Strategic Impact of Currency Risk on US Institutional Investors

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About the New Jersey Division of Investment

- Total Assets Under Management: $97.4 billion
  - Pension Fund $82.5 billion
    - Invests on behalf of 780,000 public employees throughout the State
  - Other (primarily Short-Term investment pool): $14.9 billion
  - 10^{th} largest pension fund in the US
  - 50^{th} largest money manager in US

(As of 6/30/07)

The Changing Face of New Jersey's Pension Fund

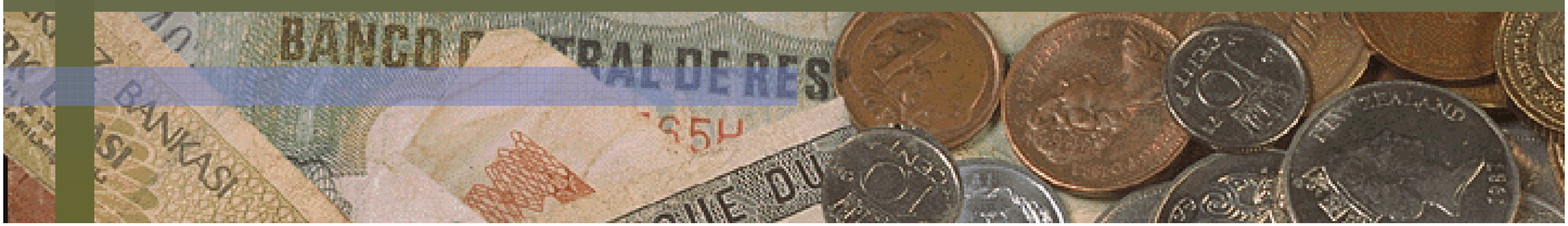
Asset Class	June 05	Dec 07	Medium-Term Goal
US Equities	50.0%	35.6%	25.0%
Int'l Equity	16.2%	18.9%	19.7%
Emerging Mkts Equities	0	0.3%	2.5%
US Fixed Income	26.2%	26.3%	23.8%
US High Yield	0	0.3%	4.0%
Int'l Fixed Income	2.2%	1.8%	0.0%
Commodities/Real Assets	0	1.1%	4.0%
TIPs	0	2.8%	3.0%
Private Equity	0	2.8%	5.0%
Real Estate	0	1.8%	4.0%
Absolute Return	0	3.7%	6.0%
Cash	5.4%	4.6%	3.0%

Changes in New Jersey are Similar to Other US Institutions

Asset Mix of US Pension Funds

Assets	2005	2007
US Equity	46.7%	41.7%
Fixed Income	22.8%	22.6%
International Equity	13.9%	17.9%
Guaranteed Investment contracts/stable value investments	3.6%	3.2%
Equity Real Estate	3.9%	3.8%
Private Equity	3.6%	3.7%
Hedge Funds	1.9%	2.6%

Source: Greenwich Associates, April 2008



Reasons for Shifts in Pension Fund Asset Allocation

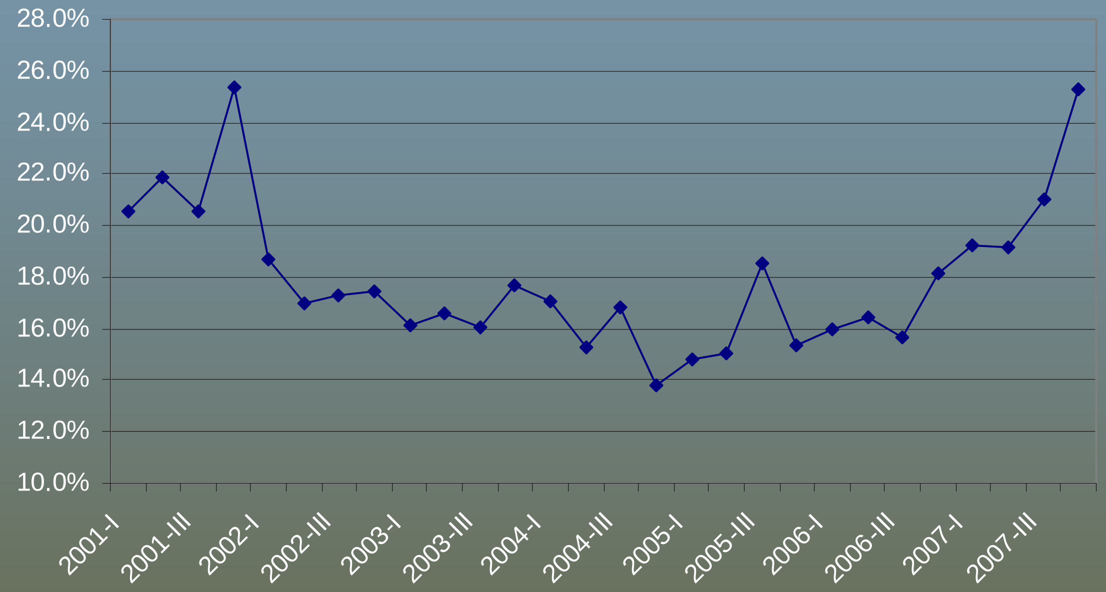
- Changes in financial reporting raises importance of minimizing “plan surplus” volatility
- Plans seeking assets that are more appropriate for fixed, long-dated pensions liabilities (duration = 12.5 years)
- Attempt to protect the portfolio from potential increases in inflation
- Looking for uncorrelated returns (i.e, alpha) in different asset classes as a means to improve risk/return profile of the portfolio

How Currency Impacts Views of US Institutional Investors

- Role of currency in Public Equity Portfolios: micro & macro considerations
- Concern about inflationary aspects of a falling dollar
- Potential impact on infrastructure investments
- Currency as an asset class

Role of Currency in Public Equity Portfolios

US Corporations increasingly rely on profits generated outside of the US



Source: BEA

Role of Currency in Public Equity Portfolios

In Many Cases, Currency Exposure Can Be a Major Driver of Share Performance

Toyota: Currency risk considerations for weak US Dollar

•35% of sales from North America; N.A. profit share even higher due to luxury/hybrid/SUV sales

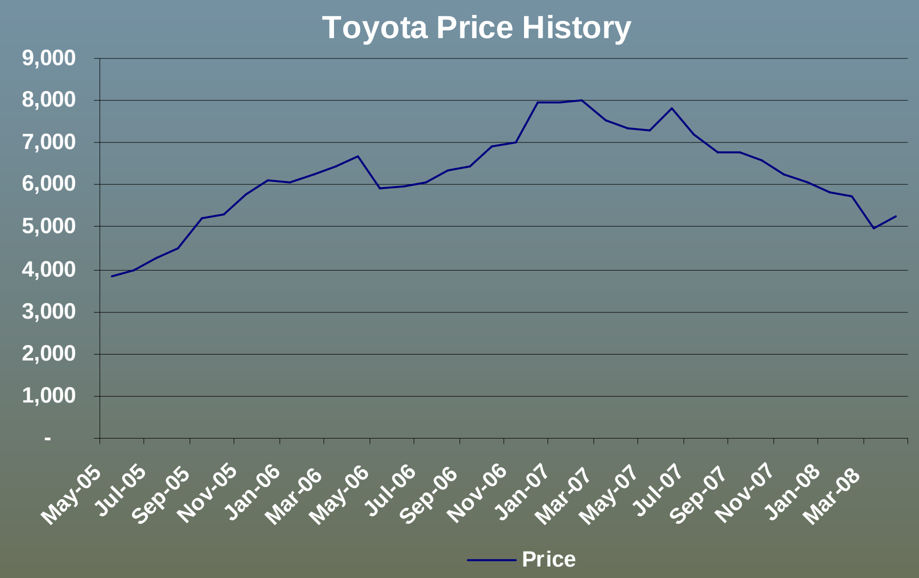
•Downward pressure on dollar-denominated energy and steel costs

• Benefit from translation of dollar-denominated debt

•US-based competitors may be hurt by rising US interest rates (to defend dollar)

•Mismatch between cost base (largely in Japan) and export sales to the United States

•Toyota's own internal currency hedging program



Source: MFS

Role of Currency in Public Equity Portfolios

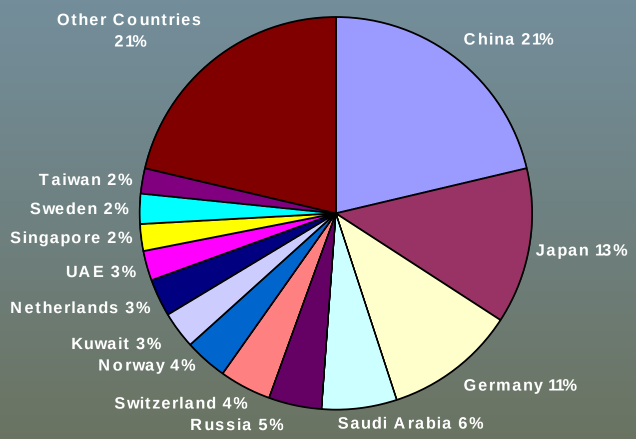
Macro Consideration: Currency was formerly viewed as a source of risk to be hedged. Now it is viewed as a source of diversification to be embraced.

	Correlation Coefficient 1993 - 2008	
	US Dollars	Local Currency
S&P 500 vs. MSCI EAFE	81.02%	91.68%
S&P 500 vs. MSCI EM	38.38%	67.76%

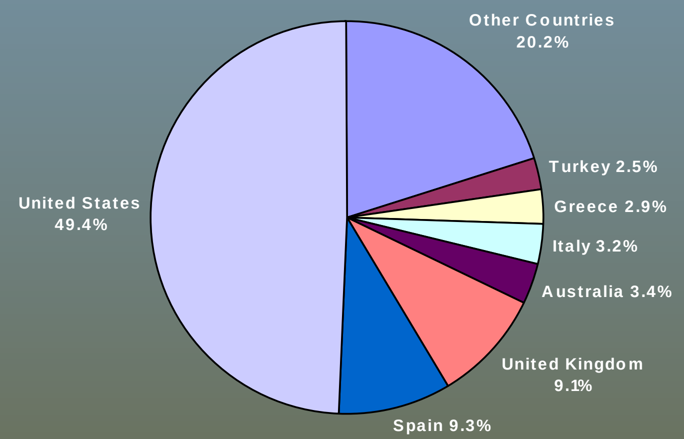
Inflationary Aspects of a Falling Dollar

Major Net Exporters and Importers of Capital in 2007

Countries That Export Capital



Countries That Import Capital



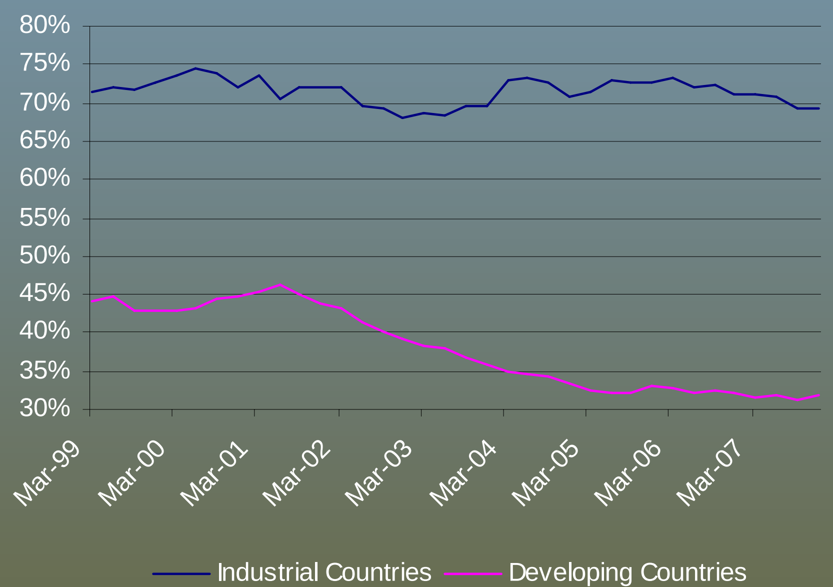
Source: IMF

Inflationary Aspects of a Falling Dollar

Is the US Dollar Still the World's "Reserve Currency"?

We're Starting to See Cracks

% of Foreign Exchange Reserves Held in US$



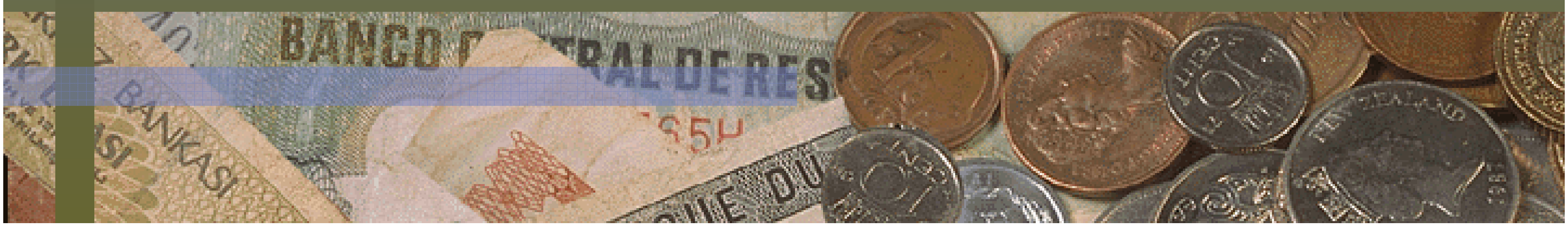
Source: IMF COFER Database

Inflationary Aspects of a Falling Dollar

Can the US$ Be Diluted In It's Role as the World's Reserve Currency?

	2007	2015 (P)	2020 (P)
GDP (Bln.USD)			
China	3250.8	8735.0	15325.5
US	13843.8	19693.5	25134.5
EMU	12158.4	19081.8	24939.1
Japan	4383.8	6099.2	7139.6
Bond & Stock Mkt. Total (Tin.USD)			
China			
If follows US	4.8	31.5	48.2
If follows EMU	4.8	25.3	38.2
If follows Japan	4.8	29.7	45.3
US if constant	43.5	61.9	79.0
EMU if constant	30.3	47.5	62.1
Japan if constant	13.0	18.0	21.1

Source: BIS, Datastream, Haver, IMP, Morgan Stanley Research

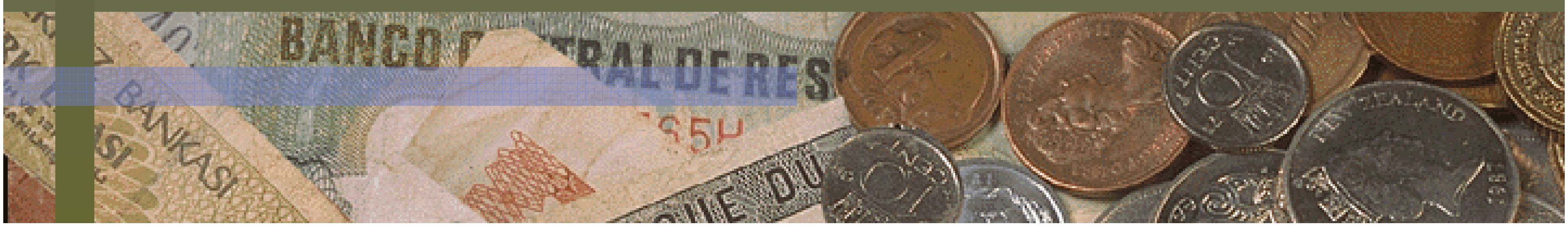


Inflationary Aspects of a Falling Dollar

Why the US Dollar is Particularly Vulnerable – In Our Opinion

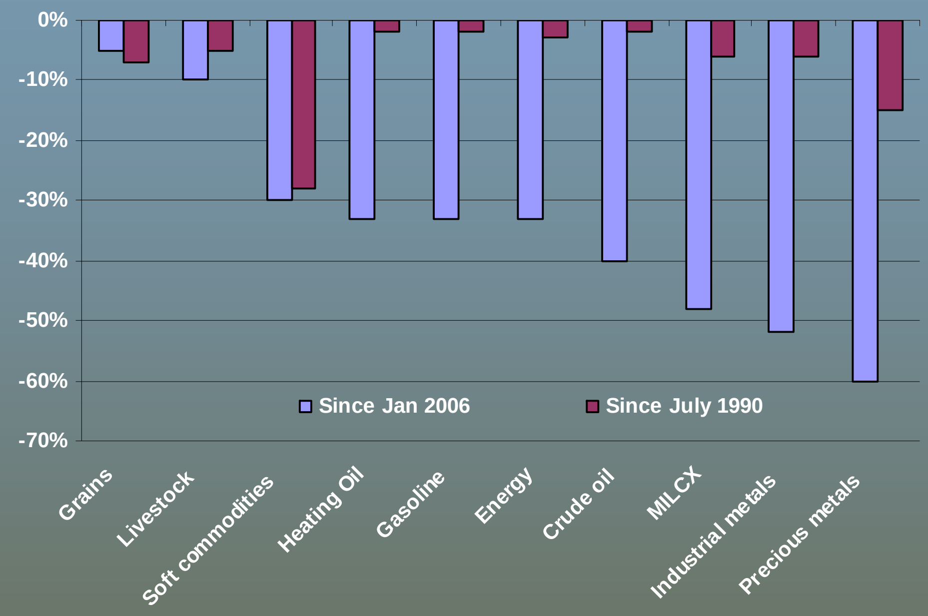
- The scale and depth of any US recession is dependent on what credit lines the rest of the world extends to the US
- US has received a revolving credit line of $750 billion a year
- Foreign private investors appear to be no longer willing to extend that
- US faces an external credit constraint unless official investors are willing and able to play a bigger role

> We are becoming increasingly concerned about the backlash against sovereign wealth funds and sovereign pension funds in the US



Inflationary Aspects of a Falling Dollar

The Bottom Line: Currency Risk = Inflation Risk (Ultimately?)



We've already seen the correlation between the dollar and commodities spike. An increase in inflation expectations has not been confirmed by a widening in TIPs breakeven spreads, but that may be misleading.

Source: Merrill Lynch

Inflationary Aspects of a Falling Dollar

- NJ Pension Plan: A 1% increase in assumed inflation adds $2 billion in present value terms to NJ pension liabilities
  - Benefits tied to final average salaries
  - Retiree benefits have COLAs
- US Financial Markets
  - Higher real rates to attract capital
  - Higher equity risk premiums to attract capital

Infrastructure

Estimated Average Annual World Infrastructure Expenditures OECD + BRICs

Estimated Average Annual World Infrastructure

Expenditures For Selected Sectors **2000-2030**

Type of Infrastructure	2000 to 2010	Approximate % of World GDP	2010 to 2020	Approximate % of World GDP	2020 to 2030	Approximate % of World GDP
Road	220	0.38	245	0.32	292	0.29
Rail	49	0.09	54	0.07	58	0.06
Telecoms	654	1.14	646	0.85	171	0.17
Electricity	127	0.22	180	0.24	241	0.24
Water	576	1.01	772	1.01	1037	1.03
Total	**1,626**		**1,897**		**1,799**	

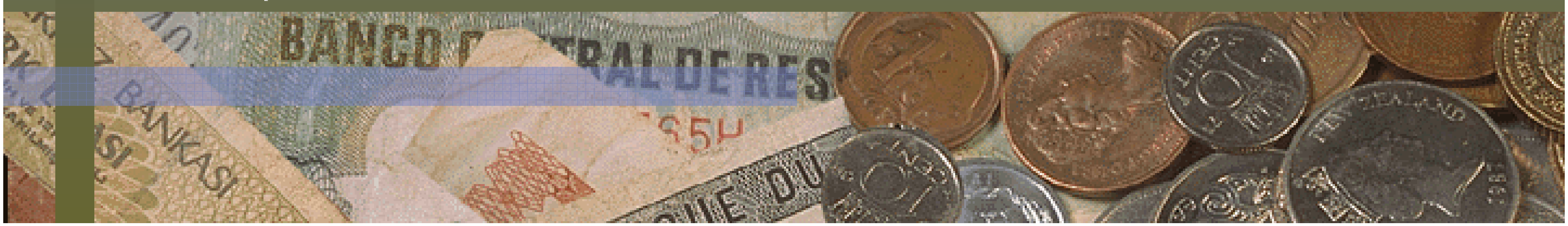
Given the attributes of infrastructure investments (long-dated, stable cash flows), a stable currency and/or low expected inflation are critical factors to attract capital for such projects

Infrastructure

Many Global Pension Funds Have Made Significant Investments in Infrastructure

Institutional Investor	Domicile	Total Portfolio Assets (USD mm)	Target Allocation	Infrastructure Allocation
Ontario Teachers	Canada	$71,677	8%	$5,734
Ontario Municipal (OMERS)	Canada	$29,941	15%	$4,491
Canada Pension Plan (CPP)	Canada	$86,194	10%	$8,619
OPSEU Trust	Canada	$9,073	10%	$907
State Super NSW	Australia	$19,829	3%	$595
UniSuper	Australia	$8,262	7%	$537
Telstra Super	Australia	$5,783	3%	$145
MTAA	Australia	$1,652	25%	$413
Illinois State Board of Investments	US	$11,000	5%	$550
BT Pension Scheme/Hermes	UK	$69,857	1%	$699

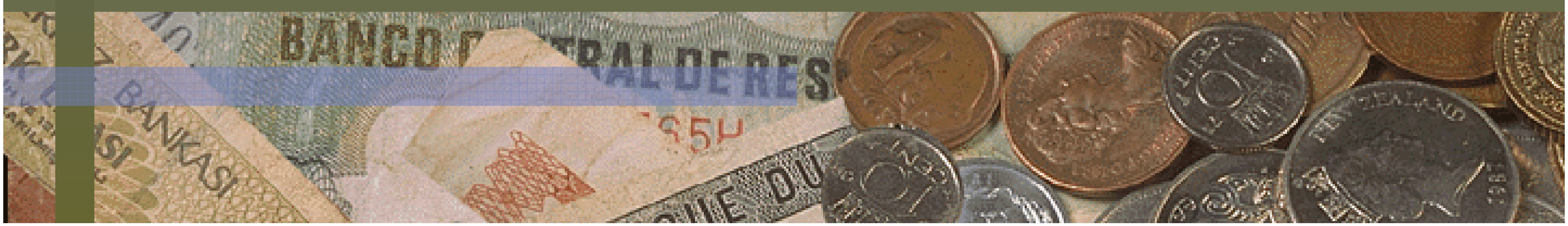
Source: Macquarie



Infrastructure

Reasons for Investing in Infrastructure

- Stable and predictable cash flows: privatization allows assets to be leveraged
- Natural monopoly characteristics: pricing power, lower return volatility
- Low correlation to other asset classes: diversification benefits
- Long-lived assets with high tangible value: match for long-term liabilities
- Capital structure arbitrage: can increase value in addition to revenue growth
- Risk transfer: some financial risks transferred to end users & subcontractors
- Recession resistant: returns not highly sensitive to short-term GDP growth
- Nascent asset class: investor interest growing



Infrastructure

Issues Created by Currency (for Foreign Projects) and/or Inflation (for Domestic Projects)

For Pension Funds

- Risks diminish attractiveness of infrastructure as a new asset class

For Global Economy

- Given the scope of global infrastructure needs, attracting “private” capital needed to fund projects key to economic growth

Currency as an Asset Class

The One Silver Lining: Currency Volatility Creates Potential For Another Source of Diversification and Alpha

Currencies Have Low Correlation With Other Asset Classes (1995 -2005)

	S&P 500	MSCI ex-US Unhedged In USD	Lehman Global Aggregate	Currency Composite (Global)
S&P 500	1.00	0.81	-0.03	0.09
MSCI ex-US Unhedged in USD		1.00	0.13	0.04
Lehman Global Aggregate			1.00	0.05
Currency Composite (Global)				1.00

Recent NBER study by Pojarliev and Levich supports that a quarter of all active currency managers add statistically significant alpha (104 bp per month)