

The 2015 Preqin Alternative Assets Performance Monitor



A comprehensive guide to the performance of alternative assets

Sample Pages

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Contents

CEO's Foreword

Section One: The 2015 Preqin Alternative Assets Performance Monitor

Alternative Assets Performance Monitor: In Numbers	5
Data Sources and Methodology	6
Performance Overview of Alternative Assets	10

Section Two: Private Equity

Private Equity Assets under Management	17
Performance Overview of Private Equity Funds	18
PrEQIn - Private Equity Quarterly Index	20
Private Equity Horizon IRRs	21
Top Performing Private Equity Funds	22
Private Equity Funds to Watch	25
Understanding the Shortness of PME - <i>Philippe Jost, Capital Dynamics and Philipp Stoll, Evoco</i>	26
The Importance of PME Benchmarking	28
PME Benchmarks: All Private Equity, All Geographies	29
PME Benchmarks: All Private Equity, North America	30
PME Benchmarks: All Private Equity, Europe	31
PME Benchmarks: All Private Equity, Asia & Rest of World	32
Private Equity: Buyout	33
Private Equity: Distressed Private Equity	37
Private Equity: Fund of Funds	40
Private Equity: Growth	43
Private Equity: Secondaries	46

Section Three: Venture Capital

Performance Overview of Venture Capital Funds	49
---	----

Section Four: Private Debt

Private Debt Assets under Management	55
Performance Overview of Private Debt Funds	56
Private Debt: Direct Lending	58
Private Debt: Mezzanine	59

Section Five: Real Estate

Real Estate Assets under Management	61
Performance Overview of Real Estate Funds	62
Real Estate: Core/Core Plus	67
Real Estate: Value Added	68
Real Estate: Opportunistic	69
Real Estate: Real Estate Debt	70

Section Six: Infrastructure

Performance Overview of Infrastructure Funds	71
--	----

Section Seven: Natural Resources

Performance Overview of Natural Resources Funds	73
Top Performing Natural Resources Funds	74

Section Eight: Hedge Funds

Hedge Fund Assets under Management	77
Performance Overview of Hedge Funds	79
Hedge Fund Benchmarks	81
Top Performing Hedge Funds	82
Top Performing Hedge Funds by Region	84
Top Performing Hedge Funds by Size	86
Most Consistent Top Performing Hedge Funds	87
Equity Strategies Funds	92
Macro Strategies Funds	94
Event Driven Strategies Funds	96
Credit Strategies Funds	98
Relative Value Strategies Funds	100
Multi-Strategy Funds	102
Niche Strategies Funds	104
Funds of Hedge Funds	105
CTAs	107
Liquid Alternatives Funds	109

Section Nine: Glossary

Glossary	
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Data Pack for the 2015 Preqin Alternative Assets Performance Monitor

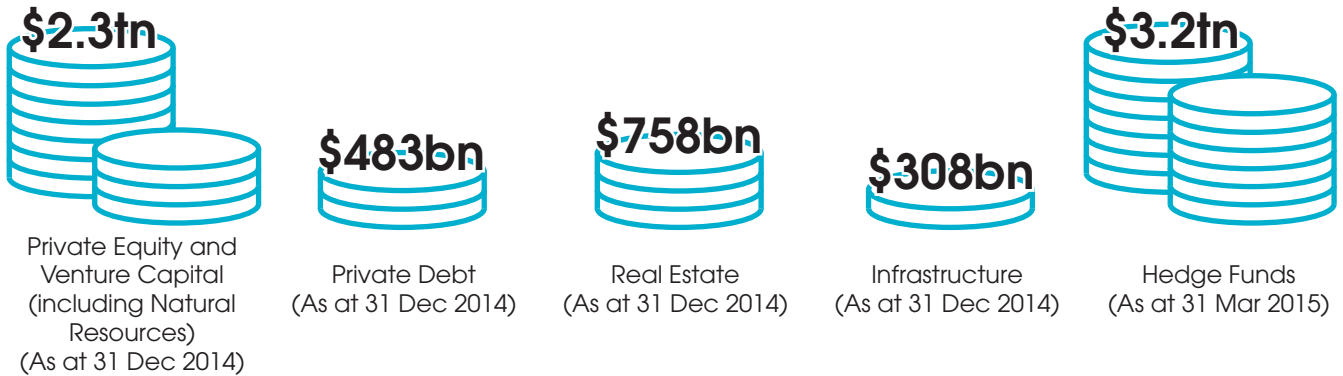
The data behind all of the charts featured in the Report is available to purchase in Excel format. It also includes ready-made charts that can be used for presentations, marketing materials and company reports. To purchase the data pack, please visit:

www.preqin.com/pm



Alternative Assets Performance Monitor: In Numbers

Assets under Management of Alternatives Industry

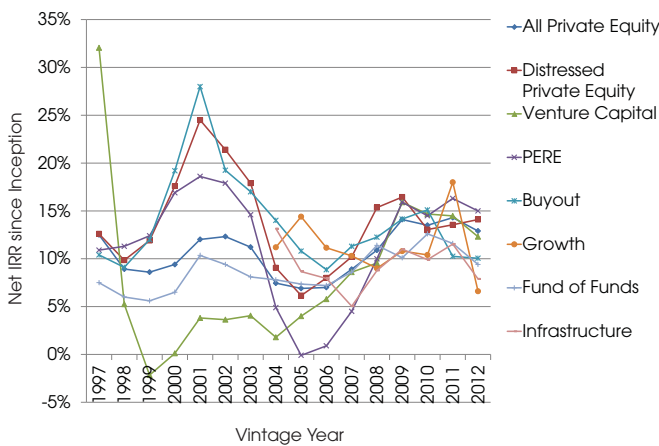


Private Equity and Venture Capital	Private Debt	Real Estate
<p>21.7% One-year horizon IRR to 31 December 2014 for venture capital funds.</p>	<p>\$66bn Estimated dry powder of direct lending funds (as at December 2014).</p>	<p>34% Proportion of managers with a top quartile fund that go on to achieve top quartile performance with their next fund.</p>
<p>297 Index Points PrEQIn All Private Equity Index reaches highest point as of Q4 2014.</p>	<p>5.5% Standard deviation of net IRRs of direct lending funds compared to 16.5% for special situations funds.</p>	<p>91% Proportion of real estate investors that stated in June 2014 that the performance of the asset class met or exceeded expectations over the past year.</p>
<p>66% Proportion of managers with top quartile funds that go on to achieve above median performance with their next fund.</p>	<p>9 Number of funds out of the top 10 private debt funds by net IRR that are focused on North America.</p>	<p>\$187bn Record distributions of real estate funds in the year to December 2014.</p>
Infrastructure	Natural Resources	Hedge Funds
<p>4.5% Standard deviation of net IRRs of 2006 vintage infrastructure funds.</p>	<p>\$42bn Capital available to the top 10 largest natural resources firms ranked by dry powder.</p>	<p>72% Proportion of industry AUM that is managed by North America-based firms.</p>
<p>78% Proportion of infrastructure investors that stated in June 2014 that the performance of the asset class met or exceeded expectations over the past year.</p>	<p>138% Net IRR of the top performing natural resources fund on record (vintage 2000).</p>	<p>12 Number of funds in the 12-month overall top 20 best performing league table that employ a long/short equity strategy component.</p>
<p>5 Top five infrastructure funds to watch (vintage 2013-2015) focus on investments outside North America.</p>	<p>47% Median net IRR of a 2002 vintage natural resources fund.</p>	<p>60% Proportion of CTAs that have outperformed the Preqin All-Strategies Hedge Fund benchmark over the last 12 months (as at June 2015)</p>

Performance Overview of Private Equity Funds

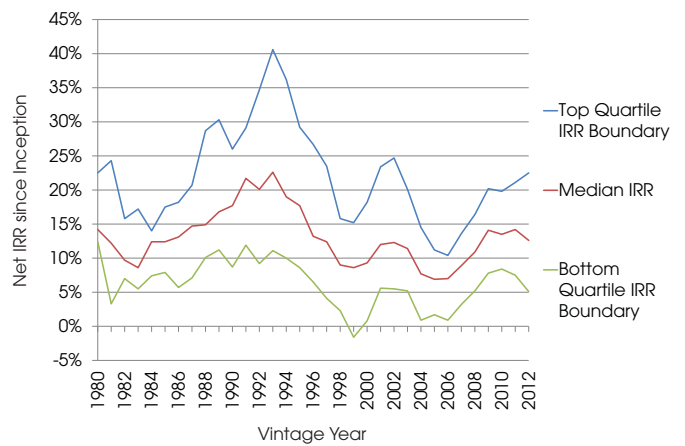
- Fig. 2.6 shows that net IRR varies significantly by vintage year. LPs are unable to market-time and so the need for diversification across vintages is apparent.
- Meanwhile, venture capital funds have seen a turnaround after many years of under-performance (See Section 3: Venture Capital for more detailed analysis).
- Fig. 2.6 also shows that returns vary by strategy and period and highlights the need for LPs to assemble diversified portfolios.
- The wide dispersion across the top and bottom quartile boundaries shows that good manager and fund selection is vital (Fig. 2.7).
- Fig. 2.8 shows that pooled IRRs vary from median IRRs across all vintage years, whereas money-weighted average IRRs show a strong correlation to pooled IRRs across the vintage years, with the added benefit of a much larger dataset.
- Europe-focused funds show strong performance for early 2000s vintages, but North America-focused funds show stronger performance for funds vintages post-GFC (Fig. 2.9).
- Furthermore, Asia and Rest of World vintage 2001 funds saw a high median IRR (22%). Funds focusing on these regions saw single-digit returns for vintages 2004-2008, although performance appears to have improved for more recent vintages (2009 to 2012).

Fig. 2.6: Private Equity: Median Net IRR by Strategy and Vintage Year



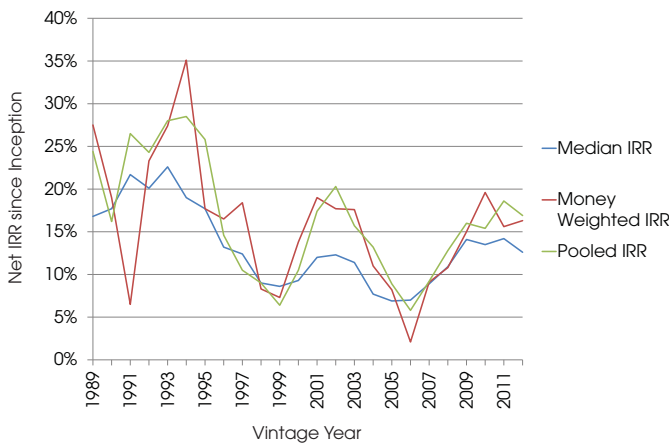
Source: Preqin Performance Analyst

Fig. 2.7: All Private Equity* - Median Net IRRs and Quartile Boundaries by Vintage Year



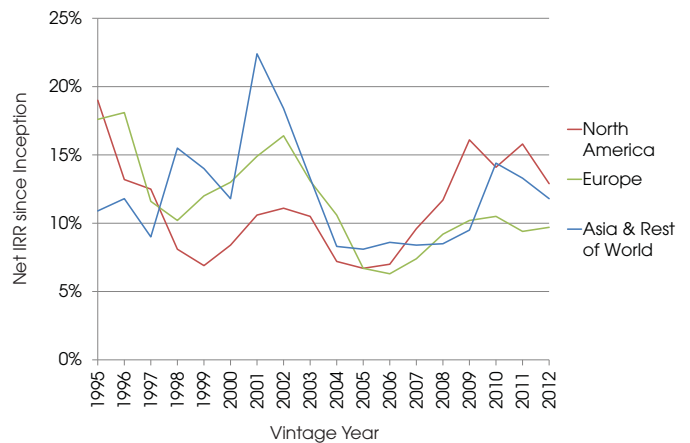
Source: Preqin Performance Analyst

Fig. 2.8: All Private Equity* - Median, Money-Weighted and Pooled IRRs by Vintage Year



Source: Preqin Performance Analyst

Fig. 2.9: All Private Equity* - Median Net IRRs by Geographic Focus and Vintage Year



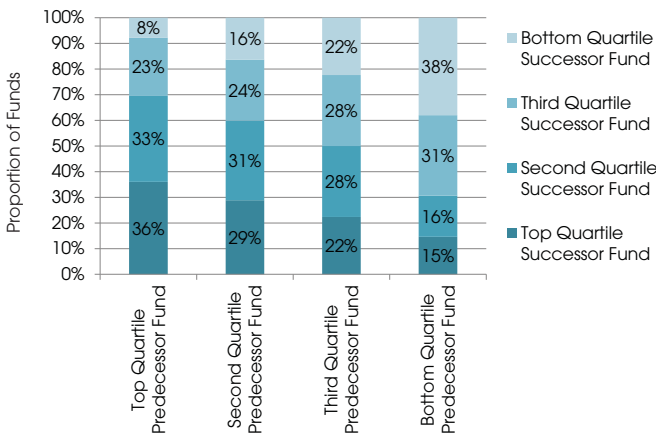
Source: Preqin Performance Analyst

- There is especially strong persistence of performance in the venture capital space (Fig. 3.5), with 69% of firms with a top quartile fund following that fund with a follow-on fund above the median. Conversely, only 31% of firms with a bottom quartile fund will follow that fund with a follow-on fund beating the median.
- The steady improvement of median IRRs since the 2006 vintage shows the turnaround in venture performance. The high standard deviations in performance (generally between 10% to 27% in each vintage year) shows how variable performance in venture funds tends to be, and the

significant importance of manager selection during the due diligence process (Fig. 3.6).

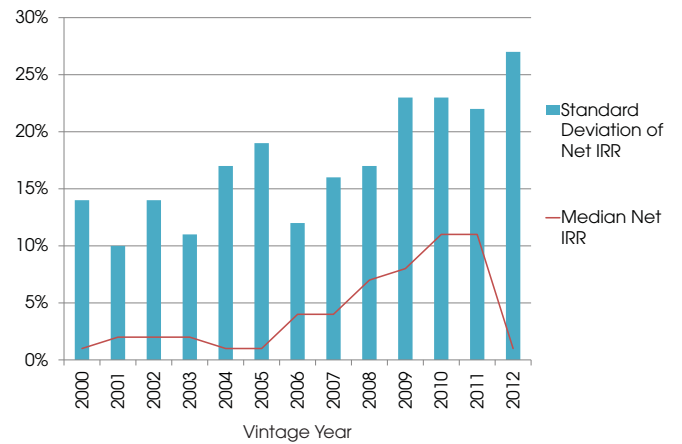
- The KS PME measure shows venture funds delivering outperformance since the 2007 vintage year, lending further evidence to support the view that venture performance significantly improved (Fig. 3.7).
- Early stage funds have closely tracked the performance of all venture capital funds on average (Fig. 3.8).

Fig. 3.5: Venture Capital - Relationship between Predecessor and Successor Fund Quartiles



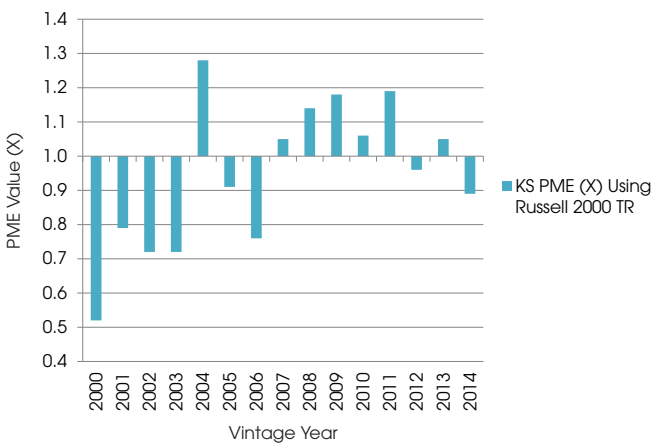
Source: Preqin Performance Analyst

Fig. 3.6: Venture Capital - Risk/Return by Vintage Year



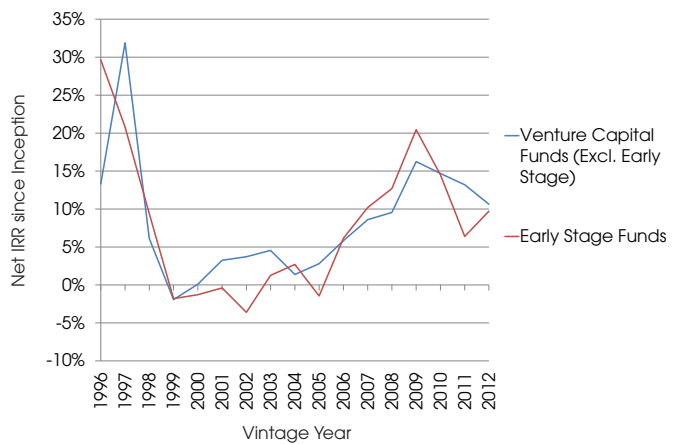
Source: Preqin Performance Analyst

Fig. 3.7: KS PME: Venture Capital - All Regions (As of 31 December 2014)



Source: Preqin Performance Analyst

Fig. 3.8: Venture Capital - Median Net IRRs: Early Stage Funds vs. All Venture Capital Funds (Excluding Early Stage)

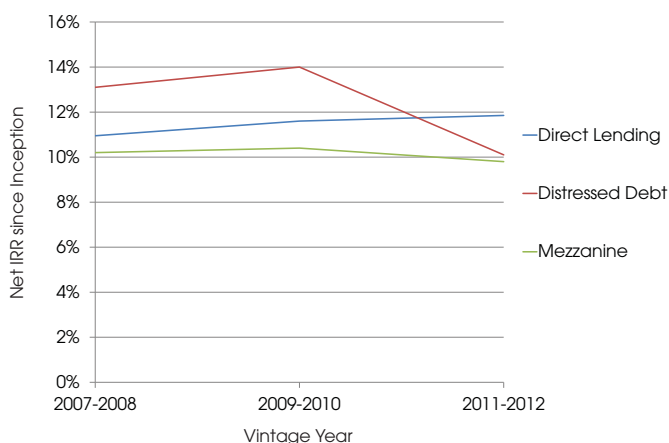


Source: Preqin Performance Analyst

Performance Overview of Private Debt Funds

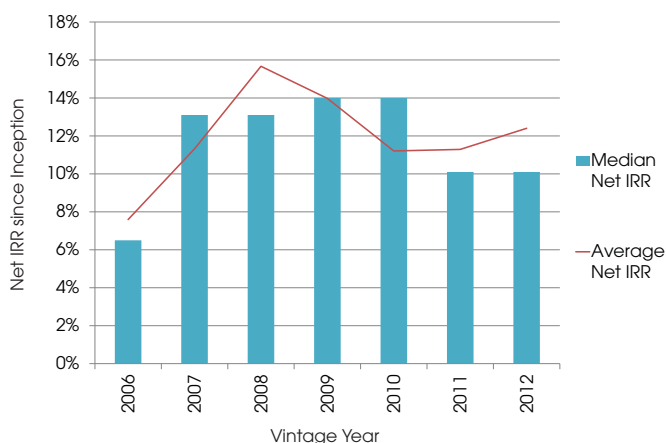
- As previously seen in Fig. 1.3 (page 10), distressed private equity funds have delivered excellent returns, with the strategy showing the best performance over the period 2000 – 2014 on the PrEQIn index.
- Median net IRRs across the various private debt strategies have also performed well, including the lower risk mezzanine strategy (Fig. 4.5).
- Average and median IRRs for distressed debt funds have remained in the 10-14% range for most vintages since 2007, including the GFC period (Fig. 4.6).

Fig. 4.5: Direct Lending, Distressed Debt and Mezzanine - Median Net IRRs by Vintage Year



Source: Preqin Private Debt Online

Fig. 4.6: Distressed Debt - Average and Median Net IRRs by Vintage Year



Source: Preqin Private Debt Online

Fig. 4.7: Top 10 Overall Best Performing Private Debt* Funds

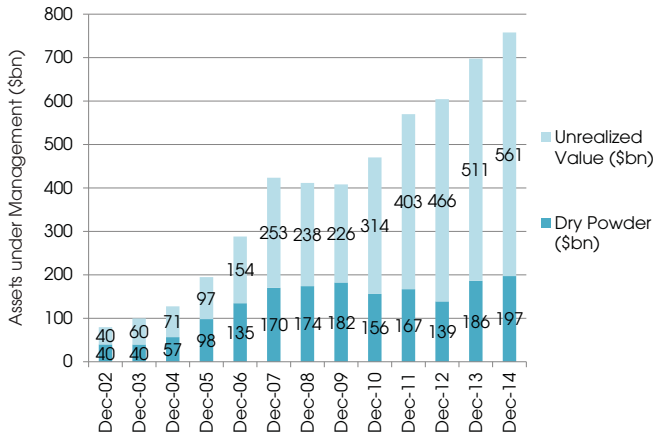
Rank	Fund	Firm	Vintage	Fund Size (mn)	Type	Geographic Focus	Net IRR (%)	Date Reported
1	WLR Recovery Fund II	WL Ross & Co	2002	400 USD	Distressed Debt	N. America	78.8	31-Dec-14
2	Venture Lending & Leasing I	Western Technology Investment	1994	95 USD	Venture Debt	N. America	63.3	30-Jun-15
3	Resilience Fund I	Resilience Capital Partners	2002	26 USD	Special Situations	N. America	62.8	31-Mar-14
4	Atlantic Street Capital I	Atlantic Street Capital	2008	42 USD	Special Situations	N. America	61.6	31-Mar-15
5	Venture Lending & Leasing II	Western Technology Investment	1997	220 USD	Venture Debt	N. America	61.1	30-Jun-15
6	Clearwater Capital Partners I	Clearwater Capital Partners	2001	22 USD	Special Situations	Asia	57.0	31-Mar-15
7	KPS Special Situations Fund II	KPS Capital Partners	2002	404 USD	Special Situations	N. America	56.3	31-Dec-14
7	Summit Subordinated Debt Fund II	Summit Partners	1997	330 USD	Mezzanine	N. America	56.3	31-Dec-14
9	OCM Opportunities Fund IV-B	Oaktree Capital Management	2002	1,505 USD	Distressed Debt	N. America	44.9	31-Dec-14
10	Foothill Partners I	Wells Fargo Capital Finance	1990	155 USD	Distressed Debt	N. America	44.8	30-Jun-15

Source: Preqin Private Debt Online

*See glossary for definition of Private Debt

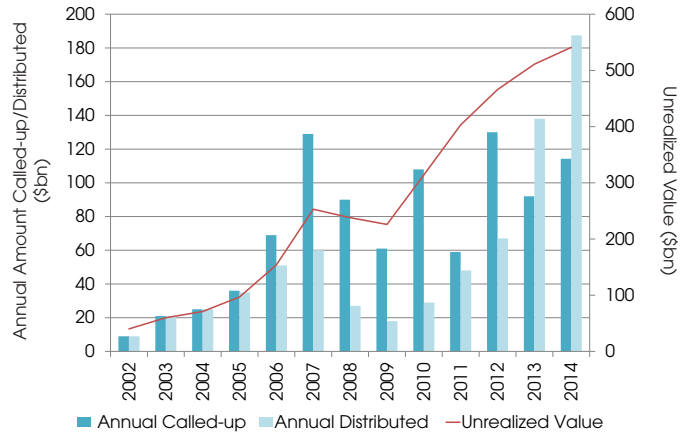
Real Estate Assets under Management

Fig. 5.1: Closed-End Private Real Estate - Assets under Management, 2000 - 2014



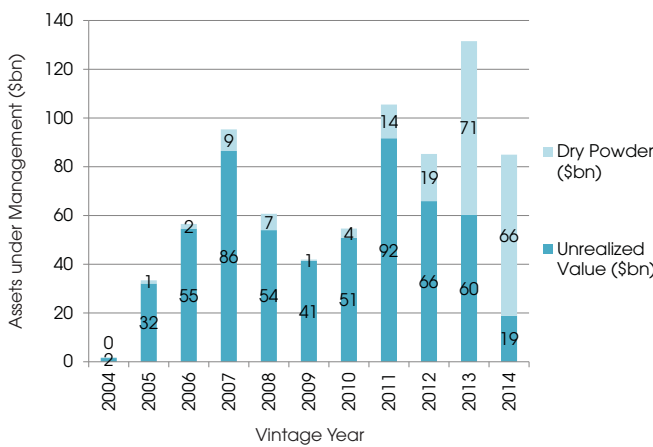
Source: Preqin Real Estate Online

Fig. 5.2: Closed-End Private Real Estate - Annual Capital Called-up, Distributed and Unrealized



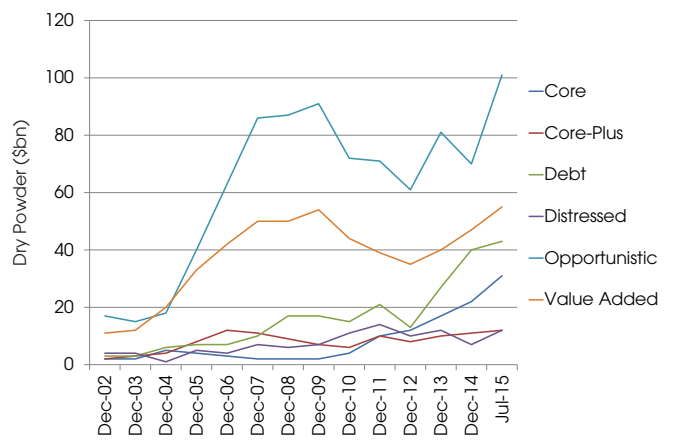
Source: Preqin Real Estate Online

Fig. 5.3: Closed-End Private Real Estate - Assets under Management by Vintage Year (As of December 2014)



Source: Preqin Real Estate Online

Fig. 5.4: Closed-End Private Real Estate - Dry Powder by Strategy, December 2002 - July 2015



Source: Preqin Real Estate Online

Fig. 5.5: 10 Largest Closed-End Private Real Estate Fund Managers by Estimated Dry Powder (As of July 2015)

Firm	Dry Powder (\$bn)	Location
Blackstone Real Estate Advisors	23	US
Lone Star Funds	18	US
Global Logistic Properties	9	Singapore
AXA Real Estate Investment Managers	7	France
Starwood Capital Group	6	US
LaSalle Investment Management	4	US
Rockpoint Group	4	US
ProLogis	4	US
Dexus Property Group	2	Australia
Carlyle Group	2	US

Source: Preqin Real Estate Online

Fig. 6.7: Top 10 Overall Best Performing Unlisted Infrastructure Funds

Rank	Fund	Firm	Vintage	Fund Size (mn)	Geographic Focus	Net IRR (%)	Date Reported
1	Aravis Energy I	Aravis	2009	47 EUR	Europe	448.0	31-Dec-14
2	EnCap Flatrock Midstream Fund I	EnCap Flatrock Midstream	2009	792 USD	N. America	49.3	31-Dec-14
3	Harbert Power Fund IV	Harbert Management Corporation	2010	63 USD	N. America	37.9	31-Dec-14
4	iCON Infrastructure Partners	iCON Infrastructure	2010	231 EUR	Europe	35.0	31-Mar-15
5	AIG Emerging Europe Infrastructure Fund	Mid Europa Partners	2000	550 USD	Europe	34.0	30-Jun-15
6	Energy Spectrum Partners V	Energy Spectrum Capital	2007	612 USD	N. America	33.1	31-Mar-15
7	New Energy Capital	New Energy Capital	2005	60 USD	N. America	32.0	30-Jun-15
8	Energy & Minerals Group Fund II	Energy & Minerals Group	2011	2,247 USD	N. America	31.2	31-Dec-14
9	Ashmore Colombia Infrastructure Fund I	Ashmore Investment Management	2010	170 USD	Americas	29.5	30-Jun-14
10	Grain Infrastructure Fund	Grain Management	2011	109 USD	N. America	28.9	31-Dec-14

Source: Preqin Infrastructure Online

Fig. 6.8: Most Consistent Performing Unlisted Infrastructure Fund Managers

Firm	Firm Location	Overall No. of Funds with a Quartile Ranking	No. of Funds in Top Quartile	No. of Funds in Second Quartile	Average Quartile Ranking
Harbert Management Corporation	US	4	3	0	1.75
Energy Spectrum Capital	US	6	3	2	1.83
Arclight Capital Partners	US	5	0	5	2.00
InfraRed Capital Partners	UK	5	2	1	2.00
Ares Management	US	4	1	2	2.00
Energy Capital Partners	US	3	2	0	2.00
Ardian	France	3	1	1	2.00

Source: Preqin Infrastructure Online

Fig. 6.9: Unlisted Infrastructure Funds to Watch (Vintage 2013-2015)

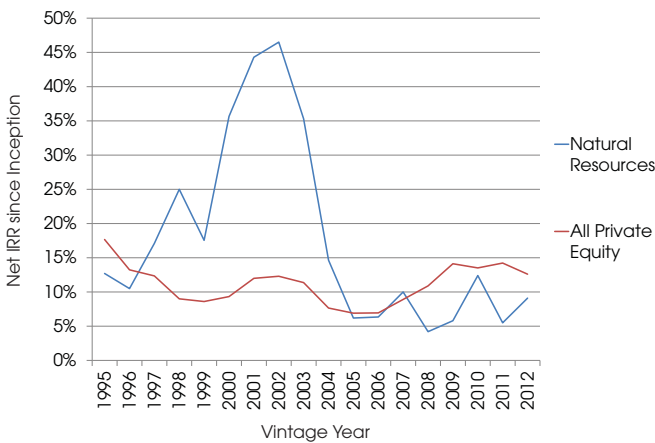
Fund	Firm	Vintage	Fund Size (mn)	Geographic Focus	Multiple (X)	Net IRR (%)	Date Reported
Japan Solar Fund	Equis Funds Group	2014	720 USD	Asia	1.93	n/m	31-Mar-15
OFI Infra Multi-Select II	SWEN Capital Partners	2013	-	Europe	1.17	n/m	31-Dec-14
Pantheon Global Infrastructure Fund II	Pantheon	2013	291 USD	Europe	1.16	n/m	31-Dec-14
AMP Capital Global Infrastructure Debt Fund II	AMP Capital Investors	2013	1,100 USD	Europe	1.10	n/m	31-Mar-14
Vantage GreenX Debt Fund	Vantage Risk Capital	2013	2,160 ZAR	Africa	1.09	n/m	31-Mar-15

Source: Preqin Infrastructure Online

Performance Overview of Natural Resources Funds

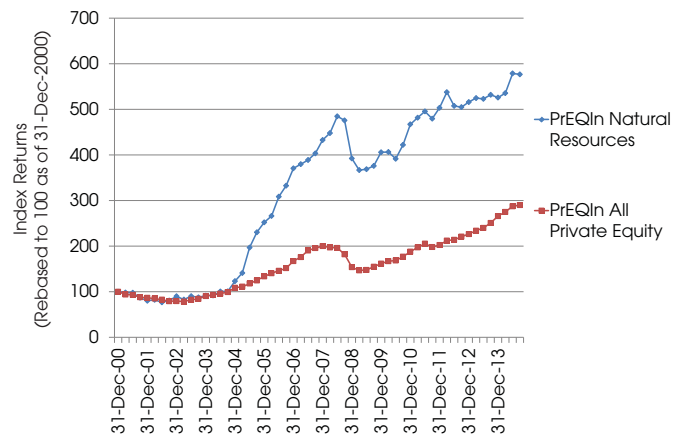
- Fig. 7.1 shows that the natural resources asset class delivered very high median IRRs between vintages 1997 and 2004, driven by the commodities supercycle.
- Fund vintages since 2006 have seen lower and more volatile IRRs, driven in part by underlying commodities trends.
- Driven primarily by the strong outperformance of natural resources funds in the period to 2008, the PrEQIn Index for natural resources funds has largely outperformed the All Private Equity Index over the 2000 to 2014 period (Fig. 7.2).
- Fig. 7.3 shows the wide dispersion of fund IRRs within each vintage year and illustrates the variability of strategies that managers are pursuing. This in turn demonstrates importance of fund selection for LPs.
- Preqin has net-to-LP performance data for 194 natural resources funds.

Fig 7.1: Median Net IRRs by Vintage Year - Natural Resources vs. All Private Equity*



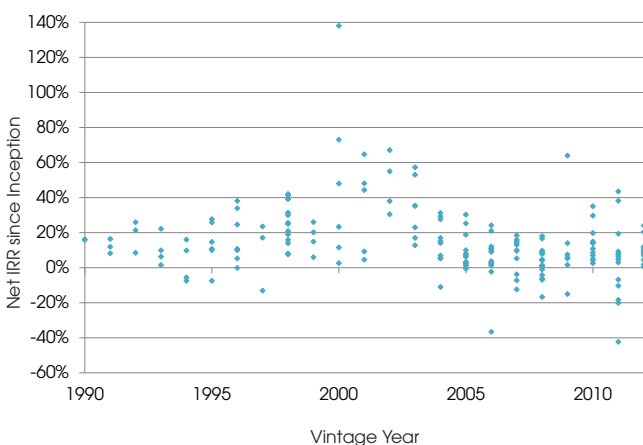
Source: Preqin Performance Analyst

Fig. 7.2: PrEQIn Natural Resources Index vs. All Private Equity* (Rebased to 100 as of 31 December 2000)



Source: Preqin Performance Analyst

Fig. 7.3: Natural Resources - Net IRR Dispersion by Vintage Year



Source: Preqin Performance Analyst

Fig. 7.4: 10 Largest Natural Resources Fund Managers by Estimated Dry Powder (As of July 2015)

Firm	Dry Powder (\$bn)	Firm Location
EnCap Investments	9	US
Natural Gas Partners	6	US
Blackstone Group	5	US
Riverstone Holdings LLC	4	US
Quantum Energy Partners	4	US
Warburg Pincus	4	US
First Reserve Corporation	3	US
Ridgewood Energy	3	US
Carlyle Group	2	US
TIAA-CREF Global Agriculture	2	US

Source: Preqin Performance Analyst

Equity Strategies Funds

Highlights (As at June 2015)*

12

Number of funds in the 12-month overall top 20 performing league table that employ a long/short equity strategy component.

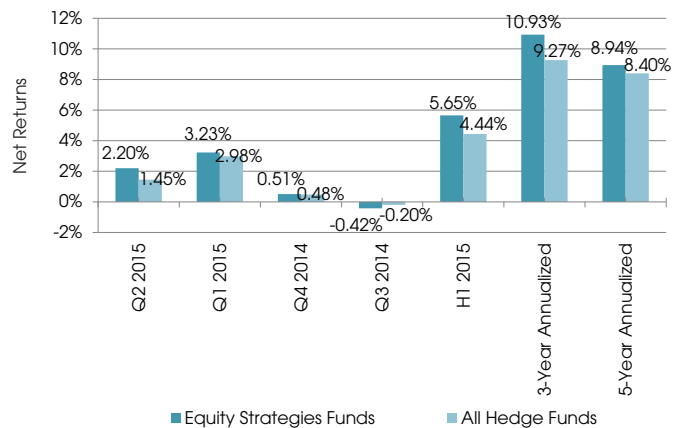


Equity strategies hedge funds targeting Asia-Pacific emerge as the best performing regional benchmark.



Value-oriented funds are the largest contributors to the Equity Strategies benchmark over the past 12 months.

Fig. 8.43: Performance of Equity Strategies Funds vs. All Hedge Funds (As at June 2015)*



Source: Preqin Hedge Fund Analyst

Fig. 8.44: Top Performing Equity Strategies Funds in the Last 12 Months (As at June 2015)*

Rank	Fund	Manager	Core Strategies	12-Month Net Return (%)
1	Daman Fifth Fund	Daman Investments	Long Bias, Value-Oriented	128.01
2	Avant Capital Eagle Fund - Class B	Avant Capital Management (HK)	Long/Short Equity, Special Situations	114.46
3	UG Hidden Dragon Special Opportunity Fund - Class A	UG Investment Advisers	Long/Short Equity, Value-Oriented	108.19
4	Greenwoods China Alpha Master Fund	Greenwoods Asset Management	Long/Short Equity	96.69
5	SMC China New Market Fund	Red Gate Asset Management	Long Bias	93.86
6	SMC China Opportunity Fund I	Red Gate Asset Management	Long/Short Equity	88.99
7	Golden China Master Fund	Greenwoods Asset Management	Long/Short Equity	77.39
8	Springs China Opportunities Fund (US Feeder) - Class A	Springs Capital	Long/Short Equity	76.52
9	Rhenman Healthcare Equity Long Short Fund - IC3 EUR	Rhenman & Partners Asset Management	Long/Short Equity	75.96
10	ValueQuest India Moat Fund	ValueQuest Capital	Long Bias	63.68

Source: Preqin Hedge Fund Analyst

Fig. 8.45: Equities Strategies Funds to Watch (As at June 2015)**

Fund	Manager	Core Strategy	12-Month Net Return (%)
Brilliant Partners Fund LP	Brilliance Capital Management	Long/Short Equity	59.28
GH China Century Fund	LyGH Capital	Long/Short Equity	49.62
Redwood Alpha Fund	Integritas Capital Management	Long Bias	38.69

Source: Preqin Hedge Fund Analyst

*Please note, all performance information includes preliminary data for June 2015 based upon returns reported to Preqin in early July 2015. Although stated trends and comparisons are not expected to alter significantly, final benchmark values are subject to change.

**Managers established after 2012 with funds with inception after 1 January 2012 with at least a year's track record. Please see Chapter 1 for methodology (page 9).

2015 Preqin Alternative Assets Performance Monitor

Private
Equity

Private
Debt

Venture
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Real
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Infrastructure

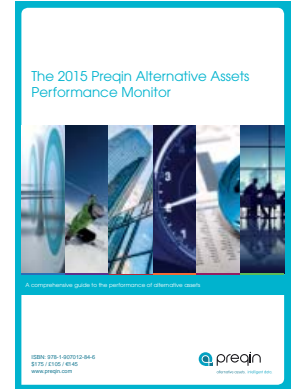
Natural
Resources

Hedge
Funds

The 2015 Preqin Alternative Assets Performance Monitor provides unrivalled insight into the performance of alternative assets funds, analyzing performance data for over 20,500 funds. Bringing together extensive data from Preqin's industry-leading online products, the Performance Monitor offers detailed statistics, league tables, charts and analysis of performance across the alternative assets industry.

This year's new and expanded Alternative Assets Performance Monitor includes:

- Top performing funds, most consistent managers and 'funds to watch' across different vintages, types and strategies, highlighting notable players in each asset class.
- Analysis of funds across different strategies and geographies by vintage year, enabling you to evaluate trends on a granular level.
- Examination of risk vs. return for different asset classes and strategies.
- Public Market Equivalents (PME) – compare private equity performance relative to public markets.
- **NEW FOR 2015!** Hedge funds, private debt, natural resources, overview of all alternative assets performance, real world performance of alternatives in public pension schemes, risk vs. return across alternatives.



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