A horizontal banner image showing a close-up, high-angle view of a stone floor with a repeating geometric pattern of square and rectangular tiles.

## Private Equity Portfolio Review

Los Angeles • New York

Prepared for the Rhode Island State Investment Commission

September 22, 2015



## Contents

Portfolio Summary

Review of First Half of 2015 Activity and Performance

Long Term Performance

Portfolio Construction and Exposures

Appendix: Third Quarter 2015 Market Outlook

## What is in the portfolio – Overview as of June 30, 2015 (estimate)

### Portfolio Summary Since Inception

- Inception Date: December 20, 1982
- Total Commitments: \$2.0 billion
- Number of Partnerships
  - Committed: 123 partnerships
  - Liquidated: 43 partnerships
  - Active: 80 partnerships
- Cash Flows (millions)
  - Commitments: \$1,984
  - Contributions: \$1,783
  - Distributions: \$2,106
  - Market Value: \$574

### ERSRI Private Equity Portfolio Performance

Net of Fees

Since Inception Annualized IRR	13.7%
Total Value to Paid in Capital	1.5x


*Mature private equity portfolio that has distributed more than invested*

## Cash Flows and Commitments First Half of 2015 (estimate)

<b>Commitments (000)</b>		
Beginning of Year		\$1,929,720
Net New Commitments (Closed)	\$25,000 EnCap X \$15,000 Industry Ventures III Co-Invest \$30,000 Garrison IV	\$70,000
Commitment Adjustments		-\$15,657
June 30, 2015		\$1,984,063

<b>Cash Flows (000)</b>		
Beginning Year Market Value		\$551,217
Contributions	\$56,724	
Distributions	(\$80,130)	
Gains	\$45,973	
June 30, 2015 Market Value		\$573,784

- Committed to 3 funds which closed in 1<sup>st</sup> half of 2015
- Portfolio produced \$46.0 million in gains for the year
- Portfolio was cash flow positive with distributions exceeding contributions by \$23.4 million



Since Inception Performance as of June 30, 2015- estimate

<b>Performance</b>	<b>Dec 2014</b>	<b>Jun 2015</b>	<b>Change</b>
Since Inception Annualized IRR	13.6%	13.7%	0.1%
Total Value to Paid in Capital	1.50x	1.51x	0.01

- Long term performance remains strong

## Commitments to Vintage Year 2015 Funds

<b>Fund</b>	<b>Sector</b>	<b>Strategy</b>	<b>Commitment</b>
Baring Asia Fund VI	Asia Private Equity	Middle Market Buyouts	\$15,000,000
Centerbridge Capital Partners III	US Buyouts	Middle Market Value Buyouts	\$30,000,000
EnCap Energy Fund X	Energy	Upstream	\$25,000,000
Garrison Opportunity IV	Debt	Direct Lending	\$30,000,000
Industry Ventures III - Coinvestment	Venture Capital	Primaries/Secondaries	\$15,000,000
Paine & Partners IV	US Buyouts	Sector Focus: Food and Ag	\$30,000,000
CapitalSpring V*	Debt	Direct Lending to Franchises	\$30,000,000

\* Commitment has not closed

## Performance Drivers in First Half of 2015 based on Change in Est. Cumulative Gains

### First Half of 2015 Positive Drivers

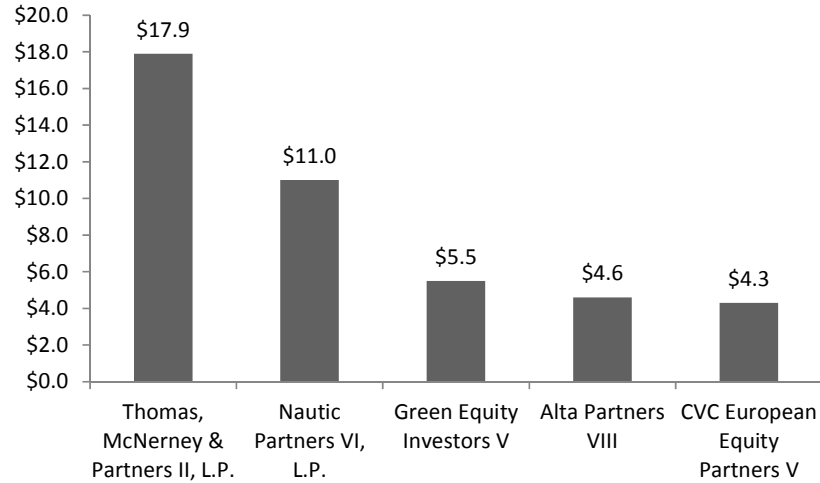
Partnership	Sector	Vintage Year	Change in Cumulative Gains (millions)
Nautic Partners VI	US Buyouts	2007	\$10.5
Thomas McNerney II	Venture Capital	2006	\$6.8
Alta Partners VIII	Venture Capital	2005	\$3.8
Birch Hill III	Intl Buyouts	2005	\$3.4
Riverside Micro-Cap III	US Buyouts	2014	\$3.4

### First Half of 2015 Disappointing Drivers

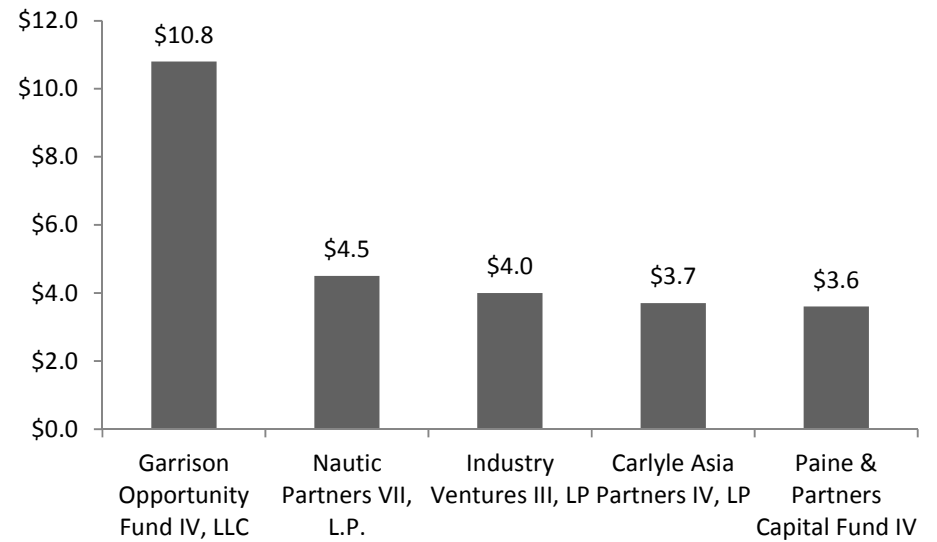
Partnership	Sector	Vintage Year	Change in Cumulative Gains (millions)
Sorenson Capital III	US Buyouts	2014	-\$1.9
Parthenon Investors II	US Buyouts	2001	-\$1.5
Point Judith II	Venture Capital	2006	-\$1.3
First Reserve XI	Energy	2006	-\$1.2
Kayne Anderson IV	Energy	2007	-\$1.0

# Partnership Cash Flows during First Half of 2015

## Top Five Fund Distributions in 1<sup>st</sup> Half 2015



## Top Five Fund Contributions in 1<sup>st</sup> Half 2015



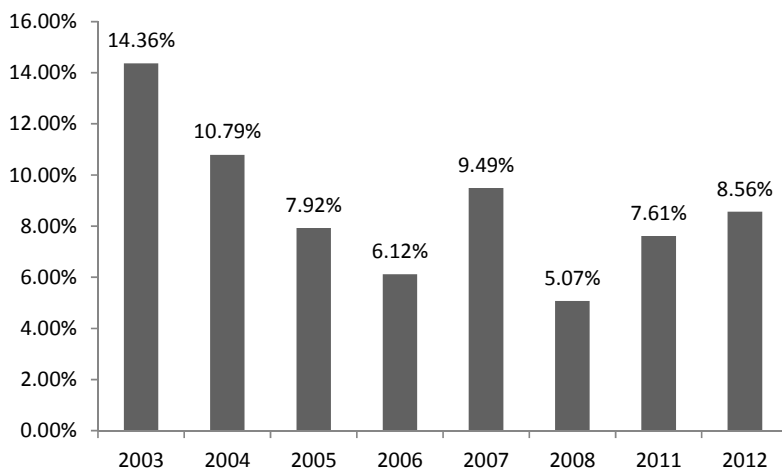


# Long Term Performance Drivers (Vintage Years 2003-2015 excluding liquidated funds/ estimate)

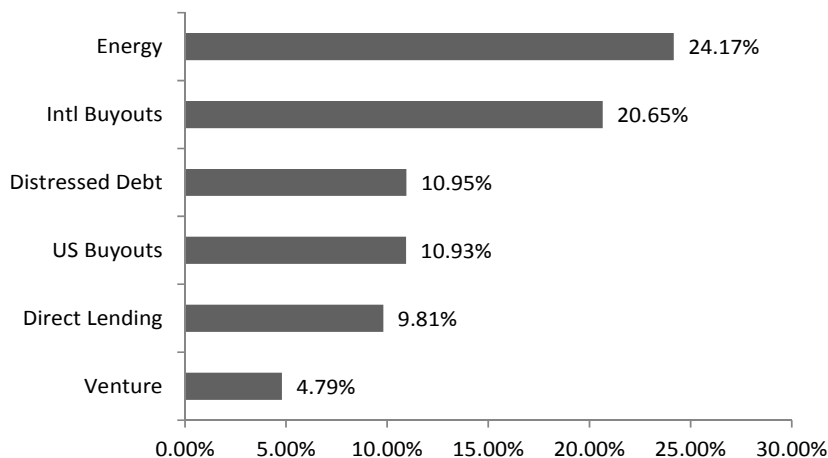
Top Five Performing Partnerships based on Since Inception IRR through June 30, 2015 (est)

Partnership	Sector	Vintage Year	Commitment Amount	Since Inception Annual IRR
Nautic Partners VII	US Buyout	2014	\$20.0	77.1%
CVC European Equity III	European Buyout	2001	\$20.0	41.1%
First Reserve X	Energy	2004	\$20.0	31.1%
Riverside Micro-Cap	US Buyout	2014	\$20.0	26.1%
US Buyout Fund	US Buyout	2000	\$25.0	22.1%

Returns by Vintage Year



Returns by Sector

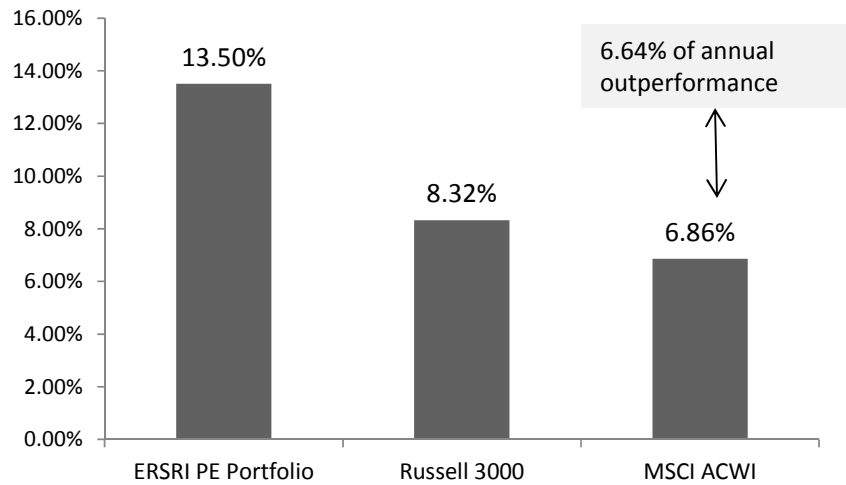


Notes: All returns are since inception annualized IRRs net of fees. For Vintage Year returns, no commitments were made in 2009-10 and 2013-14 returns are too early to be meaningful.

# How has the portfolio performed as of March 31, 2015

## Performance versus Public Equities\*

Since inception annualized internal rate of returns net of fees



\* Public index returns are calculated as private market equivalents where actual PE cash flows are applied to the index return. Note that this is a quarterly IRR calculation. The IRR for the portfolio using a daily calculation is 13.61%.

## Performance versus Private Equity Universe\*\*

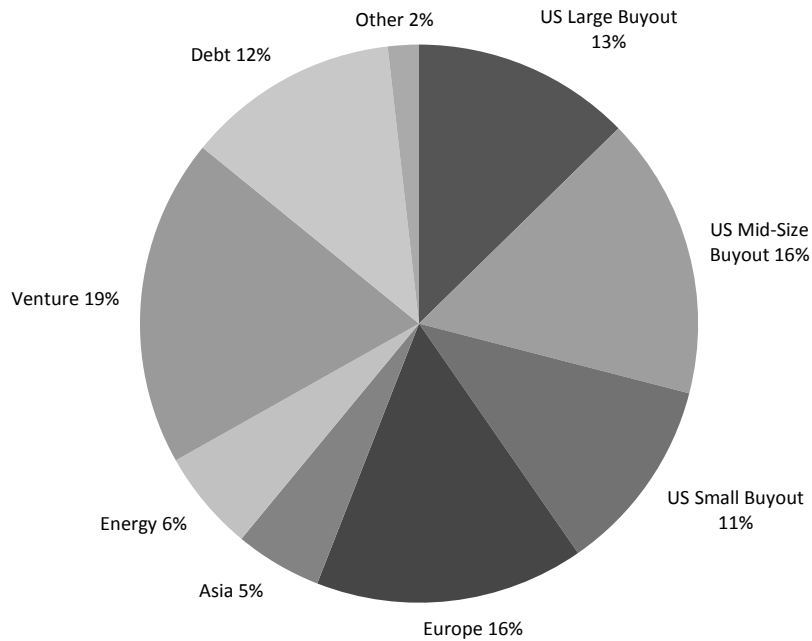
Since inception annualized returns net of fees

	Vintage Year	ERSRI PE Portfolio	Universe Median Return
Outperformance	1998	10.87%	8.15%
	1999	9.97%	0.40%
	2000	14.77%	3.26%
	2001	31.64%	8.45%
	2002	18.01%	9.58%
	2003	14.36%	10.05%
Under performance	2004	10.79%	8.01%
	2005	7.92%	7.49%
	2006	6.12%	7.25%
Young investments	2007	9.49%	9.77%
	2008	5.07%	9.62%
	2011	7.61%	11.11%
	2012	8.56%	8.37%
	2013	-11.90%	-1.94%
	2014	15.63%	-8.86%

\*\* Cambridge Global Private Equity/Venture Capital Universe

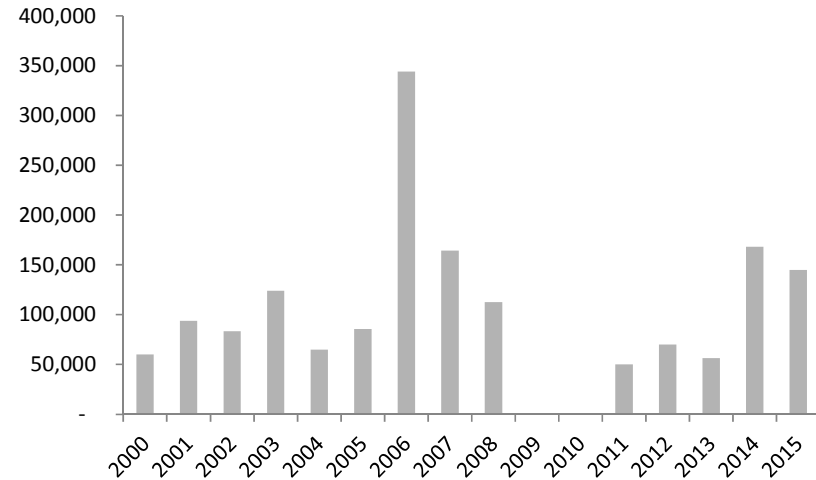
# Exposures by Strategy Sector and Vintage Year as of June 30, 2015

**Exposure by Fund Sector Strategy**  
(exposure equals market value plus undrawn capital)



*Portfolio is diversified by strategy*

**Commitments by Vintage Year**  
In millions of dollars



*Some vintage year concentration with large exposure to 2006 and no exposure to 2009/10*

## Exposures by Fund and Manager as of June 30, 2015

### Exposure by Fund

(exposure equals market value plus undrawn capital)

Fund	\$ Exposure	% Exposure
Garrison Opportunity Fund IV, LLC	30,755,228	3.48%
Carlyle Asia Partners IV, LP	29,628,431	3.35%
Paine & Partners Capital Fund IV	28,988,786	3.28%
Sorenson Capital Partners III, L.P.	28,101,915	3.18%
Centerbridge Special Credit Partners II,	27,024,512	3.05%

*Portfolio is diversified by fund with largest exposure less than 4% of total*

*Larger fund exposures are represented by newer commitments that have yet to reach distribution stage*

### Exposure by Manager

(exposure equals market value plus undrawn capital)

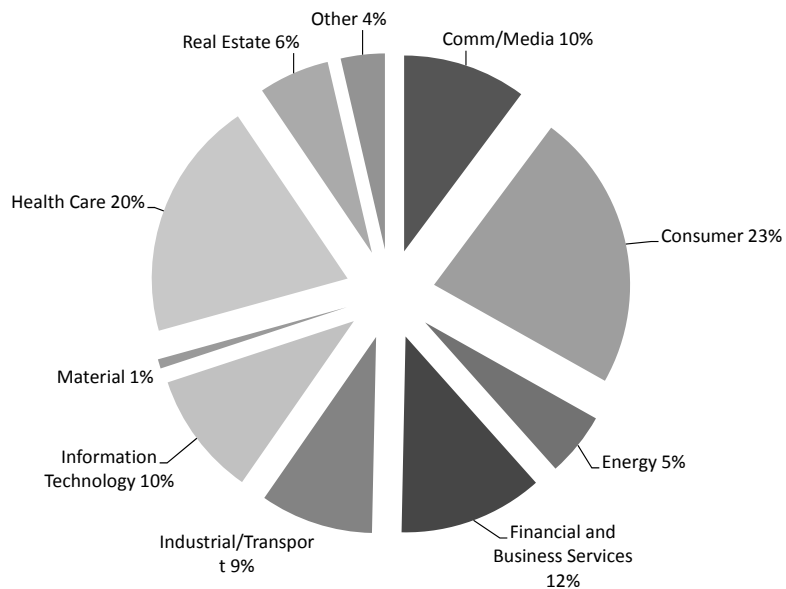
Firm	\$ Exposure	% Exposure
Centerbridge Capital Partners	62,483,989	7.1%
Providence Equity Partners	53,012,062	6.0%
Nordic Capital	50,183,990	5.7%
Nautic Partners	46,993,577	5.3%
EnCap Energy Capital	42,270,280	4.8%

*Portfolio is diversified by manager with largest exposure at 7.1% of total*

*Larger manager exposures represent managers who have performed well and commitments have been made to multiple funds over time*

# Exposures by Industry and Company as of June 30, 2015

**Exposure by Industry**  
Based on market value



*Portfolio is diversified by industry*

## Examples of Largest Company Holdings

Company	Sector	Partnership
Auspex Pharmaceuticals	Health Care	Thomas, McNerney & Partners II
Griffin Holdings	Real Estate	Oaktree European Principal Fund III
Lionsgate	Comm/Media	MHR Institutional Partners III
Veracode	Information Technology	Point 406 Ventures I
Univision	Media	Providence Equity Partners V
Shred-it International	Business Services	Birch Hill Equity Partners III
Fitness First	Consumer	Oaktree European Principal Fund III
ConvaTec Group	Health Care	Nordic Capital Fund VII
Sleep Country Canada	Consumer	Birch Hill Equity Partners III
ConvaTec Group	Health Care	Nordic Capital Fund VI

*Portfolio consists of over 950 companies with no company larger than 2% of total market value*



## Third Quarter 2015 Private Equity Outlook

## Private Assets Outlook – Recommend a Cautious Approach in the Current Market

U.S. Large Buyout	Easy financing may slow with increased market volatility. This would start to shift the paradigm to a buyer's market. Current company pricing remains high.	Neutral
U.S. Mid/Small Buyout	Pricing and leverage levels remain high, making it difficult for firms to deploy capital.	Neutral
Distressed	Sales of non-core assets in the European banking system continue to provide investment opportunities. Managers focused on smaller markets in the U.S. are best positioned in the current low default environment.	Neutral
Private Debt	Direct lending to smaller companies in less efficient markets provide attractive risk adjusted returns and larger spreads relative to the broadly syndicated market.	Positive
Venture	Technology exits have slowed in 2015 as venture-backed companies choose to stay private longer and raise record amounts of capital.	Neutral
Europe	Deal flow remains strong as a result of a more stable economic environment, but asset prices remain elevated due to the availability of cheap debt financing and high levels of investable capital.	Neutral
Asia	Restructurings of state-owned enterprises and the technology, healthcare, and education sectors are attractive in China despite volatility and high valuations. Korea, India and Southeast Asia represent potential areas of interest due to lower capital overhang and differentiated return drivers.	Neutral
Latin America	Market volatility in Brazil may generate stronger deal flow for high quality assets at lower entry valuations. Chile, Colombia, Peru and Mexico are being affected by commodity price declines, but opportunities remain in the healthcare, education and consumer sectors.	Neutral
Energy	Attractive investment opportunities are anticipated as a result of lower commodity prices and unprecedented declines in transaction activity. It is early for distressed strategies.	Positive
Infrastructure	Elevated pricing and few opportunities for core investing in the U.S. warrants continued investment caution. High transaction activity in Northern Europe is attracting fund capital.	Neutral
Real Estate	Commercial supply and demand remain in equilibrium, providing adequate support for occupancies and continued rental growth in the U.S. Measured increases in interest rates and debt costs have sustained yield margins, making debt investments attractive. Though European fundamentals have stabilized, capital raising in the region may exceed the current opportunity set.	Positive

# Higher Quality Buyout Offerings in Q3 are Small and Middle Market Funds

Diversified firms with longstanding teams with consistent focus on the micro-cap and middle market.

Caltius III (current)

- Team tenure of 15+ years.
- Acquires companies with EBITDA of \$3 million to \$8 million.

RMCF IV (current)

- Consistent focus on companies with EBITDA of less than \$7 million
- Strong momentum on company sales

Summit IX (recommended)

- Proactive investment origination
- Majority and minority equity investments

Smaller and industry focused funds continue to find attractive investment opportunities.

Accel-KKR V (current)

- Software and IT focus
- Consistently strong performance

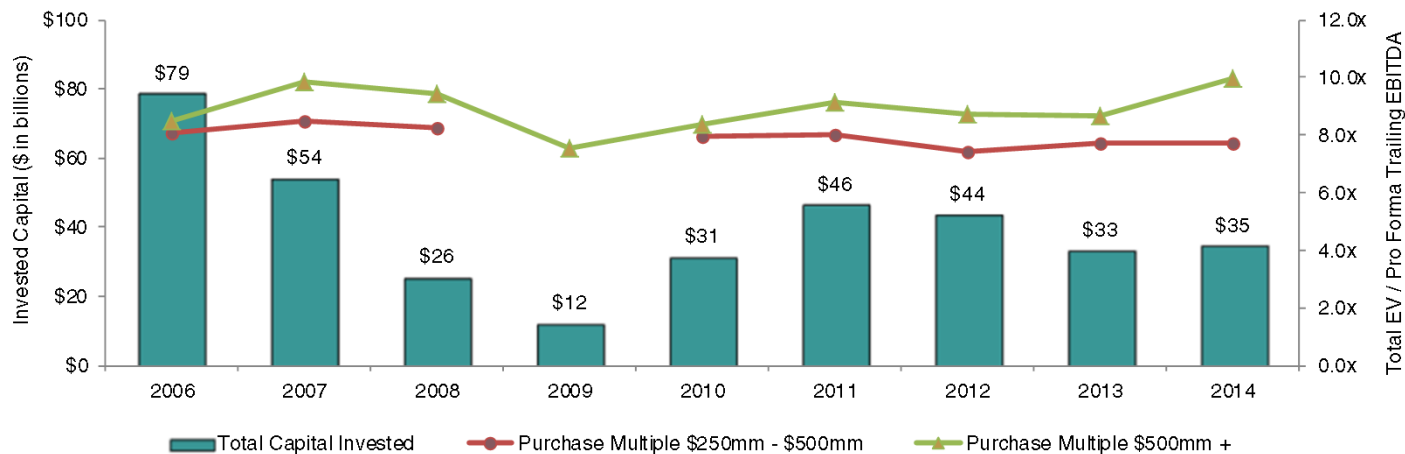
Dominus II (current)

- Light manufacturing, product and services
- Strong Fund I performance

Shamrock IV (current)

- Media, entertainment and technology
- Outsized winners and low loss rate
- Control buyouts and minority equity investments

## U.S. Lower Middle Market Deal Activity: \$250 million to \$500 million



Source: Pitchbook, S&P LCD

Note: The 2009 sample size for \$250mm to \$500mm S&P LCD purchase price data was not large enough for a complete dataset.



# Opportunities Exist with both Pan-European and Country Focused Funds

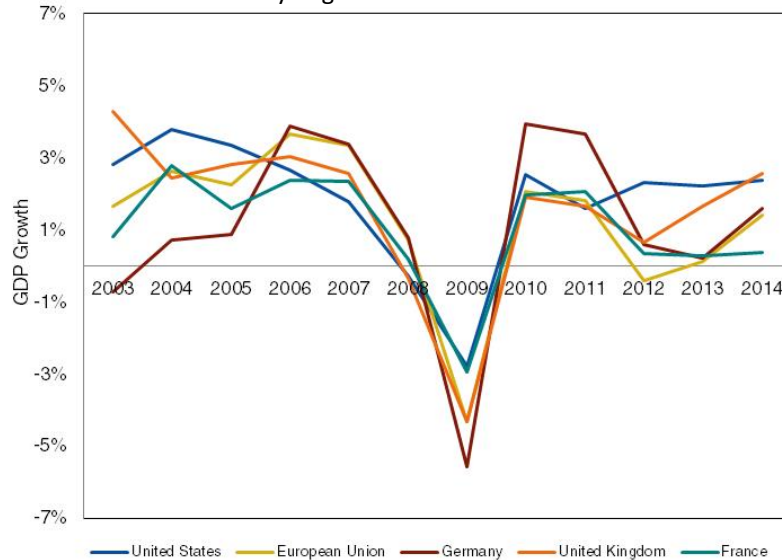
## Greater investment opportunity in 2015 with established pan-European managers.

Advent VIII (2H 2015)	<ul style="list-style-type: none"> <li>Historically, 2/3 Europe and 1/3 U.S.</li> <li>Country and industry sector investment teams</li> <li>Long standing platform. Strong performance</li> </ul>
Charterhouse X (approved)	<ul style="list-style-type: none"> <li>London based, pan European strategy</li> <li>Compete in the upper mid-market</li> <li>Strong performance from Fund IX</li> </ul>
Norvestor VII (Q3 2015)	<ul style="list-style-type: none"> <li>Invests in the Nordic region and Germany</li> <li>Long standing industrial focus</li> <li>Vintage 2016</li> </ul>

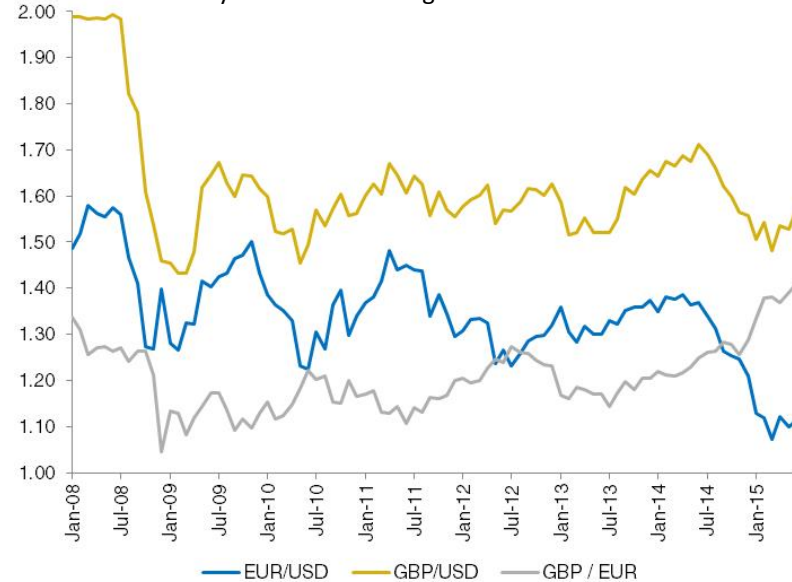
## High quality regional funds will be in market during the first half of 2016.

Bencis (1H 2016)	<ul style="list-style-type: none"> <li>Benelux region focus</li> <li>Long tenure; large team relative to AUM</li> </ul>
DBAG (1H 2016)	<ul style="list-style-type: none"> <li>Germany focus. Large team with long tenure</li> <li>Control investments in industrial companies</li> <li>Net IRR performance consistently above 20%</li> </ul>
Valedo (1H 2016)	<ul style="list-style-type: none"> <li>Small company buyouts in Sweden</li> <li>Six investments generated a return of 6.7 times</li> <li>No team turnover</li> </ul>

GDP Growth by Region

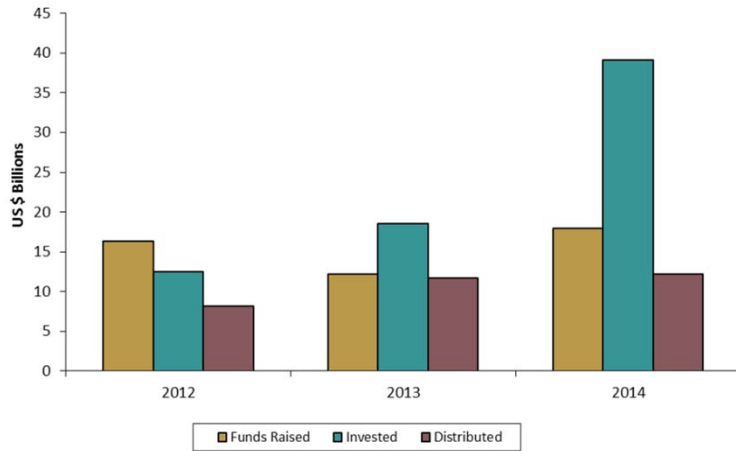


Currency Movement through June 2015



# Chinese Private Equity Continues to Evolve and Requires Differentiated Approach

## China Private Equity Activity Year over Year



Investors may benefit from partnering with international firms with distinct competitive advantages in China and the proven ability to execute complex cross-border and leveraged transactions.

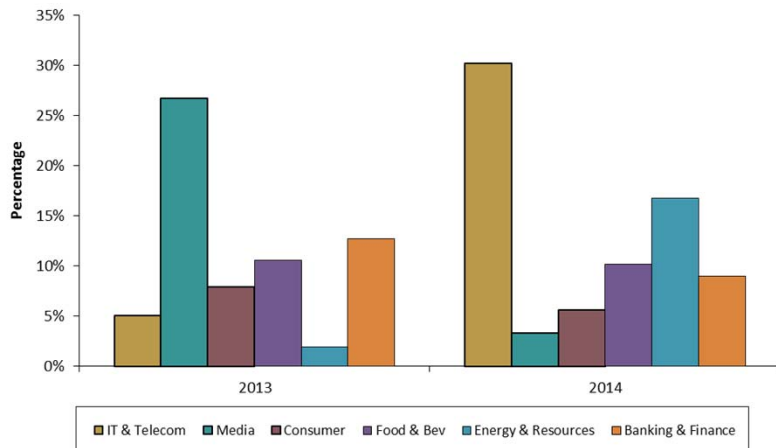
PAG Asia II (current)

- Pan-regional buyouts and structured equity with China emphasis
- Early exits in Fund I. Highly experienced China team

RRJ III (recommended)

- Focus on China, SE Asia, and opportunistic global
- Unique deal flow, quick return of capital

## Top Sectors for Investment



Selected investments in top-tier venture capital funds in China should provide investors with exposure to the highest growth and highest potential deals in the Internet, mobile, and healthcare sectors.

IDG China Capital III (recommended)

- China technology growth equity and late-stage venture
- Top-tier sourcing platform and track record

GGV VII (4Q 2015)

- Multi-stage venture capital investor in China and the U.S.
- Strong track record in recent China investments

Source(s): APER

# India, Korea and Southeast Asia Offer Diversification Opportunities

## INDIA

Top firms have well-established track records and a strong grasp of key learnings from prior investment cycles.

Everstone III (current)

- Institutional firm started by top Goldman Sachs India professionals
- Unique focus on de novo platform opportunities

## KOREA

Korea represents an interesting combination of developed market attributes with exposure to higher growth markets such as China and SE Asia.

IMM Rosegold III (current)

- Korea mid-cap minority and control investments
- Historical track record of high IRRs and short holding periods

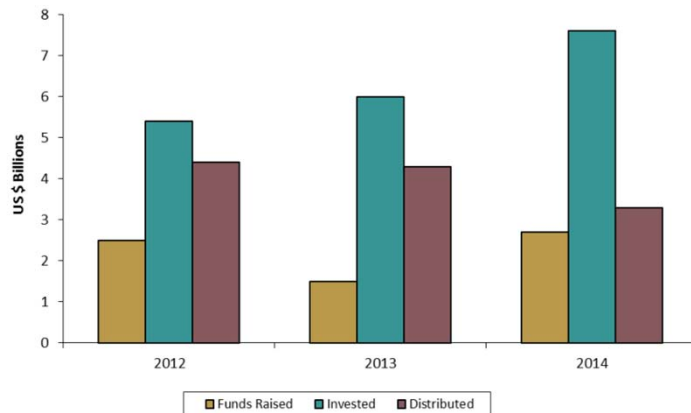
## SOUTHEAST ASIA

Macro volatility and low commodity prices may generate buy opportunities at attractive valuations.

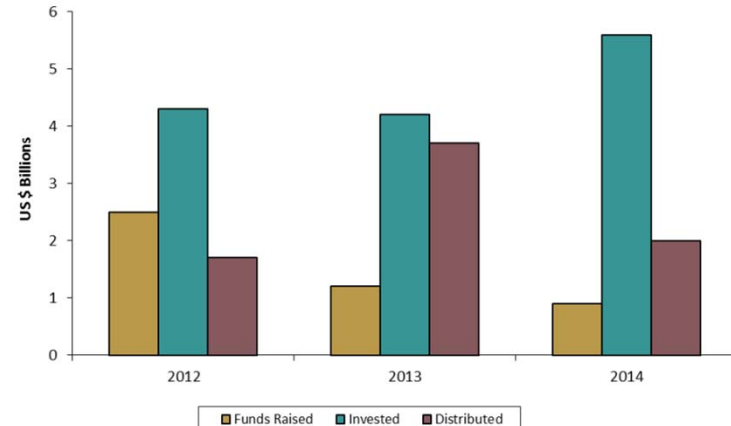
Falcon House Indonesia II (current)

- Three senior partners with deep and well-established network in Indonesia
- Attractive portfolio of growth equity investments in Fund I

India Private Equity Activity Year over Year



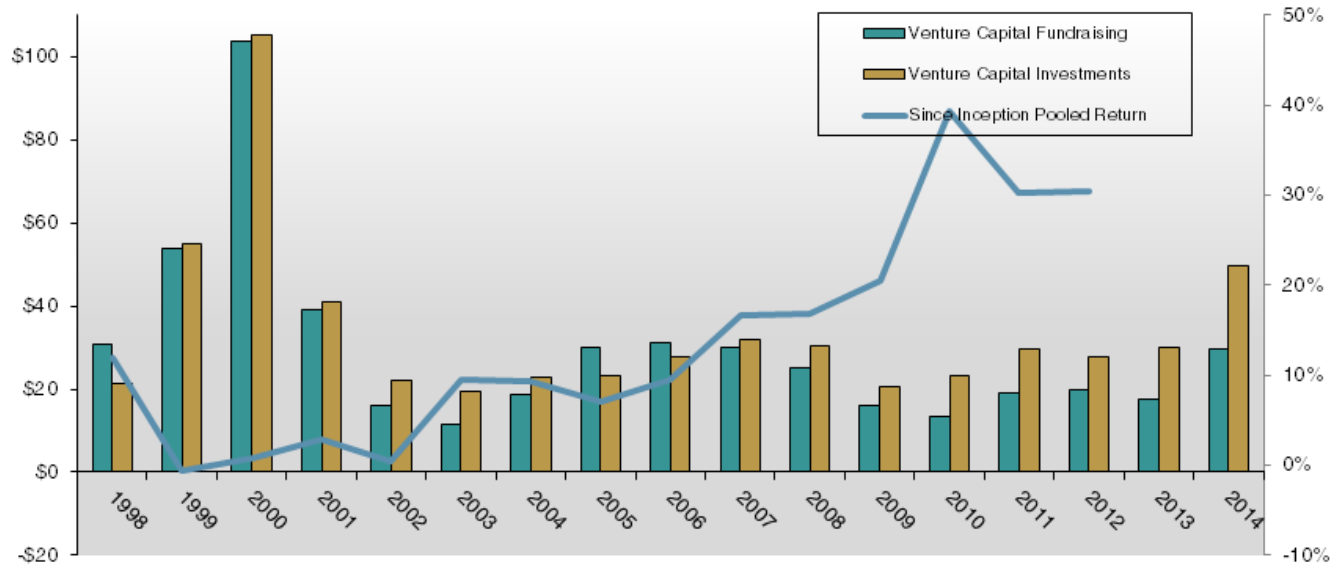
Southeast Asia Private Equity Activity Year over Year



Source(s): APER

# Strong Performance and Companies Staying Private Longer Attracting Capital

**U.S. Venture Capital Fundraising and Investments as of December 31, 2014**  
(\$ Billions)



**Smaller growth equity firms benefit from technology innovation and high growth rates. Founder owned companies have lower valuations.**

**K3 Private Investors (current)**

- Growth equity investments in small software companies
- Strong operating partner capabilities

**Mainsail IV (3Q 2015)**

- Small growth equity for technology and service companies
- Targets founder owned companies

**Life science venture focused funds are taking advantage of strong scientific innovations and accommodative public markets.**

**OrbiMed VI (current)**

- Multi-stage healthcare venture investments
- Top-tier platform and track record for life science investing across multiple strategies

**Third Rock VIII (4Q 2015)**

- Early stage life science company investments and company creation
- Strong focus on science and innovation

Source: National Venture Capital Association, Cambridge Associates

# Smaller Focused Managers and Alternative Strategies Are Well Positioned in a Competitive Credit Market

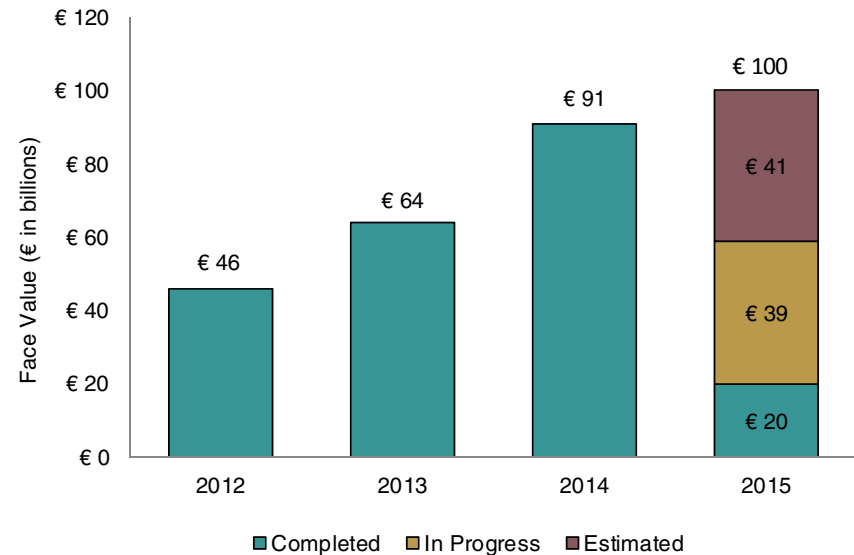
As the asset quality review takes hold in the European banking system, proven European credit managers focused on smaller markets are best positioned to source opportunities

AnaCap Credit Opportunities III (recommended)	<ul style="list-style-type: none"> <li>• European performing and non-performing secured and unsecured debt</li> <li>• Smaller focus and flexible approach</li> </ul>
Alchemy Special Opportunities Fund IV (Q4 2016)	<ul style="list-style-type: none"> <li>• Debt-for-control investments in the European lower middle market</li> <li>• Strong and consistent performance</li> </ul>

Lenders focused on smaller less efficient markets and non-market correlated alternative fixed income strategies present compelling investment opportunities in the current environment

CapitalSpring Investment Partners V (current)	<ul style="list-style-type: none"> <li>• Specialized direct lending to operators of portfolios of fast casual and quick service restaurant franchises</li> <li>• Unique financing solution that generates attractive yield</li> </ul>
Shamrock Entertainment IP I (current)	<ul style="list-style-type: none"> <li>• Intellectual property rights of film, television, video game and other entertainment</li> <li>• Backed by high quality buyout firm</li> </ul>

European Bank Loan Portfolio Transactions As of March 31, 2015

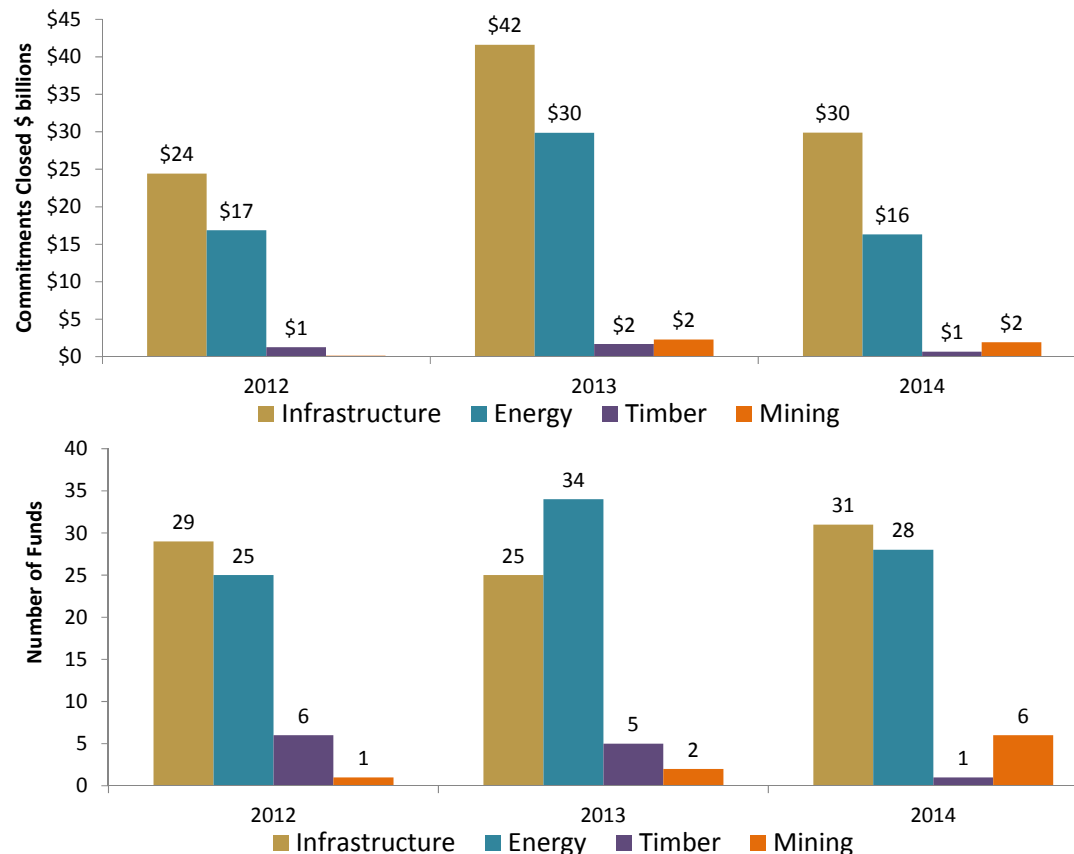


Source: PwC Portfolio Advisory Group

# Private Real Asset Fundraising Is Dominated by Infrastructure and Energy Funds

Infrastructure has dominated fundraising activity across all real assets. Infrastructure funds raised have generally been smaller (on average less than \$1 billion) and are either sector or country focused funds. Global Infrastructure Partners and Brookfield Asset Management are both expected to raise \$10 billion or greater size funds in the coming months.

Large energy funds like EnCap, NGP, ECP, and Quantum closed on funds over the past two years. Energy fundraising is now slowing with smaller funds becoming active.



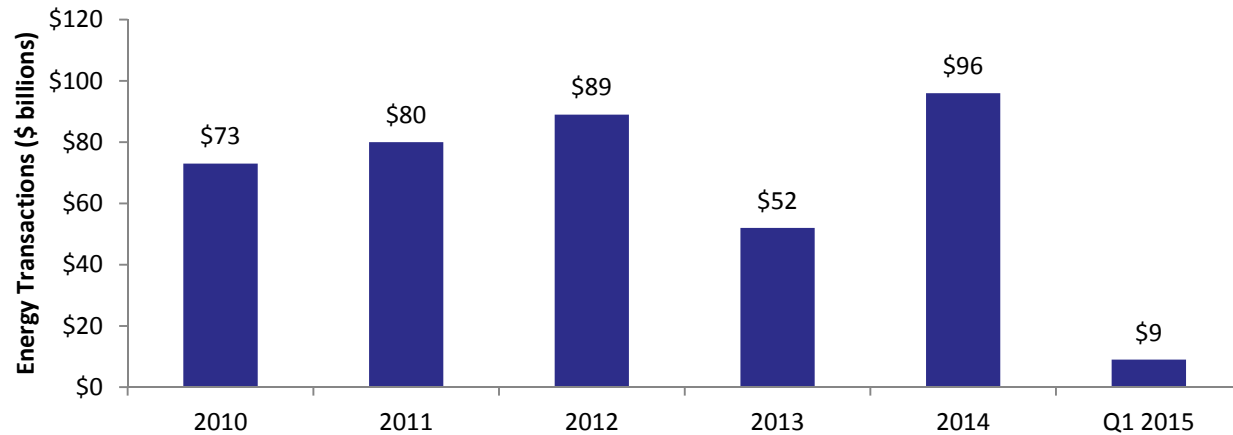
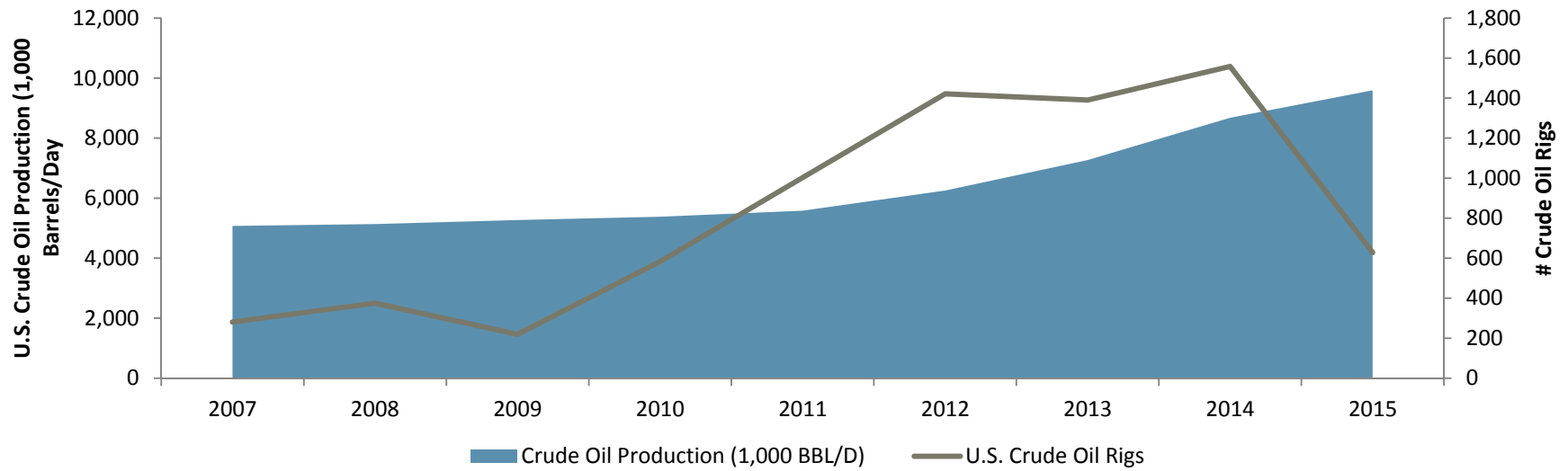
Source: Pitchbook

## Real Asset Fundraising as a Whole is Slowing

Infrastructure GPs are seeking larger funds, upstream funds are smaller, agriculture investing continues to grow

Carlyle Power Partners II (current)	<ul style="list-style-type: none"> <li>• Sole focus on value add power generation</li> <li>• Team experienced in all aspects of power plant management and development</li> </ul>
Lime Rock VII (approved)	<ul style="list-style-type: none"> <li>• Focus on upstream and oilfield services</li> <li>• International diversification</li> <li>• Experienced investment team</li> </ul>
Pearl Energy Investments (current)	<ul style="list-style-type: none"> <li>• Focus on small upstream investments</li> <li>• Led by former NGP managing partner</li> <li>• Backed by NGP fund capital</li> </ul>
Ridgewood Energy (approved)	<ul style="list-style-type: none"> <li>• Unique strategy led by a top tier team</li> <li>• Crude oil production of \$30 per barrel</li> </ul>
Brookfield III (late 2015)	<ul style="list-style-type: none"> <li>• Substantial global network and deal flow</li> <li>• Deep and experienced global team</li> <li>• Demonstrated yield history &amp; policy</li> </ul>
Global Infrastructure Partners III (late 2015)	<ul style="list-style-type: none"> <li>• Experienced GP with large team</li> <li>• Focus on operational value add</li> <li>• Strong track record</li> </ul>
Stonepeak Infrastructure (current)	<ul style="list-style-type: none"> <li>• Focus on mid-size core infrastructure</li> <li>• Investment team has strong sourcing and operational capability</li> </ul>
Agriculture Capital Management (late 2015)	<ul style="list-style-type: none"> <li>• Higher value permanent crops</li> <li>• Experience GP with a track record of adding value and managing through cycles</li> </ul>
NGP Agriculture (late 2015)	<ul style="list-style-type: none"> <li>• Focused agriculture strategy investing in midstream companies including storage and processing</li> <li>• Experienced team. Two of three prior investments performing above plan</li> </ul>

# Energy Production Remains Strong Despite Declining Rig Counts, Deal Activity at Record Lows

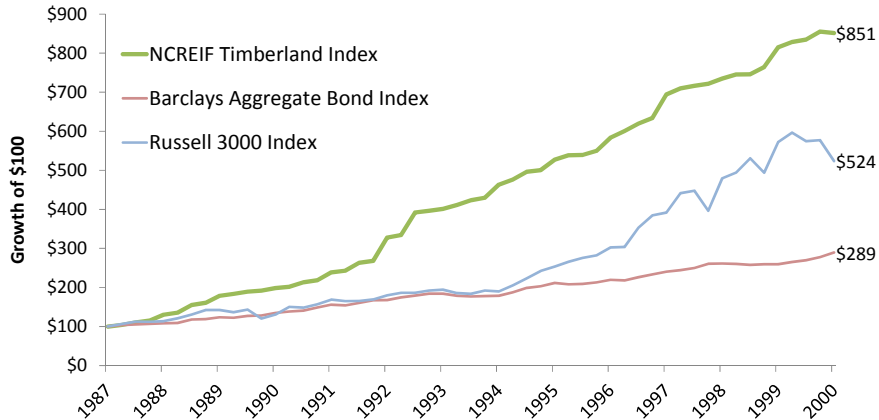


Source: EIA, RBC

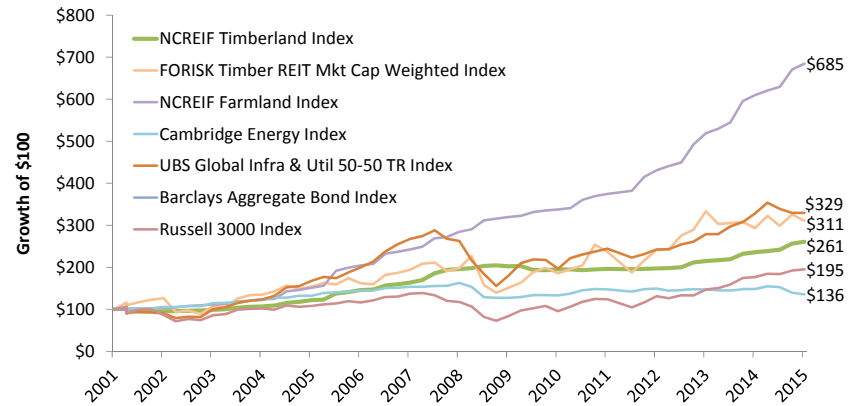


# Timberland Performance is Cyclical and Has Not Achieved Expected Results

Timberland Performance from December 1987 through December 2000



Timberland Performance from December 2000 through December 2014



- Timberland performance is time period sensitive. Rolling three year returns indicate that the strongest timberland performance occurred early on.
- Both the NCREIF Timberland and Farmland Indices have shown strong performance; however, each of the indices is constructed through the participation of institutional investors and may include self reporting bias. The FORISK Timber REIT Index may provide a better measure of expected performance of timberland investments.
- Timberland supply and demand remains imbalanced as the residential housing market remains weak. The timberland industry is investing capital in lumber mills with the expectation of an improving housing market.

Rolling Three Year Performance

