IPC Oxford Private Equity Research Symposium

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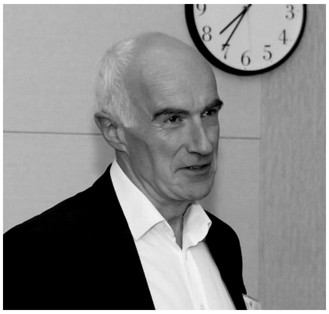
Gregory Brown
Sarah Graham Kenan Distinguished Professor of Finance at the University of North Carolina-Chapel Hill's Kenan Flagler Business School

Victoria Ivashina
Lovett-Learned Professor of Finance and Co-Chair of the Private Capital Initiative at Harvard Business School



Tim Jenkinson
Professorial Fellow at Keble College, University of Oxford; Director of the Oxford Private Equity Institute and one of the founders of the Private Equity Research Consortium

Per Johan Strömberg
Professor, SSE Centennial Chair in Finance and Private Equity at the Stockholm School of Economics and Director of the Swedish House of Finance

Robert S. Harris
C. Stewart Sheppard Professor at the University of Virginia Darden School of Business

Fran Kinniry
Principal, Global Head of Private Investments at Vanguard Investment Strategy Group

Petra Bukovec
Partner, Pantheon's Global Secondaries Team

Alex Rogers
Managing Director, HarbourVest Partners, LLC

SESSION I:
The Future of Private Equity

Greg Brown: Good day everyone, I'm Greg Brown, professor of finance at the University of North Carolina-Chapel Hill's Kenan Flagler Business School and Research Director of the Institute for Private Capital. Welcome to the 2021 IPC Private Equity Research Virtual Symposium, which has been organized in partnership with the Oxford Private Equity Institute.

For those of you who are new to the Institute for Private Capital, our mission is to improve public understanding of the role of private capital in the global economy. We do this by making use of a multiple university consortium of academic researchers as well as our ever-growing network of industry professionals. We currently have faculty from dozens of top business schools involved with our research efforts.

Our main focus is lowering the start-up costs for conducting research in private markets by curating access to new high-quality data sets, typically in collaboration with our industry partners. We're a membership organization, and we welcome any member who has an interest in advancing high-quality, disinterested research on capital markets. IPC members include foundations and endowments, pension funds, sovereign wealth funds, banks, GPs, consultants, and other service providers. We rely on the support of our members to fund our data efforts, and we thank them for their involvement and support of our research.

IPC currently has three research initiatives. The first is the Private Equity Research Consortium, which is hosting today's symposium. Then there is the Commercial Real Estate Data Alliance and the Active Management Research Alliance. In our first of three sessions, we'll hear from **Tim Jenkinson** of Oxford University's Saïd Business School on the future of private equity. Tim's presentation will be followed by an academic roundtable moderated by **Bob Harris** from UVA's Darden School of Business. We'll then wrap up with an industry panel on what's next in private equity that is hosted by me.

With that, let me introduce **Tim Jenkinson**, who is director of the Oxford Private Equity Institute and one of the founders of the Private Equity Research Consortium. Take it away, Tim.

The Future of Private Equity

Tim Jenkinson: Thanks very much, Greg, and it's nice to be here, although it would be nicer if you were all here in Oxford with us. As some of you may know, this is the time we normally have the European Private Equity Consortium conference. It's been here in Oxford once before, but unfortunately not for the last two years.

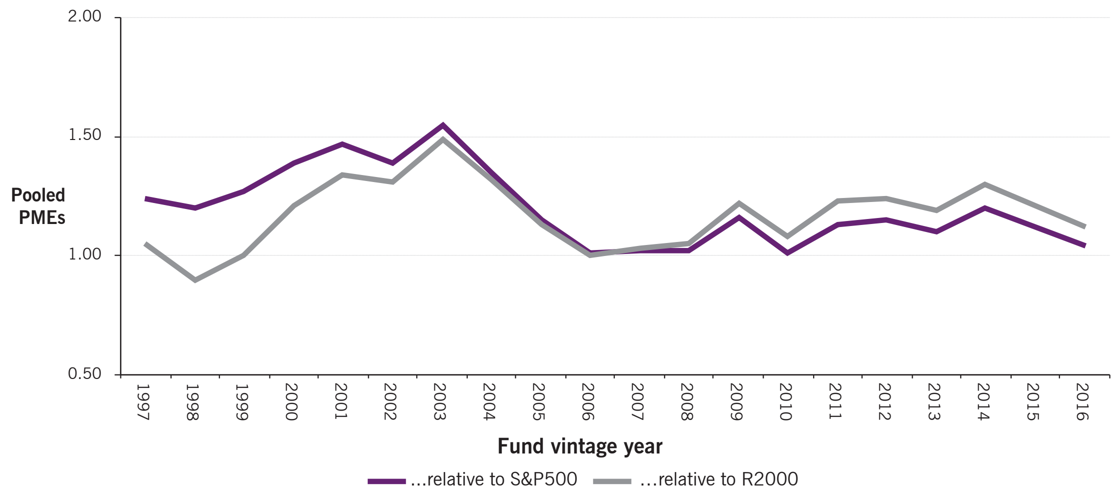
For the next 20 minutes, I will give you a briefing on the future of private equity. In so doing, I'm going to focus on four topics that I think are very timely. We're going to start by looking at whether things are going to grow or shrink for the entire PE asset class. Second, we'll look at how such growth is expected to divide between buyouts and VC. Third, we'll look at whether private equity is going to be more available to public investors, in particular retail investors, instead of being essentially an institutional asset class. Fourth and last, in this day and age, we can't really talk about private equity without talking also a bit about Special Purpose Acquisition Companies, or SPACs. We want to see what people think about the *SPAC*tacular goings on at the moment, and whether they are likely to continue. This is a question on which people now differ widely in their views.

Anyway, I think it's worth noting at the start that I've been *promoted* for this event. I don't normally get to talk about the future. I've often been asked to discuss the "state of private equity," which involves mostly looking in the rearview mirror and saying how things have been going. But now that I've been promoted to talking about the future, I thought it only fair to warn you that my track record on predictions is far from perfect. And there are four of my past predictions that I want to mention briefly.

The first in this list was that Brexit would be voted down, and the U.K. would remain within the EU—which of course was not how things turned out. Then there was my call on the inconceivability of a Trump victory in 2016. I also expressed doubts that Boris Johnson would be a future Prime Minister. And last was my call on when things were going to return to normal from the pandemic; I was quite early on this, predicting autumn of 2020.

So keeping these four predictions in mind, take my comments with more than a pinch of salt. But also try to keep in mind that, as a financial economist, predictions have never been my game, no more than picking stocks or projecting next quarter's interest rates or GDP.

Figure 1
U.S. Buyout Funds Relative to Public Market



Will PE Continue to Beat Public Markets—and PE Allocations Keep Growing?

So with that disclaimer, let me start with this "more or less?" question about future PE returns and GP allocations: How do we think private equity is going to perform relative to public markets in the future? Providing an answer inevitably requires that we look a bit at the past because the future depends upon how well the asset classes have actually been doing.

I'm now going to show you some evidence on the returns, the most up-to-date we've got, which is based on use of the Burgiss data on cash payouts to LPs through the end of 2020. And I'm going to focus here on the returns of PE buyouts net of all fees and carried interest for the GPs, and then compare those buyout returns to the pooled returns of a public market equivalent, or PME.

Now, there are plenty of other ways we could look at this, but most academics—and a large number of practitioners—believe that net PE returns vs. PMEs is the best way to think about relative performance, about how private equity performs relative to a comparable asset class. What you can see here in Figure 1 is an updated version of a figure that many of you will have seen in my presentations in the past, which looks at the performance of U.S. buyout funds relative to public markets.

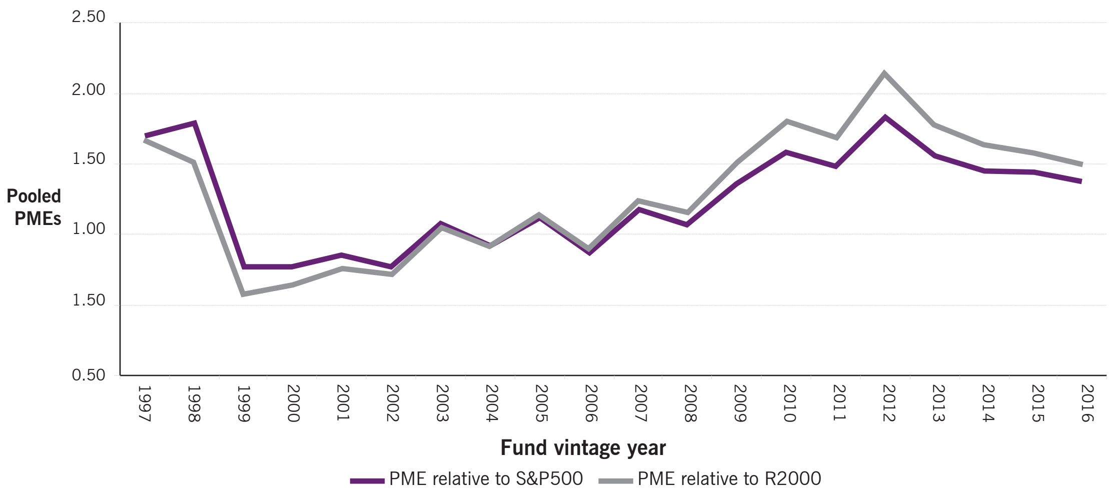
For those of you less familiar with PMEs, if and to the extent that you're beating 1.0, then you're beating public markets. For this presentation I've looked at the net PE returns relative to both the S&P 500 and the Russell 2000. They're rather different taskmasters to begin with and, in the early part of the period until about 2003, the Russell 2000 was more demanding. Many people would also view it as a slightly fairer comparison, given that it consists of more mid-cap companies that are often the focus of buyouts. Nevertheless, in recent years, the S&P 500 has been the sternest of taskmasters and a very hard index to beat. But as we'll see, during the vintage years 2000-2016, U.S. buyouts have been beating public markets. The final year in my sample is 2016 because it takes funds about five years to become fully invested—although we of course will not know the ultimate performance until all the portfolio companies are sold.

So, when you compare the returns of the LBO vintages through 2016 with the S&P 500, you see that U.S. buyouts have continued to beat public markets. And I find that interesting because a few years ago people everywhere were expressing great skepticism about PE's future performance, which had already showed signs of falling off after the 2002 vintage. If you then extrapolated what was happening in the period 2003-2006—especially the amounts of capital raised by PE funds and the multiples being paid to close transactions—you might have predicted that buyouts were about to under-perform public markets.

But, as our most recent set of studies has shown, the global industry as a whole has managed to stay above

Figure 2

Net Returns of European Buyouts Relative to Those of the MSCI Europe



public markets, to produce returns on investment—again, net of fees—that have outperformed public market indexes for its now close to 40-year life. For instance, when you look at Figure 2, which shows the net returns of European buyouts relative to those of the MSCI Europe, European private equity on a pooled basis has always, in every year and vintage, managed to beat European public markets, which has driven a lot of the continued interest in Europe. But benchmarks really matter in this case. If you instead compare these returns to the S&P 500, the figure would look quite a bit lower—reflecting both the outperformance of U.S. markets and exchange rate changes—but I think that European public markets are a fair comparison for investors who are thinking about how to get exposure to European equity. Even during the global financial crisis and a few years thereafter, when Europe was a very unfashionable place for investors, European private equity on a pooled basis outperformed public markets.

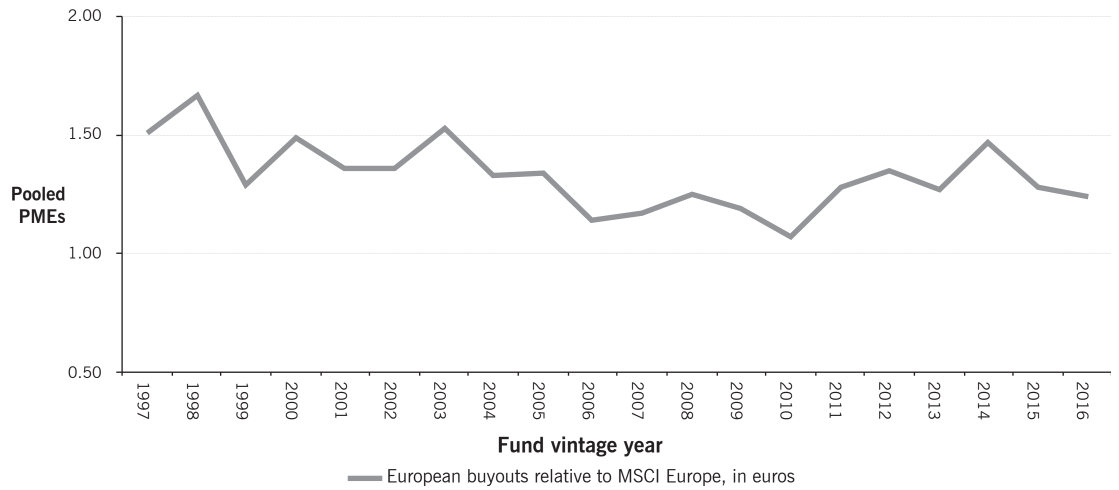
And this record of past performance leads to my first prediction, which is that I think allocations to buyouts will continue to grow. Now, that's not to say that the premium hasn't fallen, but I think it's still attractive. And it's important to remember that that premium excludes any of the benefits that might come from the increasing focus on seeking coinvestment opportunities that bring down the cost to investors and effectively boost the net returns of the larger, more sophisticated and experienced LPs that are able to negotiate effectively with the GPs.

Also often cited as a benefit of PE investing—though I think this is somewhat controversial—is the preference for some investors for the "smoothed" NAVs reported by PE funds. As one example, we now have clear evidence of the smoothing of the NAVs of both buyout and venture capital funds during the pandemic. Much of this reduction in reported volatility is clearly an illusion—the result of using completely different mark-to-market methods and valuation intervals—but some investors seem to assign (way too much) value to that feature.

And one other accomplishment of buyouts has been to gain the confidence of LPs. Having now come through two major crises relatively unscathed, investors are getting more comfortable with investing in buyouts. In the case of Europe, where the public markets are a much smaller proportion of the total assets, buyouts have done a good job at capturing value for investors through those cycles while continuing to provide consistently higher returns than public markets.

So, unlike many of today's observers who are troubled by the amounts of capital raised, the prospect of too much capital chasing too few buyout deals, and deal prices that are clearly high by historic standards, I don't believe that the PE industry is now at a peak and that somehow allocations are going to fall because the returns have been coming down over time. The returns

Figure 3
Performance of VC



to LPs net of fees have stayed attractive enough that investors will at least maintain, and probably keep increasing, their already significant allocations to buyouts.

Buyouts vs. VC

Now, in terms of the future of venture capital as compared to that of buyouts, it's important to start by noting that the dynamics and trajectory of returns of buyouts and VC have been hugely different. There was what amounted to a "lost decade" from 1999 onwards. In 1999 and 2000, something like $100 billion a year was committed to U.S. venture capital, and on average these funds did extremely poorly relative to public markets, having come to the dot-com party too late. And when large numbers of investors got burned by large losses, the market shrank. As can be seen in Figure 3, the returns to VC were disappointing for many years, but since the global financial crisis, the performance of VC has improved dramatically. Returns have been going up pretty steadily, which has driven a lot of capital into the funds, though not enough to reach the historic high levels of capital committed to VC during the 1999 and 2000 vintage years.

When we all started having conferences on private equity, it was axiomatic that buyouts had done better than VC when looking at U.S. data. But that has ceased to be true for about a decade now. If you managed to get into the pooled universe of venture capital and so had access to a broad spectrum of funds—and that is an important condition—you actually did better in VC than buyout funds during this period. The important qualification here is that the median fund returns in the U.S. have been rather less attractive than the pooled fund returns, which have been very good. This reflects the extraordinary performance of the top-performing VC funds. It's more difficult to generalize about VC funds in Europe because the data available about European VC is much sparser, though it's been developing quite rapidly. Nevertheless, what data we have is sending a similar message—namely, that European VC has also been doing pretty well relative to public markets like the MSCI European index. I think that it's been a good experience for investors recently, and I think it's going to continue.

My second prediction here is that European VC funds will continue to attract much more capital. I think that's partly because many investors did abandon VC after the dot-com bubble and, as a consequence, the allocations to VC have not actually been that large for many institutional investors during the last 10 years when the returns to VC have somewhat eclipsed buyout returns. There are also particular sectors, such as fintech and new insurance models, that are particularly attractive to investors and are developing faster in Europe than in the U.S. VC also experiences little of the negative press that comes with buyouts, with the possible exception of GP lack of diversity—a

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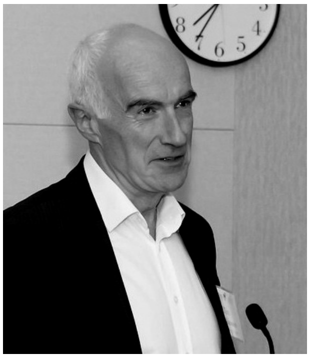
— Tim Jenkinson



challenge which I think is only now, and slowly, being addressed.

I think the real question here comes down to whether the recent flood of capital into VC—in both the U.S. and Europe—can be profitably deployed, with the danger of too much money chasing too few innovations. Once again, I don't claim to have a crystal ball. But it seems we are living through a significant innovation boom, with many disruptive and significant investment opportunities in biotech, artificial intelligence, machine learning, crypto, and many other areas. Whilst you've always got to worry about too much money flooding in, I think we have a few years to run yet, but we shall see.

The Future of PE for Retail

The third issue I wanted to just touch on are proposals for expanding access to, and opportunities for, private equity investing by the public. Of course, there have long been opportunities for retail investors in private equity. There's been business development corporations, investment trusts, and there's been listed funds of funds—such things have been around for a while. But I think that the case for greater private access keeps getting stronger as the performance of buyouts continues to look, to skeptics at least, *surprisingly* good. There will be more innovations, and I think capital will flow into this area in slightly different ways.

As one example, what I call "funds of funds 2.0" look promising to me. The old fund of funds model, which was to add a 1 and 10 fee structure on top of the 2 and 20 charged by funds, has largely disappeared. We're now looking instead at fund-of-funds models that deliver wide portfolio diversification along with co-investment and secondary opportunities, along with a much more investor-friendly fee structure. I think such products are going to end up attracting a lot of capital. We see some of today's institutional focused funds-of-funds managers now teaming up with much more retail-focused fund managers, and I think that movement is heading further into retail-investor territory, even though at the moment the market is mainly for accredited investors. But the important thing to note is that the direction is *down* the hierarchy from larger institutional investors toward smaller and more retail participation.

Now some of this could happen within the pension "wrapper" allowing us all to direct some of our established portfolios much more readily into the private markets. But that said, I'm a bit wary of including them into pitches involving defined contribution pension schemes. Regulators are starting to sound more permissive in many places, but I think there are some major challenges there, in particular within Europe. For example, many of today's DC pension plans have caps on fees. If you've only got 10% of private equity in your portfolio, this might result in such caps being breached, although this depends in part on whether carried interest is treated as part of the "fee."

So, although I don't exactly rule out PE secondary products for retail in DC plans, there is more challenge there. My prediction here is that private equity for the public will grow, but maybe more slowly than we think. Closed-end structures work well for retail investors, including hybrid public private funds, and I have a vested interest in saying that since I'm on the board of a new public-private investment trust in the U.K. But I think that this sort of structure can actually work rather well. The fund-of-fund structures where liquidity is more limited—allowing sales or purchases every quarter or every month—can work perfectly well, but I think that allocations to DC plans will probably be slower, especially with concerns about fiduciary duty and potential litigation in the U.S.

Within Europe, the shadow of the Woodford debacle also hangs over us. Many in the U.S. may not know about that, but it was a very popular mutual fund, allowing daily liquidity, that got overallocated to private equity and had to be suspended and then unwound. I think that is a shadow that hangs over the retail market, certainly in the U.K. and maybe in some other countries as well. That's one of the other reasons why I think it will be slower than had previously been thought.

SPACs Are Dead! Long Live SPACs!

And that brings us to my final topic: SPACs. As I said earlier, I view SPACs as partly a private equity topic and partly an IPO topic. SPACs can be seen as in some ways a competitor to late-stage private equity. Certainly, some SPACs are the functional equivalent of single-deal private equity funds, and they must be competing with late-stage private equity funds for many of the same assets. But at the same time, SPACs in the current wave have been very useful to VC funds that have had a lot of assets in their portfolio for a long time. A lot of those VC funds seem to have been exiting their investments by SPACs, so I see them as more friend than foe to the venture community.

Having said all this, there are few topics that I can think of that divide academics and commentators more than the soundness and future of SPACs. A great many people now view SPACs as essentially a Ponzi scheme—something they can't really understand how investors could fall for. Others believe that if you take a disciplined approach to it, and you pick them carefully and decide when to get out, the risks for investors are manageable. They are attractive if you are prepared to take an active approach and not be asleep at the wheel. I put myself in that camp; I don't think they are a Ponzi scheme.

The other thing to note is that this current wave is going to have very long-lasting effects upon the U.S. primary market in the sense that we've seen more IPOs and exits taking this route than in many years. I'm especially struck by the geographical distribution of issuers; we're seeing a lot of non-U.S. companies that are going public with this essentially U.S.-based boom and so ending up listed on U.S. public markets.

So here's my prediction: SPACs are dead, long live SPACs. What I mean by that is that I do think the current U.S. wave will end in tears for many investors, they'll lose a lot of money. And I think we're already starting to see that. That's not to say they'll all lose money, but maybe 50% are going to lose money. Many investors have viewed the proposed deals through overly optimistic glasses.

But even so, we shouldn't conclude that the SPAC structure is flawed. I don't think it is. In fact, I expect them to become mainstream, and so not subject to these sorts of wild swings in fashion we've seen in the past. We had a huge boom in SPACs in '06 and '07, and then we had none for the next five years. And we've got a significant boom at the moment.

But the volatility of SPACs notwithstanding, I believe that they actually provide investors with an interesting risk-return opportunity. I think that for both private equity owners and for some founders, SPACs are a pretty attractive way to get onto the public market. Given the misgivings that many people have about a conventional IPO, they can be an attractive alternative way to go public, with additional investments coming in from PIPEs, or private equity investments in public companies. I think that European regulators are going to change regulations to facilitate more SPACs, partly because they fear that their most successful companies are going to list in the U.S. I think Europe is going to ease rules just at the point when the U.S. SPAC wave starts to fizzle out, which I predict will be pretty soon.

And let me stop with that. Those are my four predictions, and since I look forward to hearing what my colleagues have to say on this, I'll hand the floor over to Bob Harris, who will moderate the next stage of our discussion.

SESSION II:
More Academic Views on PE

Bob Harris: Thank you very much, Tim. I'm pleased to moderate what I think will be a great panel. Joining Tim in this discussion will be **Victoria Ivashina,** who is the Lovett-Learned Professor of Finance at Harvard Business School, and **Per Stromberg**, who is the Centennial Professor of Finance and Private equity at the Stockholm School of Economics and Director of the Swedish House of Finance. Especially since each of these three individuals have helped us learn a lot about this asset class, I look forward to the discussion.

I thought we might start things off by just giving Victoria and Per a few minutes to respond to Tim's presentation. And let me start with you, Victoria. Tim has a fairly positive view on private equity, and his predictions, especially for VC, are pretty bullish. Do you share that view? And do you see other important trends coming ahead?

Some Questions about the PE Record

Victoria Ivashina: Tim gave a great presentation, and I found little to disagree with. For example, I share his outlook for venture capital versus buyouts. I am a little bit more optimistic than Tim about the prospects of the broader public gaining access to the private equity asset class more directly. Though Tim emphasized the many ways for the broader public to access this asset class already, I want to point out that when you think about the underlying economics of it, all of those PE vehicles—including the traded equity of today's largest private equity firms themselves—have very different characteristics, and, as a result, returns that differ from those of the actual investors in the underlying funds.

As for my thoughts on SPACs, I am also largely in agreement with Tim's view. I would describe SPACs as a different structure for taking companies public that should coexist with IPOs, and that is most suited for younger and smaller companies.

Having listed the points I agree with, I now want to pose some questions, and the first is about the wisdom of extrapolating the future performance and growth of the buyout industry primarily based on the past trajectory. The past, of course, gives us important insight for predicting the future and—even based on this information alone—the conclusion I reach is that the performance of the buyout class continues to be less than spectacular. One possibility, to be sure, is that the average performance numbers could be concealing exceptional performance by some very consistent outperformers; and the argument that the best continue to outperform has long been part of the record, at least until the past few years.

As a side point, I think we should base our assessments on risk-adjusted performance measures rather than simple net returns with few, if any, adjustments for the risk and illiquidity of PE investments. And this is where the skeptic in me comes out: Though I'm on the side of PE outperformance, I don't think the outperformance has always been as decisive as it's been made out to be.

Now, if you take a step back, it is easy to see that buyouts in particular, and venture capital as well, are mature asset classes that will continue to play an important part in the portfolios of many large institutions for a while. Indeed, I think they have established themselves as an *essential* part of a large institutional portfolio. The massive inflow of capital into buyouts and VC that we've seen in the past decade or so is likely to continue, if only because of their past returns—which is, of course, what pushes money into this industry. But I think we also need to consider the roles of some macro factors in PE's success and evolution. This is where the past might not be so representative of the future. Notable among such factors is the fact that the industry has developed into a mature asset class against the background of 40 years of decline in interest rates. We are at essentially zero as far as interest rates go, and we've been at zero since 2008. Note that the interest rates cannot go down any farther, and policy makers have resorted to an alternative set of tools for monetary policy.

For now, it is unlikely that the interest rates would suddenly reverse—which, by the way, I think would be bad for the PE industry. The most likely scenario is that the rates will stay at zero. However, the tailwind of low rates that helped drive the high returns is dying down, and investors everywhere are trying to figure out how to cushion their portfolios against the possibility of higher interest rates. But unlike what happens in the public market, allocations to private equity are a slow moving process. We are still witnessing the effects of the decisions that were taken a decade ago, when many large institutional investors decided to scale up their allocation to private equity. But when this wears down, which it will and soon, my prediction is that mature asset classes like PE will grow in propor-

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tion to the economy, but no faster. The excitement about the alternative asset class, which was coming mainly from this macro push that I described, will die down.

An "Equilibrium" Take on Private Equity

Bob Harris: Thanks, Victoria. Per, what's your take on PE these days?

Per Stromberg: I pretty much agree with most of what Tim and Victoria said about both the flow of capital to and the returns of private equity. I have an equilibrium take on this. I start by asking, why do people invest in private assets? My simple answer is that the LPs in private equity funds expect to be compensated by somewhat higher-than-normal returns for locking up their capital in illiquid funds and liquid assets. The average return you get from investing in private equity above the return on public markets is the compensation you get for locking up your money in these funds.

This in turn implies that the return to private equity in equilibrium will depend on how costly it is for investors to give up that liquidity, to put it in private assets. And this brings us to Victoria's comments about interest rates and other macro factors. One way to think about the low interest rate environment is that it makes liquidity pretty much free; and as long as liquidity is free, investors will demand very little compensation to invest in illiquid assets. In such times, what we expect to see is bigger inflows into the asset class and lower expected returns going forward.

And that's pretty much how I see the equilibrium we're now in. When interest rates start going up, liquidity will become more expensive, and we will see a drop in allocations to private equity and falling PE valuations to adjust for a higher interest-rate environment, which will obviously be a hit to PE performance. After the adjustment, we should expect higher expected returns, consistent with higher liquidity premia. This is pretty much the pattern we have seen in the past—for example after the tech crash in the early 2000s.

Now, what about the question of the future of VC versus buyouts? Long ago, Mark Wolfson, who is both a professor and an investor—as well as a very wise person when it comes to these things—argued that you should always have a VC allocation because it amounts to "a lottery ticket" on future innovation. Whenever there is some big paradigm shift, whenever there is some big turmoil going on, new technology, Internet, big data, whatever, then VC will shoot up. But during times when nothing much is happening, VC performance will be more mediocre. We saw one such episode in the late '90s, and I think we've just experienced one fairly recently, which I'm guessing we're about to reach the end of.

Another important consideration is that, in the case of large-cap buyouts, infrastructure, and most of the private capital market, there are really not any barriers to entry; investors can just deploy more and more capital and funds can keep growing. But if we're talking about VC, especially the top early-stage start-ups and so on where some of these big returns have been seen, they just cannot put to work infinite amounts of capital; start-ups generally need only small amounts of financing. For VC firms, the bottleneck is the human capital of the investment professionals rather than fund capital.

So, it's one thing to see that VC returns look attractive, but we also know that the attractive returns are generated by a small fraction of all the top VC funds, which are of course hard to get access to. This means that there are a lot of LPs who would love to invest more in VC than there are funds for; so many of them will be turned away. Many VC firms have of course started raising larger, later-stage funds—with the Softbank Vision fund being the largest and best-known example—to tap this demand by LPs for VC investment opportunities. But I have great difficulty seeing these funds earning any more than mediocre returns.

Now, when it comes to SPACS, I think I'm much more pessimistic than Tim about their future returns and prospects. In thinking about whether SPACs are a good thing, one must think clearly about "good for whom" because there are at least four different stakeholders and sets of interests here; and the alignment of those interests is far from perfect. There's the sponsor, and the other investors, mostly hedge funds, who buy into the IPO. Then there's the so-called PIPEs investors who are invited to purchase at a discount additional equity capital as needed to close the de-SPAC acquisition. And finally, we have the retail investors who buy these stocks in the secondary market after the SPAC has made its acquisition.

As Tim can tell you, we now have a considerable body of studies of SPACs. And what this evidence seems to show is that for the first three groups—sponsors, IPO investors, and PIPEs investors—the returns to SPACs have been pretty good. But for retail investors, they've been awful. And as long as SPACs are expected to continue to be awful for retail investors, the transactions are not sustainable.

At the same time, on a more positive note, we've seen an enormous range of outcomes, along with an influx of more serious sponsors—PE and VC funds that can actually execute and evaluate deals. We have also seen some promising contractual innovation that could provide assurance and improve the prospects for retail investors. One of the biggest contractual challenges with SPACs is the absence of the certification process that takes place in conventional underwritten IPOs. In a typical IPO, investors are given the opportunity to evaluate the companies before deciding whether they want to buy their new stock. In the standard SPAC model, the IPO investors have limited incentive to evaluate the companies because of their downside protection and their allotment of warrants that enable them to profit from upside outcomes. This arrangement allows the IPO investors to get all their money back by redeeming or selling their shares while keeping the warrant; and as long as investors think the expected warrant return is higher than the risk-free interest rate, which is now super low, they should be happy to invest in whatever SPAC comes around. You don't have to evaluate the sponsor or their ability to find good acquisition targets because by the time the SPAC acquires a company, you've already gotten your money back.

Now, in Sweden we have had a few SPACs with different contractual features that are designed to correct these incentives. For example, you can't separately trade the warrants from the unit and if you're going to redeem the shares, you have to give up the warrant. That changes the screening if you're an IPO investor. This is only going to be a good deal for me if I truly believe in the sponsor.

That's on the plus side. On the negative side is the huge numbers of SPACs out looking for deals. When I asked a SPAC sponsor recently here in Sweden "what's your edge here—are you good at finding companies?," he said, "Finding companies is not the problem. The challenge is selling yourself as a good buyer to the target companies. You have to convince the company to sell to your SPAC rather than someone else's." And to me that does not sound like a prescription for a lot of value-adding acquisitions on the buyer side.

To be viable in the long run, SPACs have to be a good, or at least not an awful, deal for retail investors. I talked this morning to the person responsible for evaluating new listings at the NASDAQ stock exchange here in Stockholm. And he expressed great skepticism about the common argument that SPACs provide an easier way for good companies to go public. If you sell to SPACs, you don't have to go through all of the filings, the book-building scrutiny, and stuff like that. But today's regulators and stock exchanges are very concerned about retail investors losing money, along with fraudulent and non-serious SPACs. They are also stepping up the requirements for de-SPACing, the mechanism by which a SPAC acquires and merges with an existing business. At the Stockholm Stock Exchange, they will go through and evaluate the company more or less the same way as they evaluate any other listing. They will look at whether you have three years of financials for the target that you're requiring, is this a serious business, etc., and they decide whether you're going to be allowed to stay on the stock market. And if the regulatory burden and red tape end up being comparable to those in IPOs, then it's not clear to me that selling your company to a SPAC is providing such a great advantage over going public in the regular way.

Co-investment and Higher Net Returns for LPs

Bob Harris: Well, Tim, at least one of your predictions we now know to be correct. You said we wouldn't all agree about SPACs. And let me give you a chance to respond. I've also received a bunch of other questions on the macro side and this concern that PE has raised too much capital. Anything you want to say on that, or is that just a little bit of headwind on your prediction?

Tim Jenkinson: I agree that buyouts are a mature asset class and so we're heading towards an equilibrium. But what you don't always see in the data are the actual net returns that investors experienced on the whole. The fact that the median "nominal" or "posted" fee structure on buyout funds has still been as high as almost 2% after a period when the fund sizes have quintupled is to me just extraordinary. Such high fees are driving down returns to some extent, as it gets harder and harder to produce good returns on much larger funds. But running beneath and to some extent counteracting that effect has been increasing levels of co-investment by LPs. Many of the largest and most sophisticated LPs will say to their GPs, "I'm not coming into your five or ten-billion dollar fund unless a significant part of that takes the form of essentially zero- or low-fee deals where I can co-invest alongside you."

So, we think that there is now quite a bit of price discrimination by GPs going on in the background, with smaller, less established LPs far more likely to pay "rack rate" fees. And so, although we can't observe this fee-cutting practice directly, I think that the investor experience might be a little better than we're seeing. That's one important way in which the industry is responding to investor demand for illiquidity and other risk premia, which people are clearly right to be thinking about and looking for signs of. Finance scholars would really like to see who is getting to co-invest and who is getting better terms on deals, but it's one of those very well-kept industry secrets.

PE Activity around the World

Bob Harris: Tim noted some differences between the European and the U.S. market. Per, do you think Asia will continue to be a huge growth area? Do we expect performance there to rival what it's been in Western Europe and the U.S.?

Stromberg: I agree completely with Tim's comments about VC. Buyouts here in Europe have been a mature market for almost as long as in the U.S. What we are seeing now here in Europe is a lot of interesting VC activity, a lot of tech hubs. Victoria probably knows more about this than I do, but I find it very hard to evaluate Asian performance so far. There's clearly lots of interesting new technology companies, and lots of interesting private companies in general, in Asia. And we have seen a flurry of new PE funds raised in the region. On the other hand, it's a much less transparent market. A lot of these countries have governance structures that are nonexistent in Europe or the U.S. In addition, the standard data bases we use to evaluate performance have much worse coverage in Asia. As a result, it just seems very hard to evaluate how well Asian private equity actually has done. I sometimes hear success stories about all these fantastic Chinese PE funds; but when I look at whatever data is available, the performance looks pretty mediocre.

Therefore, I don't really know how Asian PE is doing, or how it's likely to play out. Yes, there are a lot of private companies, lots of growth in that part of the world, and so you would expect private equity to grow there. But I can't tell you much about the track record so far because I'm not sure anybody has the data to tell us.

Ivashina: We had this period in history where every large private equity institution thought the next stage for growth was geographical expansion, and so they aggressively pushed into emerging markets. But most of those operations have failed to prosper or even survive. From this historical perspective, when I look at a broader landscape, it is hard for me to think of some factor that would dramatically reverse that outcome in the case of private equity. The problem here is largely rooted in what Per just mentioned: the still substantial issues with the stability and transparency of these governments and their legal and regulatory systems in many countries. Until we see significant reforms, there's little basis for thinking, "Though we failed back in the first wave of private equity in emerging markets, this time is going to be very different."

My second observation is that, during the pandemic, there were likely pockets of emerging markets where private equity flourished, even though the pandemic has been terrible for emerging markets overall. The U.S. and Europe were able to deal with the pandemic by pouring money at businesses to rescue and sustain them. That fiscal capacity is just not available in most emerging markets, so they have to figure out how to restore their macroeconomic stability. The heightened vulnerability of emerging markets has become very clear in the past year and a half, and my guess is that global capital will be very cautious before flowing back in any significant scale.

Jenkinson: I agree with that. Ten years ago, I would have predicted that private equity would really expand in

For LPs looking at GPs, the important thing is not just the spread between the top and the bottom, it's the persistence of outperformance and hence your confidence about who's going to be in the top. What's become pretty clear from Tim and his co-author's work is that the persistence in buyout returns isn't there anymore. Just because you are top quartile in your last fund has minimal information about whether you're going to be top quartile in your next, while in VC it has always been and continues to be strong.
— Per Stromberg

places like Africa and Asia—but it's been much slower than I expected. At the moment I get the impression that a lot of the large investment allocators—the sovereign wealth funds, the big U.S. pension schemes—are pretty much steering clear. Now, this pullback of global PE is partly the effect of the Abraaj debacle in which an emerging markets GP imploded, and we got to learn lots of things we had no idea were going on within the GP structure. That was a big setback to further global development of private equity. A lot of investors are quite conservative and think, "Well, I can get very good returns in the U.S. and if I want to be a bit racy, I can go to Europe. If I want to be super racy, at least at present with the uncertain implications of Brexit, I can go to the U.K.!

So, basically, you can be racy without going to Africa or Asia, and I think that's what's happened. I think there's been a certain shrinking of the allocation to some of these markets. I also agree with Per's point that the real problem is looking at it from such a great distance, and with such unreliable data, it's hard to know what the returns have actually been. I don't think any of us really knows.

Persistence and Manager Selection

Harris: Investors have to pick managers and choose funds. Do you have any view on whether the spread between the top and bottom performers is likely to widen or shrink as we go forward? Will manager selection be more or less important?

Tim Jenkinson: Over time in the buyout space, the dispersion between top and bottom quartile has shrunk pretty systematically. It's become much more mature, and part of that is that actually it's much harder to produce those really outsized returns on the buyout side. It's different in the case of VC, where the difference between the top and the bottom has remained pretty high. And I think this difference reflects the reality that the buyout side is much more of an auction where every GP gets to see more or less every deal, while deal sourcing is much more important in VC. There's also a bigger role in VC than in buyouts for name recognition. If you're seeking VC and you get one of the top GPs backing you, you're more likely to succeed, and that is sort of an enduring factor.

Stromberg: My view on manager selection is very much based on Tim's research. For LPs looking at GPs, the important thing is not just the spread between the top and the bottom, it's the persistence of outperformance and hence your confidence about who's going to be in the top.

What's become pretty clear from Tim and his co-author's work is that the persistence in buyout returns isn't there anymore. Just because you are top quartile in your last fund has minimal information about whether you're going to be top quartile in your next, while in VC it has always been and continues to be strong. These things go hand in hand with access. LPs can get an edge by being good at evaluating GPs and their teams, but at the end of the day there are a lot of investors who know who these predictably good funds are. And so these funds are going to be heavily oversubscribed, and individual LPs are not going to be able to invest that much money.

But back when the endowment model was the norm, everyone was trying to imitate Dave Swenson by maximizing their allocations with the top handful of PE firms. Today the role models in my neck of the woods are the large Canadian pension funds, whose model is more about investing in buyouts and improving your returns by co-investing and otherwise lowering your costs.

ESG in Private Equity

Harris: I'm going to ask one last question, about ESG or impact investing. Is all the talk about ESG today just window dressing in private equity, or do you think it's going to be an important part of the industry?

Ivashina: I don't think that private equity is any differently or better positioned to respond to ESG concerns than public companies. In general, I do *not* see private equity as leading the ESG charge, especially in terms of improving corporate governance. Which is not to say that they are necessarily worse, but they are not the agents of change.

Is everybody in the industry talking about ESG? Yes, of course. Do we agree how to measure it? No. For starters, we are still combining "E" and "G," which are far from the same thing. This is not a critique or skepticism, but simply an assessment of a process that is evolving, but not something we can change overnight. In the years to come, it will continue to be a topic of importance, and there will be major advances in the way we measure it. But there are no special differences, advantages or disadvantages, between public and private companies in managing ESG issues.

In terms of investing in or sourcing deals, I don't believe that the use of ESG criteria is causing private equity, broadly speaking, to choose or exit their deals differently. Some smaller PE firms or funds have specialized in and become ESG standouts, but—as of now—it is not a scalable strategy. No large public or private company to my knowledge has sold one of their businesses to a different buyer or passed up an attractive investment as a result of using ESG criteria.

But what about ESG on the operational side, as distinguished from decisions to invest? Here the main focus appears to be minimizing their exposure to the risks of things like political and regulatory intervention, and to media scrutiny that often goes under the rubric of "headline risk." This is where ESG awareness and actions are most tangible and important in the private equity space today. And as I already said, things will continue to improve, but you are better served by looking at the public market for signs of the evolution of ESG.

Stromberg: This is an area where I slightly disagree with Victoria, and maybe it comes from being in the Nordics, where I think the market might be a few years ahead. When ESG started becoming an issue for private equity, it was basically a matter of compliance. There were more and more LPs, public pensions, and so forth that wanted to invest in a responsible way. They increased the size of their due diligence, and they had to make sure that they had control over their CO_2 footprints, proper labor standards, and so on in all of the portfolio companies. This was sort of like the first stage, where again the focus was mainly on compliance and mitigation of regulatory and headline risk.

But what we are now seeing here is more and more PE funds *starting out* with ESG as an investment theme. They basically see the changes that every company will be forced to undergo unless they address them proactively. For example, we all know there eventually is going to be some kind of carbon pricing. We have hugely ambitious government programs to be carbon neutral by 2030 that are going to affect industry in a very fundamental way. And I see private equity and other kinds of private investment as today at the forefront of responding to and carrying out this transformation.

And this all makes sense to me because what PE is really inherently good at, far better than the public market, is transforming businesses. When you have to change your business model in a very fundamental way, I think that private equity has a huge advantage compared to the public market. In today's *public* market, ESG is very much about the use of standardized measures and questions like what's your CO_2 footprint, and how many gallons of water do you use, which is a pretty shallow, compliance-type approach. If you're really talking about how can we capitalize on a trend like climate change, or what do we need to do to become a steel maker that's viable ten years from now, private markets have a huge role to play in facilitating those kinds of transitions. And that's why I think PE companies are going to be at the forefront in responding to change. In such cases, the private markets are the place to be.

Investors have to pick managers and choose funds. Will the spread between the top and bottom performers likely widen or shrink as we go forward? Will manager selection be more or less important? — Bob Harris

Ivashina: I hear what Per is saying, but my point is that, for many if not most companies, it comes down to whether adjustments to ESG compliance really require what amounts to a very risky and costly *transformation* of a business. I agree with you that PE has an edge in execution of turnarounds and transformations in a number of ways. What I just don't see is ESG pressures really forcing large established companies, with the possible exception of oil and gas, to transform or reinvent themselves, at least not in the U.S. In the class on PE that I teach at Harvard Business School, I use the TowerBrooks case, which provides a good illustration of what Per has in mind. But the question I'm asking is whether something like this can be made to work at scale at the industry level.

Stromberg: I see a lot of examples, and in all kinds of areas. Recycling is one, steel manufacturing is another—and so are mining and transportation. In many industries, there is greater attention to ensuring that supply chains meet the same sustainability standards that have been committed to, if not yet realized, by parent companies. Think about what companies like Ikea and Walmart have accomplished in just the past few years. And contributing to—and in fact an essential part of—this development are ERM systems that make more extensive and innovative use of IT to monitor companies' progress in measuring and meeting sustainability standards.

Along with market demands for energy efficiency, external motivation for such actions is being provided by massive government intervention in the EU that is bound to affect many companies—and there is a huge discussion right now among both public and private policy makers about the EU taxonomy and its likely effects for good and ill.

But changes in market pricing also appear to be reinforcing such ESG efforts. I've seen several examples of "multiple arbitrage" in which reputable PE sponsors have succeeded in buying "less enlightened" companies at prices representing relatively low multiples of earnings or cash flow and, after overhauling their operations with both efficiency and ESG goals in mind, then selling them for significantly higher multiples.

Now, it's hard to say how long-lasting this opportunity will turn out to be. But there is definitely a lot of this going on right now in Europe, not the least in the Nordic countries. In the last few years, a growing number of PE funds that used to be "generalists" have become increasingly focused on individual sectors. In fact, almost all of the big ones in the Nordics—many of which specialize in tech and healthcare—have also adopted sustainability as a major focus.

Harris: Per, that's a great note to end on. Tim had the first word in this panel, and I'll use the last to thank our panelists. Great job everybody, and interesting comments; and with that I'll now turn the floor back to Greg Brown, who will run the next phase of this meeting with a distinguished group of industry participants.

SESSION III: Practitioner Perspectives on Private Equity

Greg Brown: Thanks, Bob, for moderating that interesting discussion; and thanks to Victoria and Per and Tim for their insights. It's now my pleasure to start this third and last of our PERC conference sessions by introducing our three industry panelists. I'm going to start by asking each of them to tell us what the future holds for not only the buyouts and VC deals that make up the lion's share of PE investing, but for all kinds of private investment markets, conceived as broadly as possible.

And before starting in on our subject, let me say a word about each of our practitioners:

Petra Bukovec is a partner in Pantheon's Global Secondaries Team, where she has spent the past 15 years originating and executing on the widest range of private equity secondary investments, including both GP-led and traditional LP portfolio transactions.

Alex Rogers is a managing director at HarbourVest, a firm whose main focus is direct co-investments in growth, equity, buyout, and mezzanine transactions. Alex is a co-head of both the firm's co-investment and its private credit business, and he plays a major role on its Quantitative Investment Strategies teams, which advises the CIOs and CROs of its clients on their asset-liability and risk management strategies.

Fran Kinniry has spent over 20 years at Vanguard developing and putting in place the firm's research agenda as well as its investment strategy; and for 18 of those 20 years, he has been Vanguard's head of asset allocation and portfolio construction. But as part of that process, Fran has also long been thinking about private equity—so much so that a lot of people in this audience might be surprised to learn about the role that an investment form as "active" as private equity now plays in the strategic approach of a company like Vanguard, whose name is synonymous with "passive," or "indexed" *public* equity investing.

So, again, thank you all for joining us today. I want to start the discussion by citing some high-level facts we touched on in the first two sessions, but maybe reframe them slightly. First of all, assets in private fund structures have been growing at about twice the rate of public asset markets for a couple of decades now. And this expansion has taken multiple forms. Geographic expansion is one, as we've touched on, but it's also an expansion of strategy, involving in some cases different kinds of assets. Along with buyouts and VC, which has been our main focus so far, we've also seen increases in credit funds, infrastructure, real estate, private equity and other real asset type of funds. It's also involved changes in investment types, in the form of increases in co-investments, secondaries, and directs.

To me, these changes raise two fundamental questions in looking forward. The first one is, what aspects of the industry are going to continue to experience rapid growth? The second is, will the opportunities for superior risk-adjusted returns follow those growth trends, or do investors need to become more discerning as other areas start to mature?

My hope, and my expectation, is that we will get some useful answers to these questions out of our conversation today. And with that, I'll start by asking each of you to say a few more words about your role and your perspective on these questions. From your vantage point, what are the most significant changes that you see in store for the private investment space over the next few years?

Petra, let's start with you.

The Promise of a Secondary PE Market

Petra Bukovec: Thank you, Greg, and good afternoon, everyone. As Greg said, I'm a partner on the private equity secondaries team at Pantheon, a private markets asset manager that invests in private equity, infrastructure and real assets, and private debt. I agree completely with the comments in the earlier sessions that private markets will continue to present attractive opportunities for institutional and, increasingly, for retail investors, too. On the institutional side, we have seen allocations to private market investments continuing to grow as investors seek alternative sources of income as well as capital appreciation. At the same time, we expect factors like their smaller size and in-house team capacity, limited access, and higher liquidity requirements to remain major challenges for retail investors, and for smaller institutional investors as well.

But even with these challenges, we expect the structures that are now being developed for the retail markets to lead to higher allocations to private markets by those investors, and from the smaller institutions as well. The recent development of shorter-duration products driven by maturing and growing secondary markets can and, in my opinion, will drive further growth across private markets segments. In the meantime, we continue to see significant growth in all major areas of private equity, in buyouts, VC, and infrastructure—and, more recently, on the private debt side as well. A recent report by Preqin forecasts that

GPs will continue to use the secondary market as an exit mechanism for select portfolio companies—one that allows the GPs to continue to share in the upside of "star" assets and will fuel ongoing growth on the GP-led side of the market. — Petra Bukovec

the combined AUM of these asset classes will reach $11 trillion by 2025, almost twice that of today.

But what about the secondary market more specifically? This segment has experienced significant growth in the past ten years, increasing from an annual investment volume of about $20 billion to $90 billion in 2019. We saw a drop in activity in 2020 that was driven by a decline in traditional secondary transactions, but this was to a certain extent offset by increased deal flow on the GP-led side of the secondary market. Longer-term growth in traditional secondary deal flow will continue to be driven by increased turnover—that is, a higher proportion of AUM changing hands in a given year—combined with the broader growth in private equity AUM I just mentioned.

In the meantime, GPs will continue to use the secondary market as an exit mechanism for select portfolio companies—one that allows the GPs to continue to share in the upside of "star" assets and will fuel ongoing growth on the GP-led side of the market. As I said earlier, we were at $90 billion in 2019, and I think we will surpass that figure this year. I think there's a general consensus that the secondary market volume can grow to $200 billion in the next two or three years.

Active Management of PE Investments Using Secondaries

Brown: Thanks, Petra, for the interesting insights, and we will come back to some of them later. Alex, I now want to turn to you. What do you see as being the most significant changes in store for the private investment space broadly?

Alex Rogers: Thanks, Greg. As you mentioned earlier, I'm one of the co-heads of both our co-investment and private credit businesses, and I also sit within our executive sponsor of Quantitative Investment Strategies teams. We spend a lot of time talking with chief risk officers, as well as CIOs who rely heavily on quantitative methods, about their strategies and their requirements.

I want to comment on private equity from two perspectives. Having been at HarbourVest for 23 years, and watched the industry evolve over quite a long time, I find that one of the biggest changes is that PE investors are starting to think about using private equity for different purposes and in different ways. If you were to go back 15 or 20 years, LPs viewed their PE investments pretty much as buy and hold: "We put money in today, and we expect to get our return at the end of the fund." But in recent years, as Petra just told us, the secondary market started to open up ways for PE investors to exit their portfolios, or even individual assets within the funds, at different points along the way.

What that has led to in the last couple of years is investors segmenting somewhat in terms of their expectations over different time horizons. For example, if you think about a lot of the high-net-worth entities like private banks, their needs are to have things that have a much lower "J curve"—that is, a lower expected income as a percentage of the invested portfolio—along with a much higher probability of NAV appreciation early in the fund's life. One of the reasons private equity is expected to outperform public equities is that PE investors are effectively prevented from having what behavioral economists refer to as a "pro-cyclicality bias" by the simple fact that they can't sell! But thanks to the development of the secondary market, high-net-worth individuals can now attempt to trade out of their existing portfolios.

But my broader point is that a lot of the wealth management platforms that are now coming into private equity are trying to construct the platforms with specific portfolio constructions and objectives that are different from just maximizing the terminal return. And for these investors, designing a schedule of payoffs to meet a given set of liabilities, for example, could be equally if not more important than maximizing return.

When thinking about the future of private equity, it's also important to keep in mind some other large pools of capital that haven't yet, but seem about to, come into private equity at scale. I'm thinking here especially of insurance companies. There's a lot of ferment within the NAIC and insurance rating agencies about how you should rate portfolios of private equity interests, and what equity

Many of today's CIOs and CROs are using specific portfolio constructions and secondary markets in private equity to achieve objectives, such as asset-liability management, that are quite different from just maximizing the terminal return.
— Alex Rogers

reserves you need to back them, as has happened with a lot of other asset classes. Can you start to carve out different kinds of returns based on the characteristics and the shapes of different portfolios? What makes answering this question complicated is that when people think of private equity, they think of venture capital and buyouts. But what about the other major areas like infrastructure and private credit? By combining assets from each of these different categories of PE, CIOs and risk managers can create portfolios of existing assets that are mature for different purposes. And that's what the people I talk to these days are trying to do—to buy portfolios with different kinds of PE assets for purposes that include, but generally go beyond, maximizing the end return to achieve a better asset-liability match.

Another observation is that, in the midst of this evolution of the secondary market, an increasing amount of equity is going into buyouts that are predicated on and designed to accommodate a given operating management team. And even though the sponsor knows the asset and retains complete responsibility for overseeing control and performance, a growing number of today's LPs provide equity to GPs while investing on different terms and conditions and with a different structure than the initial set of LPs. What has been accomplished here is to create what amount to new asset classes within the pool of PE assets that have expanded the entire system's ability to deploy capital. This development has in turn led to investors taking a far more granular view of the PE market overall, much as we have seen in the private debt markets, in terms of the structure and the placement of where you sit in the debt stack. So, although you might say that the U.S. private equity market is maturing, there's actually a lot of financial innovation going on that is creating new opportunities to deploy capital at different risk-return points in those same sets of deals.

The final point I would make is that investors are finding that when you look at private equity, and think and operate at scale, there's enough data to segment separate sub-asset classes within PE. Therefore, across a broad enough pool of data, we contend that small buyouts have more in common with venture capital than with mega buyouts with a $5 billion enterprise value. By constructing portfolios with different mixes of those sub-asset classes, we are starting to meet the needs of some investors who hadn't previously been in the asset class.

Potential Uses of PE at Vanguard

Brown: That's really interesting, Alex, and I want to come back to that as well. But first I want to give Fran a chance to weigh in on this big picture question of what you see as the biggest changes in store. Fran, can you please give us a quick overview of your role at Vanguard and your thoughts on the future of PE?

Fran Kinniry: Thanks, Greg. I've been at Vanguard for 20 plus years, all on the investment side. I helped establish all of our investment research and was head of asset allocation and portfolio construction for 18 of my 20 years.

A lot of people may not know Vanguard all that well and think of it solely in terms of index funds and ETFs. Jack Bogle's actual vision was to take institutional investment products and democratize them, or adapt them for retail. Indexing was around before Vanguard, and so, although Jack often gets credit for *inventing* or *introducing* the index fund, what he really did was to *develop* it for retail investors. As most people know, Vanguard is one of the largest public owners of assets.

But we have also long been looking at the asset class of private equity and private capital, and thinking about how it complements what we already do.

And let me start by saying that I really loved Tim's comments earlier about his predicting prowess. Many if not most predictions go very wrong, and I applaud Tim for his humility, for being completely upfront about what he *knows* that he doesn't know. Most people just extrapolate the recent past, and so fall prey to *recency bias*. There is also a significant, though considerably

The performance gap—and of particular importance, the persistence of that gap—between the net returns of the top PE firms and the rest has been shrinking. But even so, that performance gap is still dramatically wider than the one between the top and bottom quartiles of active public market managers. And that's why getting the right GP is so important. — Fran Kinniry

smaller, group of people who suffer from *contrarian bias*, in the equally mistaken belief that crowds are almost invariably wrong. I'm going to try to avoid both of these time-honored sources of error by limiting my predictions to just this one: Private investment, I feel very confident in telling you, is an asset class that will be here in five years and in ten years—and it will still be here 50 years from now.

But how and why should this matter to Vanguard, where most of our investors insist on being 100% liquid, which means they can redeem and get out at any time with minimal cost? I think a lot of people lose sight of the value of liquidity. You can be in long-duration investments, but if you're in a mutual fund or an ETF, you're completely liquid at any second.

In the earlier session today, Per talked about the illiquidity premium, but also just how much capital is out there. But I would argue that, even with all the capital looking for returns, there still should be some form of illiquidity premium. We can debate what that number is—50 basis points? 200 basis points? Many investors with long duration—which means they do not need 100% liquidity—are leaving some liquidity premium off the opportunity set by being strictly public and so 100% redeemable.

At Vanguard we view the private equity market as an asset class that pairs very well with and so can be used to complement public asset holdings. In the earlier session, we talked about the distribution of GP performance, and the importance of manager selection and the distribution of managers. As Tim mentioned, the performance gap between the net returns—and of particular importance, the persistence of that gap—of the top PE firms and the rest has been shrinking over time. But even so, that performance gap is still dramatically wider than the one between the top and bottom quartiles of active public market managers. And that's why the manager selection—or getting the right GP—is so important, especially when persistence is becoming cloudier.

Much of our own research suggests that there's probably a greater chance of persistence from just *avoiding* the bottom quartile PE firms than trying to get as much of the top quartile as you can. If you do a decent job of minimizing your allocations to third and fourth quartile firms, your expected returns quickly gravitate up to three, four, or five hundred basis points over public markets. And that's an opportunity we want to bring our clients.

PE Growth Opportunities at the Smaller End

Brown: I want to come back to the question about how you're all thinking about structuring retail products for different clienteles. There's this question that came up in Tim's presentation earlier about how mature the PE markets are. A couple of years ago I did these very back-of-the-envelope calculations of the size of the private sector in the U.S., encompassing both companies that were listed publicly or those that were unlisted, or private. Using the Federal Reserve's flow of funds data, I concluded that we were approaching something that looked like a cap in terms of what could reasonably constitute private equity ownership in the U.S. Though I wasn't able to do a similar calculation for Europe, there's a lot of feeling that the Europe buyout business is fairly mature, too—but that there may still be a lot of opportunity for venture capital in Europe. And Asia is somewhat of a wild card.

So, what are the panel's thoughts in terms of how much remaining headroom there is likely to be in the private markets and the more established ones, and then what do the opportunities look like globally? Alex I'll start with you, because I think you have a specific view on this question.

Rogers: I do. Let me start by saying that I think that Asia is clearly the most under-penetrated of PE markets; that's not a controversial statement. I also think it's tough to talk about Europe as a single bloc because each country is so idiosyncratic. For example, the Nordics and the U.K. are far more penetrated than Germany and France. As a research avenue, I would suggest that people not look at Europe as a single private equity allocation, but try to make distinctions among countries with clear differences. The underlying conditions in each country are different, thanks to differences in things like local law, regulations, how you can structure debt, and the underlying capital markets for exit.

So, I agree with the proposition that European PE is less mature than its U.S. counterpart, no matter how you look at it. But that doesn't answer the question, how close is the U.S. market to saturation, since there is obviously a point at which it becomes saturated?

One of the things that's fascinating to me, and it's a core thesis of ours, is the huge amount of ferment now going on in middle and smaller size buyouts, as defined by an EV of less than, say $1.5 billion. For example, many of the businesses that were venture capital businesses in the late '90s are now very large, mature businesses, which in turn have divisions that they themselves are now spinning off. At the same time, the small-cap PE managers also try and tend to get larger. And the result of this movement is a persistent gap in the smaller end of the market, if only because of the economics driving fund management businesses to get bigger.

Finally, if you look at the nature of the deal-making that's happening, whether in the form of continuation funds that are taking place where assets are intended to be held longer, or structured investments into those businesses, the fact that part of your investment thesis is buy-and-build has meant that, at the small end of the market, we're now seeing new buyout firms whose sole *raison d'être* is to go out and find or actually create small software businesses they can build into larger ones.

So, we now have this ecosystem and pipeline of capital to be deployed. And I would argue that the total volume of deals, speaking of just buyouts, in the U.S. is nowhere near saturation if you're taking account of the whole scope of it—and that's true if only because as businesses grow, you get more opportunities from spinouts alone. Also, at the bottom end of the market, you've got people employing strategies to deploy private capital to create businesses that larger funds may want to buy. By contrast, at the larger end of the market, I think we're much closer to saturation because there are a fixed number of businesses that are large enough where it makes sense for them to deploy equity into the deal.

Brown: I think that's a very interesting, and in fact the right way, to think about it—that is, in terms of not only what's private now, but what could become private. In some ways, the right question is how much of public markets could eventually end up in a different ownership structure through spinouts or other ways that result in a new asset going into a PE fund.

Rogers: I'd just enlarge on that to say that businesses are staying private longer because you've got an ecosystem of funds where you can reliably get an exit from a large business or another fund. You're also now seeing spinouts by even the larger *private* businesses, particularly in a world that rewards a growth or a "clarity of equity" story. In a number of cases, the PE sponsors themselves have been intentionally trimming the businesses they own or control to acquire pieces or technologies that can be turned into businesses by sponsors that are now experts in doing just that. Though everything you said is true, I'd just tweak it a bit to note that it's not just public businesses, but also larger private businesses with pieces that could be more valuable as smaller, standalone businesses.

The Prospects of Structuring PE for Retail

Brown: Petra, you earlier made a fairly aggressive prediction about growth in the secondary space. Do you see this coming more from an evolution into new strategies or just an expansion of the types of strategies that exist today? And what do you think about things like geographic diversification as well?

Bukovec: Before I answer your question, I would just like to add to a point that Alex made about the different pockets of opportunity. The majority of the capital that has been raised globally has been in the mega- and large-cap end of the market, where you have a limited number of companies that have limited exit options available, given their size. At the lower end of the market, you have less capital available for a potentially larger set of opportunities. GPs in these parts of the market often focus on specific sectors, or on specific geographic segments. Different stages or strategies of their target companies provide them with more value creation levers and there are a broader array of exit opportunities, which is why historically we have seen small- and mid-cap markets outperform the larger end of the market.

Now, to address your question about a secondary market, I think the growth will be driven across the globe. We may see higher growth in Asia or other emerging markets, where the secondary market isn't as mature as it is in the U.S. and Europe. In these mature markets, the main value driver, in my opinion, is the continuing turnover of LPs tapping into the secondary market to rebalance their portfolios. As Alex said, today's CIOs are choosing their risk-return targets and relying on active management of their portfolios to respond to changes in market conditions or asset values, which in turn has meant higher turnover rates and more deal opportunities for secondary investors. It is also important to note that the retail investors who are entering the global private market landscape will be looking for, and indeed require, greater liquidity, which could also further fuel growth in the secondary market.

The Prospects for Continued PE Outperformance

Brown: That makes a lot of sense and is very interesting. Fran, I want to get your thoughts on this issue. In terms of the growth in the investor base in private equity, it is certainly more mature than it was 10 or 20 years ago, and maybe it still has a lot of room to go. But is there a significant risk that a large flood of capital coming into the retail space could compete away the above-public market returns that have been available to date. I'm curious how you think about the opportunity space and how it might evolve with a significant influx of new capital should that occur.

Kinniry: I would say two things. First, asset growth has historically led to lower returns and return premiums. We would expect that to play out in PE, but I'm not sure that that's the most important question. The question you want to ask is this: will private equity as an allocation complement an all-public equity portfolio? And to answer that, we also want to know, is there still going to be some form of illiquidity premium? The answer to me is a clear yes; we still even see illiquidity in premiums on on-the-run and off-the-run treasuries, and on junk bonds versus investment grade; so it's unlikely that the illiquidity premium dissolves to zero.

But would expectations come down even more as the asset class further democratizes? I would guess the answer is yes, somewhat. But, again, the more important question is, does PE for retail still work to increase the overall portfolio risk-adjusted returns or absolute returns? And my answer is, "Definitely yes."

I also want to point out, as Alex did earlier, that with so much focus on the demand issue of how much money is coming in, people are failing to recognize how that demand actually works to unlock more supply. Will private entities and operators in fact end up having the ability to stay private? You can continue to stay private without private equity backing—that is, continue to maintain your own capital and ownership structure. But, as we accelerate this digital exponential growth, I think we are going to see a supply boom of private-equity-owned operating companies that, once established, will need both operational help and capital from private equity. They may be too small to go in an IPO, or the requirements for an IPO may not fit them. We talked earlier about SPACs, which may or may not be the right way. When you look at the number of companies that are public and not in the opportunity set of being private equity-backed operating companies, that's where I think the supply will be unlocked.

Brown: As Bob said earlier, one of the toughest things about doing these is that we have to stop. Unfortunately, we're at the end of our time here. I feel like we could go on for at least another half hour and we only got through about half of the questions I was hoping we were going to touch on, but we'll have to do it again. I'm looking forward to doing it again, hopefully next year in person in Oxford. I want to turn it back over to Tim now to let him wrap up for us and conclude the symposium.

Tim Jenkinson: Thanks very much, Greg and thanks to the Kenan Institute and IPC for letting us take part. This has been our attempt to preserve a conference that was supposed to take place at Oxford, even though I think I'm the only one attending who is now in Oxford. Next year we hope to have this in person around this time of year.

Two of our goals in designing these events is that they be data-driven and that they bring together distinguished academics and thoughtful practitioners. This meeting has clearly lived up to both. I'm also struck by the fact that PE is an industry where there is huge innovation happening at all times. One senses that as new challenges arise, whether that be ESG concerns or increases in interest rates, PE will be an exciting industry to watch. It is an industry that rather embraces innovation, which is what you have to do to stay competitive.

Thanks very much for participating, and I hope to see all of you, in person, at this event next year in Oxford.