Perspectives on Private Equity: Past, Present and Future

David Scharfstein

*Harvard Business School*
The Growth of Private Equity

• As recently as 20 years ago, private equity was a cottage industry.

• PE funds now manage about $1 trillion globally and account for about 1/4 of global M&A.
Goals of the Presentation

• Despite growth, limited disclosure requirements makes this industry less than transparent.

• Nevertheless, there has been considerable research progress in the last 5-10 years that could be useful to investors.

• I’ll try to make sense of the research and draw out its implications.
Implications of Research Findings for:

- Portfolio Allocation Strategy
- Identifying Excess Performers
- Limited Partner Strategies
Implications of Research Findings for:

- **Portfolio Allocation Strategy**
- Identifying **Excess Performers**
- **Limited Partner Strategies**
Portfolio Allocation Strategy

• The Typical Top-Down Portfolio Strategy

1. Identify asset classes.

2. Make allocations to those asset classes based on expected returns, standard deviations, correlations.

3. If you can find active managers within each asset class who can outperform, allocate capital to those managers. Otherwise, index.

• This top-down strategy is approximately correct if it’s hard to identify managers who can systematically and significantly outperform their asset class.
Performance Variation by Asset Class

There is relatively little performance variation across public equity and bond funds.

But there is large variation in performance across private equity funds.
Performance Persistence

While there is no real performance persistence in public equity and bond funds and no predictable alpha, there is a lot of persistence in private equity and predictable alpha.

<table>
<thead>
<tr>
<th></th>
<th>Bottom</th>
<th>Medium</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bottom Tercile</strong></td>
<td>61%</td>
<td>22%</td>
<td>17%</td>
</tr>
<tr>
<td><strong>Medium Tercile</strong></td>
<td>25%</td>
<td>45%</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Top Tercile</strong></td>
<td>27%</td>
<td>24%</td>
<td>48%</td>
</tr>
</tbody>
</table>

Source: Kaplan and Schoar (2005)
Implications for Portfolio Strategy

- Top-down asset allocation strategy does not make sense for private equity.

- Unlike public equity and bonds, expected returns depend critically on who is managing private equity investments.

- Therefore, your allocation to private equity should depend on who is managing your private equity investments.

- Don’t allocate to private equity and then find managers. Find managers and then allocate to private equity.

- Top-down strategy may lead you to invest in sub-par managers just because you’ve allocated a chunk of capital to Private Equity.
Implications of Research Findings for:

• **Portfolio Allocation Strategy**

• **Identifying Excess Performers**
  – Correlates of Performance
  – Measuring Performance
  – Value Creation by Buyout Funds?

• **Limited Partner Strategies**
On Average Private Equity Funds Deliver Sub-Par Performance

- Calculate the “Public Market Equivalent” (PME), the value of funds invested in public equity relative to the value of funds invested in the S&P 500, for funds begun between 1980 and 1994

Kaplan and Schoar (2005)
The Role of Leverage

- Returns are not so impressive in buyouts when you consider the leverage used to fund these deals. Makes LBO equity much riskier than *S&P 500*.

- Recent study decomposes buyout returns and finds that it comes principally from leverage.

Source: Kovner (2007)
Public Market Equivalents
by vintage year from 1983 - 1994

[Graph showing the public market equivalents for VC Funds and LBO Funds by vintage year from 1983 to 1994.]
Sequence and Performance

In the cross-section, higher sequence funds perform better.
Size and Performance

In the cross-section, larger funds perform better. But, they can get too big -- performance declines somewhat beyond a point.
Size and Performance for a Particular GP

But, as a GP’s funds get larger, its performance erodes relative to its own prior performance.
More partners per dollar of committed capital is associated with better performance.
More partners per staff member is associated with better performance.
Measuring Performance: Beware IRR

- IRR is the most common metric of performance in PE

- But there are two main problems with IRR that investors often overlook
  - Scale
  - Timing
In which VC would you rather invest?

– VC Aleph: $15M investment today; pays off $18M in one year; IRR = 20%.

– VC Bet: Will only take $10M from you today. He’ll invest it today, and it will pay off $12.4M in one year; IRR = 24%.
In which VC would you rather invest $10M?

- VC Gimmel: Immediate capital call of $5M, invests in company which exits at end of first year, earning 24% IRR. Calls $5M at end of first year, also exits after a year, earning 24% IRR.

- VC Dalet: Immediate capital call of $10M, invests in company that exits in two years with a 20% IRR.
Implications of Research Findings for:

• Portfolio Allocation Strategy
• Identifying Excess Performers
• Limited Partner Strategies
Getting into Private Equity

• There has been a great deal of interest lately from new investors.
• They are attracted by high returns that established investors have enjoyed.
But not All Investors are Equal

Differences persist even after controlling for other factors that might affect IRRs
Factors that Affect LP Performance

• Size: Larger LPs invest in better PE funds, but only up to a point

• Market Cycles: LPs invest in worse funds when there is a large inflow of capital into PE.

• Proximity: Investments in funds that are close to the LP perform worse, but this is only true when the LP is a public pension fund.
Why the Difference in LP Performance?

• Access
  – Part of the story, but not all of it.
  – Endowments outperform others even when they invest in funds that are slow to raise their target capital.

• Reinvestment Strategies
  – Endowments do much better than other types of LPs on the first time they invest in a fund.
  – But they also perform better in their reinvestment decisions.
### Reinvestment Performance

<table>
<thead>
<tr>
<th></th>
<th>Prior Fund</th>
<th>Next Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Pension Funds</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reinvested</td>
<td>13.1%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Not Reinvested</td>
<td>7.4%</td>
<td>5.5%</td>
</tr>
<tr>
<td><strong>Endowments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reinvested</td>
<td>25.8%</td>
<td>31.4%</td>
</tr>
<tr>
<td>Not Reinvested</td>
<td>30.6%</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

Reinvestment decision very sensitive to fund performance

Yet endowments perform very well in their follow-on investments

Reinvestment decision not very sensitive to fund performance
Implication

• Limited partners need to do research when they get into funds for the first time.

• But they need to do just as much research when they have to decide whether to reinvest.

• Though there is serial correlation in performance, it isn’t the only thing that you should be looking at.
Conclusions

• Top-down asset allocation to Private Equity is not the best strategy.

• PE fund performance is:
  – Predictable
  – But hard to generate excess returns (particularly in buyouts)

• LPs need to do just as much research in their reinvestment decisions as in their initial investment decisions