

Sounding Off

TODAY'S PRIVATE MARKETS PORTFOLIOS DESERVE A BETTER PUBLIC BENCHMARK

Michael Ryan
Head of Research

Private equity limited partners, by and large, measure the long-term success of their private markets portfolios by achieving premium returns as measured against public equity indices. But what if those same LPs are using a dated benchmark? When it comes to selecting a benchmark index, many investors, especially those in the U.S., previously did so at a time when their private markets portfolios were overwhelmingly comprised of North America-based assets. As the asset class has matured, however, it has become much more global – particularly so over the last 15 years. Yet, many LPs have failed to alter the way they benchmark the performance of their private markets portfolios, instead continuing to employ a U.S. public equity index as their chosen benchmark.

A Perfect Benchmark?

Several mechanical methods have been devised for comparing returns in the private and public equity asset classes, as well as for determining the size of the premium achieved by illiquid assets. While plenty of research exists exploring the relative merits of various public market equivalent (PME) methodologies, we believe the more important question

– and dilemma – facing LPs is how to select the appropriate public equity index for comparison. As we'll see in this article, the choice is a crucial one for LPs, as the magnitude of the return premium varies widely depending upon the index selected.

An ideal benchmark would match the composition on the private markets investments by geography, currency, sector and company size to fully capture the macro factors impacting a private markets portfolio. It should also be a well-regarded institutional index in the public markets, avoiding the appearance of choosing an obscure index with the intent of showing private assets in the best possible light.

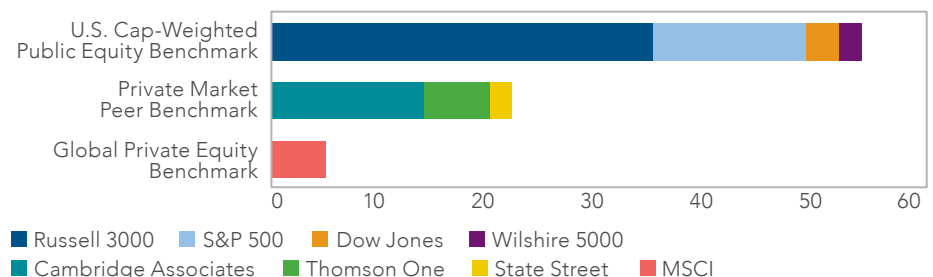
While there are simply no available options that meet all of these criteria, a

diversified large cap global index seems to better match the geographic and currency exposure of today's private markets, and provides a transparent view of the opportunity cost of public equity investments.

What's Been the Norm?

To get a better sense of common practices in PE benchmarking, we can look to the most transparent segment of the LP landscape – the U.S. state and municipal pension plans – as a useful proxy. A recent survey by Bison, a purveyor of private markets analytics, found that 67% of U.S. public pensions use a market-cap weighted U.S. public equity index as their benchmark (Chart 1). Another 27% use a peer benchmark of private fund returns, while a mere 6% use a global listed equity index.

Chart 1: Largest U.S. Public Pensions' PE Benchmark
By Count

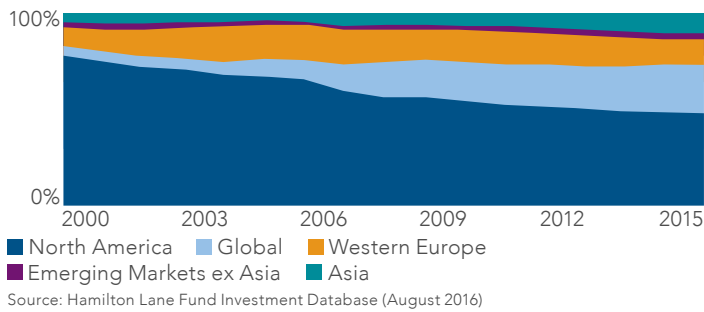


Source: Bison (June 2016)

Continued on following page

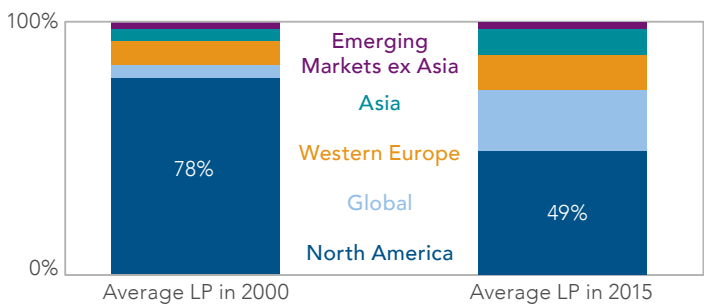
Looking back at the period of time when U.S. plans were either establishing or rapidly growing their presence in private equity, the selection of a U.S.-listed index made good sense. That's largely because, as recently as 2000, nearly 80% of the value of institutional private equity globally was held in North America-focused funds (Chart 2). Over time, as the advantages of alignment and active ownership provided by the private equity model became more apparent to the institutional investor community, the proportion of assets held by European, Asian or globally-focused funds naturally grew. In fact, we now estimate that less than half of private equity's NAV is held by North America-focused funds.

Chart 2: Private Equity NAV by Geography
% of Total NAV



In case the magnitude of that last statement didn't really sink in, consider taking a slice of that NAV in 2000 and comparing it with that of 2015 (Chart 3). That's a pretty dramatic difference, right? Would you make the argument that both of these slices of NAV should be benchmarked against the same public market index?

Chart 3: Average LP Geographic Allocation within Private Equity
By NAV



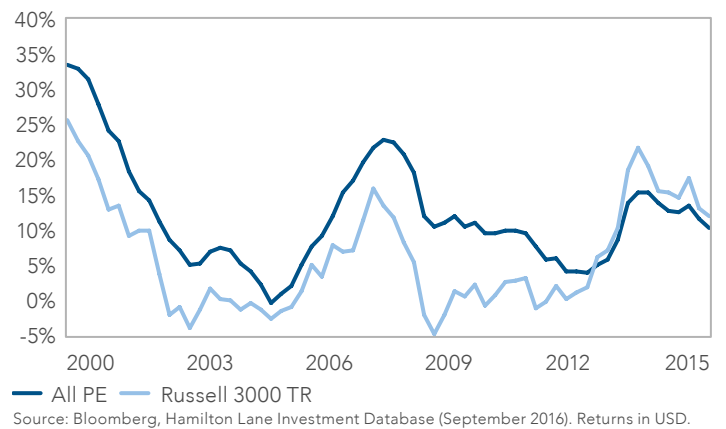
Key Considerations

- Most U.S. LPs compare performance to a U.S. cap-weighted public equity index, which may have been appropriate 15 years ago when many of these policy benchmarks were set.
- Today, more than 50% of private equity NAV is committed to global funds or geographies outside of North America, creating the need to adjust benchmarks.

The Changing PE Landscape

Despite the geographic mismatch between institutional PE portfolios and the U.S. large-cap indices, there has been little impetus to change benchmarks before now. Chart 4 compares the trailing 5-year returns of global private equity over time compared to that of U.S. large-cap equities. Notwithstanding the geographic mismatch, global PE returns have produced a steady premium over large-cap U.S. equities until fairly recently, as U.S. large-cap listed equities have been the best-performing asset class globally since mid-2009. As a result, the geographic divergence of private equity portfolios and their benchmarks has produced a significant negative tracking error for the first time in history.

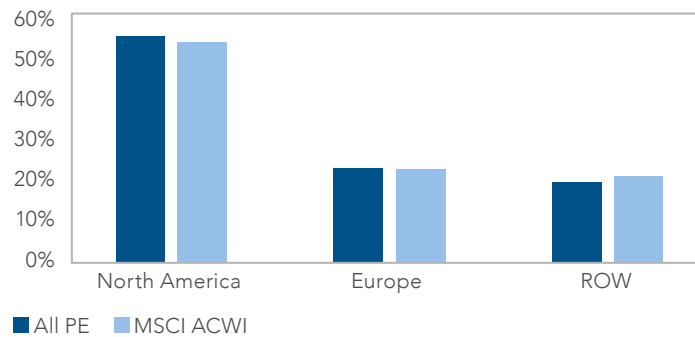
Chart 4: Trailing 5-Year Annual Time Weighted Returns



Continued on following page

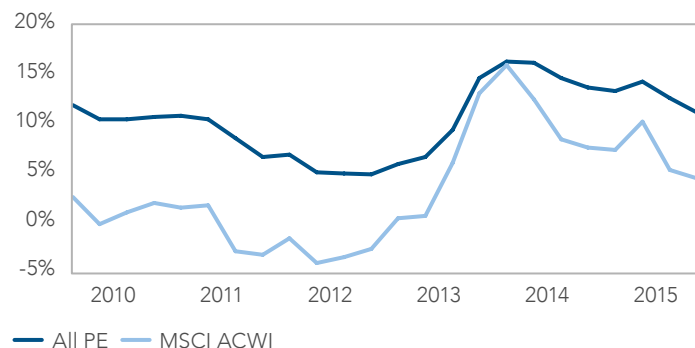
While global PE returns have struggled recently to keep up with buoyant U.S. public markets, they still continue to track the returns of global equities, plus a premium. Looking at the composition of private equity fundraising over the last several years, it largely mirrors the geographic breakdown of the MSCI All-Country World Index – a recognized institutional equity benchmark covering both developed and emerging markets (Chart 5). Based on this, we might expect the ACWI performance to more closely align with global private equity returns. But, in fact, when we look at 5-year trailing returns over the past decade, we do see that PE consistently produced a premium over global equity markets (Chart 6).

Chart 5: Index Breakdown by Geography
PE Fundraising vs. MSCI Holdings



Source: iShares MSCI ACWI ETF Holdings, Preqin (September 2016). PE Fundraising composed of years 2011-2015.

Chart 6: Trailing 5-Year Annual Time Weighted Returns



Source: Bloomberg, Hamilton Lane Investment Database (September 2016). Returns in USD.

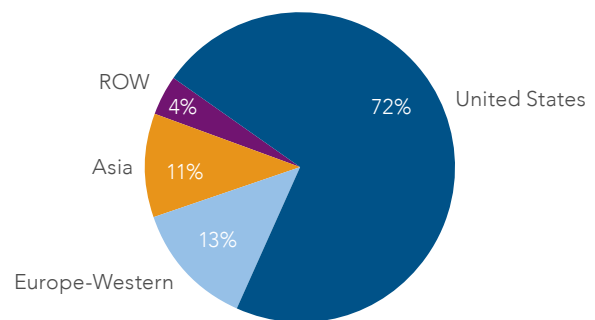
Key Considerations

- Despite the geography mismatch between PE portfolios and the U.S. large-cap benchmark, there was little impetus to adjust benchmarks before now. Global private equity returns produced a steady premium over large cap U.S. equities until the last few years.

Home-Country Bias in U.S. LP Portfolios?

While we see that PE fundraising is much more balanced globally today than it was 15 years ago, prior data does not specifically address the portfolio composition of large U.S. LPs. While it may be the case that U.S. LPs are slightly overweight toward U.S. managers, even those U.S.-based managers have been increasing their exposure to global investments. Looking at the underlying portfolio company holdings of the 10 largest funds run by U.S. GPs, we find that more than 28% of the portfolio value lies in companies headquartered outside of North America.

Chart 7: Top 10 Largest U.S. PE Funds Allocation
% of Total NAV by Geography



Source: Hamilton Lane Fund Investment Database (September 2016).

This suggests that a global public index would still be a more appropriate benchmark choice even if an LP's private markets portfolio was slightly tilted toward U.S. funds.

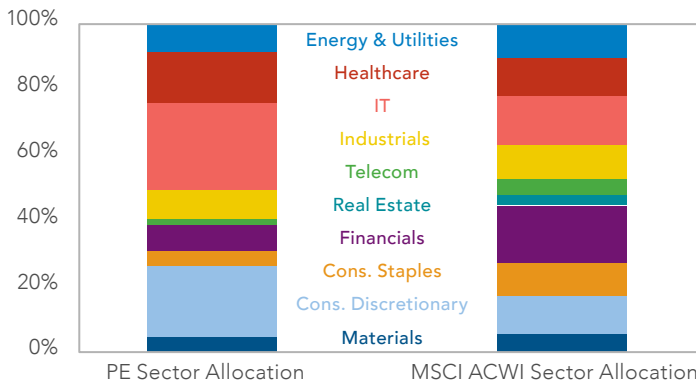
Continued on following page

While many U.S. investors seem saddled with benchmarks that reflect a home country bias, it's worth noting that this is not universally true for global investors. Canadian institutions, for example, have long invested the bulk of their equity portfolios outside of Canada. Today, the three largest Canadian pension plans benchmark their portfolios against some combination of global equity indices and private fund peer universes.

Sector and Market Cap Mismatch

Although the geographic footprint of the private markets roughly lines up with that of a global large cap index, there are nevertheless significant inconsistencies in market cap and sector allocation. Relative to the listed benchmark, private equity is overweight consumer, healthcare and IT companies and underweight financials, real estate, telecom and utilities (Chart 8).

Chart 8: Sector Allocation vs. Benchmark



Source: Hamilton Lane Fund Investment Database, MSCI (August 2016)

Institutions typically use an investable public index weighted toward large-cap stocks as a benchmark. The MSCI ACWI notionally covers large- and mid-cap stocks, but the weighted average market cap of the index is currently more than \$95 billion.¹ Meanwhile, a private equity buyout with enterprise value over \$5 billion would typically rank as one of the 10 biggest of any given year. That means a more typical PE buyout would be considered micro-cap by listed market standards.

¹ <http://www.etf.com/ACWI>

Unfortunately, the benchmark solution in this case is not as simple as using a global small-cap index. That's mainly because the construction of global small-cap benchmarks varies dramatically among publishers as they take different approaches to balancing investability, representativeness and geographic and sector concentration. Realistically, using a global small-cap index is likely to exacerbate any geographic and industry disproportion with the private markets, rather than help to address it.

Conclusion

Mismatches in company size and sector will inevitably cause performance tracking error between public and private markets. Despite these imperfections, we'd argue that a global large-cap index such as the MSCI ACWI is the most appropriate benchmark for a global private markets portfolio. Its geographic composition is similar to that of the private markets, and thus the public index captures the broad trends in global GDP, currency movements and valuation fluctuations present in the various global markets. Unless a rapid convergence of U.S. and global equity markets transpires, we think it's fair to expect the trend of LPs using a global public equity benchmark for their private markets portfolios to increase. 🌐

Key Considerations

- While U.S. large-cap listed equities have been the best-performing asset class globally since mid-2009, diversified private equity portfolios continue to produce a premium over global equities.
- The breakdown of global PE NAV is similar to that of a global equity index, such as the MSCI ACWI. We should expect global PE performance to track that of global listed equities plus an illiquidity premium.



Glossary

All Private Equity:	The "All PE" sample is inclusive of all funds classified as buyout, growth equity, venture capital, distressed debt, mezzanine, and real assets (excluding real estate) in addition to other miscellaneous strategies. Sample excludes real estate, secondary, and fund-of-fund strategies.
Credit:	The "Credit" sample includes mezzanine and distressed debt strategies. Sample excludes secondary and fund-of-fund strategies.
US & EU Venture/ Growth:	The "US & EU Venture/Growth" sample includes North American and Western European venture capital and growth equity strategies. Sample excludes secondary and fund-of-fund strategies.
Real Assets:	Real Assets is inclusive of all funds classified as natural resources, commodities, and infrastructure. Sample excludes real estate, secondary, and fund-of-fund strategies.
Industry Level:	All data labeled as "Industry Level" is extrapolated up to the industry level based on Hamilton Lane's known sample.
PME (Public Market Equivalent):	Calculated by taking the fund cash flows and investing them in a relevant index. The fund cash flows are pooled such that capital calls are simulated as index share purchases and distributions as index share sales. Contributions are scaled by a factor such that the ending portfolio balance is equal to the private equity net asset value (equal ending exposures for both portfolios). This seeks to prevent shorting of the public market equivalent portfolio. Distributions are not scaled by this factor. The IRR is calculated based off of these adjusted cash flows.
MSCI World Net Total Return Index	The MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity performance of developed markets with net dividends reinvested.
Time-Weighted Return:	<p>Time Weighted Return calculates the return that an investor achieves over some period of time. The single-period return is calculated using the Simple Dietz method:</p> $R = \frac{EMV - BMV - C}{BMV + C/2}$ <p>where: BMV = starting portfolio value EMV = ending portfolio value R = the portfolio rate of return, and C = period contributions - period distributions</p> <p>Returns are linked together and annualized to calculate a longer term horizon return, such as 5 year, 10 year, etc. The Simple Dietz method assumes that cash flows are spread evenly throughout the quarter.</p>
Liquidity Ratio:	Liquidity Ratio = (Amount of Distributions Received) / (Amount of Capital Called)
Pooled IRR:	Internal Rate of Return ("IRR") of investments at the 'LP level', inclusive of fees such as management fees and carried interest paid to the General Partner. Cashflows are pooled at the vintage year level and then an IRR is calculated.
Net IRR:	The Internal Rate of Return ("IRR") of investments at the 'LP level', net of fees, such as management fees and carried interest, paid to the General Partner.
RVPI:	Remaining Value-to-Paid In = (Current Net Asset Value) / (Total Amount of Capital Paid-In)
TVPI:	Total Value-to-Paid In = (Amount of Distributions Received + Current Net Asset Value) / (Total Amount of Capital Paid-In)
DPI:	Distributed-to-Paid In = (Amount of Distributions Received) / (Total Amount of Capital Paid-In)
Desmoothing:	<p>A mathematical process to remove serial autocorrelation in the return stream of assets that experience infrequent appraisal pricing, such as private equity. Desmoothed returns may more accurately capture volatility than reported returns. The formula used here for desmoothing is:</p> $r_D(t) = (r(t) - r(t-1) * p) / (1 - p)$ <p>where: $r_D(t)$ = the desmoothed return for period t $r(t)$ = the return for period t p = the autocorrelation</p>



Disclosures

This presentation has been prepared solely for informational purposes and contains confidential and proprietary information, the disclosure of which could be harmful to Hamilton Lane. Accordingly, the recipients of this presentation are requested to maintain the confidentiality of the information contained herein. This presentation may not be copied or distributed, in whole or in part, without the prior written consent of Hamilton Lane.

The information contained in this presentation may include forward-looking statements regarding returns, performance, opinions, the fund presented or its portfolio companies, or other events contained herein. Forward-looking statements include a number of risks, uncertainties and other factors beyond our control, or the control of the fund or the portfolio companies, which may result in material differences in actual results, performance or other expectations. The opinions, estimates and analyses reflect our current judgment, which may change in the future.

All opinions, estimates and forecasts of future performance or other events contained herein are based on information available to Hamilton Lane as of the date of this presentation and are subject to change. In addition, nothing contained herein shall be deemed to be a prediction of future performance. Certain information included herein has been obtained from sources that Hamilton Lane believes to be reliable but the accuracy of such information cannot be guaranteed.

This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates. Any such offering will be made only at your request. We do not intend that any public offering will be made by us at any time with respect to any potential transaction discussed in this presentation. Any offering or potential transaction will be made pursuant to separate documentation negotiated between us, which will supersede entirely the information contained herein.

Hamilton Lane (UK) Limited is a wholly-owned subsidiary of Hamilton Lane Advisors, L.L.C. Hamilton Lane (UK) Limited is authorized and regulated by the Financial Conduct Authority. In the UK this communication is directed solely at persons who would be classified as a professional client or eligible counterparty under the FCA Handbook of Rules and Guidance. Its contents are not directed at, may not be suitable for and should not be relied upon by retail clients.

The information herein is not intended to provide, and should not be relied upon for, accounting, legal or tax advice, or investment recommendations. You should consult your accounting, legal, tax or other advisors about the matters discussed herein.

As of October 27, 2016