

# A new equilibrium

Private equity's growing role in capital formation and the critical implications for investors

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Introduction	02
Drivers of a new equilibrium	04
A wider range of PE vehicles is able to fund more of a company's life cycle	05
The result is a shift in the way that companies are being funded	06
Multiple factors are driving the decline in the number of public companies	07
The opportunity set for PE	10
An abundance of capital	11
New avenues for growth	13
Conclusion	16
Methodology	17





# About this report

## Defining a path for the future trajectory of private capital amid a shift in the way enterprises are funded

In 2017, new capital raised from private markets exceeded capital raised in public markets for the first time in the US. It was a development that went largely unnoticed, yet the implications are significant, wide ranging and ongoing.

Indeed, it is becoming increasingly apparent that we are in the middle of one of the most profound shifts in the capital markets since the 19th century, when public equity markets became widely accessible to investors and a broader array of enterprises seeking funding. Now, the way that companies are being funded is once again changing – and in the middle of that change are private equity (PE) and other private capital providers.

According to Preqin, globally, PE firms now manage commitments of an estimated US\$3.4t, up from less than US\$500b in 2000. Including other asset types in the private capital universe – infrastructure, real estate, private debt, natural resources, etc. – brings the total to more than US\$6t. From their roots in commingled buyout and venture funds, PE firms have innovated a wide array of vehicles designed to provide funding at virtually all stages of a company's life cycle – from seed, to growth capital, to newer long-life funds that are beginning to open the investable universe to entirely new types of businesses not suitable for more traditional fund structures.

Indeed, the growth of private capital concurrent with a decline in the number of listed companies is a dynamic that has significant implications for stakeholders across the capital markets. In the following pages, we seek to arrive at a more holistic view of the future of PE and private capital, and its future role in capital formation. We hope to contribute in a meaningful way to a conversation that is gaining importance with each passing month.

Sincerely,

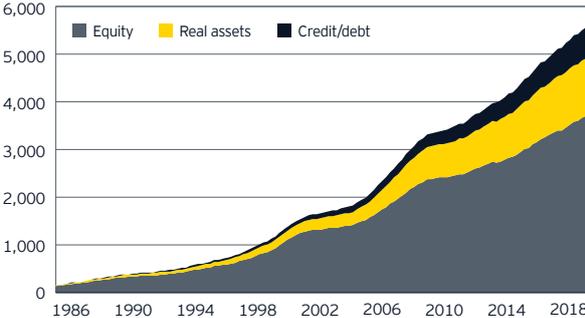
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# Introduction

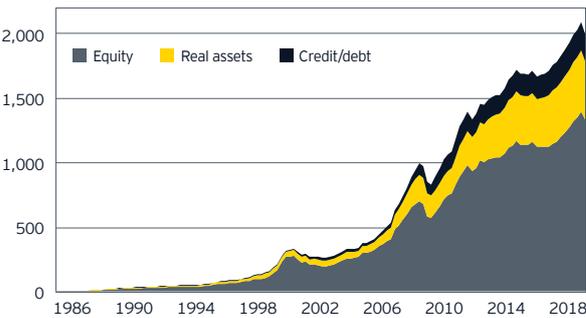
The last 20 years have been a period of tremendous growth for the PE industry. From its roots in the 1970s and 80s in the buyout and venture capital spaces, private capital has expanded dramatically in both scope and scale. Funds have gotten larger, the investor pool has broadened and the largest players have transformed themselves into fully diversified alternative asset managers, with offerings across a wide range of geographies and asset classes.

According to Burgiss data, between 1998 and 2018, the number of active buyout, real estate and credit funds grew from slightly more than 900 to more than 5,500. Net asset values have grown even faster – more than 15-fold, from about US\$130b in 1998 to roughly US\$2t today. Most significantly, most current indicators point toward continued growth in both the number of funds and their net asset values (NAVs). Indeed, the last three years have seen record amounts of capital raised by the industry, driven by increased allocations and recycled distributions by existing investors in the space, as well as new entrants to the asset class, such as high-net-worth individuals, family offices, sovereign wealth funds and pension funds in many emerging markets.

Number of active private funds



Private funds' total net asset value (NAV) (in US\$b)



Source: number of active private equity, private real estate and private debt funds from the Burgiss Manager Universe through September 30, 2018; private equity, private real estate and private debt fund NAVs from the Burgiss Manager Universe through September 30, 2018.

Concurrent with PE's growth is a measure of stagnation in the public markets. It's become increasingly clear that the model of public ownership is increasingly falling out of favor, at least for many companies in the middle-market space and those in the more growth-oriented stages of their maturity curves. According to The World Bank, in the US, for example, the number of publicly listed companies is down almost 50% over the last 20 years; similar trends are evident in much of Europe.

It is important to understand the implications of these trends to grasp the future of PE and its role in the capital markets. Where are we in the evolution of the private funds market? At what point might a new equilibrium be reached between public and private capital?

Indeed, changes in where companies raise capital can have important implications for investor returns and corporate growth. PE firms can benefit from a better and more holistic understanding of their investable universe. Entities that invest primarily in the public markets can benefit by understanding the shift toward private capital and the implications on their portfolios if they fail to adjust. Regulators can benefit from a broad understanding of these dynamics and the implications for Main Street investors, the majority of whom are currently shut out of most private market investing.

While our discussion primarily uses US data because of its availability, our framework should apply to other strategies and geographies as well and be useful for addressing broad questions about the economic forces forging a new equilibrium in the private and public markets.



# Drivers of a new equilibrium

Today's capital markets are defined by competing forces. On one hand, PE firms and other capital markets providers are making it increasingly compelling to raise capital from PE funds, offering new models to fund a wider range of companies than ever before. At the same time, listings have stagnated, as the public markets have become increasingly dominated by fewer, larger companies.





## A wider range of PE vehicles able to fund more of a company's life cycle

### The reach of the industry continues to grow

Companies backed by institutional-quality PE funds span all industries and stages of development – from growth capital to multibillion-dollar corporations taken private in leveraged buyouts. In the US alone, PE firms are estimated to employ nearly 9 million people when their portfolio companies are aggregated.

Alongside this growth has come increased innovation; the last decade has seen widespread experimentation with a range of new vehicles and investment models. Niche strategies, sector-focused funds and long-life funds that are able to hold companies for much longer than the traditional four-to-six-year hold period are beginning to open the investable universe to new classes of businesses that might not have been suitable for traditional commingled funds. As a result, a wider range of vehicles now provide funding to a deeper array of companies than ever before, at nearly all stages of their life cycles.

And while all segments of the private capital space are experiencing growth, asset growth of ancillary asset classes is outpacing more traditional spaces by significant margins. For example, while still fairly small relative to the nearly US\$730b in dry powder controlled by buyout funds, assets targeting growth capital are now growing at more than twice the rate of buyouts, which, according to Preqin data, is roughly 30% compounded over the last three years. Similarly, fundraising for private credit vehicles has accelerated dramatically. Credit funds now have record levels of dry powder – more than US\$270b across mezzanine, direct lending, distressed and other private credit strategies.

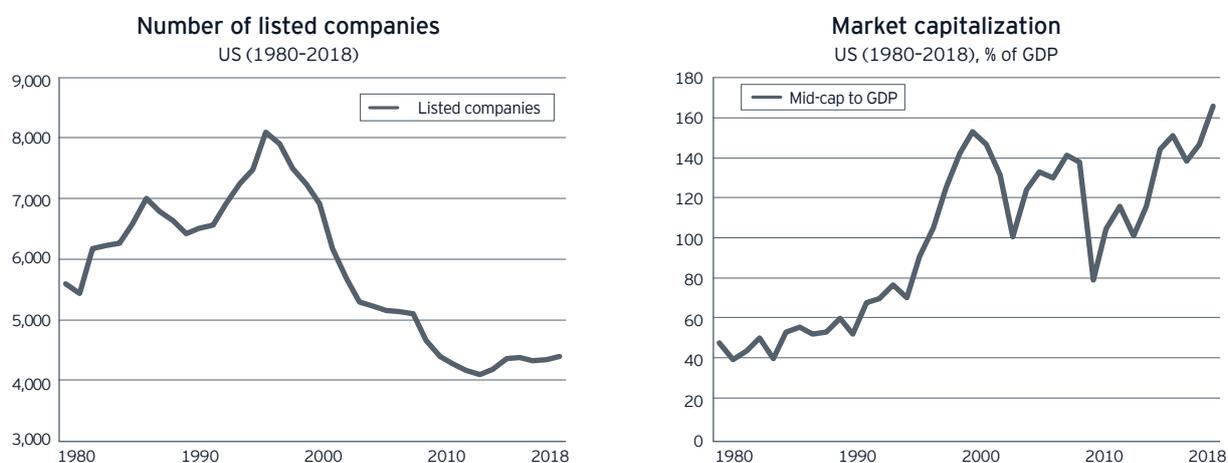
For many management teams and entrepreneurs, it can be a compelling value proposition. The value received in partnering with PE can often go far beyond the capital that's raised. Access to networks of customers and suppliers can add real value. Many firms provide companies with operating resources, ranging from senior industry executives working side by side with management teams, to functional professionals across a wide range of disciplines, such as HR, IT and supply chain management.

## The result is a shift in how companies are funded

In contrast to the rapid growth in private markets is the stagnation that's increasingly evident in the public equities markets. Since the 1990s, the total number of publicly listed companies in the US, for example, has been roughly halved, from a peak of approximately 8,100 in 1996, according to the World Bank.

Nonetheless, returns for listed stocks have been exceptionally strong over the last two decades, and typical market capitalizations have grown substantially as a result. Today's public markets are increasingly defined by smaller numbers of larger companies that are further along on their maturity curves. To illustrate, the total market capitalization of US public markets as a percentage of GDP has stayed roughly the same since the mid-90s (despite the drop in the number of companies); only recently has the ratio of market cap to GDP surpassed its 1996 peak of 154%.

### The public markets are increasingly dominated by fewer, larger companies: the number of US-listed companies and their market capitalization as a percentage of GDP.



Source: Bank's World Development Indicators (WDI) database

And while not as pronounced in all other large economies, public listings in other countries have shared a similar downward trend.

### Number of listings in select markets

Exchange	Percentage decline in the number of listings, peak to most recent
Netherlands	-74%
Mexico	-66%
South Africa	-62%
France	-61%
Germany	-39%
Israel	-37%
United Kingdom	-36%
Canada	-17%

Source: World Bank WDI database; data as of 2018, except for France and Netherlands (2017) and the UK (2014, the latest available)



## Multiple factors drive decline of public companies

While the number of public companies changes from year to year and decade to decade, what we've witnessed is a steady decline over the last 20 years. There are multiple forces that play a role, with the most significant being:

- ▶ Increased M&A activity, driven by both sponsor-led leveraged buyouts (LBOs) and corporates seeking to drive growth via acquisitions.
- ▶ A dearth of IPOs – new companies are staying private longer (in the US, for example, the number of public companies has decreased 50% over the last two decades, according to research from Jay Ritter at the University of Florida).

For example, in 1977 there were 4,745 companies listed in the US, according to the Center for Research in Security Prices. Over the next 20 years, there were nearly 12,000 IPOs; 4,600 bankruptcies or liquidations; and another 4,500 acquisitions and LBOs. However, over the subsequent 20 years (1997-2017), the trends changed significantly: the number of IPOs fell by 57%; the number of delistings fell by 23%; and the number of acquisitions and LBOs increased by 19%.

### New US listings have not kept pace with the replacement rate

	1977	1997	2017	Difference (1997-2017)
Previously public		4,745	7,427	
+ IPOs		11,895	5,070	-6,825
- Bankruptcies, liquidations and delistings		-4,661	-3,571	1,090
- Acquisitions and LBOs		-4,552	-5,417	-865
<b>Total</b>	<b>4,745</b>	<b>7,427</b>	<b>3,509</b>	<b>-3,918</b>

Source: Center for Research in Security Prices

## The decline in IPOs

There is almost certainly a number of overlapping drivers behind the decline in IPOs. For one, many firms have less need to raise large amounts of capital. Many of today's tech-oriented companies are much more likely to operate with an asset-light model, relative to more traditional platforms. As such, they're able to scale and mature with comparatively modest amounts of capital, often raised from PE, VC, growth capital and other private capital providers.

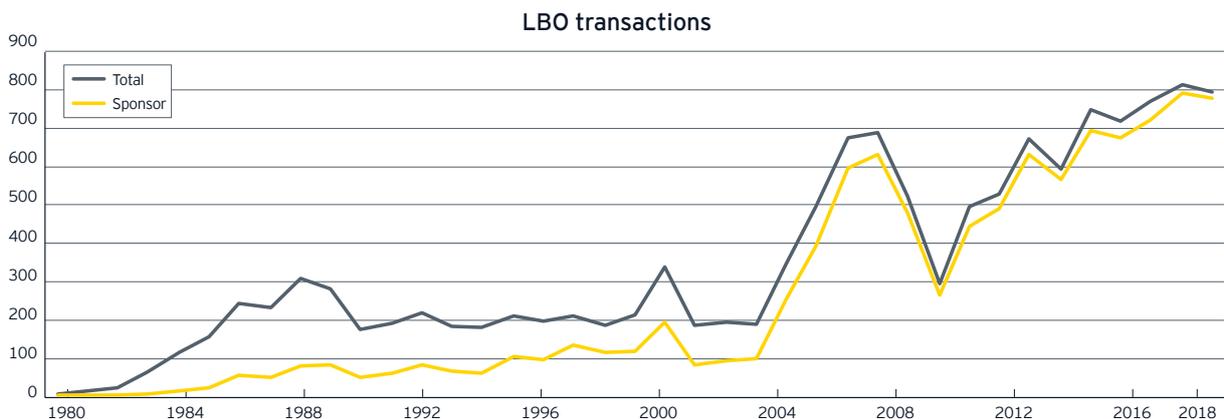
The expansion of private markets is almost certainly a major factor as well. While few management teams would describe life at a PE-backed company as undemanding, being a publicly traded entity carries with it a number of obligations that are absent in the private sphere. Further, for entrepreneurs and management teams, explaining increasingly complex business models to a coterie of sophisticated investors can be far easier than the ritual of road shows and explaining the model to the broader investing public.

## Increased take-private activity and acquisitions

While the role of public-private LBOs may not be the primary driving force in the decline of public listings, the broader expansion of buyout activity in the private company space is clearly an important trend. The number of financial sponsors in LBO transactions, as well as the total number of LBOs, has increased substantially over the last 30 years. According to the Center for Research in Security Prices, LBOs amounted to just 14 transactions in 1982; only 1 of those was carried out by a PE firm. On average, there were just 185 LBOs per year prior to 1997. Since 1997, however, the number has roughly tripled, to an average of 550 per year – activity almost completely driven by buyout funds.

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### US LBO transactions 1980-2018



Source: Center for Research in Security Prices

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## The effect on returns

As capital continues to move into PE, there has been a growing concern about the potential impact for investors. Right now, there appears to be a widely held belief that returns for PE funds are compressing as the amount of new fundraising increases competition for attractive assets.

However, an examination of historical market rates of return for US buyout funds does not suggest the obvious conclusion that returns for private equity are approaching public equity. The figure below shows the public market equivalents (PMEs) for buyout funds by vintage year. PME is equivalent to a market-adjusted multiple and thus provide an indication of how the vintages of private markets have performed relative to public markets. The by-vintage plot shows how the late 1990s and early 2000s yielded the best performance, with an average PME of about 1.32. However, PMEs for the prior decade averaged only about 1.10 – not much more than the 1.08 average of recent vintage years since 2007.

### PMEs by vintage



Source: Kaplan-Schoar (2005) PMEs using S&P 500 as a benchmark index. Data provided by Burgiss. The vintages since the Great Financial Crisis are not fully realized and estimates of PMEs have trended up as funds have realized returns better than previously estimated.

There is a number of reasons to believe that this outperformance (at some level) will persist. The universe of PE assets is by definition significantly broader than the universe of investable public assets. And as public markets are increasingly defined by larger, more mature companies, the PE portfolio will be increasingly composed of smaller, more growth-oriented companies.

### What are the macro implications?

With this evolution comes a number of questions – perhaps most significantly are those around the economic impact of these shifts. PE ownership has historically been observed to carry with it a range of impacts on its portfolio companies and the broader economy. PE ownership, for example, is associated with measurable benefits in productivity, and PE-owned companies are shown to raise competitive standards in their industries, causing entire sectors to become more productive. If current trends continue, and more economic activity moves to businesses with a private ownership model, will these impacts continue to hold?

We believe they will; PE serves a special role vis-a-vis public markets in that it facilitates certain types of value-added changes to business operations that are more difficult to do in public companies with a more diverse shareholder base. The key point is that PE is not “buy and hold” and is instead centered around various types of change, often transformational in nature.



# The opportunity set for PE

Sustained outperformance has led to capital abundance in PE. As the industry continues to grow, it will seek out opportunities across a wider range of asset classes and geographies.

## An abundance of capital

As a result of PE's sustained outperformance relative to public markets, the last decade has seen steadily climbing demand from a growing array of investors. According to Preqin, roughly two-thirds of institutional investors are now allocated to PE, with an average allocation of approximately 10%.

Many of those investors are seeking to increase their allocations. Recently, the *Preqin Investor Outlook Alternative Assets*, H1 2019 found that 46% of LPs expect to increase their allocations to PE. A relatively modest shift among existing investors could yield significant additional inflows. Although endowments and foundations currently hold roughly US\$1.2t in equity assets, according to data from the Federal Reserve Board, these institutions tend to be heavily allocated to PE already and thus are unlikely to have a large impact on overall market conditions, even if they increased their allocations. However, pension funds and insurance companies, for example, together hold about US\$8t in US equities; a 1% increase in allocations to PE would increase commitments by roughly US\$80b, a meaningful amount for the industry.

### Approximate value of equity holdings by type

	Total equity	PE AUM growth based on 1% increase
U.S. investors		
Endowments and foundations	US\$1.2t	US\$12b
Pension funds	US\$4.9t	US\$49b
Insurance companies and non-financial business	US\$3.0t	US\$30b
Household (family office, HNW, retail/direct contribution)	US\$14.9t	US\$149b
Sub-total	US\$24t	US\$240b
Foreign institutions sovereign wealth funds, pension, family office and high-net-worth		
U.S. Equity	US\$6.3t	US\$63b
Non-U.S. Equity	US\$11.3t	US\$113b
Sub-total	US\$17.6t	US\$176b
Total		US\$416b

Source: Federal Reserve Board flow-of-funds data

Moreover, as capital flows in from “nontraditional” investors including high-net-worth (HNW) and family offices, PE’s investor base could see continued growth. Indeed, by far the largest investor in US equities is the household sector, with close to US\$15t in assets. A small increase here could have large consequences for market equilibrium. While the vast majority of households are not accredited or qualified investors and thus have no direct allocation (nor could they), the volume of discussions around allowing greater access for retail investors is growing. Last year, the U.S. Securities and Exchange Commission (SEC) announced that it was looking for ways to increase the average investor’s access to private market investments, potentially opening up the private markets to a much broader universe of potential investors. Given the size of household equity holdings, any policy changes could lead to substantial new flows into private equity – even a 5% allocation could increase industry AUMs by nearly 40%. Another set of large investors is foreign institutions, which currently hold around US\$6t in US equities and more than US\$11t in foreign equities. Any increase in their appetite could have a similarly dramatic impact.

In aggregate, even just 1% or 2%, spread across enough different classes of investors, could yield large increases in commitments to PE. Indeed, tomorrow’s PE market may not be defined by how much capital it can raise, but by how much it must turn away. There are numerous anecdotes about investors not getting desired levels of allocations with many top-performing firms. As more capital flows into the space, it’s possible – and perhaps even likely – that the demand for new funds will increasingly outstrip the supply. In many ways, much of the last 20 years has been spent building the platform for PE investments. Now that the platform exists, assets can flow fairly easily to equilibrate the market.



## New avenues for growth

As more capital flows into the asset class, PE firms will be increasingly challenged to effectively deploy it. Already, there are signs of bottlenecking in certain segments of the market. According to Preqin, over the last five years, US-based PE funds have raised nearly US\$1t from investors. Over the same period, they have announced deals valued at US\$1.5t, a figure that includes debt. And anecdotal accounts from deal teams suggest that attractive assets have far more interested buyers than ever before.

In total, we estimate that the aggregate investable universe in the US for large and middle-market buyouts is somewhere in the neighborhood of US\$5t, which includes both institutional quality private companies (about US\$3t) and public-to-private transactions or carve-outs from listed entities (estimated, admittedly arbitrarily, at about US\$2t, or 5% of current US market capitalization). As such, while the traditional buyout space will remain core to PE, some of the industry's most attractive opportunities are likely to come from segments of the market that are less well-developed.

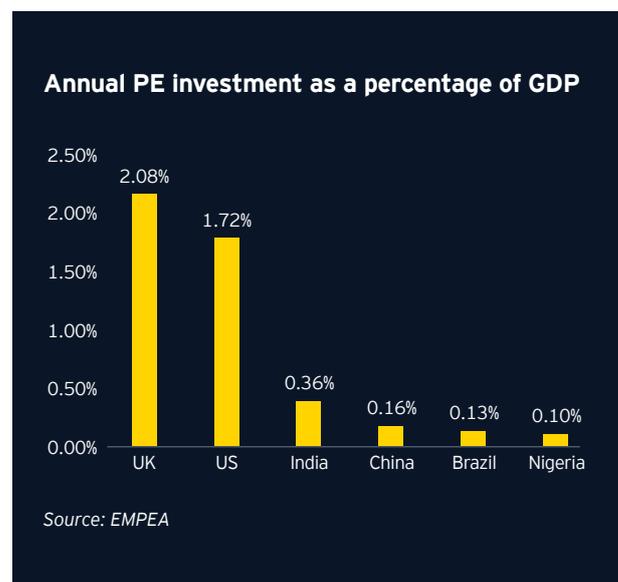
### **Opportunities outside the US and Europe, where penetration is much lower**

PE activity in the emerging markets has seen tremendous, albeit uneven, growth. According to data from the Emerging Markets Private Equity Association (EMPEA), activity in the emerging markets represented 23% of global PE investment activity in 2018, up from just 9% a decade ago. Powerful secular trends, including a growing middle class, an emerging consumer culture and strong demographics, make the emerging markets one of the industry's clearest growth opportunities.



In the UK and US, for example, average annual PE investment activity represents 2.1% and 1.7% of GDP, respectively. In emerging markets such as India, China, Brazil and sub-Saharan Africa, the penetration rate of PE is far lower – just 0.36% in India and 0.16% in China. Moreover, many of these economies are growing at several multiples of the growth rates seen in the developed markets.

With more than half of the global economy (as well as the bulk of the world's economic growth) sitting outside the US and Europe, the PE industry will continue to build upon the inroads made by both local managers and large, globally diversified funds. China-based funds, for example, continue to climb in the rankings of the world's largest fund managers, growing more global in scale every year.



### Opportunities outside the equity stack

Some of private capital's most significant growth may not come from the equity side at all. As traditional banks cut back on lending in the wake of the Great Financial Crisis, PE firms have filled the void. Commitments in the private credit space, including direct lending, distressed and mezzanine funding, have grown dramatically in recent years – from approximately US\$240b a decade ago, to US\$837b as of September 2018, according to Preqin.

Investors appreciate the diversification benefits of the space as well as the opportunity to access returns (and risk profiles) that are generally higher than their other fixed-income portfolios. And while the industry is certainly subject to the economic and credit cycles, the longer-term trend is toward more activity shifting from traditional lenders to nonbank lenders. Recent years in particular have seen PE-backed credit funds underwrite larger deals that would once have been the exclusive province of the leveraged loan and high-yield markets.

### Additional areas of growth

Many opportunities may come from companies that have traditionally been outside of PE's purview. Longer-term funds, for example, are designed to hold companies for periods of 15 to 20 years or more, opening the investable universe to companies that may not be suitable for shorter hold periods. Assets for growth capital investing are currently growing at roughly twice the rate of traditional buyout and targeting companies not necessarily interested in majority-stake sales to PE.

Real assets, including real estate and infrastructure, are other areas that have seen significant growth. According to Preqin, over the last five years, more than US\$600b was raised for real estate strategies, and nearly US\$380b was raised for investments in the infrastructure space. For many LPs, the ability to lock up large amounts of capital for long periods of time at what are often high-single-digit returns is a compelling proposition. It remains to be seen, however, how much headroom yet remains, as many of these same dynamics are playing out in these spaces as well.



# Conclusion

With each passing year, the size and influence of the PE industry have grown tremendously, encompassing a wide range of investment models.

It's critical for stakeholders to appreciate the degree to which our capital markets are headed toward a new stasis. For much of the last century, the ambition for many entrepreneurs and family businesses was to grow to a size where they could be listed on a public exchange. Increasingly, this is no longer the case, as innovations in private capital provide businesses with a growing array of compelling options. For a wide range of capital markets stakeholders, the implications are significant, as more and more of our economic growth occurs within the realm of private capital.

It's sometimes hard to remember that private capital as a major industry is more than a little over two decades old. The last 20 years has seen the industry build proven models for investment and innovate a wide array of products that appeal to a growing number of investors. In many ways, the next 20 years will be about how PE firms manage the consequences of their success.

PE firms will continue to aggressively innovate new structures that can access previously uninvestable segments of the company universe. They'll continue to expand geographically into regions where PE penetration is much lower. In the developed markets, they'll continue to build out operational capabilities so that they can justify higher multiples. Sector specialists will use their knowledge and insight to uncover hidden opportunities and position themselves as the "best buyer" for an asset. And large managers will increasingly leverage their scale to operate in parts of the markets where competition is dramatically lower.



# Methodology

To estimate the total value of private firms, we used two separate sets of data. First, we looked at the Federal Reserve's flow-of-funds data. Second, we used corporate profits data from the US national accounts statistics from the US Bureau of Economic Analysis.

## Flow-of-funds data

We gathered Financial Accounts of the US data, widely known as "flow-of-funds" data, from the Board of Governors of the Federal Reserve System (the Fed). The Fed uses tax receipts to estimate the market value of "closely held equity" and reported an average value of US\$4.9t for 2016-18. This formed the lower bound of our estimate for the size of the US private company universe.

We made a separate estimate by using the Fed's estimates of corporate assets and liabilities. An approximate balance sheet version of the total value of US equity can be computed as the difference between total assets and total liabilities for the combination of the corporate financial and nonfinancial sectors. Panel B of the table below shows that as of 2017, the total value of equity for domestic financial and nonfinancial entities in the US amounted to approximately US\$33t. On the other hand, book equity values for publicly listed US companies stood at US\$24.4t. Consequently, we estimate an approximate equity value of US private companies of US\$8.5t.

## Price-earnings valuation ratio

According to the National Income and Product Accounts (NIPA) with the Bureau of Economic Analysis, corporate profits after taxes for the US economy averaged about US\$1.8t in 2016-18 (see Panel C below). These values can be used to estimate an average equity value for the entire US corporate sector (public and private) by applying a price-earnings valuation ratio. We use the cyclically adjusted price-to-earnings ratio (CAPE ratio), also known as the Shiller P/E Ratio. This averaged about 24.3 from 2009-18 though it has been closer to 30 in recent years. This implies a total market capitalization of about US\$44t (24.3 times US\$1.8t). At the end of 2017, the total market value of the US public equity market was about US\$32t (if we consider US firms that are listed on the NYSE, AMEX and Nasdaq and exclude investment companies, mutual funds, real estate investment trusts and other collective investment vehicles). Subtracting the market value of publicly listed equity yields a total value of private companies of about US\$12t. However, private companies are illiquid and consequently are often valued at a discount to public markets. As a first approximation, we apply an illiquidity discount rate of 25%. This implies a rough market value for private firms of about US\$9t, which is in line with the estimate using the flow-of-funds data. Together, they represent the upper bound of our estimate.

We therefore use an estimate within the midrange of these two values that we feel is somewhat conservative, but nonetheless reflective of the size of the US private company universe. If we assume that roughly 50% of the private company universe is suitable for PE investment (and 50% isn't), we arrive at a figure of roughly US\$3t.

## Estimates of the value of US private companies

Panel A: Reported private company value from Federal Reserve flow-of-funds			
	Average, 2016-2018		
Market value of closely held equity	US\$4.9t		
Panel B: Implied private company value from flow-of-funds assets and liabilities			
	Total assets (A)	Total liabilities (L)	Equity value (A-L)
Corporate financial sector	US\$100.9t	US\$92.4t	US\$8.5t
+ Corporate nonfinancial sector	US\$44.6t	US\$20.2t	US\$24.4t
Total	US\$145.5t	US\$112.5t	US\$33t
- Publicly traded US companies			US\$24.4t
= Implied private			US\$8.5t
Panel C: Implied private company value from corporate profits data			
	Corporate profits (NI)	CAPE	Market cap (NI x CAPE)
Total	1,807.4	24.3	43,920
- Public			32,121
= Implied private			11,799
Discounted 25%			8,849

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## About the authors



**Pete Witte, CFA**  
Associate Director, Private Equity  
Ernst & Young LLP  
Direct: +1 312 879 4404  
peter.witte@ey.com

Pete leads the EY research and analysis initiatives in the PE space, structuring, acquisitions, value creation and the emerging markets.



**Greg Brown, PhD**  
Professor of Finance, Sarah Graham Kenan  
Distinguished Scholar and Research Director of  
the Institute for Private Capital  
Direct: +1 919 962 9250  
gregwbrown@unc.edu

Greg is a professor at the UNC Kenan-Flagler Business School and executive director of the Kenan Institute of Private Enterprise. He is also the founder and research director of its affiliated Institute for Private Capital. His research centers on private equity investment strategies, including hedge funds and private equity.

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