Marquette Associates

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Asset Allocation Considerations

City of Allentown

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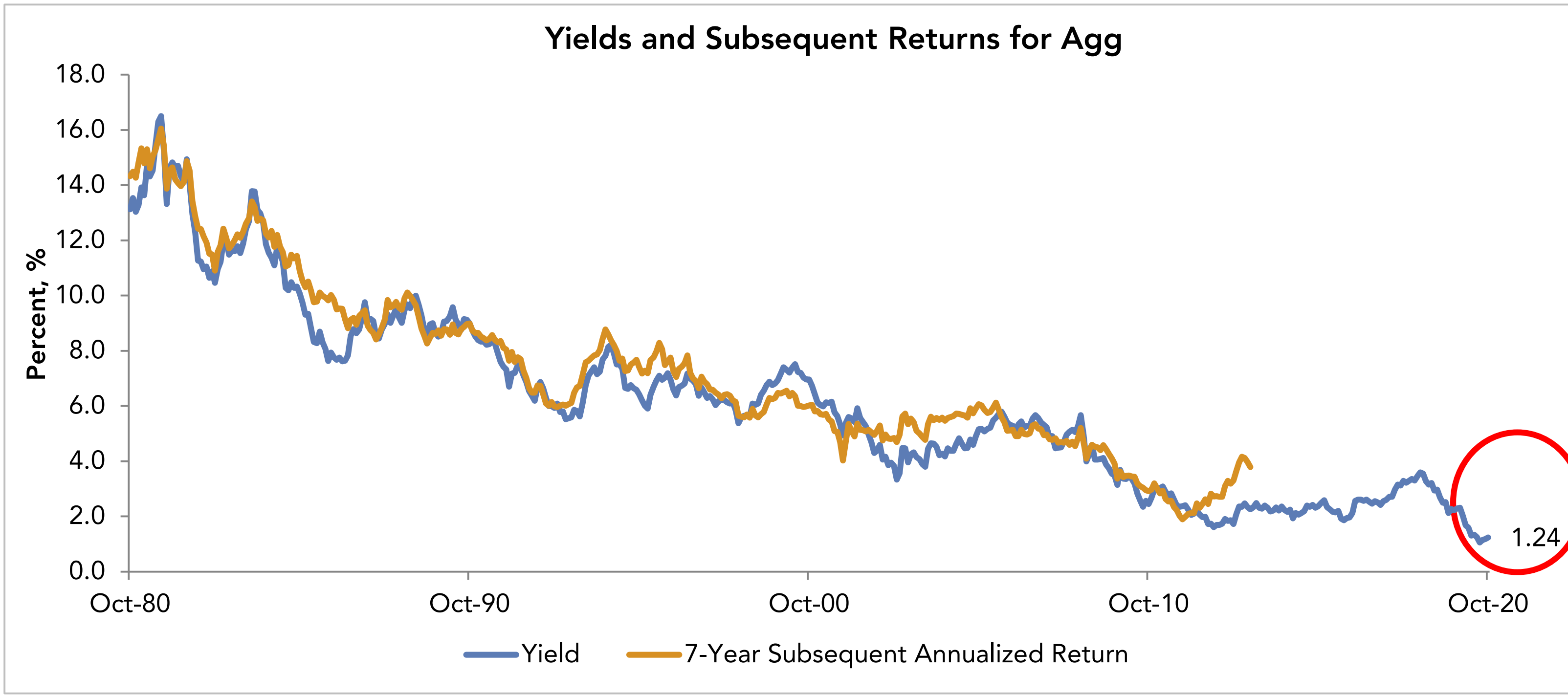
Background

- Given the low level of interest rates, fixed income returns are likely to be well below historical averages
- Real estate returns will also likely be well below average over the next several years
  - The pandemic has pressured the long-term outlook for some sectors of the market, notably office and retail

Core fixed income yields and returns

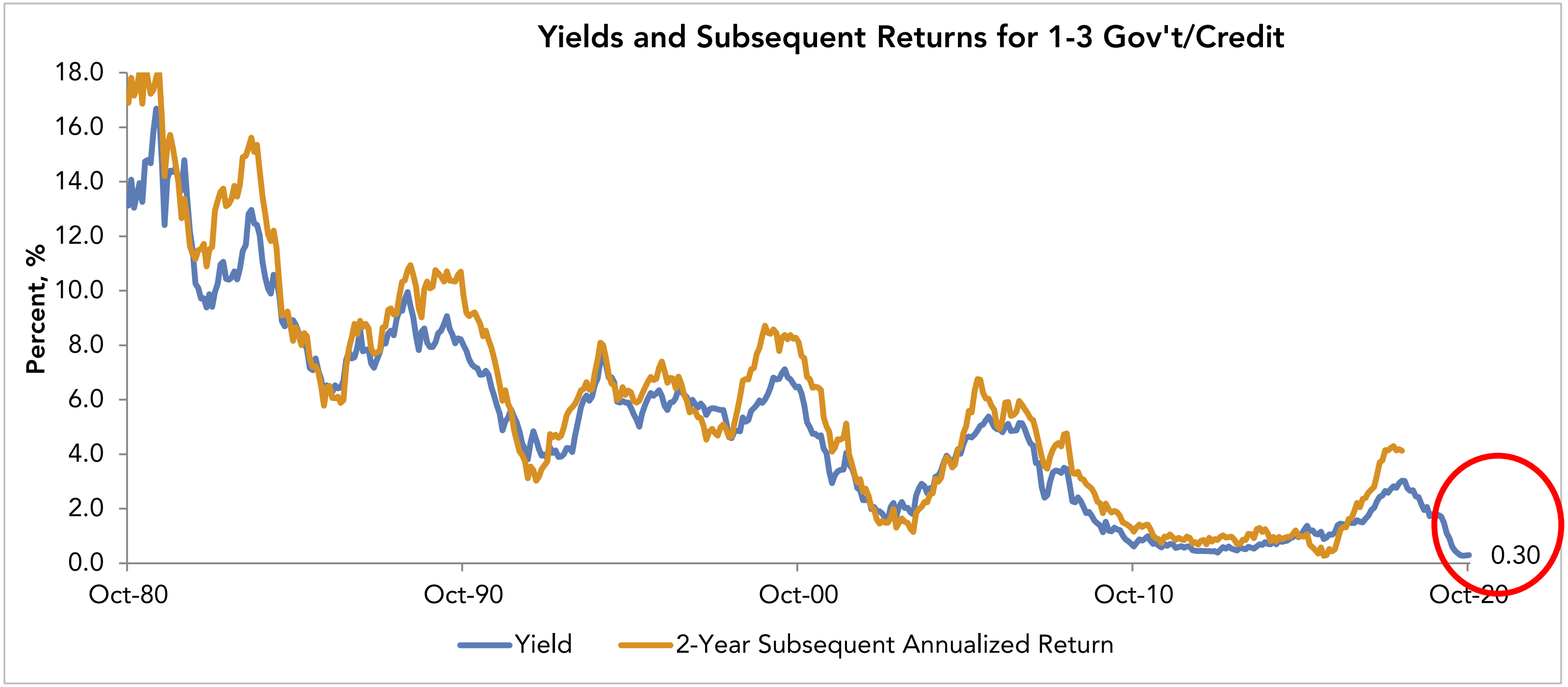
Low fixed income yields signal low returns



Source: Refinitiv.

Short-term fixed income yields and returns

Low fixed income yields signal low returns



Source: Refinitiv.

Real estate total return expectations

The Pension Real Estate Association consensus survey on the NCREIF Property Index

Main Results: Total Return Including Income (%)

	2020	2021	2022	2020 to 2024 (per year)
National, All Property Types	**-4.0**	**3.6**	**7.6**	**4.7**
Office	-4.8	2.9	7.3	4.2
Retail	-11.2	0.4	5.9	1.9
Industrial	1.9	6.6	9.0	7.0
Apartment	-2.2	5.1	8.6	5.4

Source: The Pension Real Estate Association.

Ideas for Consideration

Ideas for consideration

- Consider moving some funds from Real Estate to Infrastructure
  - Provides similar diversification as Real Estate, but faces lower headwinds moving forward
- Consider changing Sterling Capital mandate from 1-3 Gov't/Credit to 1-3 Credit A+
  - Increases income and returns, while still matching cash flows

Infrastructure: the “backbone” of an economy

The physical assets and networks necessary to operate a society – a prerequisite for sustainable economic, industrial, and social growth & development

Common attributes of infrastructure assets:

- Essential service to society
- Monopoly/quasi-monopoly
- Regulatory oversight
- Stable and predictable cash flows
- Inflation protection

Infrastructure characteristics

Economic Infrastructure Assets

Throughput assets

- Derive income per usage
- Prices determined by operator/owner

Ex: roads, airports, rail

Regulated assets

- Derive income per usage
- Prices determined by regulatory body
- Asset owner typically has some pricing power protection

Ex: utilities, water, gas

Contracted assets

- Operated by a contract between operator and entity
- Contract determines pricing system and identifiable revenues

Ex: schools, satellite networks, broadcast towers

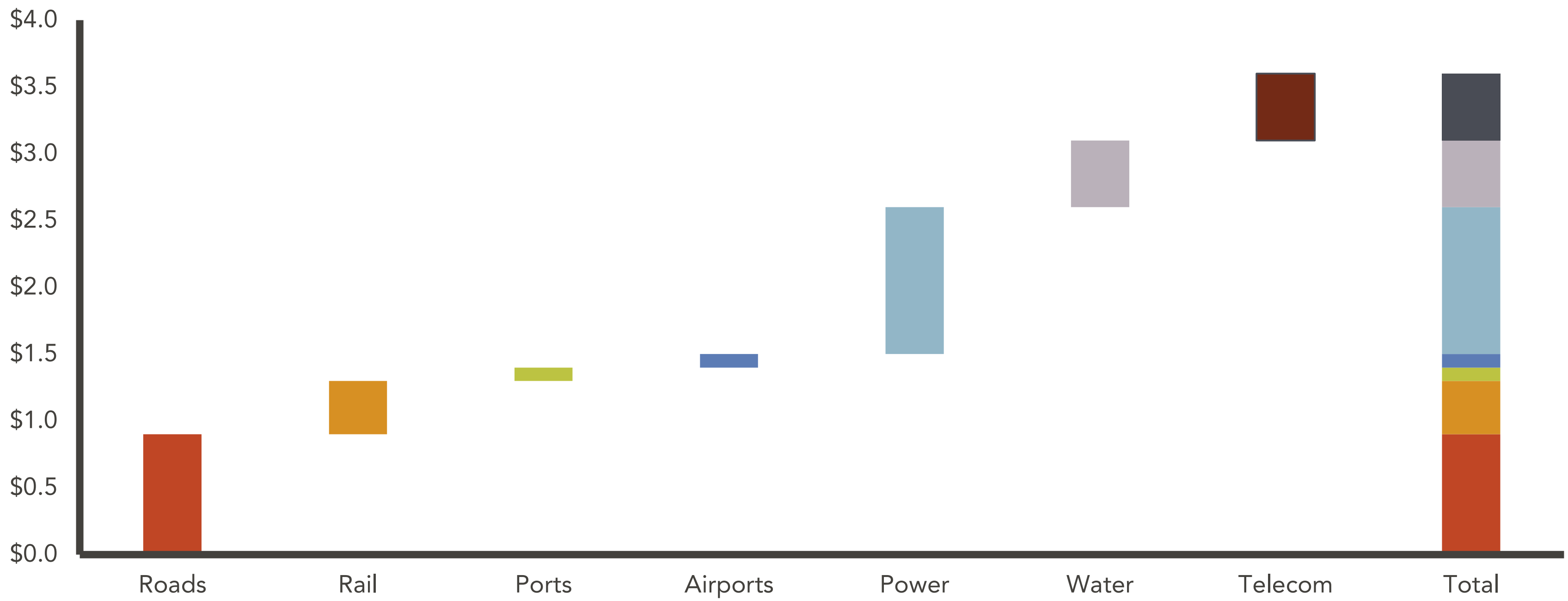
Infrastructure Maturity States

Greenfield	New construction or development
Brownfield	Existing, established asset
Rehabilitated Brownfield	Redevelopment

Need for infrastructure investments

The need for infrastructure investments globally continues to drive demand despite market downturn

Average Annual Infrastructure Need ($ Trillions)



Source: McKinsey Global Institute. Data is based on available information as of February 29, 2020.

Investment profile

Annualized performance
(common period 3Q07-2Q20)

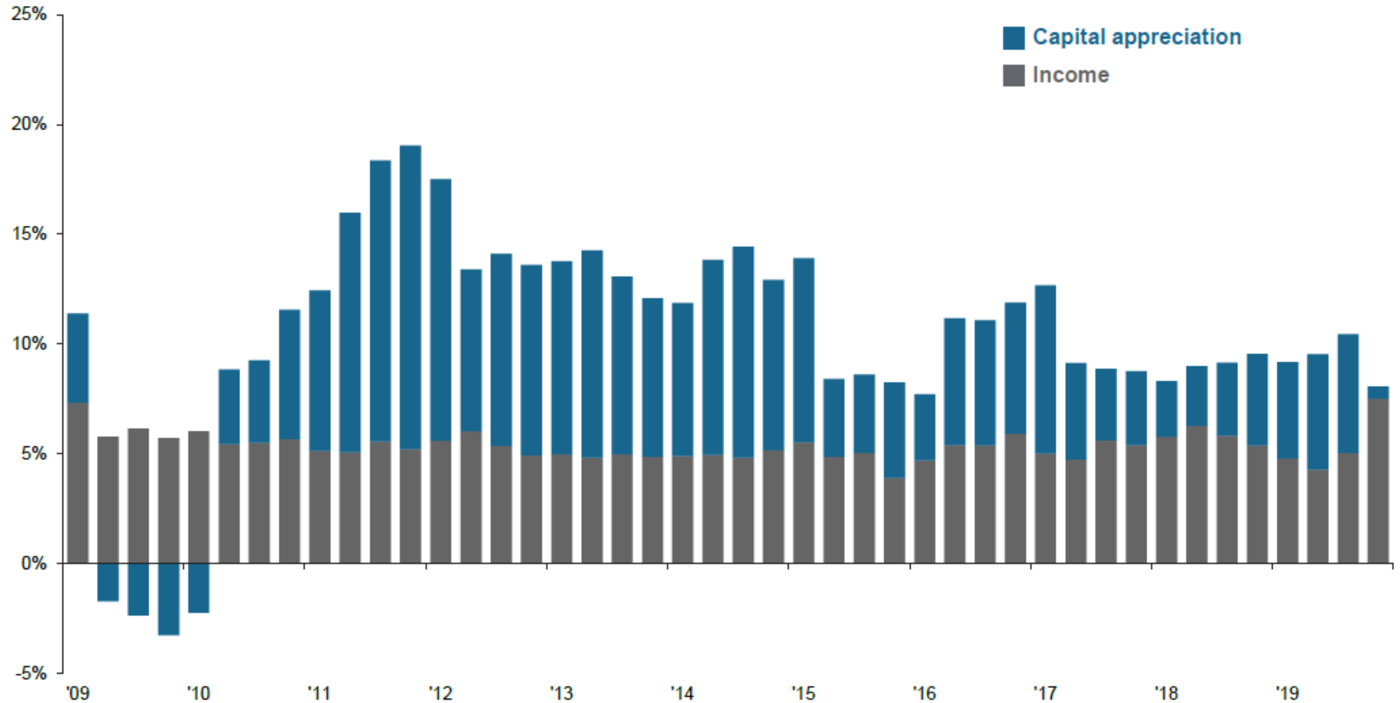
	Private Infrastructure*	U.S. Equities	Non-U.S. Equities	Fixed Income	Core Real Estate
Annualized Return	5.4%	7.9%	1.6%	4.0%	4.4%
Annualized Risk (Std Dev.)	8.1%	18.3%	20.3%	2.9%	7.5%
Sharpe Ratio	0.67	0.43	0.08	1.38	0.59

Exhibit uses quarterly data. *Private Infrastructure represents the equal-weighted returns of the two largest open-ended core infrastructure funds since the first inception date of the two (July 2007).

Sources of infrastructure returns

A sustainable cash yield underpins the risk profile of an infrastructure portfolio

Global core infrastructure returns
Rolling 4-quarter returns from income and capital appreciation



Source: MSCI. Infrastructure returns represented by the "low risk" category of the MSCI Global Quarterly Infrastructure Asset Index. Data show rolling 1-year returns from income and capital appreciation. The chart shows the full index history, beginning in the first quarter of 2009.

Infrastructure benefits vs risks

Infrastructure Benefits

- Growing opportunity set
- Stable predictable cash flows
- Potential hedge against inflation
- Strong and consistent performance
- Low correlation to other asset classes

Infrastructure Risks

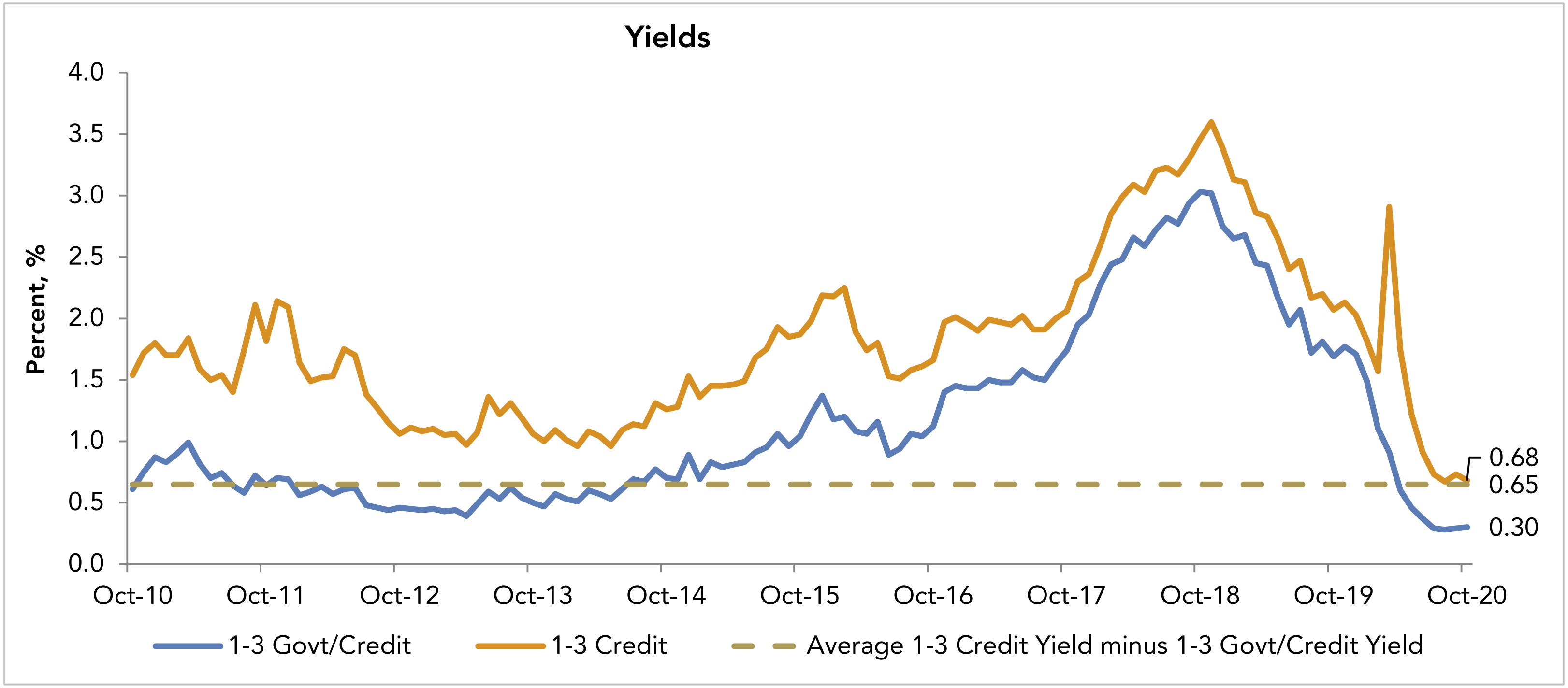
Fund Level:
- Concentration
- Liquidity
- Valuation

System Level:
- Political
- Public perception
- Regulatory

Unsystematic:
- Disaster
- Environmental

Short-term fixed income yields

1-3 Credit shows a higher yield than the 1-3 Govt/Credit due to the lack of government bonds



Source: Refinitiv.

Pros and cons of short-term fixed income

	Pros	Cons
1-3 Govt/Credit	▪ Default risk is insignificant ▪ Larger universe of available investments	▪ Extremely low income and return expectations
1-3 Credit A+	▪ Default risk is insignificant ▪ Higher yields and higher return expectations	▪ Slightly higher volatility ▪ More expensive

Disclosures

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