FOR PROFESSIONAL INVESTORS ONLY

Institutional Money Congress

Infrastructure as an Asset Class: Global Infrastructure and Capital Markets Review

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Insight + Process = Results

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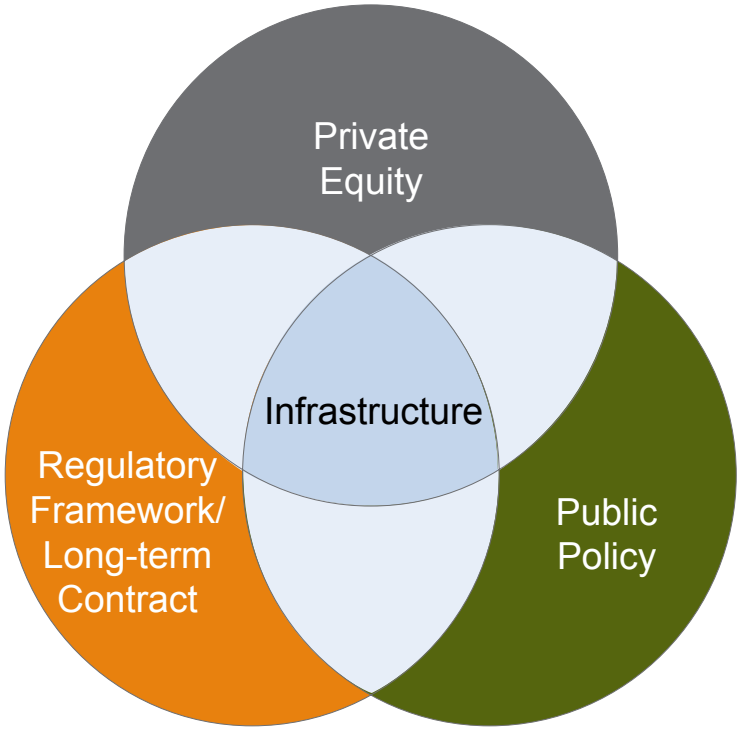
What is infrastructure?

Infrastructure sits at the crossroads of private equity, public policy and regulation



Infrastructure:

- Monopolistic in nature
- Provide for essential needs
- The movement and storage of goods, data, people, water and energy

Which segments are the most attractive?

- Transportation and regulated assets offer the best protection against inflation

Transportation assets	Regulated assets	Communications assets	Social infrastructure
			
Bridges and tunnels	Electricity transmission	Radio/TV broadcast towers	Schools
Toll roads	Oil and gas pipelines	Wireless towers	Hospitals
Railroads	Electricity and gas distribution	Cable systems	Prisons
Rapid transit links	Water distribution	Satellite networks	Courthouses
Airports, Seaports	Waste water collection and processing systems		

The spectrum of infrastructure investing

"Brownfield": Existing, Mature Assets — **"Greenfield": Development Projects**

Core-plus infrastructure

Core	Value-Added	Opportunistic
Bridges, tunnels, toll roads	Airports, seaports	Development projects
Pipelines, energy transmission and distribution	Rail links	Satellite networks
	Contracted power generation	Merchant power generation
Water and waste-water systems	Rapid rail transit	Non-OECD country infrastructure

Cash flow — **Capital gains**

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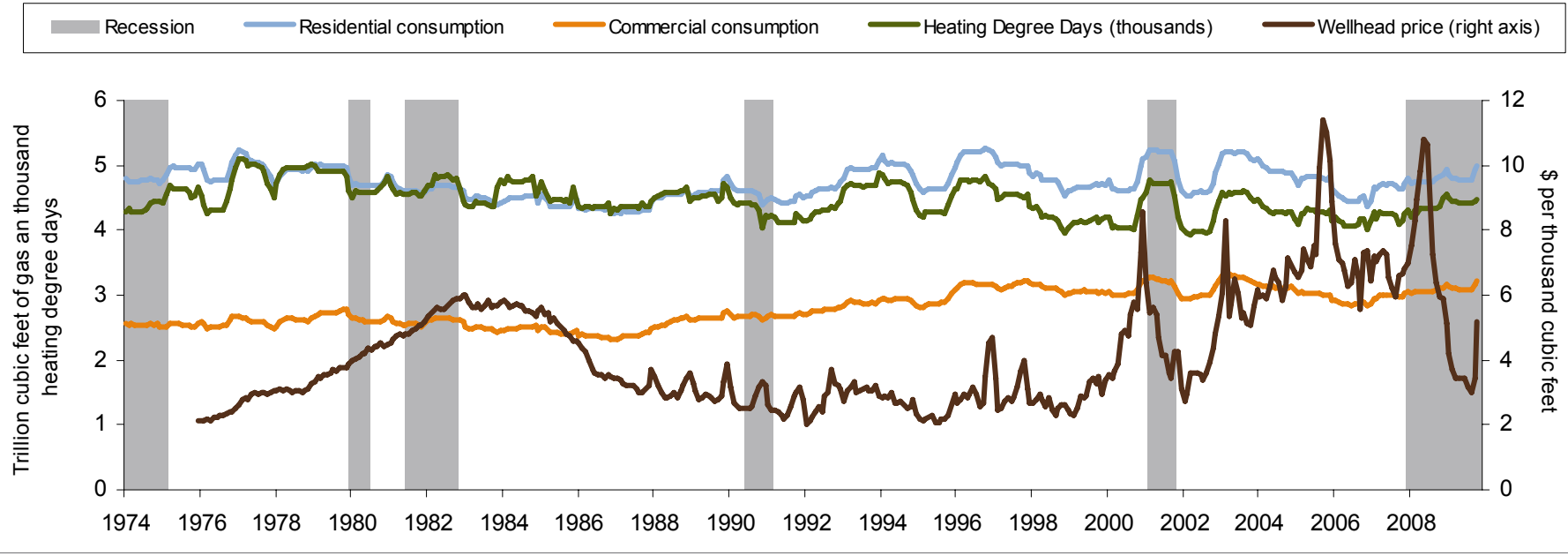
Characteristics of low volatility and demand inelasticity: Weather is the main determinant of natural gas demand

The correlation coefficient between HDD and residential consumption is 0.98 – therefore, the estimated price elasticity for residential consumption is nil, or statistically insignificant

Natural gas consumption in residential and commercial sectors and national heating degree days (rolling 12 months) versus the real natural gas price in the U.S., January 1974 – November 2009

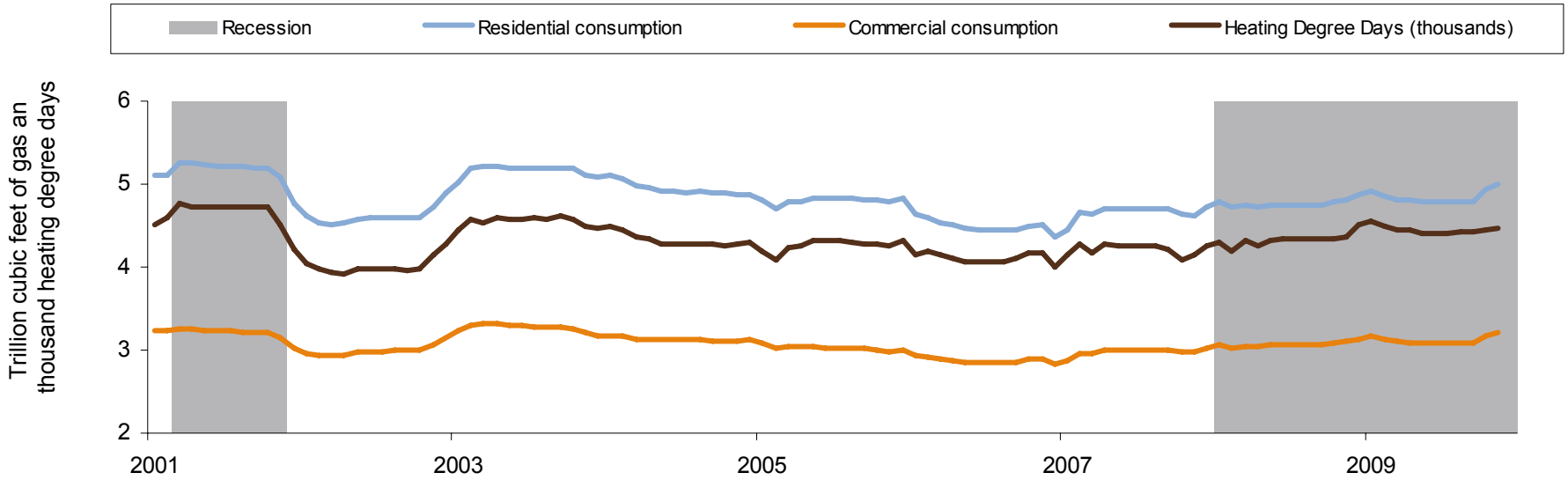


Sources: EIA, National Climatic Data Center, J.P. Morgan

*The correlation coefficients between the heating degree days (HDD) and the monthly residential and commercial natural gas consumption in the U.S. are 0.86 and 0.52, respectively. The HDD index shows the need for energy to heat dwellings. The number of heating degrees in a day is the difference between 65°F (18°C) and the average outside temperature for that day. National HDD is the average of regional HDDs, weighted by population.

Natural gas consumption was not impacted by the recession; weather is the more important determinant of consumption

Natural gas consumption in residential and commercial sectors and national heating degree days (rolling 12 months), January 2001–November 2009



Sources: EIA, National Climatic Data Center, J.P. Morgan

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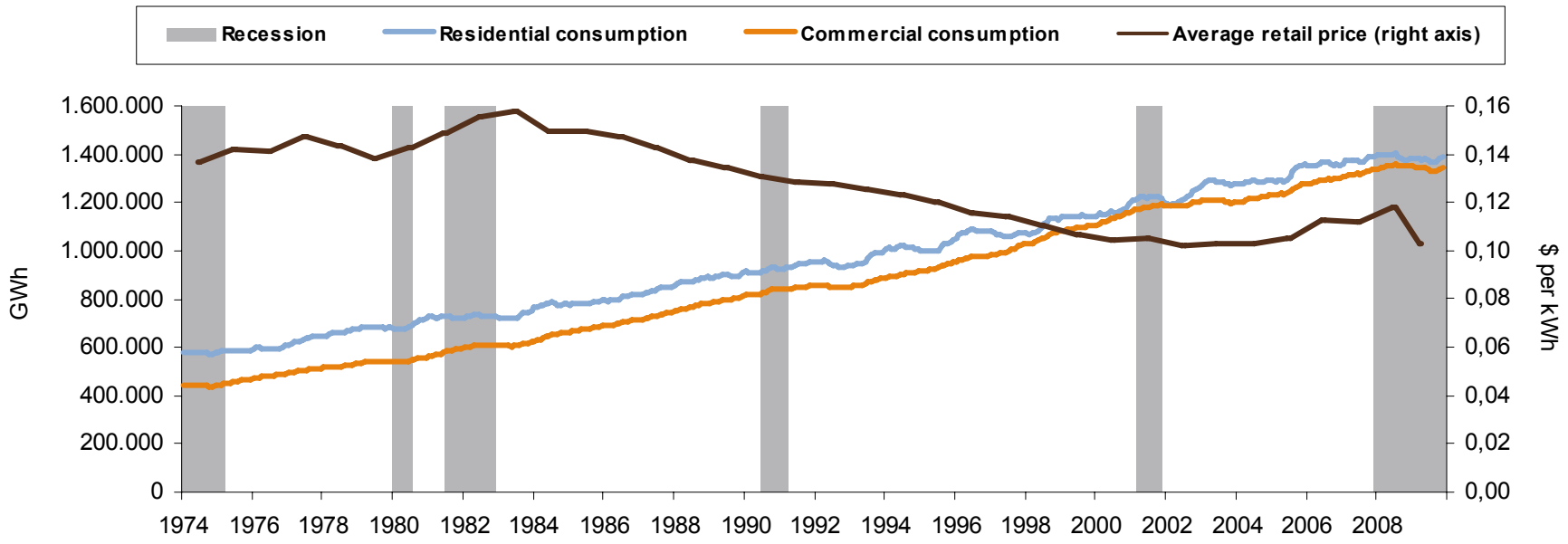
The above chart is for illustrative and discussion purposes only.

Characteristics of low volatility and demand inelasticity: Demand for electricity is highly inelastic

Estimated price elasticity for residential consumption is approximately -0.05, i.e. a 20% increase in price leads to a 1% decline in consumption

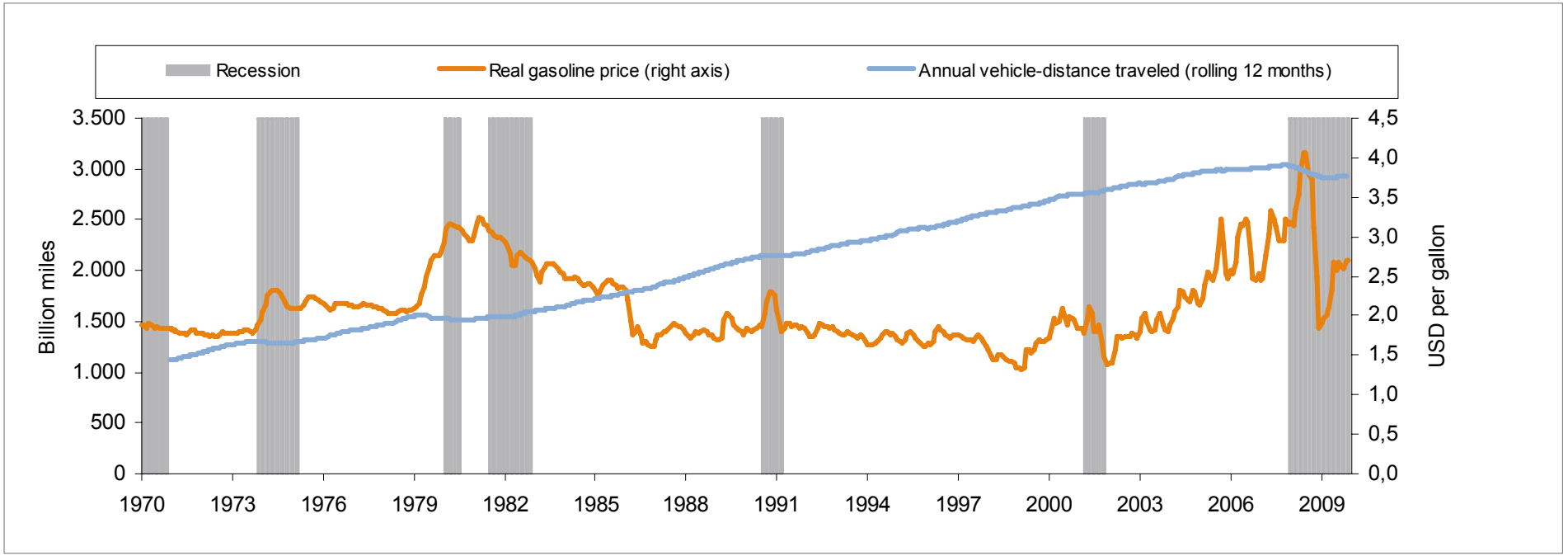
Electricity delivered to residential and commercial consumers (rolling 12 months) versus the average annual retail price (in 2009 prices) in the U.S., January 1974 – November 2009



Sources: EIA, J.P. Morgan Asset Management

Driving exhibits a strong long-term trend

Annual vehicle miles traveled (VMT) and real gasoline prices in the U.S., January 1971 to November 2009

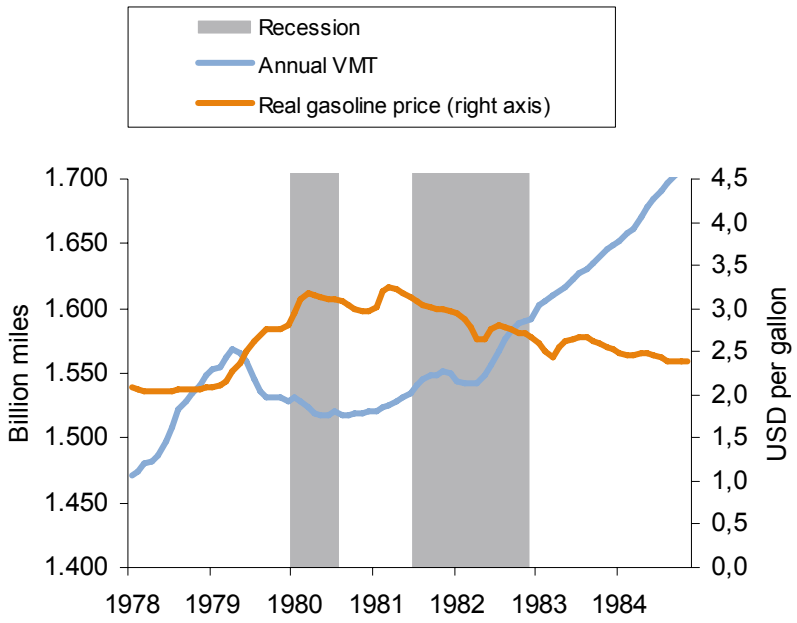


Sources: Federal Highway Administration, Energy Information Administration, and J.P. Morgan Asset Management
The above chart is for illustrative and discussion purposes only.

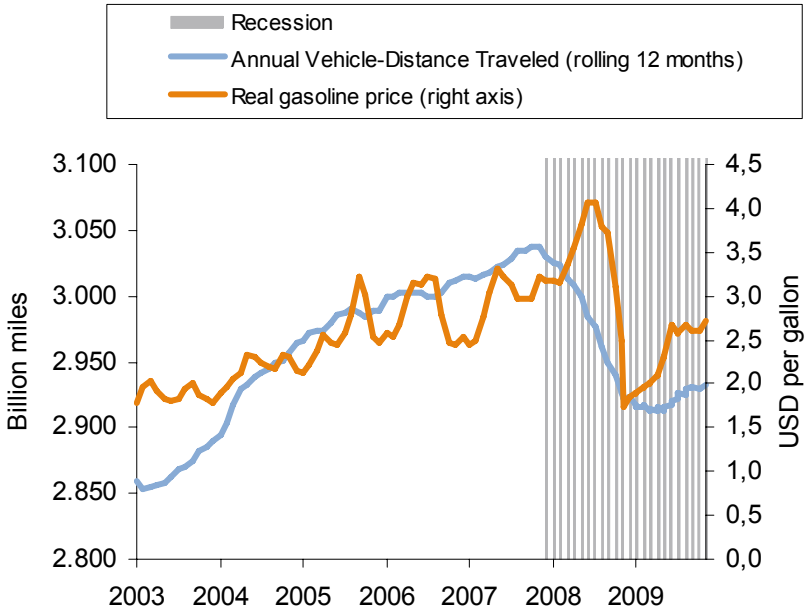
The recent decline in VMT was the longest and deepest in recorded history

The peak to trough decline of VMT on U.S. roads reached -4.05% in March 2009, which compares to a decline of -3.11% in 1980 and -2.06% in 1974

Annual VMT and real gasoline prices in the U.S., Jan 1978 to Nov 1984



Annual VMT and real gasoline prices in the U.S., Jan 2004 to Nov 2009

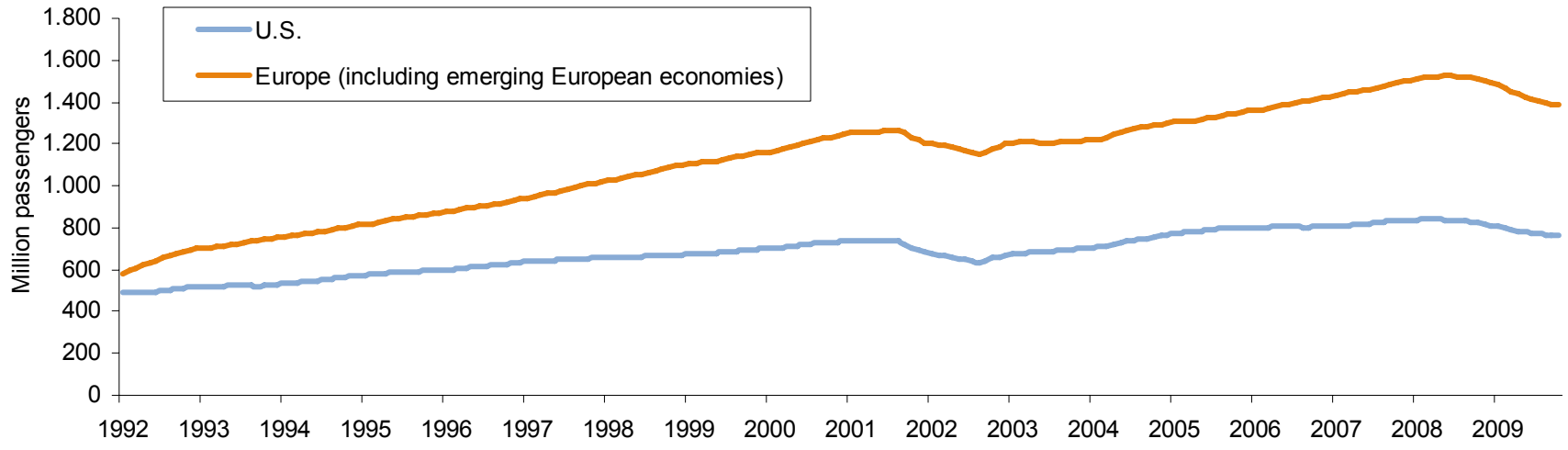


Sources: Federal Highway Administration, Energy Information Administration, and J.P. Morgan Asset Management
The above charts are for illustrative and discussion purposes only.

Air travel in the U.S. and Europe is expected to have its second calendar year decline in 2009 since 1990

The peak to trough decline in annualized (rolling 12 months) enplanements reached 9.74% in November 2009, which compares to a decline of 13.49% following September 11

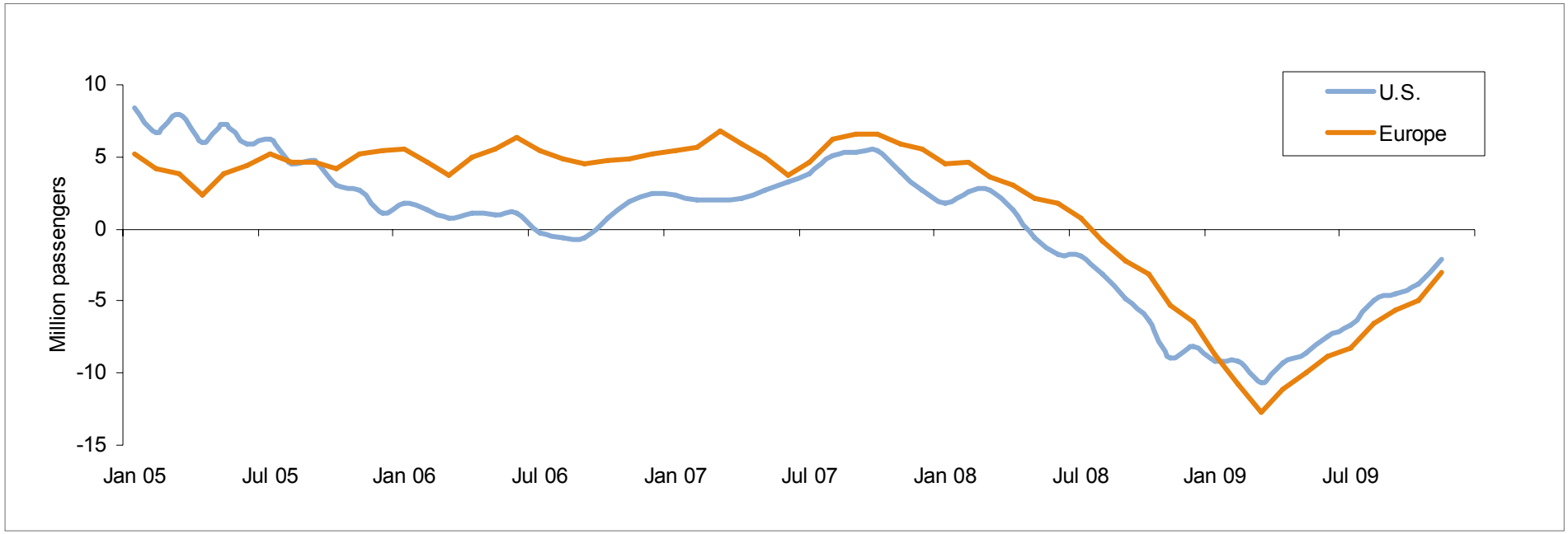
Annual passenger enplanements in the U.S. and Europe (rolling 12 months), January 1991–November 2009



Sources: U.S. Bureau of Transportation Statistics and Association of European Airlines
The above chart is for illustrative and discussion purposes only.

The recovery in air travel has started, but the volumes are still quite weak

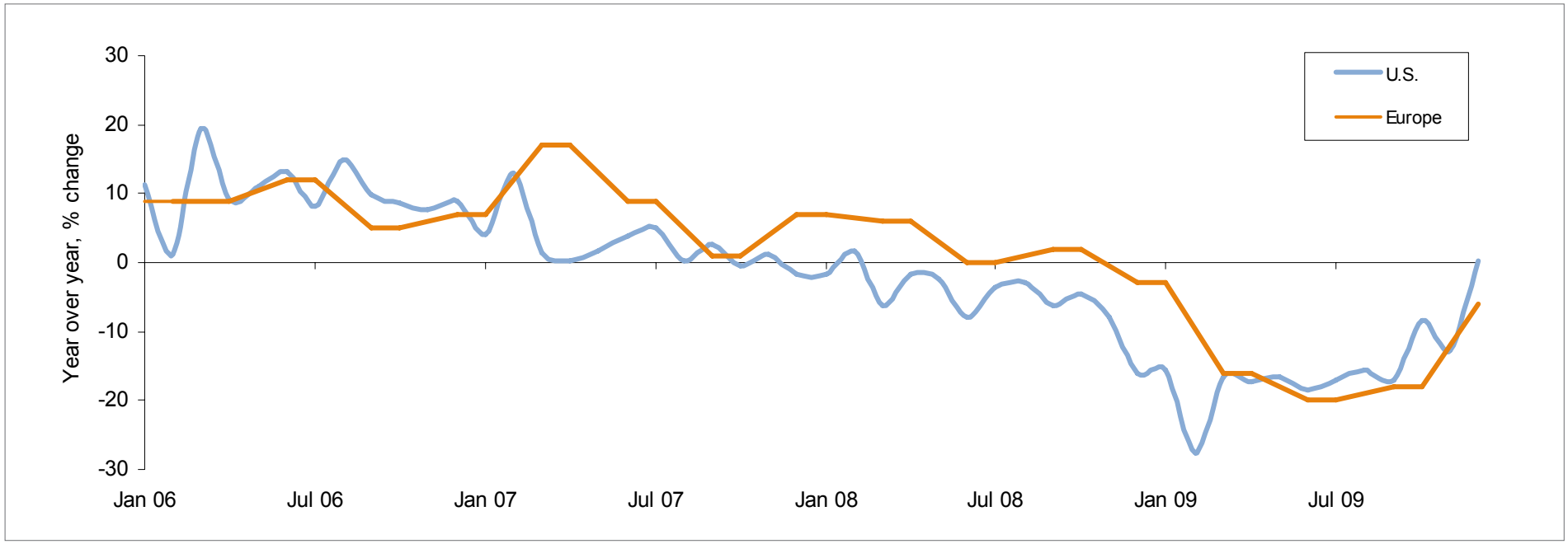
Total enplanements at U.S. and European airports through November 2009, rolling 3-months



Source: U.S. Bureau of Transportation Statistics
The above chart is for illustrative and discussion purposes only.

Major seaports in the U.S. and Europe report very low volumes

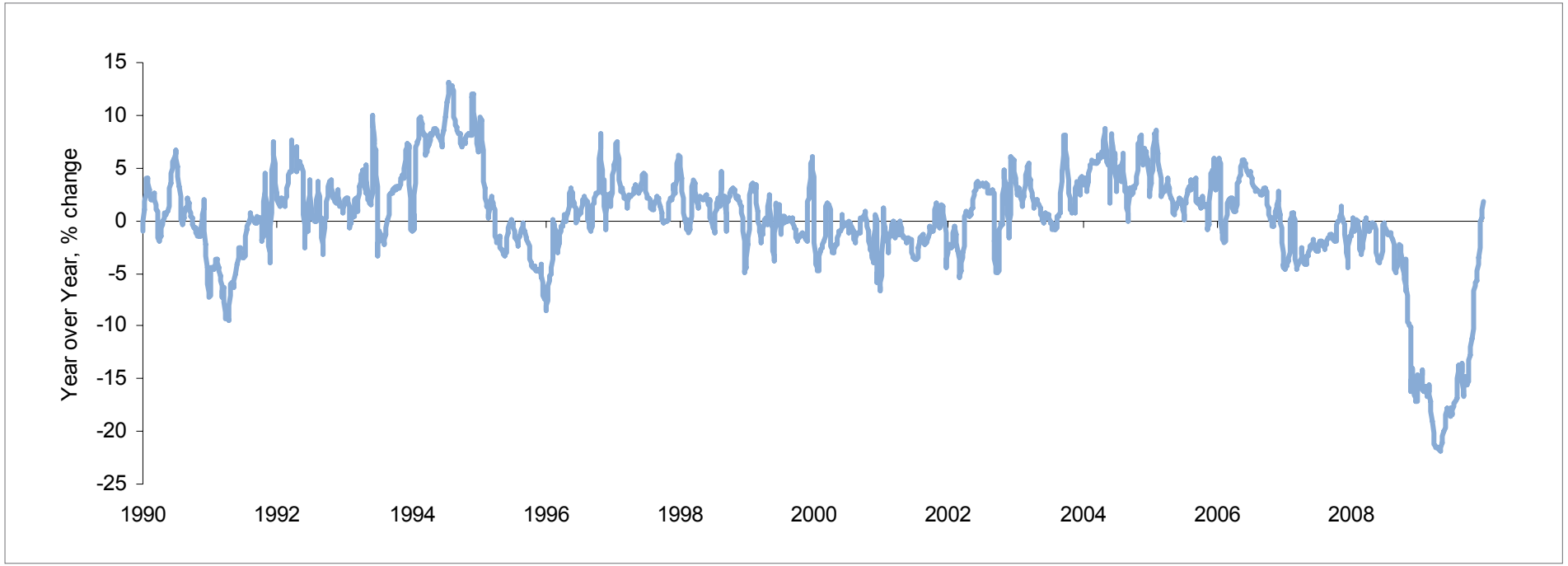
TEU traffic in major U.S. and European ports through December 2009, YoY % change



Sources: U.S.: Ports of Los Angeles, Long Beach, New York-New Jersey, Savannah, Seattle, and Virginia. These six entities collectively handled more than 60% of the TEU traffic in the U.S. in 2008.
Europe: Ports of Rotterdam, Antwerp, and Le Havre. These three handled approximately 30% of the TEU traffic in Western Europe.
The above chart is for illustrative and discussion purposes only.

The current decline of rail freight volume in the U.S. is the worst on record – the recovery is still weak

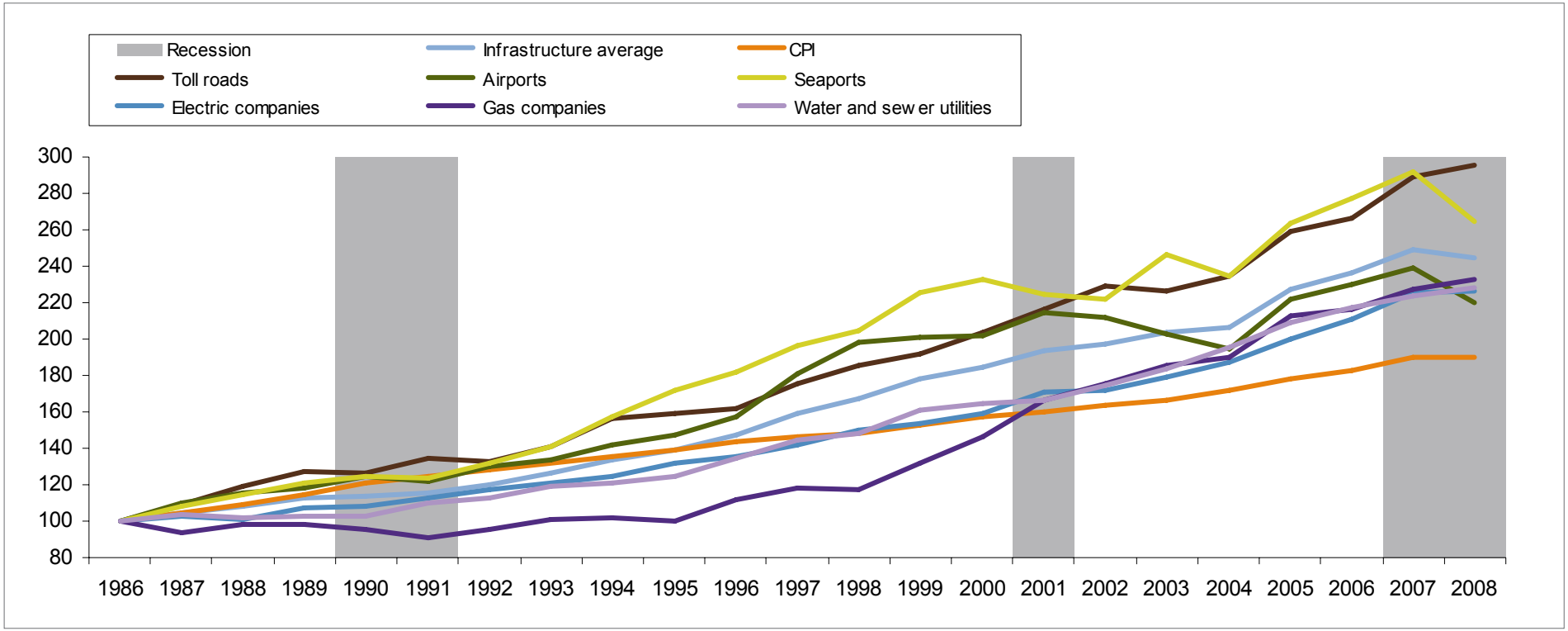
Number of rail cars originated in the U.S., rolling 4-week average through January 16, 2010



Source: Association of American Railroads
The above chart is for illustrative and discussion purposes only.

A diversified portfolio of 256 infrastructure assets produced growing cash flows with low volatility, 1986-2008

Indices of annual EBITDA for U.S. infrastructure sub-sectors against CPI, 1986–2008

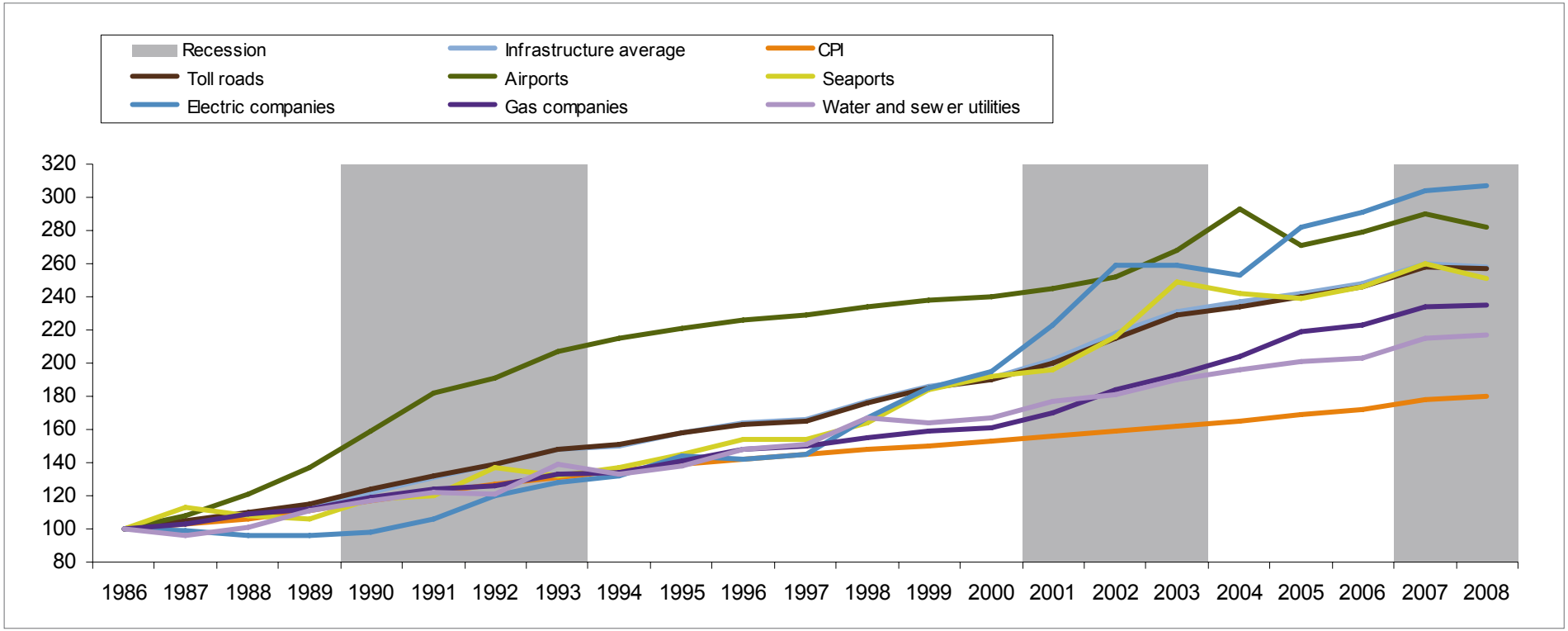


Source: J.P. Morgan. For consistency between European and U.S. assets we looked at the cash flow data of mature companies in infrastructure sub-sectors companies with significant changes in EBITDA numbers due to mergers, acquisitions and capacity enhancements are omitted

The above chart is for illustrative and discussion purposes only.

European infrastructure sector (<7 assets) performed in a similar fashion to that of the U.S.

Indices (in local currencies) of annual EBITDA for infrastructure sub-sectors against EU-15 CPI weighted average, 1986–2008

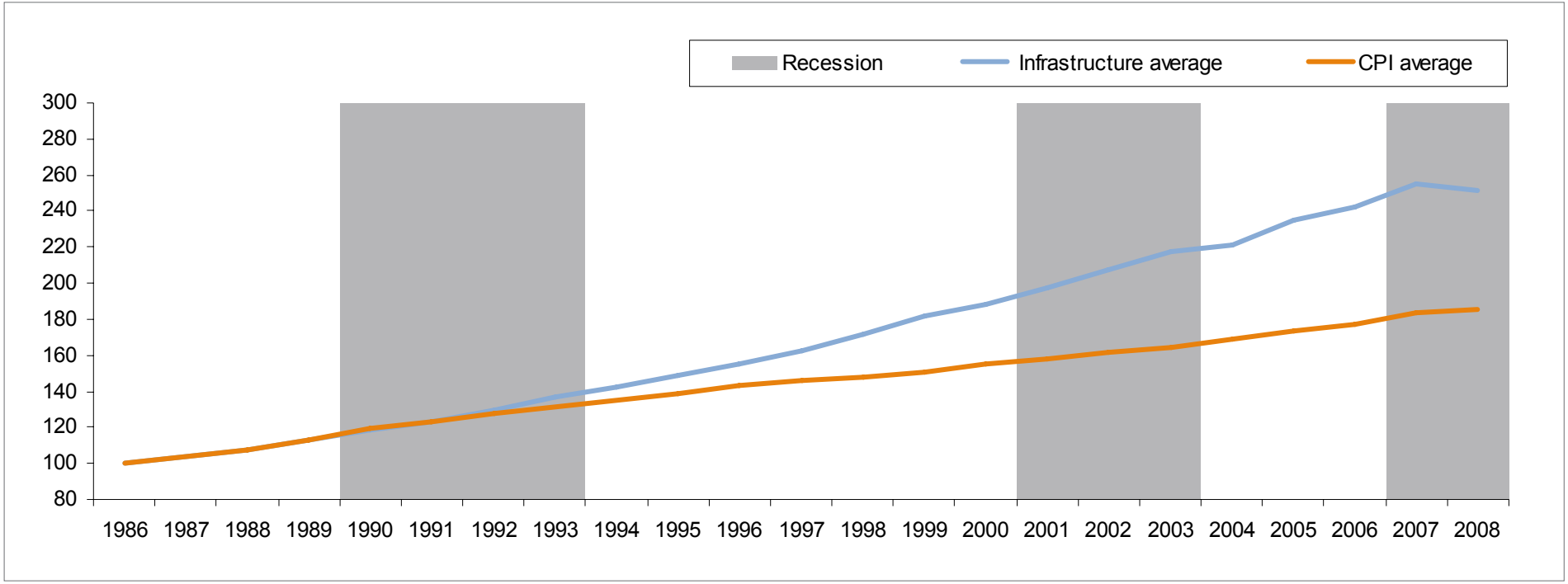


Source: J.P. Morgan. For consistency between European and U.S. assets we looked at the cash flow data of mature companies in infrastructure sub-sectors companies with significant changes in EBITDA numbers due to mergers, acquisitions and capacity enhancements are omitted

The above chart is for illustrative and discussion purposes only.

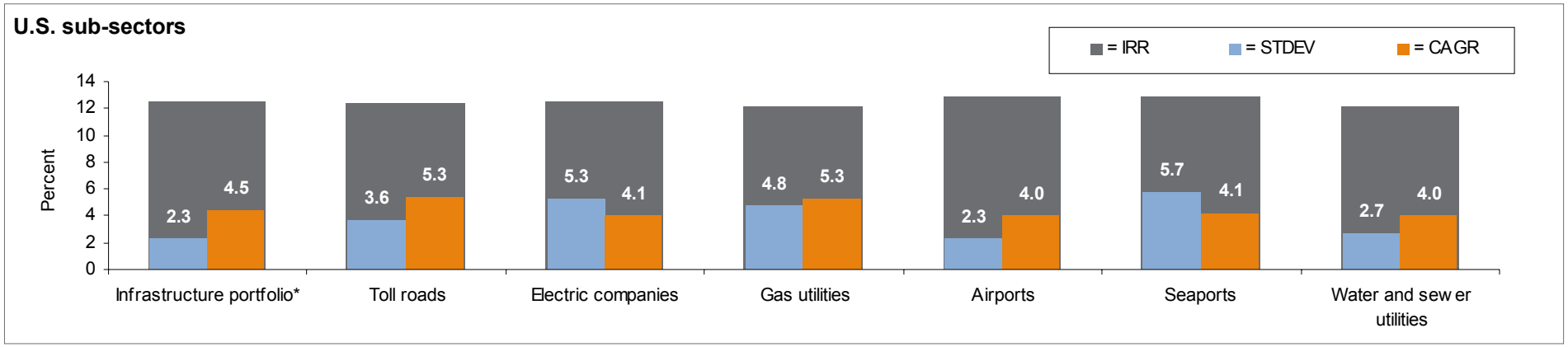
A portfolio of 256 U.S. and European infrastructure assets produced cash flows that grow in excess of GDP & inflation

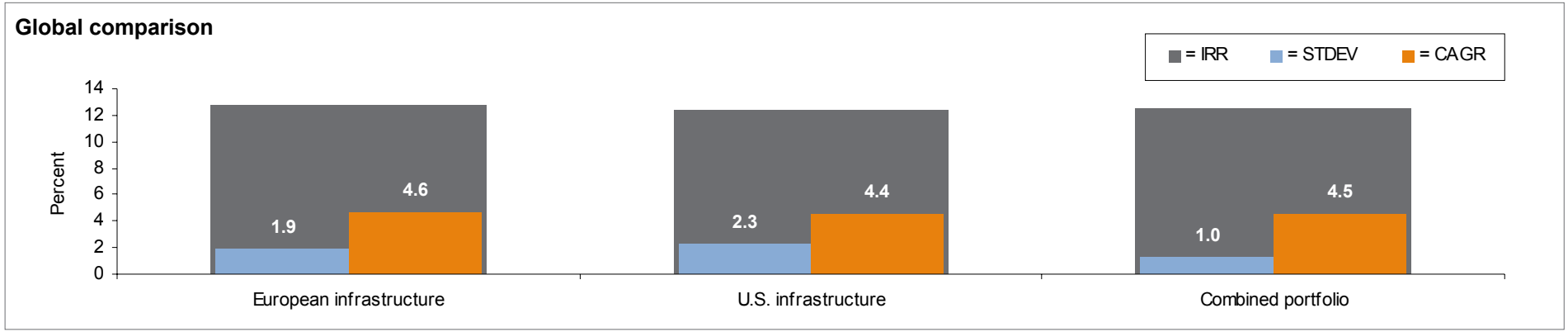
Indices of annual EBITDA for an equally weighted infrastructure portfolio against U.S. and EU-15 CPI average, 1986–2008 (not adjusted for currency exchange rates)



Sources: J.P. Morgan, FactSet, FAA, FHWA, MARAD, Eurostat, OECD, IMF, and company websites
The above chart is for illustrative and discussion purposes only.

Low correlations among sub-sectors reduces the volatility of a broadly diversified infrastructure portfolio, 1986–2008

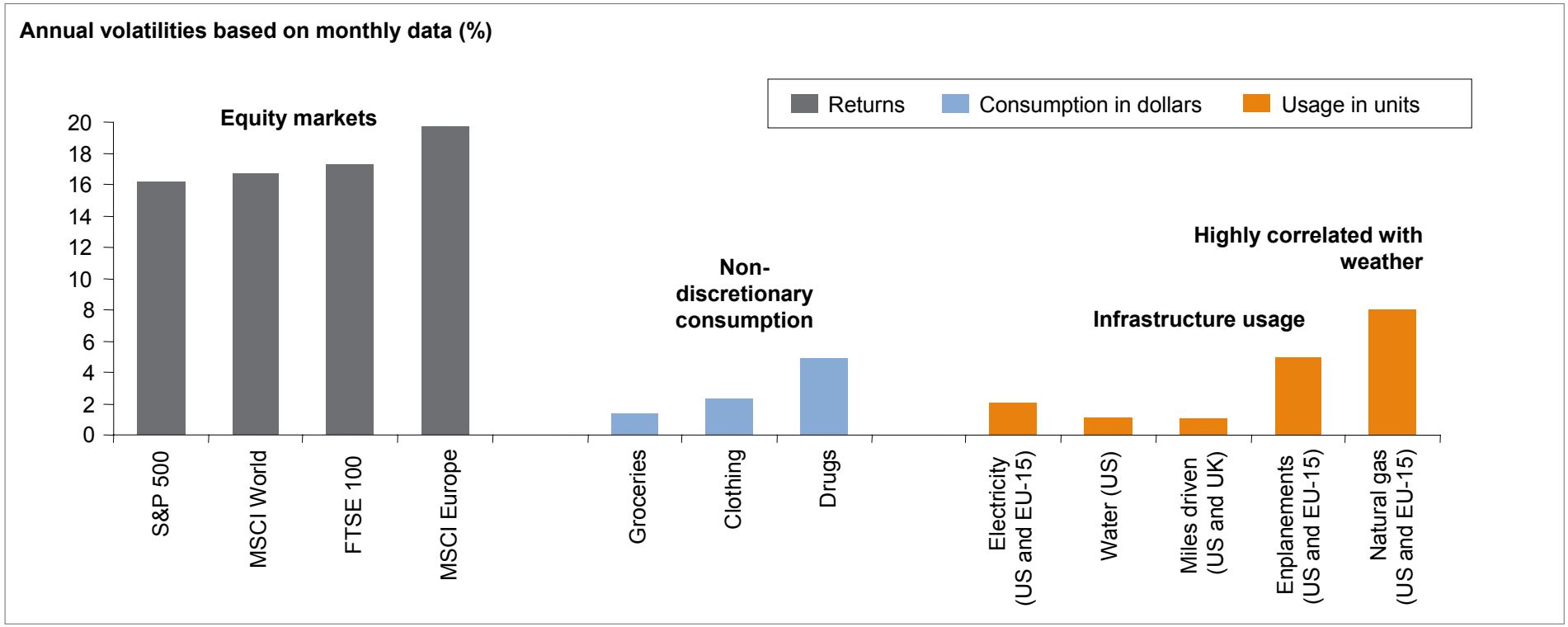




Sources: J.P. Morgan, FactSet, Eurostat, OECD, IMF, and company websites
* IRR is estimated using historical EBITDA CAGR, current equity multiples (assumed 75% gearing across all sub-sectors) and current cost of debt (7% pre-tax).

Infrastructure demand is non-discretionary and has low volatility

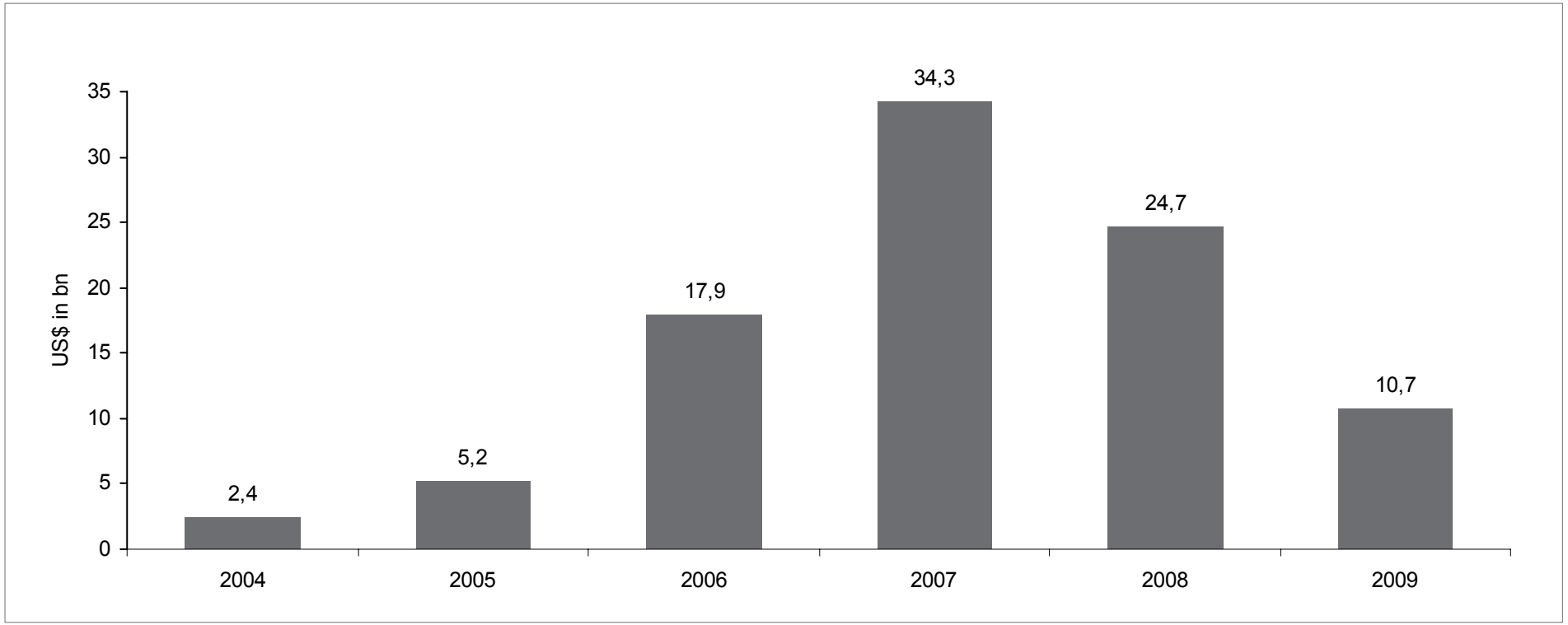
Usage volatility of infrastructure sectors versus volatilities of U.S. real retail consumption and equity returns, November 1999 to October 2009



Sources: Bloomberg, Economy.com, U.S. Energy Information Administration (EIA), U.S. Bureau of Transportation Statistics, Eurostat, J.P. Morgan.
Electricity, natural gas and water usage is based on residential and commercial sectors only.

Fundraising for private infrastructure funds has also slowed – though institutional interest appears to have increased in Q4

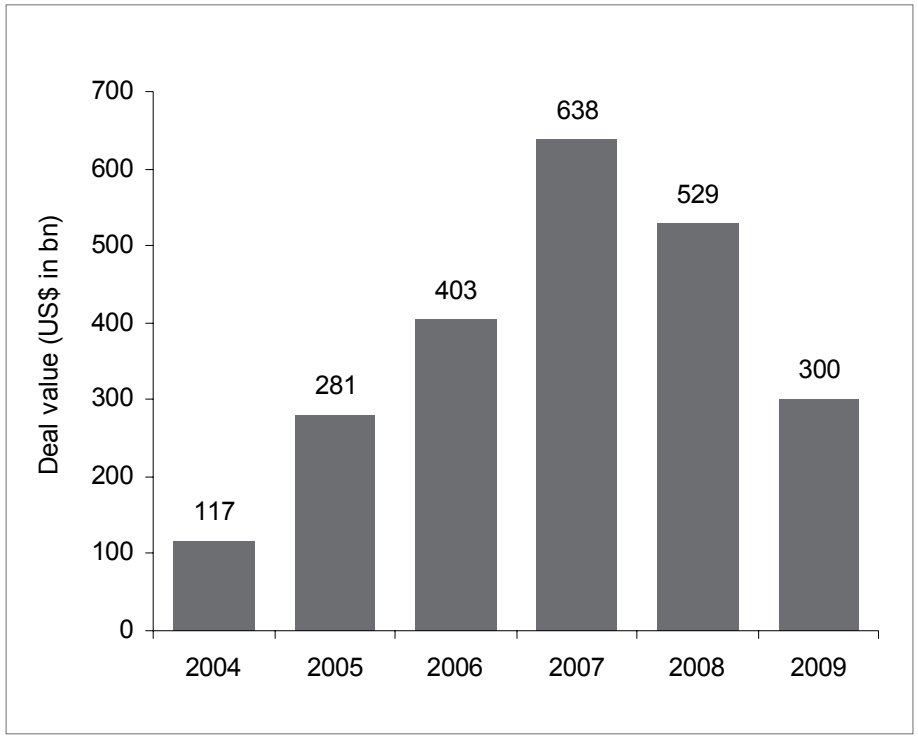
Global Infrastructure Fundraising 2004–2009



Source: Probitas Partners Research, January 2010
The above chart is for illustrative and discussion purposes only.

Although infrastructure deal volume has slowed, compared to 2007 activity has recently picked up

U.S. & Western Europe (EU-15) Transportation and Utilities M&A Analysis



Sample infrastructure deals in 2009

■	BNSF–Berkshire Hathaway	$35bn
■	Essent NV–RWE AG	$10bn
■	New Brunswick Power–Hydro Quebec	$4.4bn
■	Thuega AG–E.ON AG	$4.1bn
■	E.ON AG-Oesterreichische	$2.0bn
■	Gatwick Airport–GIP	$2.5bn
■	Port of Baltimore–Highstar	$1.3bn
■	Gas Natural SDG SA–Morgan Stanley	$1.1bn
■	Dominion Peoples Gas–SteelRiver	$780m
■	Chesapeake Energy Corp.–GIP	$588m

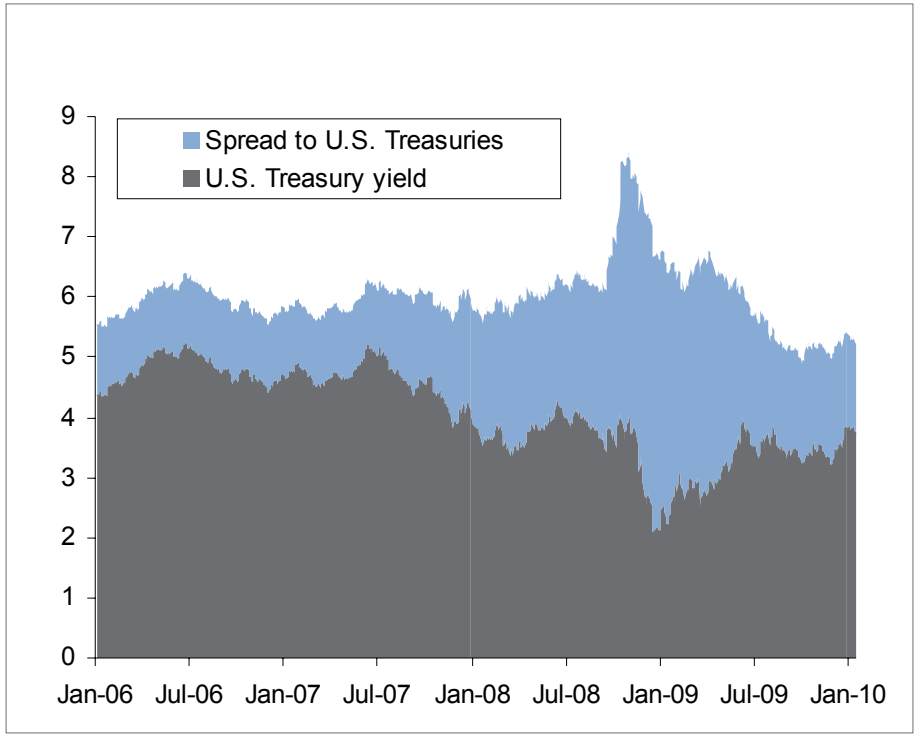
Corporate

Fund

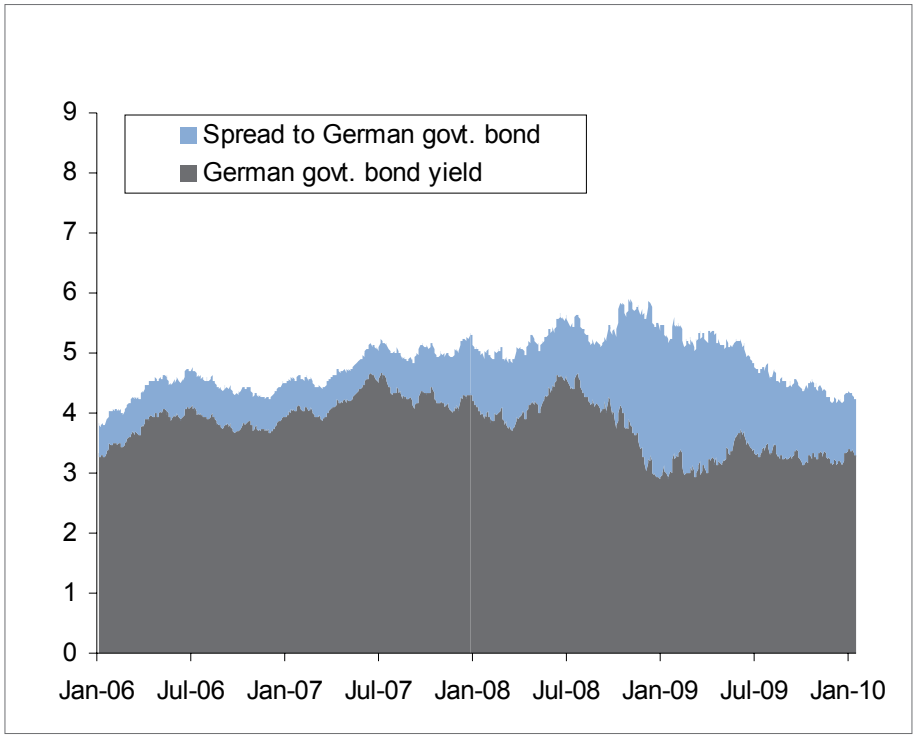
Sources: Dialogic through January 27, 2010, J.P. Morgan Asset Management
The above chart is for illustrative and discussion purposes only.

More normalized credit markets should bode well for 2010 deals…

U.S. utility spreads and U.S. Treasuries yields



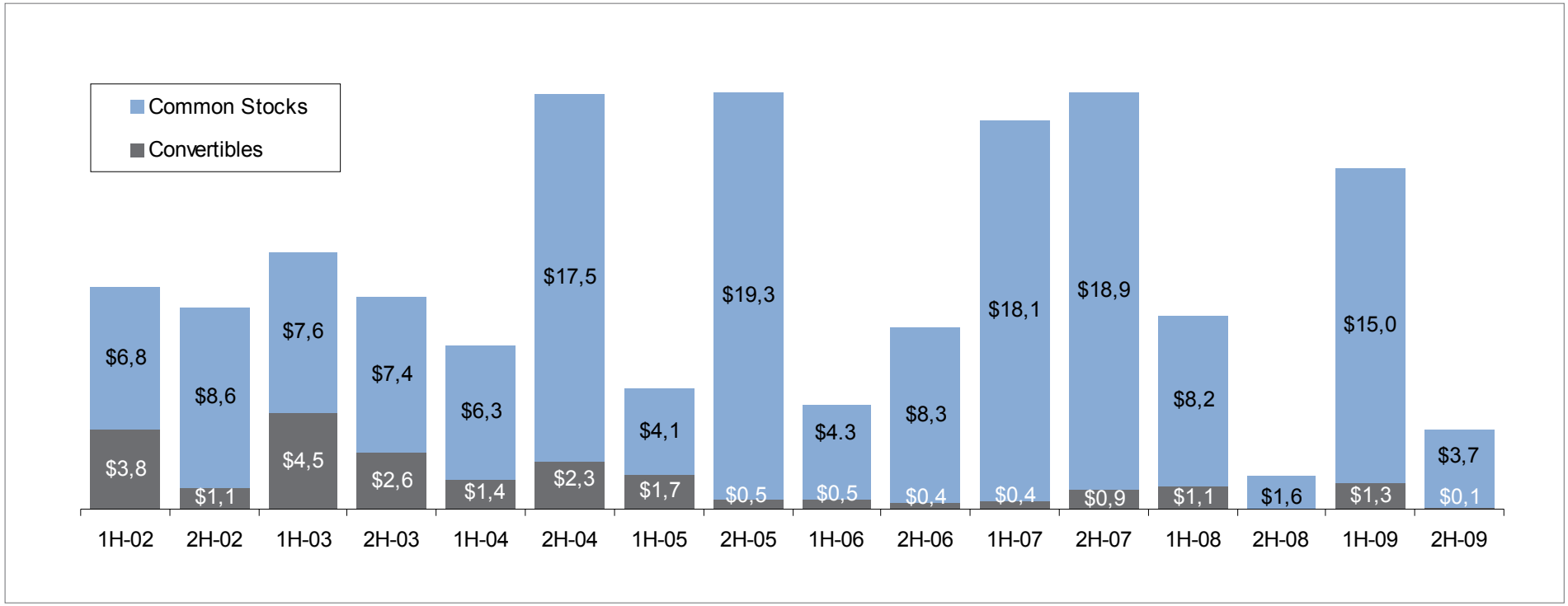
European utility spreads and German government bond yields



Sources: Bloomberg, Dealogic, Utility spreads data is based on JULI Utility Index in the U.S. and on BFV EUR Utility Index in Europe.
The above chart is for illustrative and discussion purposes only.

…and equity issuance also appears to be recovering

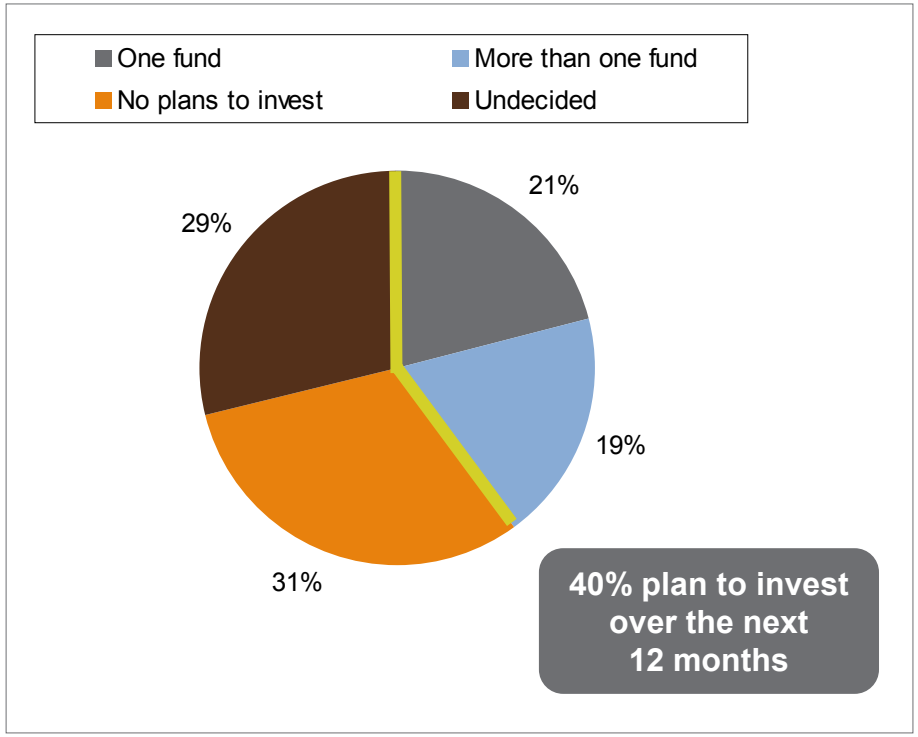
Equity & Equity Linked Utility Issuances ($bn)–in the U.S. and Western Europe



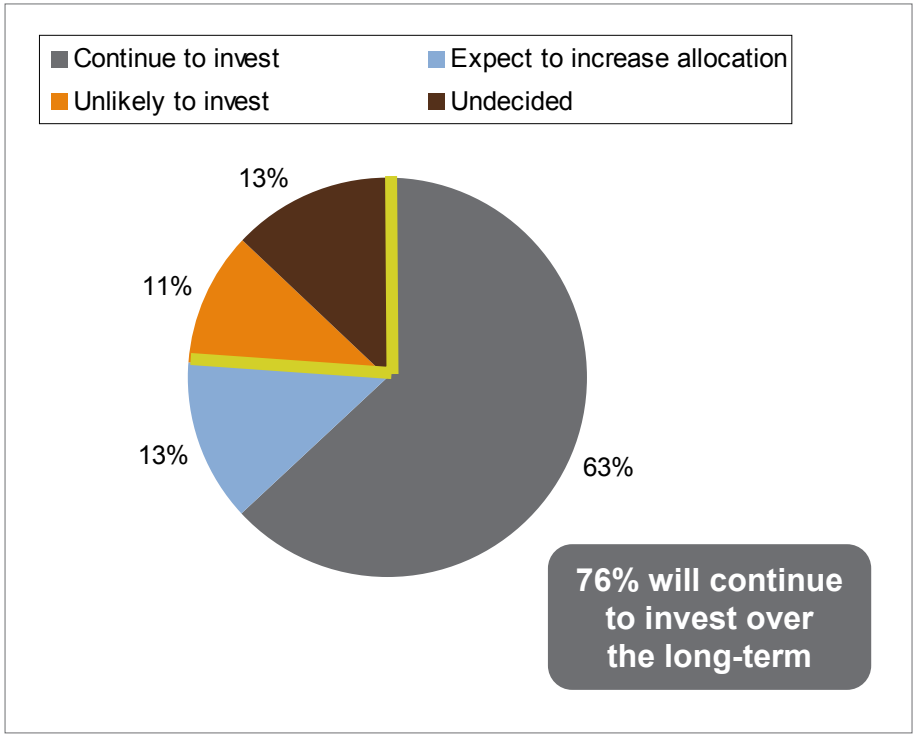
Sources: Bloomberg and Dealogic through January 27, 2010.
Note: Equity & Equity Linked Utility Issuances are one of IPO or FO or CONV. The above chart is for illustrative and discussion purposes only.

40% of investors plan to make infrastructure investments over the next 12 months (according to a recent Preqin study)

Number of planned infrastructure fund investments over the next 12 months



Long-term intentions for infrastructure fund investments



Sources: Preqin, January 2010

Global versus regional markets

Select from a wider array of opportunities

Invest capital at a quicker pace

Achieve better diversification

Source: J.P. Morgan, January 2010

Various means exist to gain exposure to infrastructure assets

- Funds investing in listed securities
- Exchange traded funds (e.g., Barclays, State Street)
- Listed closed-end funds (e.g., 3i Infrastructure, MIG)
- **Private equity closed-end funds**
- **Open-end private commingled funds**
- **Infrastructure fund-of-funds**
- Direct private investing

Most common ways for institutions to invest

Source: J.P. Morgan, January 2010

Gaining exposure to infrastructure

	Fund of funds	Closed-end single manager fund	Open-end single manager fund
Diversification	High	Low	High
Fees	Double layer of fees	2 & 20 style plus other fees	Asset management fee structure
Transparency to investments / performance	Limited transparency to underlying funds / assets	Full transparency	Full transparency
Access	No access to underlying managers	Direct access to manager / team	Direct access to manager / team
Liquidity	Generally very limited	Very limited	Liquid with a soft lock

Source: J.P. Morgan, January 2010

The outlook for 2010 is improving

- Credit crisis has abated for infrastructure
  - **less leverage, tighter covenants**
  - **good assets able to raise debt**
- Political imperative
  - **government budget shortfalls** and goal of job creation **will lead to more opportunities**
- The economy
  - Monopolistic assets are relatively recession resistant
  - **assets are attractive if global stimulus causes** future inflation
- Robust investment pipeline
  - institutional investor interest is picking up
  - Increasing supply of attractive assets will likely exceed availability of capital

Possible future transactions

Deal Type	Asset Description	Location
Seaports	Port operator of container and conventional terminals	Europe, U.S., and Asia
Airports	One of the largest airports in Southern Europe and one of the top 30 airports in the U.S.	Europe and U.S.
Airport	A long-term concession for one of the top 30 airports in the U.S.	U.S.
Natural Gas	Regulated natural gas utilities	U.S. and Europe
Broad cross-section of sectors	Airports, seaports, rail, roads, electricity, gas and water	Australia, Brazil, China, India and Mexico

Source: J.P. Morgan, January 2010

Any questions?



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