

# *Public Pension Plans and Infrastructure*

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# Infrastructure Market

## Growing Infrastructure Needs

- The infrastructure gap continues to grow both in the U.S. and globally
- \$2.2 trillion required for infrastructure projects over the next 5 years in the U.S. (existing assets)
- Total global infrastructure expenditure requirements estimated at 2.5% of GDP or \$53 trillion through 2030
- U.S. has neglected transportation systems, fragmented water networks, growing energy needs, insufficient social infrastructure facilities, etc.
- Current economic crisis has further constrained state and local governments
  - Fiscal constraints and reassessment of financial priorities (declining tax revenues, unemployment, healthcare, education)
  - Inability to access municipal markets (deteriorating credit ratings, lack of market appetite)
- The problems for infrastructure spending go beyond the current fiscal crisis
  - Prior problems will continue long after anticipated economic recovery
  - This is a long term global issue and not just a current trend

# Infrastructure Investment Activity

## History of Infrastructure

- Investment activity started in Australia in the 1990s when local governments had severe financial problems
- In 1992 new laws were enacted which required workers to earmark funds for retirement savings
  - Formation of superannuation funds (pension plans)
- Superannuation funds, armed with capital, needed creative investments to meet pension plan liabilities
- Firms like Macquarie partnered with government entities to start investing in transportation infrastructure
- In the late 1990s, Canadian pension plans became very active in infrastructure investments
- Today funds like OMERS (Borealis), Ontario Teachers and Caisse de Depot are active global infrastructure investors
- Nascent U.S. pension plans activity; Pension plans are embracing the sector with caution and optimism

# Infrastructure Investment Activity

- Pension plan investors are embracing infrastructure investments

Institutional Investor	Domicile	Total Portfolio Assets*	Classification	Target Infrastructure Allocation
CalPERS	US	US\$246 billion	Inflation-Linked	\$2.5 billion
CalSTRS	US	US\$171 billion	Fixed Assets	\$1.0 billion
Teacher Retirement System of TX	US	US\$106 billion	Real Assets	~2.5%
Illinois State Board of Investments	US	US\$11 billion	Infrastructure	5%
Operating Engineers	US	US\$9.1 billion	Infrastructure	5%
Ontario Teachers'	Canada	C\$106 billion	Infrastructure	8%
OMERS	Canada	C\$48 billion	Infrastructure	15%
CPPIB	Canada	C\$120.5 billion	Infrastructure	~ 10%
UniSuper	Australia	A\$10 billion	Infrastructure	6.5%
MTAA (Motor Union)	Australia	A\$2 billion	Infrastructure	25%
BT Pension Scheme / Hermes	UK	£35 billion	Infrastructure	1%
ABP	Europe	€200 billion	Infrastructure	5%

\* As of March 2008

# Key Characteristics

## Infrastructure as a Strategic Asset Class

- Infrastructure is a unique asset class that offers investors a diversified source of stable, inflation-linked returns
  - Long Life Assets – Capital intensive assets with 25 to 99 year concessions, match for liability duration
  - Inflation Protection – Revenues typically linked to CPI
  - Monopoly or Quasi Monopoly – High barriers to entry due to scale and capital cost
  - Steady and Predictable Cash Flow – Produce strong and predictable yields
  - Low Correlation – Provides portfolio diversification, low beta
  - Inelastic Demand – Predictable demand with little volatility, less susceptibility to economic downturns
  - Limited Commodity Risk – Not subject to commodity pricing
  - Insensitive to Changes in Technology – Low risk of redundancy or technology obsolescence

# Infrastructure Sectors

## It's Not Just Tollroads!

- Infrastructure offers attractive returns with lower risks
- Returns ranging from 7% (core, existing assets) up to high teens (opportunistic, development projects)
- Assets either privately owned (majority) or owned by government entities
- Infrastructure Sectors
  - Energy Resources and Utilities – Clean Energy, Electricity, Gas, Geothermal, Hydrocarbons, Pipelines, Power (Distribution, Storage & Transmission), Renewables, Wind-Generation, Nuclear, etc.
  - Transportation Assets – Bridges, Railways, Roadways, Transit, Tunnels, etc.
  - Ports – Airports, Barges, Seaports, Terminals, etc.
  - Water – Distribution, Storage, Treatment, Desalination, etc.
  - Communications – Broadcast and Wireless Towers, Cable Systems, Satellite Networks, etc.
  - Social Infrastructure- Educational Facilities, Government and Judicial Buildings, Healthcare Facilities, etc.

# Infrastructure Risks

## ➤ Potential Institutional Investor/Pension Plan Concerns

<b>Leverage</b>	<ul style="list-style-type: none"> <li>▪ In the past deals were typically leveraged between 40% and 80%</li> <li>▪ Possibly transform low risk assets into risky investments</li> <li>▪ Changes in credit environment alters refinancing risk</li> </ul>
<b>Market Inefficiency</b>	<ul style="list-style-type: none"> <li>▪ Over \$180 billion of new funds in market</li> <li>▪ Competitive auctions - overpaying</li> <li>▪ Current pricing – deal outliers or trend setters</li> <li>▪ Management teams with proven track records are important</li> <li>▪ Limited history and track record in infrastructure space</li> </ul>
<b>Political and Headline Risk</b>	<ul style="list-style-type: none"> <li>▪ Public acceptance of privatization</li> <li>▪ Different political landscape in every state and municipality</li> </ul>
<b>Regulatory Risk</b>	<ul style="list-style-type: none"> <li>▪ Regulated assets subject to changes</li> <li>▪ Government influence on pricing</li> <li>▪ Potential negative impact on bottom line</li> </ul>
<b>Construction and Development</b>	<ul style="list-style-type: none"> <li>▪ Project overruns and delays transfer to construction partners</li> <li>▪ Volume/demand risk for new developments</li> <li>▪ Availability payments</li> </ul>
<b>Structuring</b>	<ul style="list-style-type: none"> <li>▪ Concerns over possible changes in UBTI rules</li> </ul>
<b>Labor Issues</b>	<ul style="list-style-type: none"> <li>▪ Greenfield projects could generate new jobs while the privatization of brownfield assets could eliminate skilled labor members</li> <li>▪ Adherence with Responsible Contracting and Public Outsourcing Policies</li> <li>▪ Concession agreements must address labor members and involve labor participation early in the process</li> </ul>
<b>Asset Control</b>	<ul style="list-style-type: none"> <li>▪ Stipulations via concession agreements limit some management control (pricing, growth, decision approvals, etc.)</li> <li>▪ Asset control needs to be appropriately priced</li> </ul>

# Infrastructure Players

## Changing Industry Dynamics

- Infrastructure needs greatly surpass available government funding resources
- Private sector will have to partner in government initiatives to address requirements
- Over \$180 billion of private capital raised in last 3 years
- Funds are listening to institutional investor concerns and are altering fund structures
  - Extended maturities to address holding assets for longer periods (10 years and higher, perpetual funds)
  - Revamped fee structures – Trending away from private equity model to address inconsistency with underlying asset returns
  - More funds focusing on core assets versus opportunistic/higher risk opportunities
  - Lower leverage levels due to challenging debt market and lower purchase multiples
  - Seeking proprietary transactions versus competitive public auctions
- Institutional investors looking to form consortium groups

# Infrastructure Transactions

## Recent Infrastructure Activities

- North Tarrant Express Project (January 2009)
  - Texas DOT entered into toll concession for 13 miles of freeway in heavily congested Dallas/Fort Worth area
  - \$1.6 billion transaction led by Cintra/Meridian consortium includes a 10% direct investment from the Dallas Police and Fire pension plan
- Midway Airport (October 2008)
  - Chicago City Council approved \$2.5 billion lease of airport to Vancouver Airport Services/Citi Infrastructure Partners
  - First privatization of U.S. airport

# Infrastructure Investing

## Next Steps for Investing in Infrastructure



- Sector definition
- Risk tolerance
- Investment criteria
- Greenfield vs. Brownfield
- Establishing policies
- Routes to market
  - Listed Securities
  - Unlisted Funds
  - Direct
  - Debt Funds

- Experience
- Track record
- Team size
- Market presence
- Partnership relationships
- Deal flow
- Fees

- Internal structure and team
- Allocation

# Sample Infrastructure Funds

Fund Name	Fund Size	Geographic Focus	Carried Interest	GP Contribution	Management Fee
Actis South Asia Fund 2 LP		Europe, North America	0.00%		
Actis Infrastructure Fund II	1,250	Emerging, Asia, Africa, Latin America	20.00%	1%	1.75%
AIG Highstar Capital III, LP	2,000		20.00%	\$200	
Alinda Infrastructure Fund II	5,000	North America, Europe	20.00%	1%	0.50% < \$300 m; 0.75% - \$201m to \$300m; 1.0%-\$126m to \$200m; 1.5%-\$76m to \$125m; 1.75%- up to \$75 m
Babcock & Brown Infrastructure Fund	€ 1,500	Europe	20.00%	5%	
Babcock & Brown Infrastructure Fund N Am	1,500	Canada, United States	20.00%	5%	
Brookfield Americas Infrastructure Fund I	1,500	The Americas	20.00%	25% or \$500	1.5% > \$200m; 1.75% - \$50m to \$200m; 2% < \$50m
Carlyle Infrastructure Partners, LP	1,000	Canada, United States	20.00%	5% or \$50	
Carlyle MENA Partners, LP	750	Middle East, North Africa	20.00%	3%	
CIM Infrastructure Fund VI	500	United States			1.50%
Citi Infrastructure Investors	4,000	North America, Europe, Australia	15% or 17.5%	\$500	1.25% drops to 1% after commitment period; discounted > \$325m; No performance fee for first 4 years
Citigroup VC Int'l Growth Partnership II, LP	3,500	Asia, Emerging, Latin America	20.00%	\$1,000	
Clearbrook Small EV Fund I, LP	€ 200	Europe	20.00%	1%	
Darby Global Emerging Markets Capital Fund, LP	1,000	Asia, CEE, Latin America	20.00%		
Global Infrastructure Partners, LP	3,500	Global	0.00%	1.50%	
Goldman Sachs Infrastructure Partners I	6,500	Global	20.00%		1.5% < \$100m; 1.25% < \$250m; 1.0% < \$500m; addl bands >\$500m
Goldman Sachs Infrastructure Partners II	7,500	North America, Europe, Emerging	20.00%	12.5% or \$750	addl band > \$500m; 1% - >\$250m; 1.25%- \$100m to \$250m; 1.5% < \$100m
HgCapital Renewable Power Partners, LP	€ 300	Europe	0.00%		
IMG Infrastructure Investment Fund	400	The Americas, Europe			
ING Midstream Energy Fund	500	Canada, United States	none	\$50	1.50%
KKR	4,000	OECD Countries	10.00%	\$120 mm	1% of NAV abd unused capital

# Sample Infrastructure Funds

Fund Name	Fund Size	Geographic Focus	Carried Interest	GP Contribution	Management Fee
KKR	4,000	OECD Countries	10.00%	\$120 mm	1% of NAV abd unused capital
JP Morgan Infrastructure Investments Fund	10,000	Australia, Canada, Europe, US	0.00%	5%	2% < \$50m; 1.75% - next \$50 m; 1.5% > \$100m; flat rate > \$300m
Lincoln Road Fund, The			0.00%		
Macquarie European Infrastructure Fund II	€ 3,000	Europe	20.00%	€ 50	
Macquarie Infrastructure Partners	1,500	North America	20.00%	\$50	
Merrill Lynch					
Morgan Stanley Infrastructure Partners, LP	2,500	Global	20.00%	\$10	
Nexus Capital Private Equity Fund III, LP	200	Mexico	20.00%	\$3	
RREEF Americas Infrastructure Fund, LP	2,500	The Americas		5%	1% > \$500m; 1.1%- \$250m to \$499m; 1.3%- \$100m to \$240 m; 1.5% \$10m to \$99m
RREEF North America Infrastructure Fund I, LP	5,000	North America		\$50	2% < \$100m 1.75% - \$100m to \$200m 1.5% > \$200m 1.0% drawdown
Russia Stategy Fund, LP	150	Eastern Europe	0.00%		
Saratoga Asia Fund II, LP	300	SE Asia	20.00%	\$30	
Starwood Energy Infrastructure Fund I, LP	400	Canada, United States	20.00%	5%	
Tano India Private Equity Fund I	€ 100	India	20.00%	0	
TCW Energy Fund XIV, LP	2,000	Asia, Canada, Europe, US	20.00%		
Terra Firma Capital Partners III, LP	€ 3,000	Europe	20.00%	€ 100	
Tortoise Total Return Fund		North America			1.30%
Tricap Partners II, LP	1,000	Canada	20.00%	\$300	
UBS	2,000	Global	20.00%		