2012 further removed the restrictions on communicating private offerings and raised the shareholder cap on private companies from 500 to 2,000 — which also applied to the maximum number of limited partners in a PE fund. Therefore, at least in the US, regulatory changes may have created both 'push' and 'pull' incentives for companies to turn to private markets.

Of course, not all regulatory developments were necessarily liberalizing PE. The Dodd Frank Act of 2010 required PE funds with an excess of US\$150 million in assets to register with the Securities and Exchange Commission (SEC). The European Union's Alternative Investment Fund Managers Directive of 2011 will apply to managers of PE, real estate and hedge funds, based, marketed or managed in the EU, imposing reporting and leverage requirements on fund managers.

One could argue that these regulatory and market developments coincided with the growth in 'weightless corporations' — companies that barely have any hard assets but have high levels of software, intellectual property and R&D. According to the OECD, the share of intangible assets of US-listed companies increased from 27% in 1980 to almost 40% in 2016³². Such companies can achieve the same levels of revenue with much less capital and can postpone IPOs for much longer; their capital needs are less lumpy and can be met by multiple rounds of private fundraising, which the regulation now permits.

Demand Factors

Even if private fundraising were to be both feasible and attractive, companies can only engage in it if investors are willing to participate. For a variety of reasons, both the willingness and the ability of investors to put their money into PE have increased over the past one decade. PE funds attract both institutional³³ and private money, but some of the largest investors in the PE asset class are pension funds that match their long-dated liabilities to PE assets in their portfolio.

Why is there an increase in the objective willingness to allocate to PE? One major post-GFC demand driver is a search for higher expected returns. As interest rates are coming down, many investors are gradually moving up the risk scale to try and restore their rates of return — first by moving into equities and then into alternative assets, including PE.

What can PE offer to return-seeking investors? When allocating to PE, investors not only assume the traditional range of equity risks but also an inability to quickly liquidate the asset. The capital is locked up for years and, in the case of a typical PE fund, the investor pre-commits to respond to the GP's capital calls. Illiquidity is an additional risk borne by investors for which they, theoretically, should be rewarded with additional return, often referred to, incorrectly in our view, as 'illiquidity premium'.

While the additional return is clearly justified from an investor perspective, public and private equity, in theory, constitutes the same layer of capital, so there is nothing 'automatic' about such a premium³⁴. If the premium exists, it has to reflect some genuine differences in the performance of companies managed under private and public company ownerships. Mark Anson (2010) suggests that at the very least, the PE premium is driven, in roughly equal shares, by liquidity, leverage and manager skill.

There is no consensus on the size of such a premium, in part due to considerable difficulties in measuring PE returns and the lower disclosure requirements of PE funds. Accounting experts in the area note the following issues: (i) PE is more risky and illiquid compared with other investments, which make it hard to compare the asset class with other investments, (ii) its accessibility to investors is limited (most investors build exposure gradually through a closed-ended fund) and (iii) there is a lack of widely accepted benchmarks. These factors prevent a fuller understanding of the risks, returns and correlations of PE investment returns for investors seeking to allocate to this asset class³⁵.

While investors and researchers use a variety of return metrics such as the internal rate of return (IRR) and multiples of invested capital (MOIC), such attempts to compare private and public equity performance have mainly converged over 'public market equivalence' methods (see, for instance, Kaplan and Schoar (2009)). These methods attempt to both converge the timing of entries and exits between the two asset classes but also try to account for the underlying risk characteristics of the portfolio companies. On that basis, the extra return has been estimated at around 3% over the S&P 500³⁶ — something which is attractive for longer-term, growth-oriented layers of investors' portfolios.

There is some evidence that return-starved limited partners care more about absolute returns rather than risk-adjusted premium³⁷, but the existence of the premium across a wide PE universe may not in itself be sufficient to satisfy investors. First, as discussed above, the PE industry charges high fees, and some studies show that the fees offset the better performance³⁸. Second, some sceptics argue that the premium can be attributed to the underlying risk characteristics of companies, such as leverage, small capitalization and cheap valuations, and therefore can be replicated with public stocks³⁹. Third, there is significant variance in the performance of individual fund managers; investing with the bottom half of the managers may lock investors to poor performance, especially as it tends to be sticky⁴⁰. A Center for Economic and Policy Research report notes that even for the top 25% of PE funds, the multiple of return over public market equivalent shrank from 1.91 in 1990s to 1.19 in 2010⁴¹.

Yet, the unique features of PE include the ability of a GP to focus on improving a company's performance by ignoring public market movements; being close to management decisions; and reacting flexibly and quickly to industry developments. Jensen points to smaller and more flexible boards and a better incentive alignment (see section III) as well. The findings suggest the presence, on average, of positive but heterogeneous skills at the deal-partner level in large PE transactions⁴².

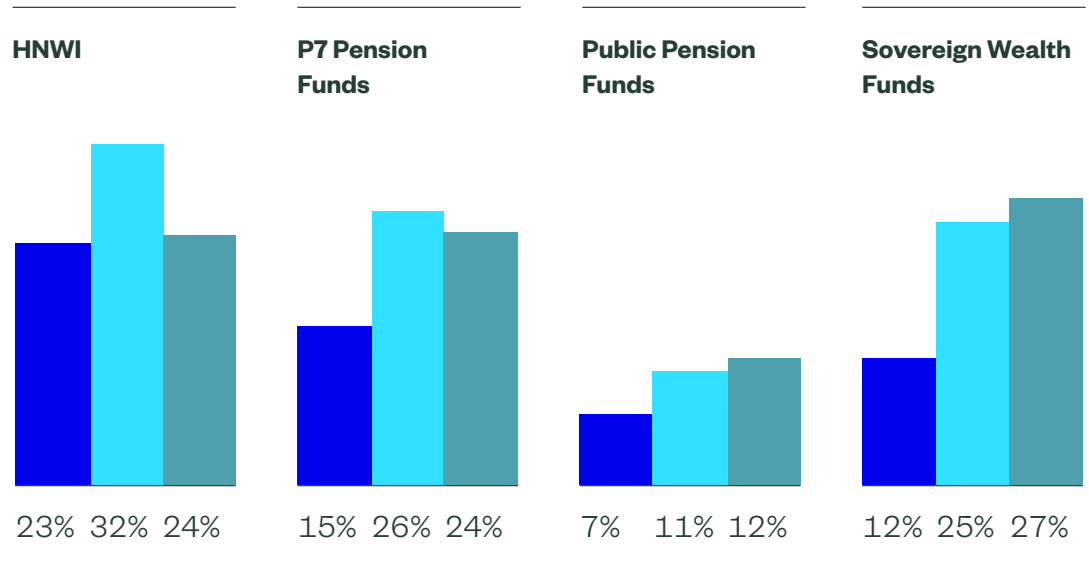
Another demand driver is the potentially lower volatility, but there is an inherent problem in comparing the volatility of public and private equity, as the former can be measured daily and the latter only quarterly. Even at those intervals, quarterly unrealized valuations of PE are subject to a lot more discretion. A State Street paper⁴³ argues that if PE indices were to be appropriately de-smoothed, their volatility would become similar to that of small-cap earnings expectations. In other words, the underlying companies in a PE fund are not inherently less risky, but investing through PE protects investors from the 'excess volatility' of equity markets unexplained by the volatility of earnings expectations. A similar argument is that due to the greater heterogeneity of PE companies and the lack of a clear benchmark, a portfolio containing PE could help investors diversify from market beta.

Whether or not gross or risk-adjusted illiquidity premia hold, the demand for PE has been subject to regulatory and stakeholder tailwinds. For example, the US venture capital industry received a regulatory boost in the mid-1970s, when the capital gains tax was reduced and the Employee Retirement Income Security Act was passed by the Congress, which allowed US pension plan managers to enter into a more balanced custodianship and clarified their eligibility to invest in PE funds. More recently, global private and public institutional investors have significantly increased their allocations (Figure 8) — permitted by either more favorable regulation or explicit government policy. For example, the top-16 public pension funds collectively doubled their PE exposure between 2008 and 2016, while sovereign wealth funds backed some of the largest PE funds⁴⁴. The data in Figure 8 reflects the allocation to broader alternatives (PE, private credit, real estate, commodities and hedge funds), but PE allocations are usually directionally similar.

These re-allocations by large institutions were symptomatic of the gradual 'institutionalization' of the PE industry. Figure 9 looks at the count of PE investments (whatsoever their value), where the growing role of institutional investors is visible. It is also notable how much the share of fund of funds declined, as investors built their own preferences for managers, strategies and geographies, among others. As endowments and foundations retreated somewhat due to their overexposure to PE, government-backed investors stepped in alongside corporate buyers who view PE investments as part of their growth strategy. Regardless of their motivations, established institutional investors with their high degree of professionalism do not change strategic directions quickly, and their presence indicates that demand for this asset class is well-entrenched in the asset owner universe.

Figure 8
Asset Owners' Allocation to Alternatives⁴⁵
 % of Total Assets

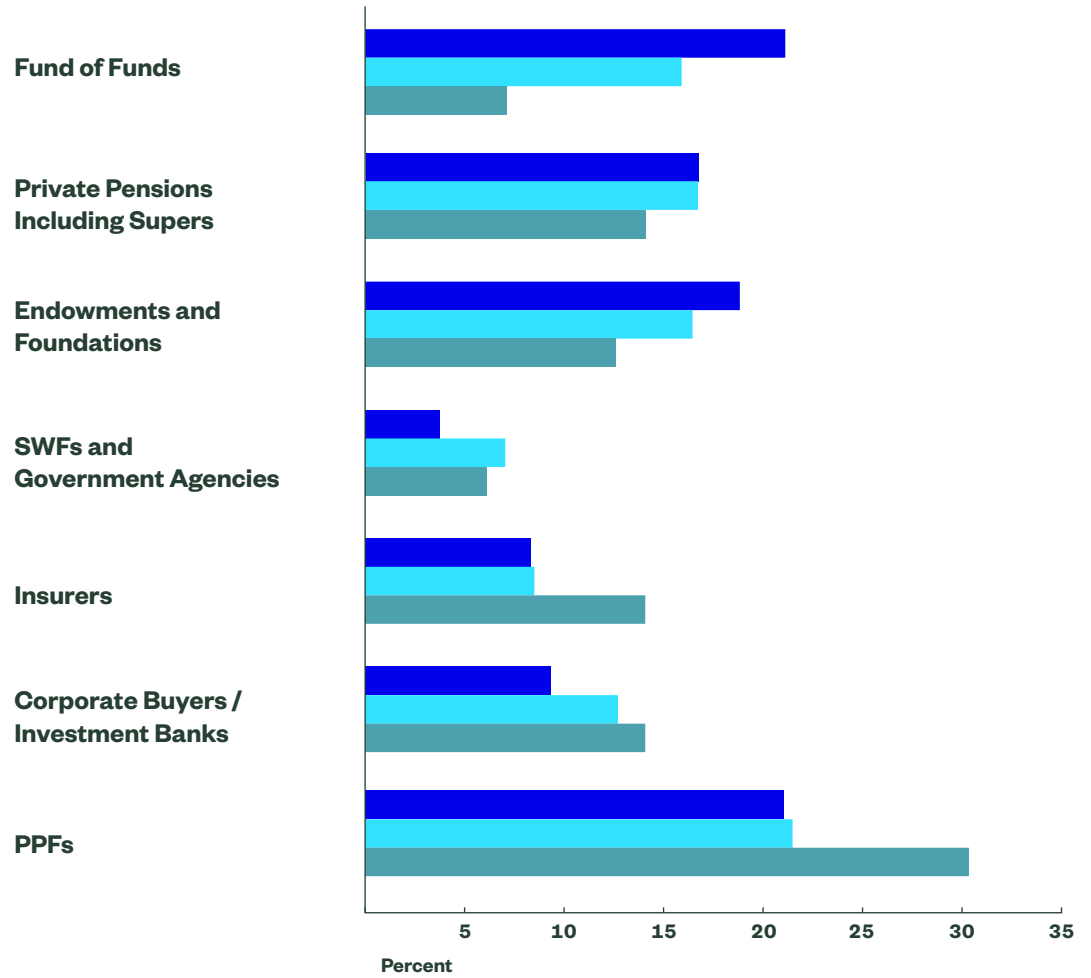
■ 2007*
 ■ 2013
 ■ 2016



Source: HNWI — Caggemini, P7 Pension Funds — Willis Towers Watson, otherwise State Street Global Macro Policy Research, as at 31 December 2018.

Figure 9
Evolving Investor Universe
 Share of Investor Group in the Count of PE Investments Made During the Year

■ 2003
 ■ 2010
 ■ 2017



Source: Preqin, State Street Global Macro Policy Research, as at 31 December 2018.
 PPFs — Public Pension Funds; SWFs — Sovereign Wealth Funds.

In this section, we look at the implications of PE's growth for investors, policymakers and the broader economy.

Broad Macro

The growth of the PE industry has been intimately linked to the growth of technology (e.g., AI, robotics and biotech) and the transformation of several industries (e.g., retail, finance and healthcare). Venture capital has led to tremendous innovation and greater sectoral productivity.

In addition, PE expanded the investment opportunity set and served as a wake-up call for other asset classes and for public companies competing in the same sectors. The organizational structure, incentive structure and expert skills of GPs along with funding mechanisms of PE have affected product and labor markets and investment policies⁴⁶.

Corporate Governance

Without the benefit of hindsight, in 1989, Jensen considered PE to be a vastly superior model of corporate governance, compared with the traditional public corporation. His main argument was around incentive alignment: the revenue sources for PE firms or GPs that manage the PE funds come from performance-linked management fees. By imposing hurdle rates in the partnership agreements, LPs ensure GP behavior is consistent with their interests by: (i) preventing excess risk taking, (ii) preventing delays in exit, (iii) ensuring LPs earn minimum returns that are higher than from the public market and (iv) eliminating GPs that do not deliver successful investments. Furthermore, GPs have a controlling stake in the companies and manage them through leaner structures, with smaller but more active boards⁴⁷.

Some researchers have cast doubt on the idea that fees act as a sufficiently strong incentive. David Swensen (2000) points to studies estimating that up to 62% of the fees are fixed and that the fees cumulatively amount to almost 20% of the AuM. Investors in public companies have also stepped up efforts to improve the quality of boards and improve the incentives of management, to reduce the agency problem.

There are also concerns around transparency: while disclosures in private companies are subject to laws and industry standards, GPs have a lot more discretion in PE structures. The reluctance or the adoption of a slower path toward a public offering has been amplified by private owners' desire to retain the regulatory freedoms coupled with the lack of visibility that private ownership allows.

This has spilled over into public markets in the form of an erosion of governance standards in several large IPOs. In particular, many tech IPOs have been characterized by multi-class voting structures, whose main feature is original founders retaining disproportionate voting rights compared with new shareholders. About 25% of new listings in 2017 contained dual-class voting rights (half of which were permanent in nature), compared with just 1% in 2005, with the larger deals typically being dual-class⁴⁸. These practices have triggered resistance from institutional investors and asset managers as investors suspect they deliver weaker returns over the long term⁴⁹. That said, there are industries and companies where the role of the founders can disproportionately drive performance. In such cases, both PE structures and multiple share classes can allow more flexibility in terms of retaining the founders' role at early stages.

In essence, this power imbalance is the default state of corporate governance at private companies. Individual share owners, either directly or as limited partners in a PE fund structure, are exposed to management choices of dominant shareholders (typically founders or general partners). For wider corporate governance, this used to be irrelevant as the relative size of private companies was insignificant at a macro level, and typically private companies were pursuing an eventual public listing with normal voting rights distribution. However, in a world where those conditions appear to be changing, spill-over effects could be considerable and could lead to a wider dilution of corporate governance standards.

This dynamic raises questions regarding safeguarding shareholder rights in an environment where such trends continue unabated. For PE, initial signs include the gradual formation of bodies representing passive shareholders or limited partners, such as the creation of the Institutional Limited Partners Association (2002) and their authorship of Private Equity Principles (first in 2009 and updated again as recently as 2019). More substantial changes would require regulatory or legislative actions.

Similarly, the guardians of public exchanges may consider pushing for reforms that ease some of the regulatory and disclosure burden on listed companies⁵⁰. Rising disclosure standards and the challenges of specific stakeholder issues have contributed to a higher readiness in regard to taking companies private (due to rising transaction costs as listed on Section II). However, any backtracking in this space could create risks for the analytical and institutional maturation of ESG investing.

Challenges for Policymakers / Systemic Issues

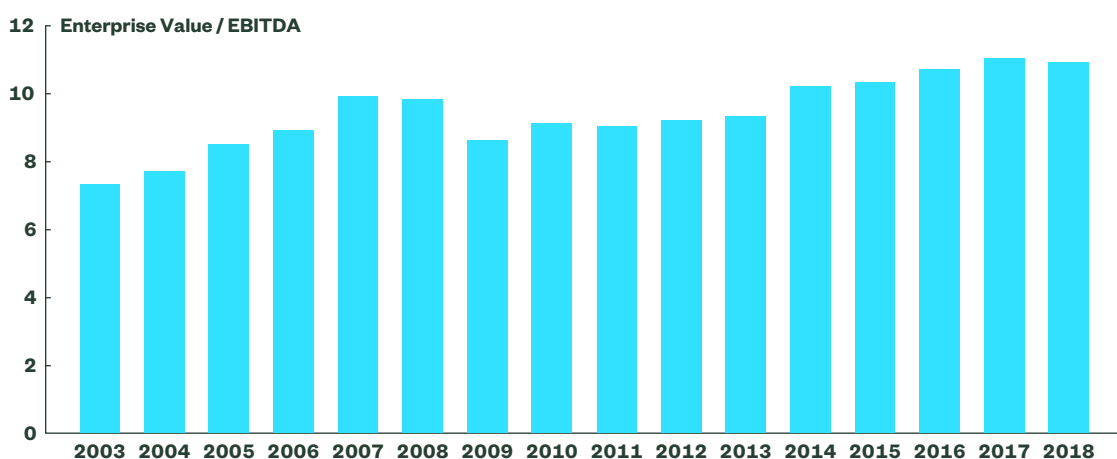
There are several potential systemic issues arising from the trends listed above. First, the aggregate deterioration in median corporate governance practices could have wider ripple effects across the economy. Policymakers may ask whether the relative growth in market value residing in private ownership could affect the overall transparency of the corporate sector. This could allow for the rise of systemic conflicts of interest in the economy that could be out of regulatory oversight. In this regard, PE funds have exhibited an inclination toward building mega-sized funds, with annual fundraising in excess of US\$5 billion, accounting for a quarter of all fundraising in 2017 and nearly five times the share in 2010⁵¹.

In parallel, a relatively smaller number of very large asset owners are entering private markets increasingly as co-investors. Coupled with a gradual shrinking of public markets and fewer IPOs, these trends shrink the pool of potential buyers. The end result could be that a growing number of private companies may face a quasi-oligopolistic set of strategic investors with a web of conflict of interests due to cross-holdings, potentially distorting value creation and derailing equitable distribution of returns. In this regard, there is an interesting trend of GPs themselves becoming listed. While Jensen (2007) sees it as undermining PE's advantages, one could argue that it provides public market investors with a hedge against PE — at the very least, they could benefit from the strong fee flow, even if they do not believe that PE could outperform private markets.

Second, the relative fortunes of public and private markets are interlinked. As mentioned earlier, some companies have delisted from exchanges in pursuit of strategic flexibility as well as lower disclosure and regulatory burdens without having to fear the loss of access to capital. This diminishing trade-off is operating as a gravitational pull away from public listings. However, it fails to capture the fact that much of the success of private markets is based on healthy, functioning public markets. According to De Fontenay (2017), private markets free ride on the price discovery mechanisms of public markets, freely taking price signals as reference points for their own valuations and transactions. Leaving this trend unchecked could create bigger imbalances and weaker capital markets in the future⁵².

The third systemic issue is the increased leverage in non-regulated entities. On the one hand, this is a typical cyclical phenomenon, as leverage increases toward the end of an economic cycle. On the other, the current leverage exceeds the pre-2008 high, which was clearly a reflection of a credit boom. Highly leveraged buyouts, i.e., 6 times leverage or greater, accounted for nearly two-thirds of the US LBO market in 2018, higher than in 2007, the previous all-time peak⁵³. It is even conceivable that true leverage could be higher if the input calculations of the purchase multiple are overstated, given that roughly a third of IPOs valued in excess of US\$1 billion failed to match their latest private valuation round⁵⁴. Figure 10 demonstrates that the average EBITDA purchase price multiple for US LBO transactions now hovers around 11 compared with the sub-10 high of 2007–2008.

Figure 10
**Average EBITDA
 Purchase Price
 Multiple for US LBO
 Transactions**



Source: Bain & Company, Global Private Equity Report 2019.

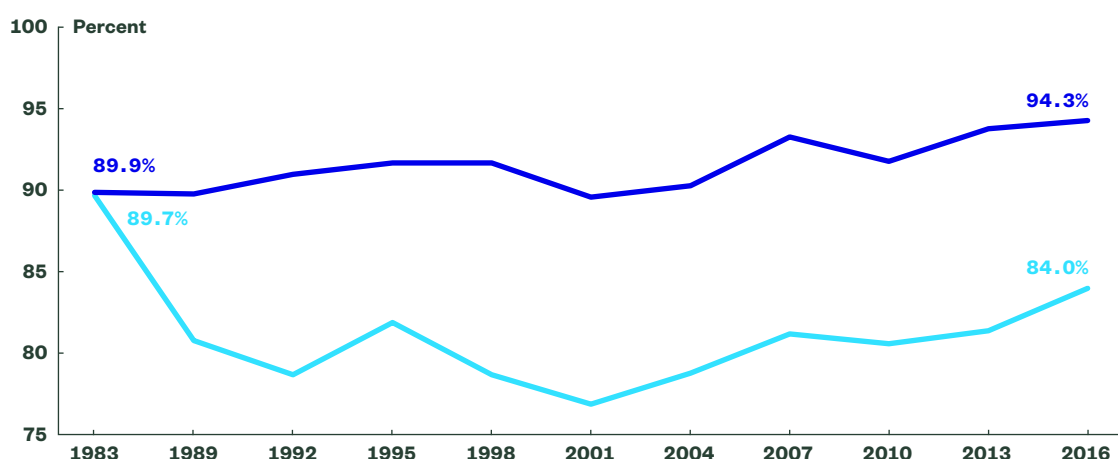
In addition, loan covenants may be softened to indirectly permit greater leverage of comparable loans. Regardless, the fact remains that most systemic financial issues arise from excessive leverage, and given the increased importance of the PE industry in the financial ecosystem, policymakers should be sure they have adequate tools to monitor financial risks, especially to understand the source of leverage, which carries these risk exposures.

Interestingly, Jensen (1989, 2007) actually believes that high leverage can have a positive governance impact. A combination of low leverage and low dividend payout creates high cash piles, the usage of which are at the discretion of management, while high leverage implies investors get to approve new investment decisions.

The fourth and final systemic issue that policymakers need to resolve is now firmly in the political domain. Wealth and income inequality is exacerbated by the growth of private markets, as asset prices benefited from the post-2008 policy mix. Looking at Figure 11 and considering that 84% of the value of US equity markets is held by the richest 10% of the population, it should not surprise us that comparable distribution among private assets is 94%, higher than in previous decades.

Figure 11
**Share of Market Held
 by Wealthiest Top 10%
 in US, 1983–2016**

■ Business Equity
 ■ Stocks



Source: Wolff, E. (2017). In 2016, the top 10% referred to households with a net worth in excess of US\$1.14 million.

This is partially explained by the barriers to access for smaller investors: if just the larger savers have access to higher-return assets, their wealth will get compounded at a faster rate, increasing inequality further. But the politically salient point is the income inequality generated by returns accrued to industry insiders. Already, in the 2012 US presidential election, the topic of carried interest from PE had generated discussions nationally, given that Mitt Romney’s main income source and comparably low tax rate originated from carried interest. There will be rising pressure to reform the tax code to align the tax rates on PE returns with income tax bands, which could have a disruptive effect on the industry. Similarly, high-profile failures of PE-run companies could boost calls for challenging the fundamental premises of PE, such as the proposals put forward by Senator Elizabeth Warren in the US⁶⁵.

What can we expect from policymakers?

In light of the growing systemic importance of private markets, the main response from policymakers will be to clarify regulatory frameworks and enhance the transparency of private transactions. This requires an acknowledgment that private markets will continue to constitute a formidable share of the asset management universe, possibly becoming even more important in the future. Hence, the focus must be on mitigating specific consequences of this growth. In this regard, we see four clear directions for policymakers.

First, there is a need for improved transparency around the explicit and implicit costs of the PE industry. On the explicit side, there has not been a cost compression comparable to other asset management services, such as fixed-income investing, active or passive public equity strategies or even hedge funds. Some of the price rigidity is linked to the illiquid nature of the underlying assets and therefore the inability to switch providers. However, there is a deeper information asymmetry at play, given the difficulty to properly value illiquid holdings (for example, some GPs may be using credit liens to delay capital calls to boost IRRs). The goal should not necessarily be to bring costs down but to help the industry to better account for costs and have the appropriate information to conduct manager selection. This discussion is inevitably linked to more transparency around the business model and leverage transformation from underlying assets to the balance sheets of GPs.

Second, a similar push for transparency would need to be extended to the market for secondary transactions. Earlier in the paper, we illustrated the growth in secondary transactions, which is likely to continue. From a policymaking perspective, this is a very encouraging development as it promotes liquidity and boosts capital market efficiency by allowing for asset class rotations and portfolio rebalancing without disrupting the business of the underlying assets. Any regulatory support to help grow these marketplaces should be a policymaking priority.

Third, private markets are so important in providing disproportionate returns to asset owners that a major focus must be on democratizing access to this asset class. From an industry insider perspective, this should be appealing, both in terms of blunting political headwinds and widening the investor pool. For example, in some jurisdictions, defined contribution plans are prohibited from entering PE. US rules aimed at protecting retail investors by setting conditions for 'accredited investors' partially form a barrier to access and share excess returns, thereby worsening inequality. Policymakers need to reconsider the rules guiding investor protection while ensuring that a wider group of investors can enjoy the returns of the industry⁵⁶. That said, investors in jurisdictions that do permit such investments (e.g., Australia) remain cautious, and such investments require safeguards (a developed secondary market can certainly play a role here).

Such reconsiderations could also happen in the shape of reclassifying corporate categories — i.e., by perhaps identifying a new hybrid form of corporate status that sits somewhere between a purely public versus a purely private company. In his 1989 paper, Jensen himself made a big distinction between 'old' private companies and PE-run firms, which he described as "organizations that are corporate in form but have no public shareholders and are not listed or traded on organized exchanges". As the key principles behind company law essentially date back to pre-WW II times, this could be the right time for a deep review.

Conclusion:

What is the Future of PE?

The PE industry delivers positive macro outcomes. The asset class generates higher returns with illiquidity and has carved a distinctive place in the investment landscape. However, we also believe that the scale and the systemic importance of PE are under-appreciated and the regulatory approach toward private markets is in need of an update.

Could PE grow much further? The answer is an emphatic yes. PE investments may shift focus to emerging markets or move into activities that regulated investment banks can no longer undertake, such as longevity swaps, LBO financing and mezzanine debt. Growth and venture funds operate in a huge universe: in the US alone there are 35,000 companies with revenues over US\$50 million⁶⁷. The LBO model (specially the public-to-private version) may be more restricted in its growth: if its main value-add is constituted by operational improvements, there are only so many poorly run companies whose buyout would justify the high fees. Then again, the PE industry has demonstrated the nimbleness to operate more efficiently and extract value from smaller firms outside of capital markets.

What are the broader risks that arise from PE growth? First, if larger and more systemically important companies fall under private management, we may not know how a crisis scenario requiring public intervention would unfold. In other words, what would have happened if the insurance company AIG or the US auto industry, both of which were buffeted by the GFC, were governed by private management? Second, while productivity gains from PE are visible at the company level, it is unclear whether they are replicable as the industry scales up. If not, the rapid growth could eventually result in higher corporate leverage without matching growth gains. Third, high-level PE failures, especially in politically sensitive sectors, could result in late-stage, politically motivated regulatory overreach.

How does this matter for institutional investors? Some have become late converts to PE and continue to bring in new funds. If genuine buyout opportunities were to shrink, it could result in their exposures drifting toward yet riskier forms of PE or capital-rich GPs losing market discipline and engaging in less successful buyouts. Leverage may also become a source of risk; however, the funding base of PE is much more diversified than in the late 1980s. As the PE industry takes its rightful space in the financial universe, investors will have to calibrate their PE exposures and the appropriate mechanisms of achieving them. The current late cycle build-up of dry powder throws up a challenge to asset allocators — of not losing patience and avoiding allocating prematurely. It is difficult to rule out cases where some investors give up too much liquidity in a desperate attempt to increase returns — which is why regulators need to continually monitor liability-driven PE investments.

Finally, it is unclear what the aggregate effects of changing governance would be, which is why policymakers would be well served in identifying how to reverse the diminishing appeal of equity listings. In public markets, institutional investors and asset managers are increasingly using their voting power to achieve desired outcomes, while in private markets, the power dwells with the GPs. Large GPs could lose their original edge in innovation and start having outsized economic and political influence.

In his paper, Jensen envisaged that high growth sectors would be dominated by public corporations, while low-growth sectors would only survive under the meticulous attention of PE managers. PE, therefore, could be a very important source of productivity gain in a low-growth environment. However, just like other sources of productivity gains, it will need to be weighed against its financial risk and the broader social and economic consequences.

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Endnotes

- 1 World Bank World Development Indicators Database, as at year-end 2018.
- 2 Preqin, as at year-end 2018.
- 3 The key elements of the PE industry are the general partners (GPs) — the PE firms that are managing the companies acquired by PE funds. They typically provide anywhere between 10% and 40% of the capital and raise the rest from investors — limited partners (LPs). GPs have significant control over the management of underlying firms than the shareholders of a listed company. LPs typically invest through closed-ended fund structures with several fee layers: typically a 1.5%–2.5% management fee, a 20% profit-share if the return exceeds a pre-agreed hurdle rate and a variety of other fee components that are less standard across funds (Jensen 1989). Broadly, the PE industry consists of buyouts and venture capital (VC) funds, which are similar in terms of their management fee and longevity structures. However, buyout funds are larger than VC funds and focus on mature companies rather than small companies, while using both debt and equity financing. The GPs play an active role in the lives of portfolio companies and their strategic plans. PE funds also essentially differ from funds of public market investments in terms of degree of control due to the concentration of ownership.
- 4 Jensen (1989).
- 5 Kaplan and Stromberg (2008).
- 6 Dodard, Le and Roy, as at June 2019.
- 7 There is little evidence that the two types of debt are competing for the same pools of capital. In fact, it was supported by the secular retreat of traditional banks from certain types of lending, but this is not the focus of our paper.
- 8 Kaplan and Stromberg (2008).
- 9 *ibid.*
- 10 Data from Invest Europe.
- 11 There is a wide range of estimates used in different academic and consultancy papers, but they tend to converge onto PE leverage (at least for buyouts) being three times higher. For example, Deloitte (2019) estimates that the 1,000 biggest-listed companies in the US had an aggregate net debt to EBITDA of 2.0 in 2017, while the same number for leveraged buyout transactions is around 6 according to Bain (2019).
- 12 Deloitte, as at April 2019.
- 13 Wilhelmus (2019).
- 14 This could be related to the corporate governance reforms of 2013, which improved the functioning of Japan's stock markets.
- 15 We believe that the WDI database contains some instances of double-counting and data gaps, but the results are directionally consistent with other sources, such as the Centre for Research in Security Prices at Chicago Booth.
- 16 Doidge, Karolyi and Stulz (2017).
- 17 Investments in established companies with the intention of improving operations and/or financials, often involving the use of leverage (definition from Preqin).
- 18 Coller Capital, as at December 2018.
- 19 Kaplan and Stromberg (2009).
- 20 McKinsey (2018).
- 21 State Street Global Macro Policy Research based on Preqin data; this specific data point is heavily influenced by SoftBank, which accounts for 4.2% of funds raised and 9% of dry powder, as at August 2019.
- 22 Pensions and Investments data, as at December 2018.
- 23 Newell (2017).
- 24 Maher and Weiss (2008).
- 25 See, for example, survey results by Protiviti, a risk consultancy: https://protiviti.com/sites/default/files/united_states/insights/2016-sox-survey-protiviti.pdf.
- 26 Doidge, Karolyi and Stulz (2017) point to a tightening of US listing requirements in the mid-1990s, something which coincided with the number of listed companies peaking.
- 27 OECD (2017), "Business and Finance Outlook".
- 28 Barton, Bailey and Zoffer (2016).
- 29 McKinsey Global Institute (2017), "Measuring the Economic Impact of Short-Termism".
- 30 George and Lorsch (2014).
- 31 De Fontenay (2016).
- 32 Demmou, Stefanescu and Arquie (2019) note that intangible assets also include goodwill, often accumulated through successive rounds of M&A.
- 33 Endowments, foundations, other non-profit institutions, pension funds (public and private), family offices, fund of funds, government funds, banks, insurance companies, corporations and sovereign wealth funds.
- 34 Unlike, for example, the premium of subordinated over senior debt, which reflects a true risk differential.
- 35 In practice, a range of measures is used, such as IRR, multiples of vested capital, NPV and others. Talmor and Vasvari (2011) have compared them and confirm that PE's performance measurement is challenging. Such measurements need to account for the different ages, sizes and leverages of PE firms and somehow value unrealized investments. In the absence of benchmarks, it is also very difficult to get an unbiased sample of the entire PE universe.
- 36 Harris, Jenkinson and Kaplan (2014).
- 37 Gompers, Kaplan and Mukharlyamov (2015).
- 38 Kaplan and Stromberg (2009).
- 39 Stafford (2017).
- 40 Kaplan and Schoar (2005).

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- 41 Appelbaum (2017).
- 42 Acharya et al. (2013) point to a higher abnormal performance related to improvement in sales and operating margin during the private phase (i.e., not due to leverage) relative to quoted peers. GPs who are ex-consultants or ex-industry managers are associated with outperforming deals focused on internal value-creation programs, and ex-bankers or ex-accountants with outperforming deals involving significant mergers and acquisitions.
- 43 Rudin and Fink (2019).
- 44 Hentov, Odedra and Petrov (2018).
- 45 *2008 for Public Pension Funds; alternatives — all assets except cash, bonds and public equity; HNWI — high net worth individuals; P7 — Australia, Canada, Japan, the Netherlands, Switzerland, the UK and the US. Figures indicate the estimated share in the aggregate of all investors in each category, rather than the allocation of an average investor.
- 46 Lerner et al. (2014) consider the broader social impact of PE and confirm other findings about the positive impact of PE on productivity growth relative to a control group of firms. The effect on employment tends to be pro-cyclical, but a notable feature is that buyouts of private companies result in an increase in employment, while buyouts of public companies typically result in a decrease. An EY meta-study, "Understanding PE's Impact on the Economy", looks at several regions (notably the US and France) and confirms productivity gains. The results in regard to employment and wages are mixed — for example, earnings may decline in older units of a firm but may grow in new units. However, any negative employment or wage dynamics may have a disproportionate political effect (see subsequent sections).
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- 48 Klausner (2018).
- 49 Speech by SEC Commissioner Robert Jackson Jr. (2018), accessed at <https://sec.gov/news/speech/perpetual-dual-class-stock-case-against-corporate-royalty>.
- 50 O' Hanley and McNabb (2019).
- 51 McKinsey (2018), pp 14.
- 52 De Fontenay (2017), pp 445.
- 53 Bain & Company (2019).
- 54 Zweig (2019).
- 55 Jamerson (2019).
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- 57 Morgan Stanley (2019), "Still Early Days for Private Markets".

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