Global Pension Fund Performance Insights

13 April 2016

SEMINARIO INTERNACIONAL AIOS:

“Desafíos para los sistemas previsionales de ahorro individual en el nuevo escenario global”

Montevideo, Uruguay

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Principales conclusiones

• Los costos son importantes. Las administradoras de fondos con mejor desempeño tiene características que reducen sus costos:
  – Gestionan una mayor proporción de los activos del fondo internamente
  – Generan economías de escala debido al tamaño de los activos administrados
  – Son establecidos como organizaciones sin ánimo de lucro.

• No invierten en fondos de fondos!
  – El pago doble de comisiones resulta en un desempeño inferior del fondo de pensión que el de un fondo que invierte directamente en fondos de inversión o gestiona sus activos internamente.

• Los beneficios de invertir en capital privado son exageradas.
  – Alternativas de inversión con correlaciones altas están disponibles.
  – La prima de iliquidez es reducida si se implementa usando gestores externos.

• Los fondos alternativos (hedge funds) tuvieron un rendimiento inferior y una cobertura de riesgo deficiente.
Los resultados de las investigaciones se basan en la base de datos de inversiones globales de CEM

- CEM is the world leader in benchmarking institutional investment funds:
  - 350+ clients globally
  - Combined assets over US$8 trillion
  - 150 of the world’s top 300 pension schemes
  - SWFs, pension funds, endowments, etc.

- The database has 23 years of performance data including:
  - Fund and asset class returns
  - Reference portfolios and benchmarks
  - Costs by asset class and implementation style
  - Liability structure
  - Holdings
Lista parcial de nuestros clientes a nivel mundial:

**National Funds**
- Abu Dhabi PRF
- AP2 – Sweden
- AP3 – Sweden
- ATP – Denmark
- Canada Pension Plan Inv. Bd.
- New Zealand Super Fund
- Norway – Govt. Pension Fund
- NPS of Korea

**U.S.**
- Abbott Laboratories
- Alcatel - Lucent
- CalPERS
- CalSTRS
- Caterpillar Inc.
- Eli Lilly & Company
- Florida Investment Board
- General Motors
- Indiana Public Employees
- Indiana State Teachers'
- Iowa Public Employees’
- Louisiana Teachers’ RS
- Jeffrey Company
- Motorola
- Missouri State Employees
- Ohio Public Employees
- Ohio State Teachers
- Philips, US
- Oregon Public Employees
- Qwest
- School Employees of Ohio
- UFCW – Intl. Industry Fund
- UFCW – Northern California
- United Parcel Service
- Verizon Communications
- Washington State Inv. Board
- Wisconsin Investment Board

**Canada**
- Alberta Investment Mgmt.
- British Columbia IMC
- Caisse de Dépôt
- Canada Post Corporation
- Health Care of Ontario
- Hydro Quebec
- IBM Canada
- Local Authorities of Alberta
- Manitoba Teachers
- Ontario Municipal Employers
- Ontario Power Generation
- Ontario Teachers’
- OpTrust
- Public Sector Investment Board
- Saskatchewan Teachers
- TELUS Communications

**Asia - Pacific**
- Australia Super
- China Inv. Corp.
- QIC
- QSuper
- NZ Earthquake Commission

**Europe**
- ABP/APG
- Blue Sky Group (KLM)
- BT/Hermes - UK
- Bouw – Netherlands
- Local Government Fund – Finland
- MN Services
- PME - Netherlands
- PMT - Netherlands
- Pensioenfonds Vervoer
- PGGM/PFZW
- Philips – Netherlands
- Publica - Switzerland
- Railpen – UK
- Shell – Netherlands
- State Pension Fund – Finland
- Unilever - UK
- USS – United Kingdom
- Varma - Finland

**Africa**
- GEPF – South Africa
El fondo promedio en la base de datos de CEM obtuvo un valor agregado de 0.17% por año

Desempeño del fondo de pensión: Fondos globales, 1992 - 2014

<table>
<thead>
<tr>
<th></th>
<th>24 Años¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rentabilidad total bruta</td>
<td>9.71%</td>
</tr>
<tr>
<td>- Rentabilidad del benchmark</td>
<td>9.12%</td>
</tr>
<tr>
<td>= Valor bruto agregado</td>
<td>0.59%</td>
</tr>
<tr>
<td>- Costos²</td>
<td>0.42%</td>
</tr>
<tr>
<td>= Valor neto agregado</td>
<td>0.17%</td>
</tr>
</tbody>
</table>

1. Source CEM investment database. 6,992 annual observations from 1992 - 2014. The 24-year average is the simple average of 24 annual averages. All fund observations within each year were included.

2. Costs include all investment management costs except for private market performance fees and transaction costs.

- The benchmark return is the primary contributor to total returns. It is a result of asset mix policy. Asset mix policy reflects:
  - Liabilities
  - Risk appetite
  - Asset class return expectations

- Value added is mostly the result of active management. Its contribution to total returns has been small but positive.
Los costos redujeron tres cuartas partes del valor agregado bruto

 Valor agregado
Promedio 1992 - 2014

0.70%
0.60%
0.50%
0.40%
0.30%
0.20%
0.10%
0.00%

Valor bruto agregado
Valor neto agregado

0.59%
0.17%
Características de los fondos con un desempeño superior:

• Lower cost due to:
  • More internal management of public markets. Internal management outperformed external management by 0.22% on a net basis in public markets.
  • Less fund of funds in private markets. More internal direct investing.
  • Economies of scale from more assets. A US$ 10 billion fund earned 0.076% more net value added per year than a US$ 1 billion fund, beyond any advantages from internal management.
  • Not for profit. Therefore the costs savings from internal management and economies of scale benefit the members, not the administrator.

• More actively managed and less indexed.

More details are available in the CEM article: “Value added by Large Institutional Investors Between 1992 and 2013” by Alex Beath, PhD.
Los beneficios de invertir en capital privado son exagerados

- The diversification benefit is either minimal (private equity) or much lower than advertised (real estate, infrastructure) after adjusting for reporting lags, leverage and smoothing.

- Investable alternatives are available with high correlations to performance.

- Illiquidity risk premium was small or negative when implemented externally.

For example, private equity correlates highly with stock after adjusting for reporting lags.

Illiquidity premium (NVA) versus investable benchmarks

<table>
<thead>
<tr>
<th>Asset class</th>
<th>Implementation style</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Internal</td>
</tr>
<tr>
<td>Private equity</td>
<td>0.30%</td>
</tr>
<tr>
<td>Real estate</td>
<td>-1.60%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>n/a¹</td>
</tr>
</tbody>
</table>

¹: Not available.
No invierten en fondos de fondos!

- In fund of funds you pay fees twice:
  - To the fund of fund manager
  - To the managers of the funds the fund of funds invests in.
- Paying twice resulted in much worse performance.
  - For example, for private equity it was 1.90% worse than directly investing in LPs and 5.10% worse than investing directly in private assets.
Los fondos alternativos (hedge funds) tuvieron un rendimiento inferior. El valor agregado promedio fue de -1.88% por año.

Net value added from hedge funds
(2000 - 2014)
Los fondos alternativos (hedge funds) no ofrecieron protección durante periodos de crisis en los mercados.
Conclusiones:

- Los costos son importantes.
- No invierten en fondos de fondos!
- Los beneficios de invertir en capital privado son exageradas.
- Los fondos alternativos (hedge funds) tuvieron un rendimiento inferior y una cobertura de riesgo deficiente.
The CEM Team

Tom Scheibelhut, Managing Director

• Tom Scheibelhut is the Managing Principal of CEM Benchmarking Inc. His commitment and practical approach to providing accurate benchmarking information for our clients is the driving culture of the firm. Under Tom's leadership, CEM has introduced several new benchmarking services and expanded globally.

• Tom’s articles have featured in leading journals and magazines. His article on organization design and performance was published in the Financial Analysts Journal. His articles on the characteristics of top performing pension systems have featured in Canadian Investment Review. He is also a frequent speaker at various industry conferences.

Paul Martiniello, Director

• Paul Martiniello will oversee business development and client service for CEM’s Latin American pension investment and administration benchmarking business.

• Paul has over 20 years of experience working within the Pension and Investment industry both in Canada and Latin America. He has held various roles providing him a broad experience in operations, risk management, M&A, financial advice & planning and asset management.

• Paul holds a Bachelor of Commerce in Finance from Ryerson University, is a Chartered Investment Manager (CIM®), and is a graduate of the Schulich School of Business International MBA program where he specialized in Finance with a regional focus on Latin America.

Maria Parra, Senior Analyst

• Maria is a Senior Analyst at CEM for the Investment Benchmarking team primarily supporting Latin American clients.

• Maria brings to the CEM team over 7 years of experience in the Canadian investment funds industry. Maria previously worked at Fundata Canada Inc., where she had responsibilities for data content and quality for the Canadian mutual fund industry and the North American exchange traded funds market.

• As a committee member of the Canadian Investment Funds Standards Committee (CIFSC), Maria contributed to the standardization and classification of investment funds in the country. Her articles on performance and risk evaluation of passive and active strategies have been published in the Canadian press.

• Maria graduated from the University of Toronto with an honors degree in Economics and is currently a candidate in the CFA program.