

A WINNING STRATEGY

Has private equity really outperformed public markets? Two academics present their contrasting views on this important issue.





Ludovic Phalippou

Ludovic Phalippou is professor of financial economics at Saïd Business School, University of Oxford. With a focus on private equity and asset management, his research focuses on areas of the industry that are of interest to investors. He is the author of *Private Equity Laid Bare*.

In his recent paper, *An Inconvenient Fact: Private Equity Returns & The Billionaire Factory*, Ludovic Phalippou finds that performance between PE funds and public markets has been remarkably similar since at least 2006. Steven Kaplan, however, takes a different view, arguing based on his research that PE has outperformed public markets.

In the 20th century, the financial economics literature studied companies' cost of capital, and a puzzle emerged: why is capital so expensive? Raising public equity in the US was found to cost up to 7% of the amount raised, and raising public debt was found to be only slightly less expensive. Further exacerbating the high cost of capital, funding vehicles that intermediated between savers and public markets added significant additional expenses through fees, some of which were opaque and indirect.

The 21st century only exacerbated the puzzle. During this time, capital was diverted from public markets to private markets through vehicles such as PE funds. These funds, however, involve expensive fees: the consensus lower bound estimates for the total expense ratio is approximately 6% per year.

In addition, transaction costs associated with PE funds are large and frequent, as portfolio companies change hands every four years. To illustrate the high cost of fees, I estimated the total cost of financial intermediation for \$200bn of equity and \$400bn of debt invested (which is about the yearly volume for US PE) to be \$100bn. This must be recouped over the typical four-year holding period of a portfolio company.

For PE investors to break even, they must also recoup their cost of capital, which can be approximated using public market returns. The annual US public market return has averaged approximately 10% over the long run. This is equivalent to a 1.46x return over a four-year holding period, indicating a high cost of capital for PE investors.

There are, however, exceptions to high equity returns. First, the largest size decile of stocks returned 7.2% annually between 1996 and 2009, whereas the other nine deciles returned a more common 11.2%. Thus, any large-cap index, such as the S&P 500, underperforms smaller-stock indices over that time period. Second, indexing follows ex-ante rules which may or may not be good trading strategies. This means that different indices can perform differently from one another. The Russell 2000, for example, underperforms the S&P 600 by a wide margin, even though both are mid-cap indices. Third, emerging market stock returns in US dollars have been poor, especially over the past 10 years, as a result of foreign exchange effects.

This diversity in public market indices thus allows GPs and consultants to cherry-pick vintage years and benchmarks strategically to make relative performance appear stronger. In addition, as PE has been divided into many asset classes, it is possible to cherry-pick what is defined as PE.



For example, funds investing in the natural resources industry have performed poorly. They can be labelled real assets and thus taken out of the PE universe. PE returns are thus stronger against the public markets if we exclude real asset funds. Similarly, an international portfolio of PE will compare favourably to global public equity benchmarks. Even if both the PE portfolio and the public equity benchmark put the same geographic weight on the US, the PE portfolio still has an advantage over the public equity benchmark. This is because emerging markets, which have historically performed poorly, make up a relatively smaller share of global PE but a relatively larger share of a global public equity benchmark.

Similarly, PE funds with vintage years from 2006 onwards will look as if they performed poorly when measured against a large-cap stock index but will look as if they performed well when measured against Russell or MSCI world indices. Performance for pre-2005 vintage funds, however, will look great against large-cap stock indices, Russell and MSCI world indices, but will look poor against mid-cap indices such as the S&P 600.

Taken together, these points emphasise the need to choose a reasonable benchmark to properly measure PE returns over time. If we compare all US buyout funds against the S&P 600, the public market equivalent (PME) is 1.10 for 1996-2005 vintages and 1.05 for 2006-2015 vintages. Widening the sample to all PE funds yields PME of 1.07 and 0.99 respectively, using Cambridge Associates data. This implies that PE investments outperformed stocks of similar size by between 0% and 2% per year depending

on the exact benchmark and time-period – quite a low relative performance.

We might expect this low relative performance of PE funds to worsen, given low interest rates, which increase asset prices and decrease returns. The deterioration in performance is further exacerbated by the industry's high fixed transaction costs and fees. Yet, an odd but popular line of reasoning concludes the opposite: one obtains higher returns with more risk and illiquidity; PE has both, so it must outperform, especially in a low interest rate environment.

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Another curious argument maintains that fund managers must be paid performance-based fees to incentivise hard work and strong returns. Although data is kept secret, it is easy to estimate these fees with reasonable precision. We find that investors had to reward US fund managers with a payoff of US\$370bn – despite an unimpressive relative performance. This is an extraordinary wealth transfer and another puzzle that has still to be addressed.



Steven Kaplan

Steven Kaplan is professor of entrepreneurship and finance at The University of Chicago Booth School of Business, a research associate at the National Bureau of Economic Research, and associate editor of the *Journal of Financial Economics*. He is co-creator of the Kaplan-Schoar public market equivalent (PME) private equity benchmarking approach.

In his recent and widely publicised paper, Ludovic Phalippou claims that private equity fund managers have made a great deal of money without outperforming public markets net of fees. He also argues that PE return expectations going forward rely on unrealistically high increases in portfolio company earnings. However, by any reasonable measure, PE funds have outperformed public markets. While there is no guarantee that PE will continue to outperform, his second claim relies on a significant conceptual error which, when corrected, results in more reasonable PE return expectations.

Phalippou claims that PE “has returned about the same as public equity indices since at least 2006”. There are many ways in which this statement is misleading, if not wrong.

First, the analysis is misleading because he chooses an unusual time period over which to measure performance

– vintages from 2006 to 2015. One might have picked post-Global Financial Crisis vintages or post-2000 vintages. It turns out that 2006 to 2015 is probably the worst performing set of vintages one could choose. In that period, an investment in PE returned slightly less than an investment in the S&P 500. The public market equivalent (PME) is 0.99. In other words, \$1 in PE returned 1% less than the S&P 500 over the life of the funds raised in the period.

Yet if we look at 2000 to 2015, the result flips – the PME goes to 1.05. And if we look at 2009 to 2015, the same thing happens – the PME goes to 1.04. In fact, for any contiguous choice of vintages between 1996 and 2015, the only choice that does not outperform is 2006 to 2015. Most observers would conclude that PE has outperformed, and Phalippou is disingenuous in making the one possible choice of vintages that gets a different result.

Second, he defines PE as leveraged buyouts, growth equity, venture capital, real estate, real assets, natural resources and infrastructure. Most analyses of PE separate the true equity PE – buyout, growth and VC – from the others because they behave differently. Real estate PE tends to move with the real estate market, and natural resource PE tends to move with energy markets. Notably, both real estate PE and natural resource PE, like the underlying real estate and energy markets, underperformed the S&P 500. The different types of PE should therefore have different benchmarks.

When we appropriately exclude real estate, real assets, natural resources and infrastructure, the pooled PME even

for 2006 to 2015 vintages is 1.05; for 2000 to 2015 vintages, it is 1.10; and, post-GFC, for 2009 to 2015 vintages, it is 1.11. This is an alpha of 3% per year and shows again that, when we use the correct analysis, PE outperforms.

Phalippou's article also makes an unusual choice of benchmark equity indices. Buyout, growth and VC funds invest in companies that are smaller than those in the S&P 500. The most commonly used small-cap index is the Russell 2000. Phalippou does something unusual by using the S&P 600 for a small-cap index: it is not nearly as commonly used and it outperformed the Russell 2000 from 2006 to 2019. When we apply the Russell 2000 to the 2006 to 2015 vintages, we get a PME of 1.11 for buyout, growth and VC funds (versus 1.05 for the S&P 500). We even get a PME of 1.03 if we include the real estate and other funds that Phalippou inappropriately includes (compared with 0.99 for the S&P 500). Again, when we use the correct analysis, PE outperforms.

The fourth issue is that Phalippou ignores the fact that limited partners increasingly co-invest in PE deals at lower or no fees. Some estimates suggest that co-investment accounts for around 25% of PE investment today. Given that co-investment decreases the amount of fees LPs pay, if they co-invest in an average-performing deal, the true net performance is substantially higher.

A fifth concern is that Phalippou ignores diversification benefits. Even if PE were to generate similar returns net of fees as public equity, it would remain valuable if it provided a way for investors to diversify. In fact, in a previous paper, Goetzmann,

Gourier and Phalippou (2018) find that “large buyout and VC funds have provided substantial diversification benefits to investors; most real asset funds, overall, have not”.

So, Phalippou's claim that PE has not outperformed or has not provided a benefit to investors does not survive scrutiny. The historical evidence that PE has outperformed is arguably overwhelming. There is no guarantee, however, that it will continue to do so, and Phalippou argues that it will be difficult. According to his calculations, PE-funded companies will need to grow earnings organically at 11% per year for the capital invested to increase by a factor of 2x in four years. His calculations, however, make the conceptual error of not accounting for company earnings. If annual earnings are applied to paying down debt, earnings have to increase by a far less daunting 2.4% per year.

There is one final point on PE's broader social consequences. Phalippou looks exclusively at the gains shared by LPs and general partners, ignoring the fact that GPs usually have to pay a premium to selling shareholders. Some of the value GPs create, therefore, goes to sellers.

PE has clearly outperformed historically for its investors. This is a major reason why assets invested in PE have increased so much. PE also has created additional value for sellers and the economy. That is not to say that PE will outperform going forward. Increased capital puts pressure on future returns. But if that capital underperforms public markets and fails to provide diversification benefits, we are likely to see capital move to other assets.