INFRASTRUCTURE MARKET UPDATE

EMPLOYEES RETIREMENT SYSTEM OF RHODE ISLAND

Presented by:

Judy Chambers
Pension Consulting Alliance, LLC

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Sector Updates

- Infrastructure investment in North America and Europe is expected to grow at 2% to 4% annually until 2020, totaling over $11 trillion from 2015 to 2020

- *Transportation*
  - Increased PPPs in transportation in the U.S. are driven by structural budget deficits and debt capacity limits for state and local governments
    - Airports: Average age of U.S. airports is approximately 40 years, and historical funding sources are drying up
      - Estimated $75.7 billion of infrastructure spending (2015 through 2019)
    - Ports: Growing container shipping order book requires adding significant capacity over the next 5 years
  - The European transportation industry returned to growth in 2014 and accelerated in 2015, fueled by supportive macroeconomic fundamentals.
    - While in 2015, airports' traffic volumes moved above pre-crisis levels in most European hubs, European toll roads continued their process of gradual recovery

- *Power Generation & Transmission*
  - Fundamental shifts in the U.S. power generation markets are driven by abundance of domestic natural gas, environmental regulations and age of existing power generation fleet
    - Substantial investment required in conventional generation, renewables and alternate solutions
  - Overcapacity continued to affect European utilities, resulting in continued deleveraging through disposals in Europe, and investment focus shifts to faster growing, emerging geographies, and regulated areas of energy services, including renewables.

- *Social Infrastructure*
  - In the U.S. social infrastructure sector, growth is projected to accelerate to an average of 4% per year until 2025, according to PwC estimates
    - Healthcare's share of total spending is expected to increase as the population ages over the next decade.
  - Approximately $2.3 trillion forecasted spending on social infrastructure in EU's seven largest economies alone between 2010 and 2020

Source: OakTrree, EQT, PwC

Energy Market Updates

- As of June 8, 2016, oil prices rose above $51/barrel after hitting 12-year low of $27/barrel in February 2016
  - Price boost can be attributed to unrest in Nigeria, where attacked oil facilities cause supply disruptions
  - U.S. crude oil inventories fell by 3.2 million barrels in the week ended June 3, 2016
  - Early signs that the oil market is rebalancing as a longstanding global glut of oil is easing
  - Current high price is not sustainable and oil price would retreat to a lower but more steady level

- Throughout 2016, the energy infrastructure industry will continue to face concerns over the risks to existing contracts with distressed producers, the price levels at which new contracts are struck, distribution cuts, and the long-term outlook for U.S. energy infrastructure

- In terms of infrastructure, low energy prices have played an important role in demand-supply dynamics at both asset level operations and investor level asset valuations
  - Low energy prices and lower transportation costs are providing much needed support to transportation related sectors

- On the energy side, the overall impact of lower energy prices is more subtle. The decline in natural gas, and electricity prices, has not appeared to have had a material impact on end user demand
  - Total energy consumption has remained flat in both the U.S. and the European Union

- Strong growth in oil and gas pipeline construction in 2014 will continue through 2017, although at a slower pace

- The prominent features of the current MLP market are high correlation with crude oil prices, slowing distribution growth and extremely low valuations.
  - Estimates have come down to mid-single digits for MLPs, and high cost of capital has led some MLPs to cut distributions

Source: Infrastructure Investor March 2016, Advisory Research, JP Morgan, BMI Research, Reuters 2016

Investor Appetite and Concerns

- Energy continues to be the top concern but is appealing to infrastructure investors
  - MLP prices and crude oil prices are currently up approximately 51% and 85%, respectively, since their February lows
  - Global oil demand continues to grow, with the IEA expecting an increase of ~1.2 MMbbls/d in 2016
  - Midstream MLPs will likely track oil recovery over the next several months
  - Despite the healthy recovery of oil prices, risks still exist with potential MLP distribution cuts
  - Natural gas demand continues to grow as we transition to an ever-increasing natural gas economy in the U.S.
  - Energy infrastructure assets are still quite cheap at present

- Geographically, the majority of investors are still focused on Europe and Australia; Value-added brownfield funds are the preference of most infrastructure fund investors, followed by core brownfield funds

- While investors have shown an increase in accessing direct investments over the last three years, by year end 2015, investor appetite for these investments has declined
  - Direct investment requires substantial staff resources and hiring of talents
  - Investor concerns with current valuations and manager ability to find assets at attractive prices are contributing to this trend

- Lack of widely-adopted benchmark remains a concern
  - Lack of reliable competitive return data on various offerings and investment managers could slow down the pace of investing

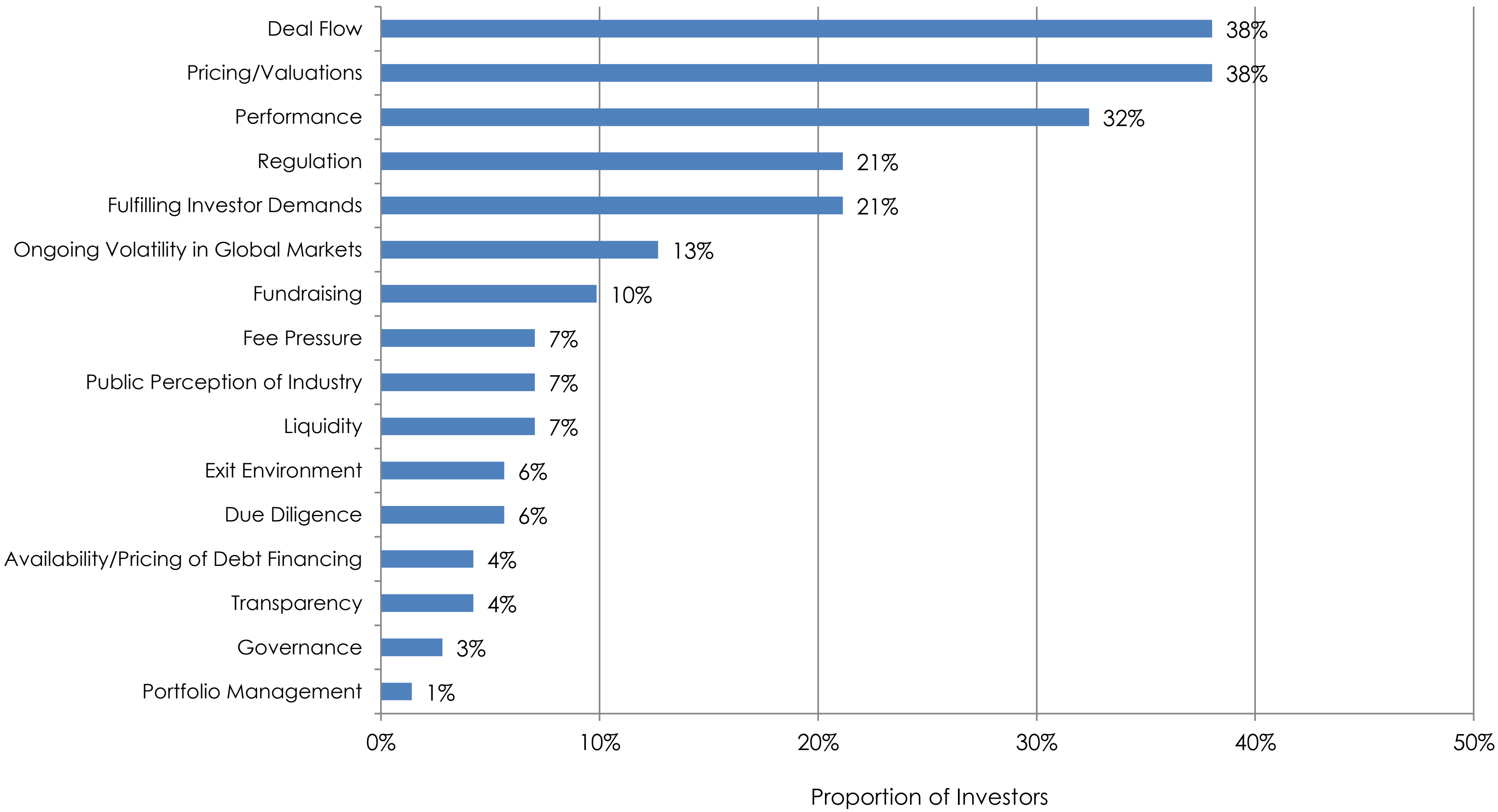
- Over time, average investor current allocations to infrastructure have been steadily increasing with targets holding at 5.7%, same as year end 2014
  - Infrastructure debt is frequently included in the fixed income portfolio
  - Debate on whether infrastructure should be a sub-asset class or stand-alone asset class continues

- Fear of too much money in the sector remains high
  - Increasing concerns that returns will be negatively impacted
  - Middle-market segment presents better value than the large-cap space

Source: Preqin Infrastructure Online April 2016, Probitas Infrastructure Institutional Investor Trends for 2015 Survey, IREI Special Report 2016

Infrastructure Investor Concerns

Investors' Views on the Key Issues for the Infrastructure Market in 2016



Source: Preqin Infrastructure Online, April 2016

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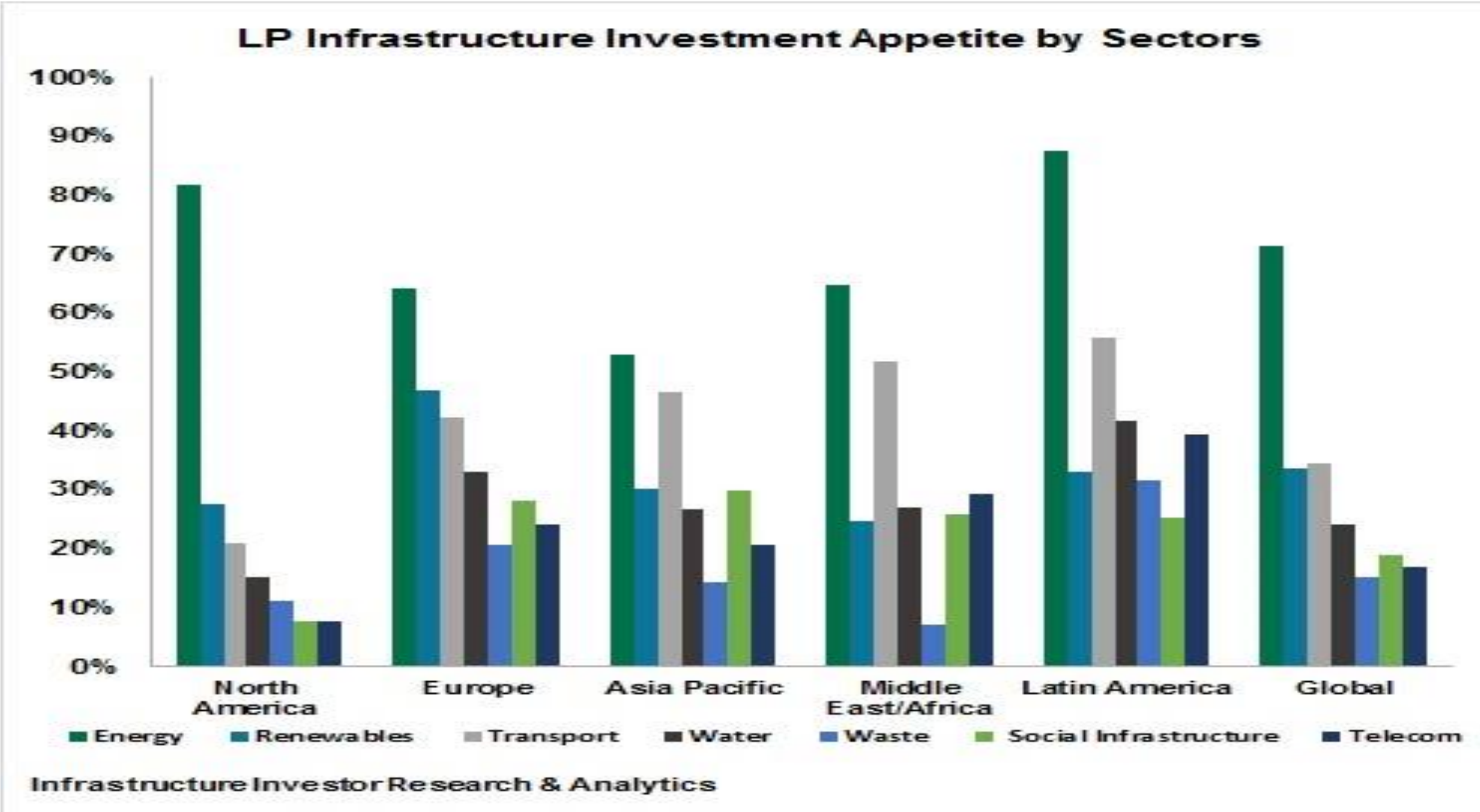
Strategy Focus



- Energy continues to be the key sector for infrastructure investors across the world
- Renewables is the second most popular target sector in Europe and North
- The rest of the world is still keen on transportation, reflecting potential growth for the sector in Asia and Emerging Markets

Source: Infrastructure Investor, March 2016

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Current Investment Landscape

- Large, but fewer funds continue to raise a significant amount of capital
  - The first quarter of 2016 saw the fewest number of funds closed, the lowest since 2010, with 10 funds raising over $14 billion (compared to 19 funds accumulating $10.8 billion in the same time period last year)
  - The two largest funds in market, Brookfield Infrastructure Fund III and Global Infrastructure Partners III, are each targeting $12.5 billion in investor commitments
  - Energy funds dominated the market; 61 out of 126 funds that closed between 2012 and 2015 were focused strictly on energy investing or focused a majority of their investments on energy, according to *IREI Fundtracker*

- The number of infrastructure deals has increased in the first quarter of 2016 with 223 deals at an aggregate deal value of $45 billion
  - This is a slight increase from the 217 deals during the fourth quarter of 2015, but a major decrease from the $74 billion aggregate value
  - Secondary stage deals during the first quarter of 2016 make up the largest percentage of deals with 70%, followed by greenfield at 25% and brownfield at 5%

- The amount of global infrastructure dry powder is at an all time high, estimated at $125 billion at the end of the first quarter of 2016

- The proportion of uncalled capital held in mega funds has increased to account for 44% of all infrastructure dry powder, a reflection of the largest funds dominating the market
  - The competitive deal environment continues to push up prices for assets
  - Global/multi-regional funds continue to dominate infrastructure fundraising
  - There were 20 globally focused funds closed in 2015 with an average fund size of $1.2 billion
  - North America and Europe represent the majority of funds currently in the market

- Strategic investors bring sizeable synergies and often lower return hurdles

Source: Infrastructure Investor March 2016, Preqin March 2016, IREI Special Report 2016

Historical Performance

Figure 1: Maximum, Median and Minimum Net IRRs for Unlisted Infrastructure Funds by Vintage Year

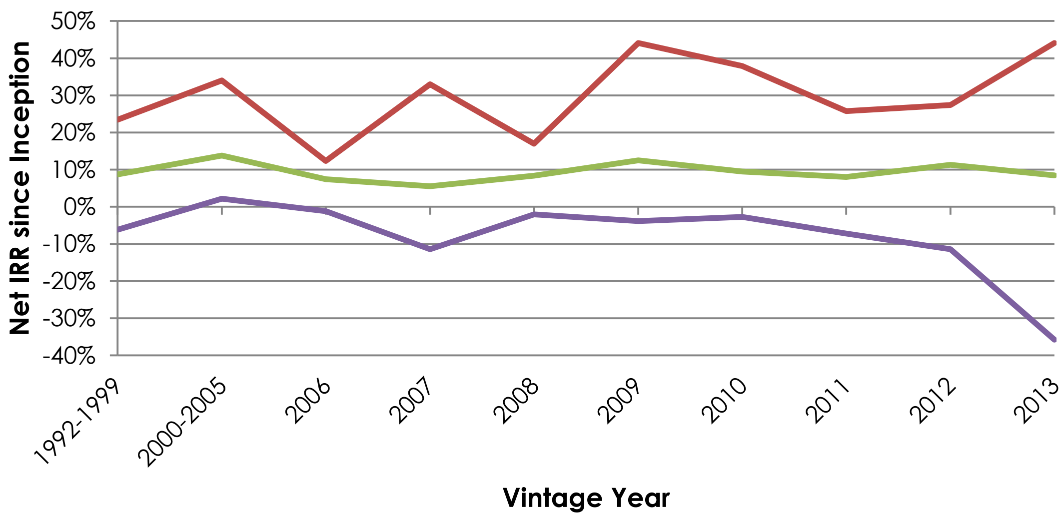
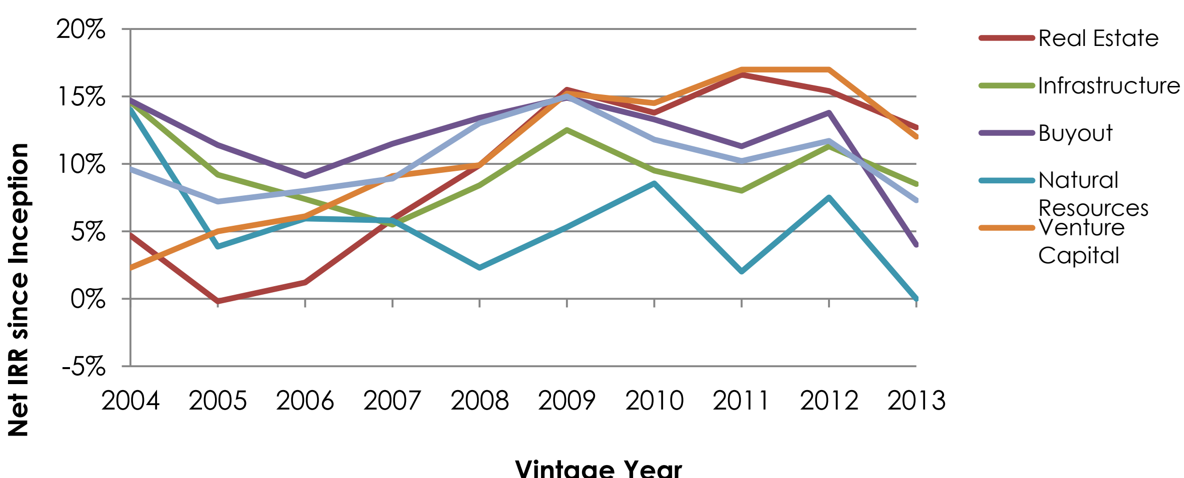


Figure 2: Median Net IRR by Vintage Year: Infrastructure vs. Other Private Capital Strategies



Source: Q1 2016 Preqin Infrastructure Quarterly Update

- The median net IRR for infrastructure funds across all vintages remains consistent at around 10% (Figure 1)
- Infrastructure returns are among the least volatile among all private capital strategies (Figure 2)
- Spreads between top performing funds and median/worst-performing funds continue to widen as seen in more recent vintage vehicles (Figure 1)
  - Manager selection is important

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ERSRI Infrastructure Portfolio Summary

As of March 31, 2016

Fund (Vintage)	Commitment Amount	Geography	Asset Types	Sectors	Target Return
IFM Global Infrastructure Fund – US (2013)	$50 million	North America and Europe	Brownfield	All Infrastructure Sectors	10% Net
iSquared Global Infrastructure Fund (2014)	$50 million	Global	Brownfield and Greenfield	Energy, Utilities, Water, Waste Management and Transportation	15% Net
Harvest MLP Alpha Strategy (2014)	$185 million ($160 million initial commitment plus extra $25 million in December 2015)	U.S.	Energy MLPs	Energy Infrastructure Assets	15% Net
Stonepeak Infrastructure Partners Fund II (2015)	$43 million	North America	Brownfield and Greenfield	Power, Water, Energy, Communications, Renewables, and Transportation	12% Net

- To date, ERSRI has committed approximately $150 million to unlisted infrastructure and $160 million to Master Limited Partnerships (MLP)
  - ERSRI has a 3% target allocation to infrastructure and 2% allocation to MLPs
- Exposure is diversified geographically, across asset types, sectors and vintage years

Infrastructure Portfolio Performance

As of March 31, 2016

Fund (Vintage)	1st Capital Call Date	Invested Capital ($)	Distributions ($)	Current Account Value ($)	Since Inception Net Return/IRR[1] (%)
IFM Global Infrastructure Fund – US	May-15	50,000,000	770,923	52,562,116	6.7
iSquared Global Infrastructure Fund	Mar-15	13,041,464	3,457,853[2]	8,829,652	N/A
Harvest MLP Alpha Strategy*	Dec-14	185,000,000	N/A	162,879,128	-17.1[3]
Stonepeak Infrastructure Partners Fund II	Feb-16	5,500,830	0	5,343,422	N.A

1. Net of Fees and Expenses
2. Recallable Distributions
3. Since inception annualized return

*As of May 31, 2016

Source: Individual Manager Reporting

- All the private infrastructure investments were funded after 2015
  - Still in early investment stage
- Harvest MLP continues to struggle but rebounds significantly in recent months
  - ERSRI portfolio's market value rose by more than 50% (counting extra commitment in December 2015) in May 2016 from hitting the bottom in September 2015

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IFM Global Infrastructure Fund Updates

Investments

- Fair value of IFM Global Infrastructure Fund (“GIF”) investments stood at $3.9 billion as of March 31, 2016
- During the week of April 18th, IFM sent a letter providing existing investors in IFM GIF the opportunity to transfer their existing units to a new hedged vehicle under a revised fee structure.
- In May 2016, GIF reached financial close of acquiring additional stake of 8.26% in Vienna Airport, increasing its current position of 29.9% to a position of 38.16%.
  - Vienna Airport continues to be viewed as a long-term hold strategy.
- In May 2015, GIF sold a 10% interest in ITR Concession Company LLC (“ITRCC”) to CalPERS and a 1.86% interest to Allstate. Following the sale, GIF continued to hold 85.2% of ITRCC. The purchase price for both CalPERS and Allstate implies an approximately 20% premium to GIF’s initial purchase price for the asset in May 2015.
- GIF has signed an agreement to divest 100% of the interests in Essential Power to Carlyle Power Partners. Acquired in 2008, Essential Power has a 1,767 net MW power generation portfolio and is headquartered in Princeton, New Jersey. The Net Asset Value of the GIF is expected to reduce by approximately six-tenths of one percent as a result of the sale. The transaction is expected to reach financial close in the second or third calendar quarter of 2016.

IFM Global Infrastructure Fund Updates

Personnel

- Executive Director of Global Investor Relations for North America Brian Clarke has been appointed Global Head of Investor Relations as of June 2016.
- In May 2016, Chris Newton was hired as Executive Director of Responsible Investment at IFM Investors. Previously, Mr. Newton served as Head of Social Innovation and Development at Australia Post.
- In April 2016, Alex Joiner was appointed Chief Economist at IFM Investors. Most recently, Mr. Joiner was the Chief Economist for Bank of America Merrill Lynch, Australia.

iSquared Global Infrastructure Fund Updates

Investments

- As of March 31, 2016, iSquared Global Infrastructure Fund ("ISQ GIF") has deployed over $1.3 billion in committed capital, of which $770 million has been funded, and it has $425 million in co-investments. Additionally, the Fund has earmarked $1.3 billion to existing functional platforms. The portfolio is expected to generate a yield of 6.4% in 2016.

- The portfolio remains committed to an investment split of 60% in the Americas, 20% in Europe and 20% in high growth economies. Both domestic and international assets continue to perform as expected.

- In March 2016, ISQ GIF acquired four contracted landfill gas-to-energy facilities near Atlanta, Georgia. One of the facilities supplies electricity, steam and chilled water under a 20-year power purchase agreement to Coca-Cola.

- In March 2016, ISQ GIF closed on its first midstream asset, Whiptail Midstream, a newly constructed, 220 mile, three-commodity (oil, gas, water) gathering system in the San Juan Basin of northern New Mexico from WPX Energy (NYSE: WPX) for $285 million. In April 2016, ISQ GIF sold a 28% stake in the asset to GE Energy Financial Services for $80 million.

iSquared Global Infrastructure Fund Updates

- In April 2016, ISQ GIF and its co-investors acquired 100% of the equity in Viridian Group Holding Limited, an integrated Irish utility active across Northern Ireland and the Republic of Ireland in thermal generation, renewable generation and energy supply.

- In March 2016, ISQ GIF completed the acquisition of a 74% interest in Madhucon Agra Jaipur Expressways Limited, an operating toll road in India, from Madhucon Infrastructure Limited. This stretch is contiguous to Cube Highways' existing investment (in May 2015) in Jaipur Mahua Tollways Pvt. Ltd.

- In January 2016, Cube Highways signed an agreement to acquire 100% of Western UP Tollway Limited, a 77.8 kilometer, four-lane stretch of National Highway 58 (NH-58) between the cities of Meerut and Muzaffarnagar in the state of Uttar Pradesh in northern India.

- In December 2015, ISQ GIF acquired Lincoln Clean Energy, a developer, owner, and operator of wind and solar projects in North America. The Fund expects to deploy up to $200 million in equity investments in the coming years through Lincoln.

Personnel

- No significant changes to ISQ personnel over the last six months

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Harvest MLP Alpha Strategy Updates

- Harvest's MLP Alpha Strategy Composite generated a 2.5% net increase in May 2016, matching the Alerian MLP Total Return Index. The Composite posted a 24.3% net increase over the last three months as of May 2016 vs. the Alerian MLP Total Return Index return of 23.3%. The Composite has rebounded significantly since its (6.1%) net loss in Q1 2016.

- MLPs continued their positive streak in May and recorded the third best month since 2002.

- Midstream entities with access to alternative or less traditional sources of capital received additional confirmation during the month when some smaller midstream entities announced strategic investments and payout adjustments that provided growth capital and reduced borrowings, thereby alleviating capital markets overhang in the entities' equity market values.

- As capital markets continue to improve, MLPs will look to resume acquisitions and organic projects in order to grow future distributions. Resumption of faster distribution growth will in turn support further MLP equity price appreciation.

Stonepeak Infrastructure Partners Fund II Updates

Investments

- Stonepeak Infrastructure Partners Fund II ("Fund II")'s investment period kicked off in January 2016 with the closing of the Plains All American Preferred Equity Investment, $40 million of which was allocated to Fund II

- Fund II has invested approximately $1 billion to date across three midstream energy investments
  - $40 million into Plains All American
  - $440 million into Targa Resources
  - $640 million committed to MPLX (with expected final Fund II hold of $440 million post co-investment sell-down process)

- The portfolio has a blended average of 8% cash yield and approximately 5x EBITDA valuation

- In April 2016, Stonepeak signed a partnership agreement with Sage Midstream Ventures LLC ("Sage") to pursue midstream energy projects.

- To ensure Fund II continues to capitalize on midstream energy opportunities while not over-exposing Fund II to the sector, Stonepeak will raise a $1 billion co-investment sidecar dedicated to midstream energy investments.

Personnel

- No significant changes to ISQ personnel over the last six months

Conclusion

- The ERSRI infrastructure portfolio can be more diversified, both geographically and via strategy
  - Consideration of more value-added and opportunistic investments
  - Inclusion of strategies focused on mature developed markets outside the U.S.

- Capitalize on energy market dislocations

- Deliberate investment pacing over the next two years for vintage diversification

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