

Arab Pension Conference 2022

SSGA Presentation

September 29th, 2022

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All the information contained in this presentation is as of date indicated unless otherwise noted.

Public versus Private Markets

Investors have flocked to Private Equity to access higher yield from their investment portfolios

Do public markets still reflect the best diversified means to access underlying economic growth or should we be turning to private markets for a more diversified and representative equity portfolio?

Rudin, A., and D. Farley. 2022. "Private and Public Equity Returns: Different or Same?" *The Journal of Portfolio Management*

Rudin, A., and D. Farley. 2022. "Dual-Horizon Strategic Asset Allocation" *The Journal of Portfolio Management*

Economic Diversity in Public Markets

How much do you need? – For most pension funds public markets provide sufficient diversity and have transparent relatively liquid return streams

1,158 Consumer Discretionary



71 Automobiles



10 Motorcycle
Manufacturers

1,168 Financials



273 Capital Markets



38 Financial Exchanges &
Data

1,531 Industrials



339 Machinery



13 Agricultural & Farm
Machinery

1,172 Information Technology



286 Software



227 Application Software

891 Materials



51 Containers & Packaging



28 Metal & Glass
Containers

Source: MSCI ACWI IMI, SSGA as at 30 June 2022

Economic Diversity in Public Markets

Being a bit more selective?

Simple Limits as at 30 June 2022

| | |
|---------------|----------|
| P/E FY1 | < 20x |
| Net Margin | > 10% |
| 3 Year EPS | > 0% |
| Market Cap | > US\$1B |
| Holding Limit | 3% |



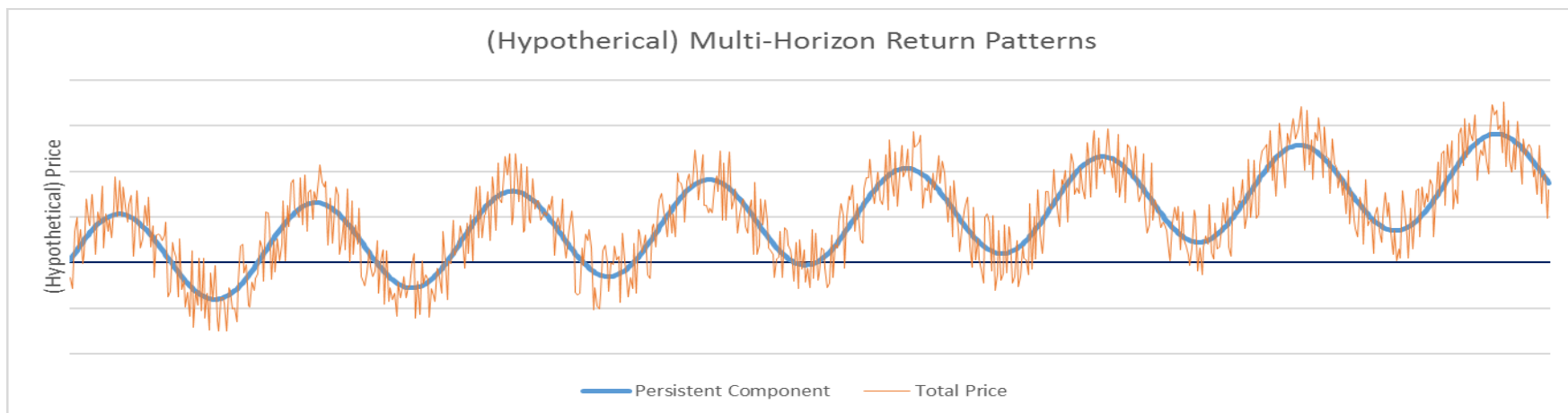
Other selected ideas from the team at SSGA

| | |
|--|---|
| Allocate capital on the basis of discount to intrinsic value | <i>(Fundamental Value Equity Team)</i> |
| Combine Quality, Sustainable Growth, Reasonable Valuation | <i>(Fundamental and Core Growth Equity Team)</i> |
| Reduce expected total volatility by approx. 25% | <i>(Global Defensive Equity Active Quantitative Team)</i> |

| Sector | Number of Companies | Investment (US\$ billion) |
|------------------------|---------------------|---------------------------|
| Communication Services | 46 | 67 |
| Consumer Discretionary | 94 | 27 |
| Consumer Staples | 31 | 14 |
| Energy | 58 | 33 |
| Financials | 395 | 164 |
| Health Care | 62 | 78 |
| Industrials | 111 | 43 |
| Information Technology | 115 | 85 |
| Materials | 129 | 38 |
| Real Estate | 53 | 7 |
| Utilities | 47 | 16 |
| Total | 1,141 | 573 |

Source: MSCI ACWI IMI, SSGA as of 30 June 2022

Private Equity Valuation Processes Smooth Out Excess Volatility



“Private equity valuations processes ... are primarily designed to mirror earnings expectations ... they are much less exposed to excess volatility than their public counterparts”

Source: Rudin et al. (2022)

Another Perspective

*Public Equity returns =
Alpha + $\frac{\text{Unsmoothed Private Equity Returns} + \text{Excess Volatility}}{\text{Private Equity Leverage Advantage}}$*

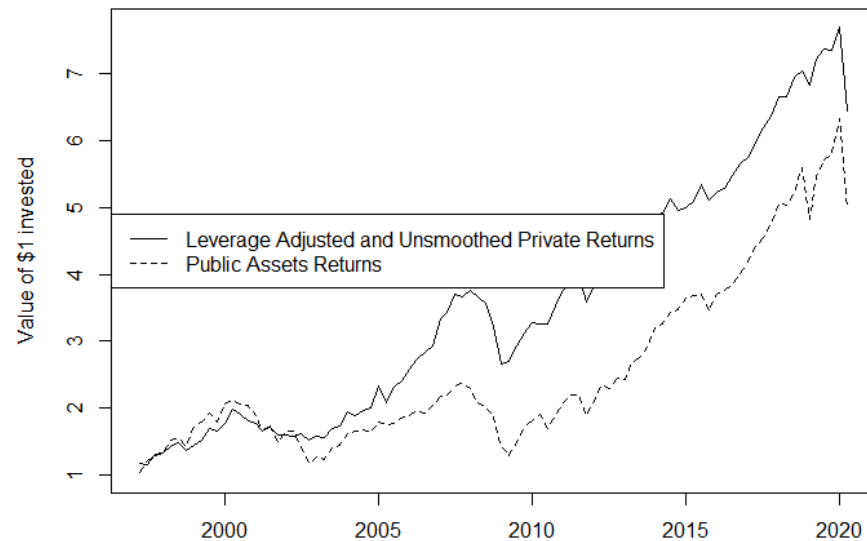
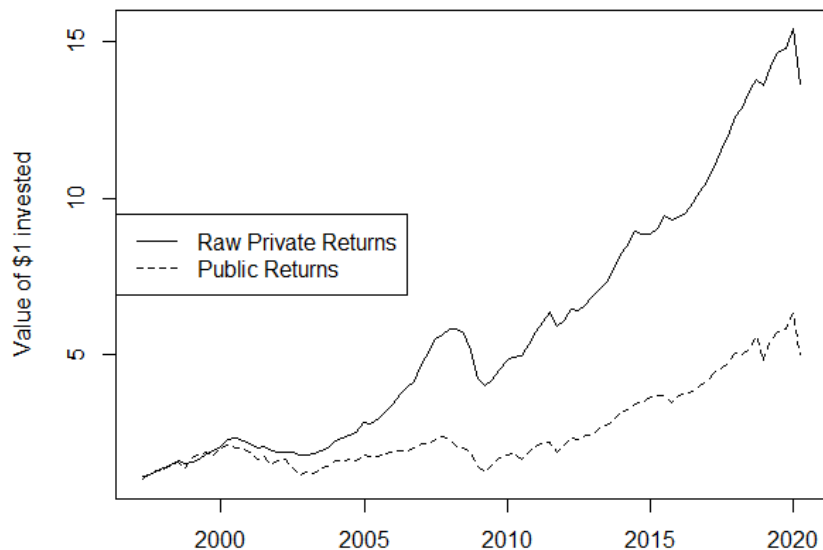
$$r_t^{\text{PRIVATE}} = \frac{1}{\text{LAR}} \frac{r_t^{\text{PE_OBSERVED}} - \theta r_{t-1}^{\text{PE_OBSERVED}}}{(1 - \theta)}$$

State Street Private Equity Buyout Index
S&P 500 Total Return Index (1995 – 2020)

| Coefficient | Estimate Value (t-statistic) | P-Value |
|-------------|---------------------------------|---------|
| θ | 0.385 (3.8) | 0.00026 |
| LAR | 1.323 (9.86) | 0 |
| α | -0.004 (-0.15) | 0.88402 |

Source: Rudin et al. (2022)

Private Equity Returns Advantage Diminishes After Adjusting for Leverage



Source: Rudin et al. (2022)

Key Points

- Public markets provide liquid and diverse exposure to the economy
- Observed private returns can be used as a proxy for the fundamental component of public equity returns
- After adjusting for leverage and smoothing of returns, private equity outperformance of public equity reduces significantly, and is largely attributed to performance before the GFC
- Private and public equity provide exposure to the same underlying economic, fundamental drivers of growth
- Top Quartile PE funds provide alpha, but access is limited

Applications and Discussion

The cost of liquidity

Other private-public asset class linkages

Term structure of volatility in public markets

SAA models and assumptions

Important Disclosures

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