



LPF AND PPRF SURVEY UPDATE AND INFRASTRUCTURE AS AN ASSET CLASS

**Workshop on Data Collection for Long-term Investment
Wednesday 10 May 2017**

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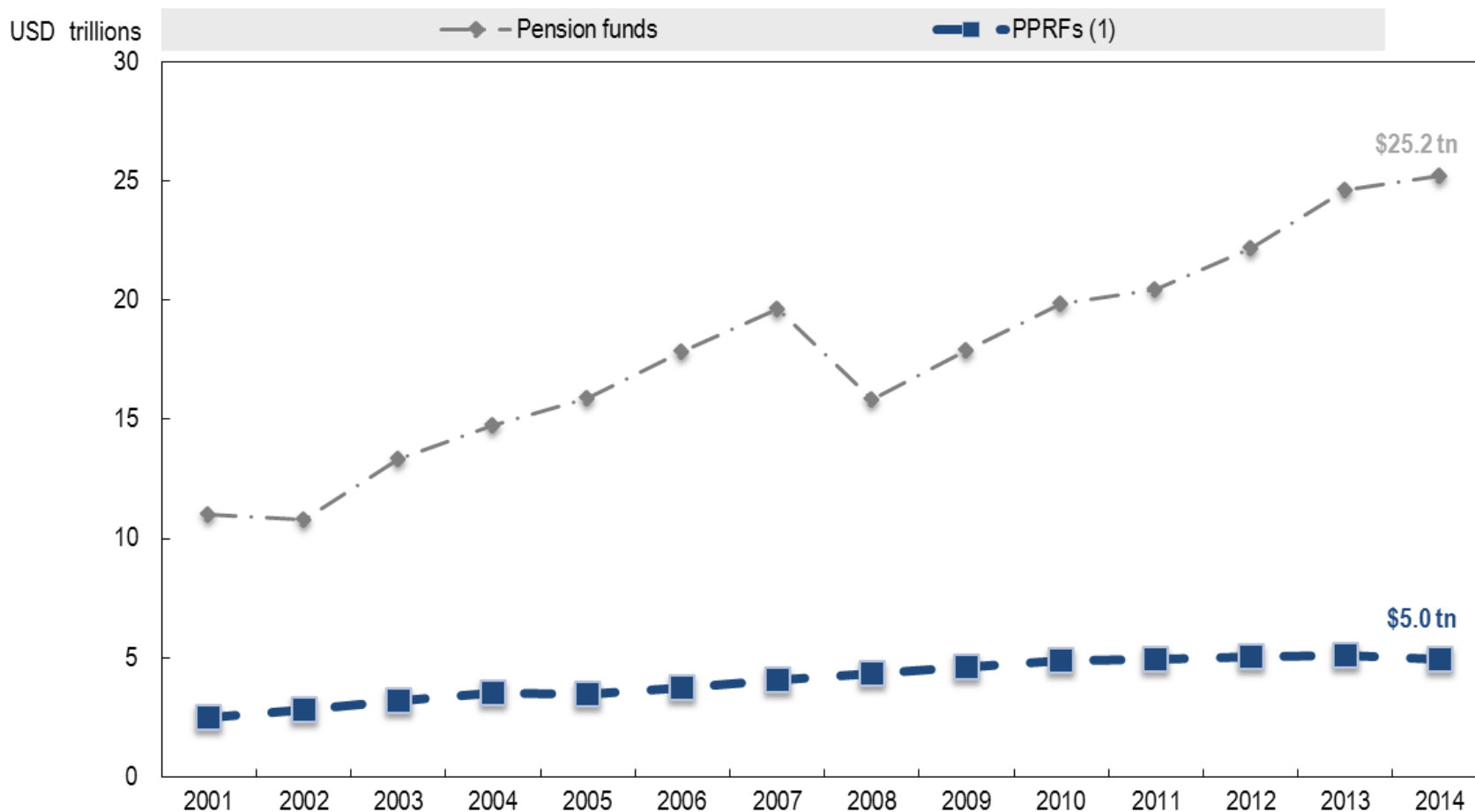


LPF AND PPRF SURVEY



Large pension fund and public pension reserve fund assets

Total retirement system assets in the OECD, 2001-2014



Source: [OECD Large Pension Fund Survey](#) based on OECD Global Pension Statistics, Institutional Investors' Assets databases, and OECD estimates



The Annual Survey of LPFs and PPRFs - 2016

- A population of Large Insurance Companies (LICs) is expected to be included in the report for the first time
 - Expands the report to include an important source of long-term investment capital
 - Data will be presented in a fashion similar to pension funds, in order to compare across sectors
- Nearly 100 institutional investors returned questionnaires for the 2016 survey
 - 63 LPFs
 - 17 PPRFs
 - 17 LICs
- Approximately 36 countries represented in the survey
- **The re-launch of the 2017 survey for investors is expected to take place at the end of June**



Institutional investment trends and infrastructure

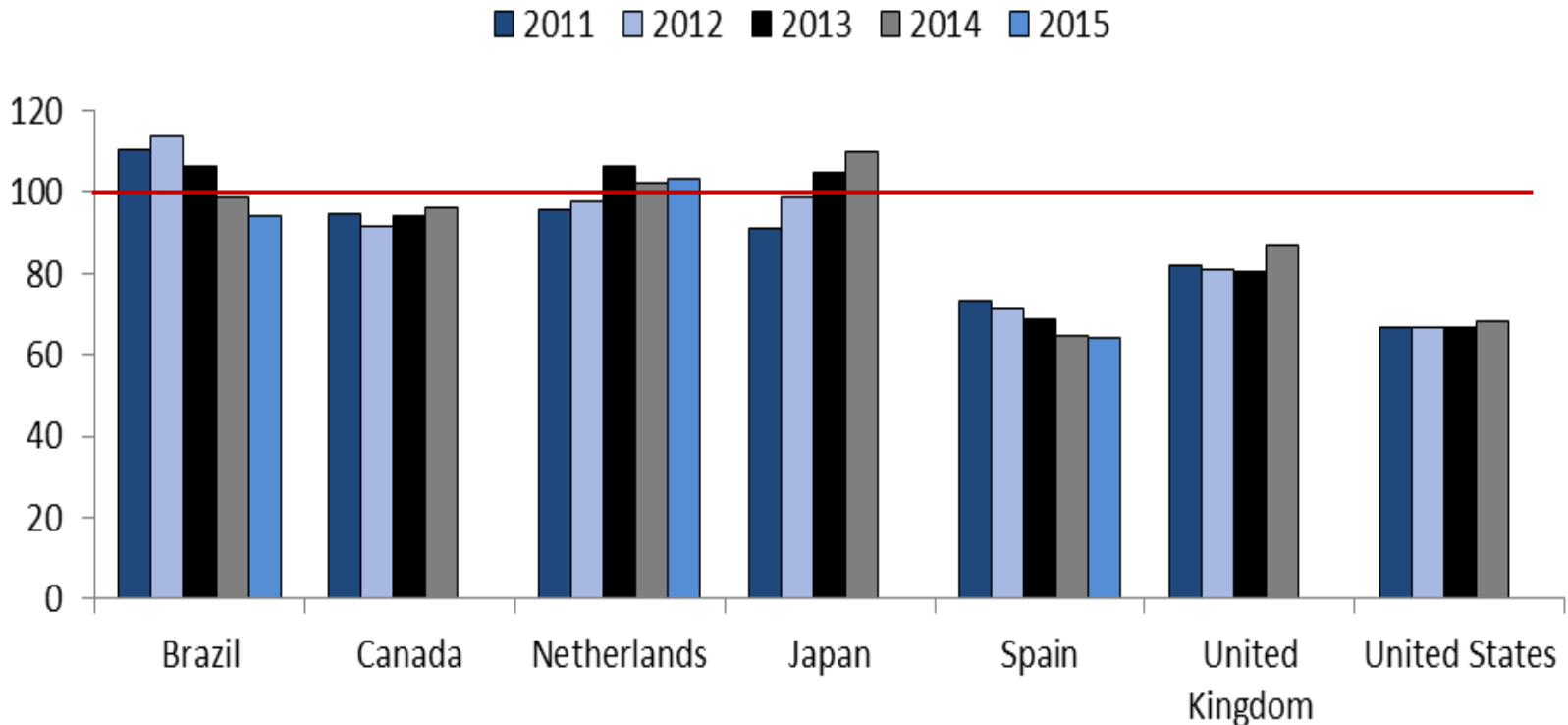
- Understanding investment preferences of institutional investors is important
- Trends in asset allocation: where are funds increasing allocations? Where are they decreasing allocations?
- Alternative investments – growth in allocations, particularly in private equity, real estate, and in some cases, infrastructure
- Co-investment, partnerships in infrastructure and SME finance
 - Also includes other areas such as private equity, real estate, and timberlands
- Insourcing and expense reduction – direct investment by the largest funds in infrastructure
- Credit opportunities – infrastructure lending
- Emerging markets – fund investment in equities, local currency debt markets, and sometimes alternative investments
- Green and social investments
 - Sustainable infrastructure, renewable energy, alignment with the UN Sustainable Development Goals
- Investment constraints



Pension funds face structural challenges

...Although growth has been strong, some pension markets face major structural challenges

Average funded status of select defined benefit pension funds in selected countries 2011-2015 (Assets as a percentage of liabilities)

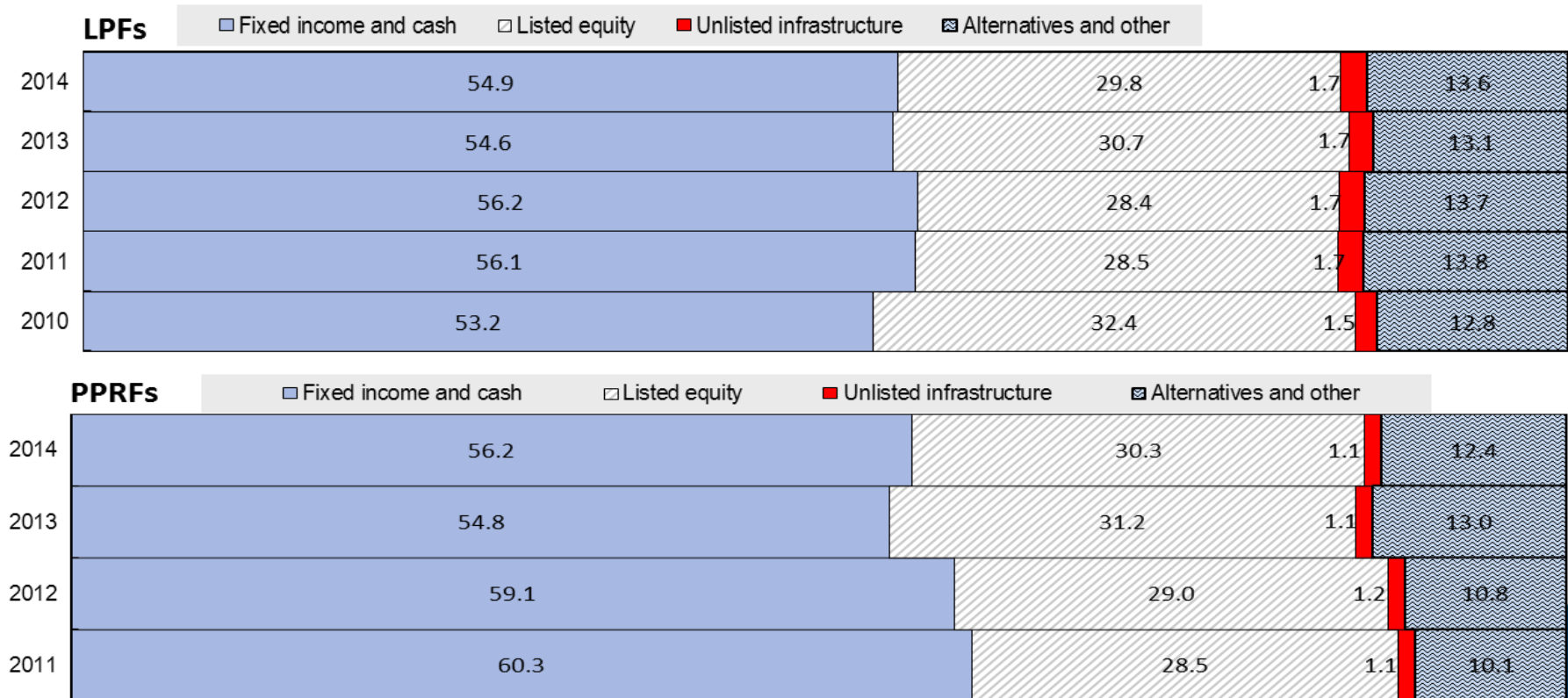


Source: OECD



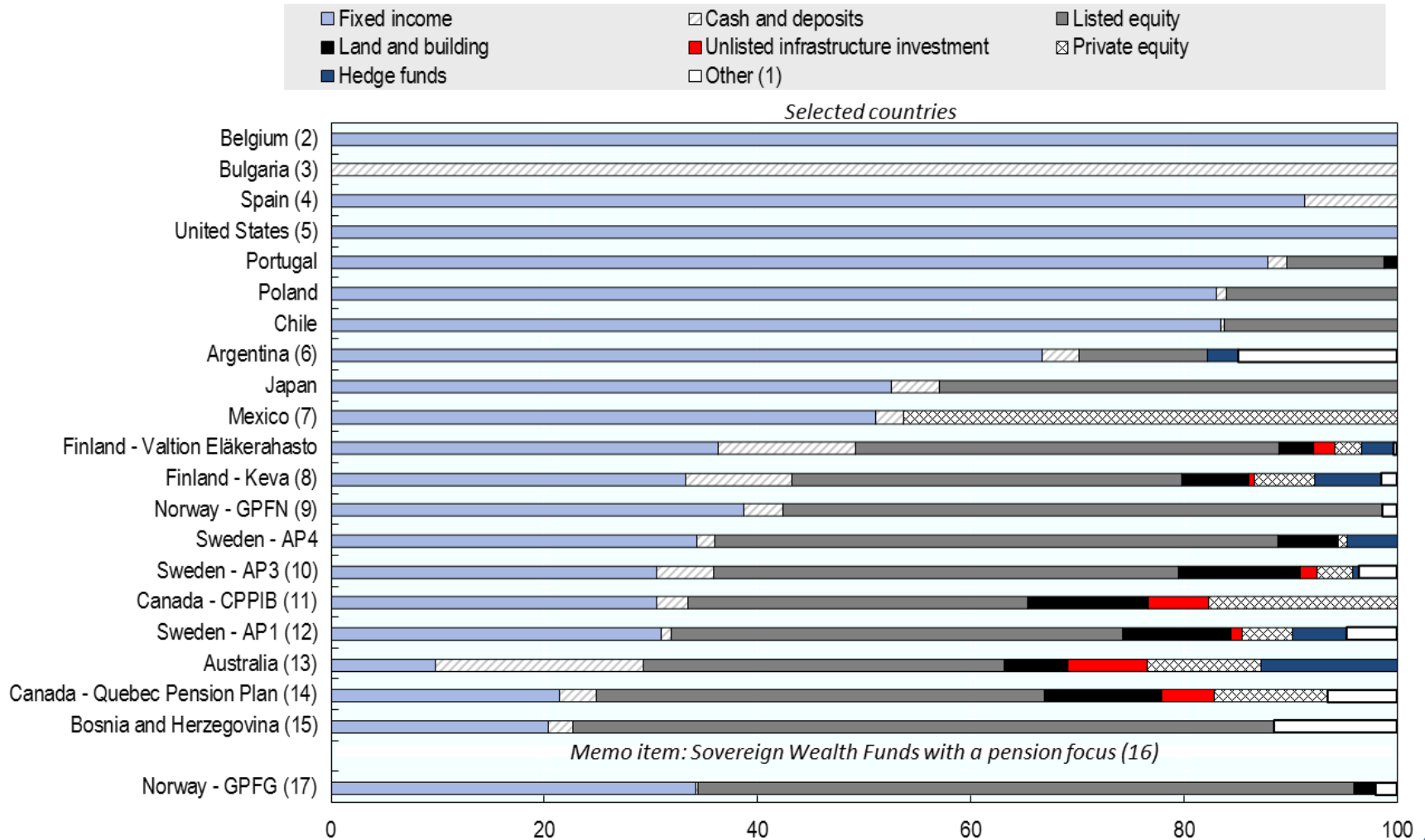
Trends in asset allocation

Historical average asset allocation of select Large Pension Funds (LPFs) and Public Pension Reserve Funds (PPRFs) 2010-2014 (As a percentage of total assets)



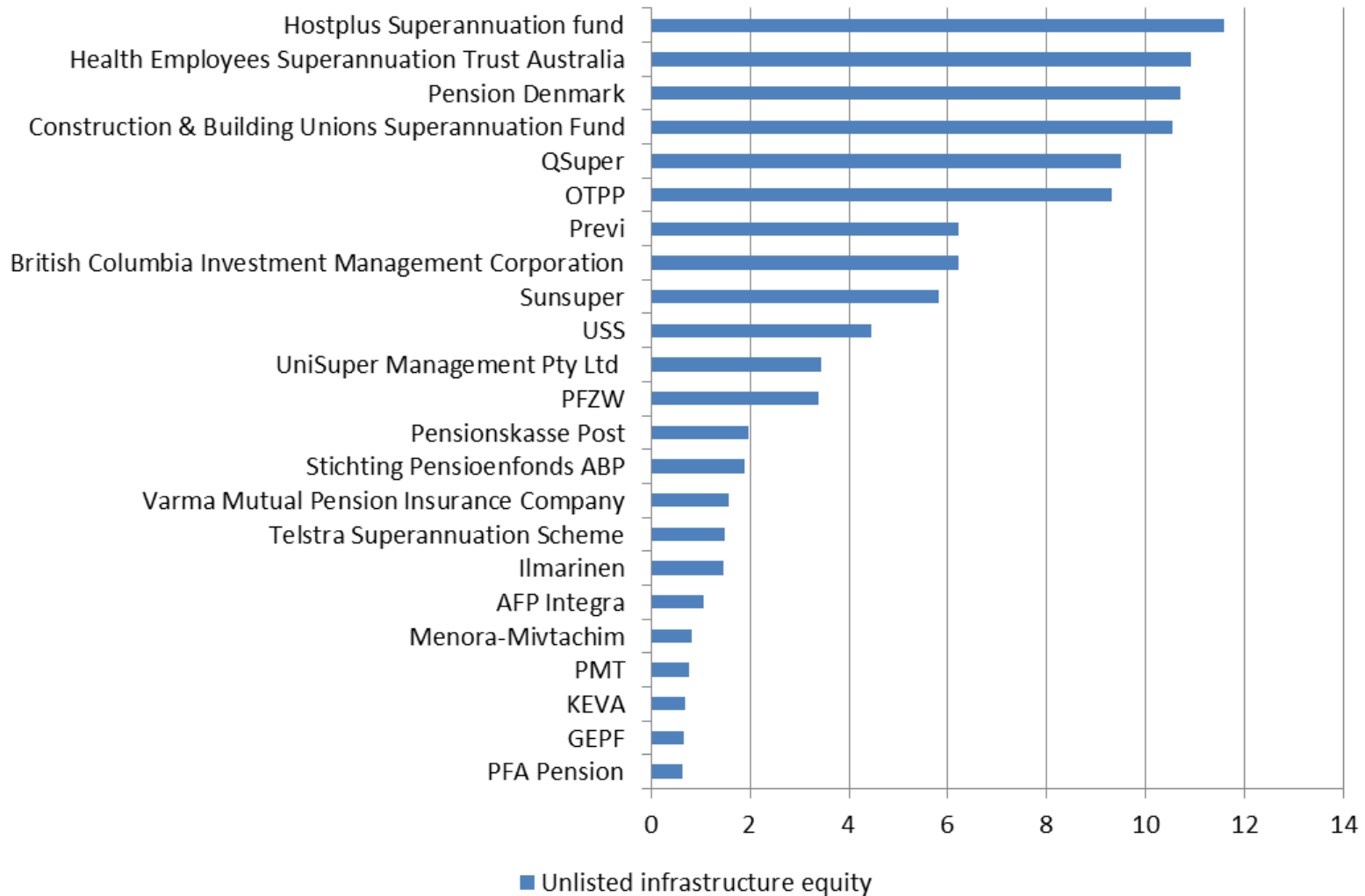


PPRFs – 2015 asset allocation, total survey population





2015 LPF – Unlisted infrastructure equity allocation, % total portfolio



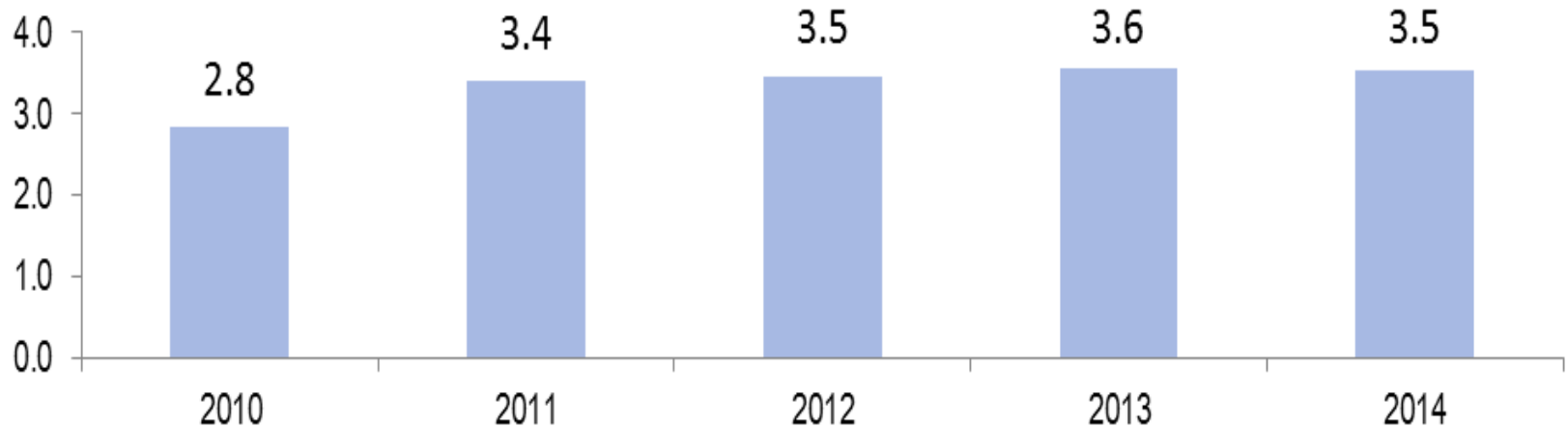


Trends in infrastructure investment

Limited investment in infrastructure, stable in the last years..

Historical unlisted infrastructure equity allocation of select Large Pension Funds (LPFs) and Public Pension Reserve Funds (PPRFs), 2010-2014 (1)

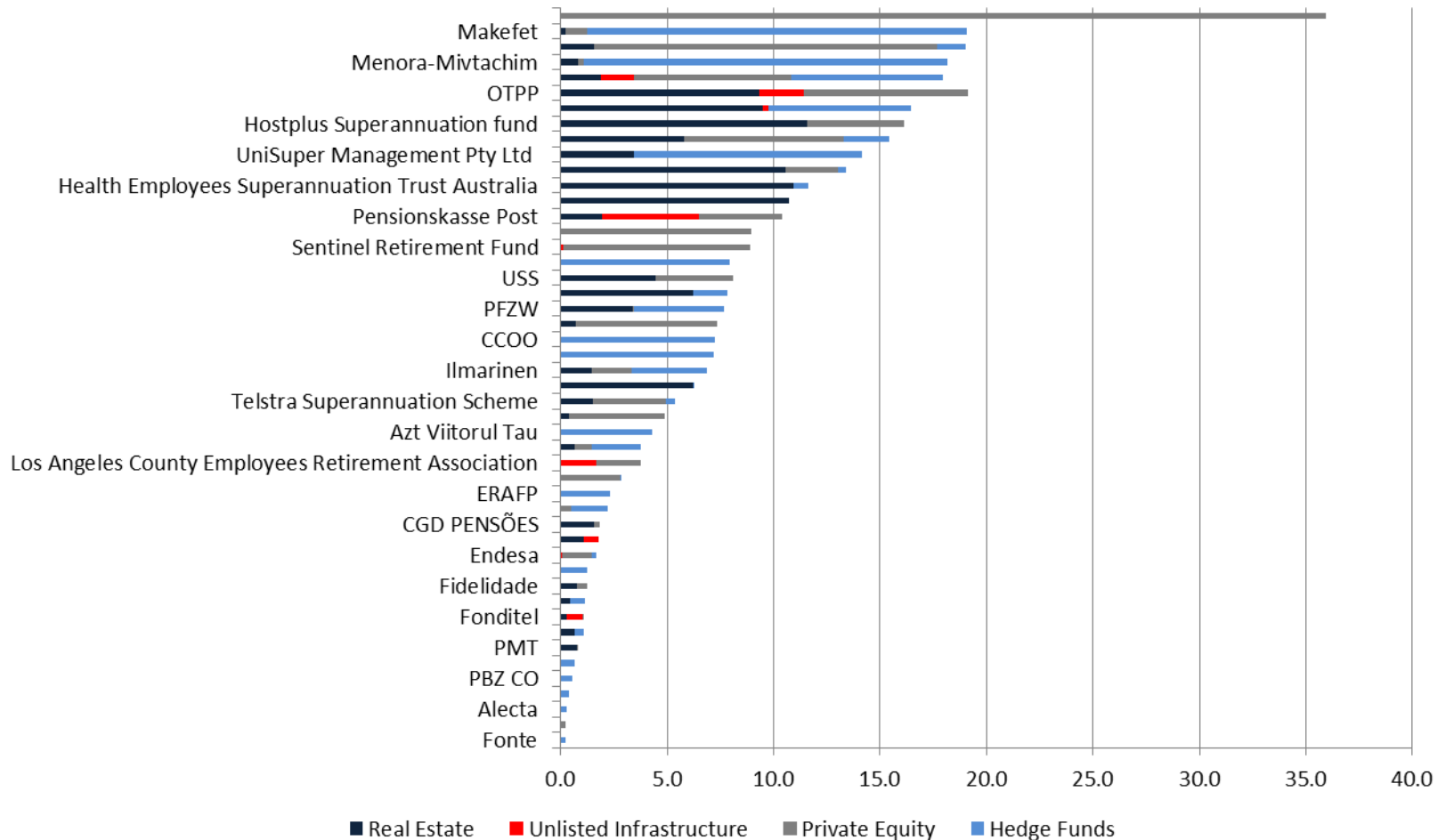
As a percentage of total assets



Source: OECD

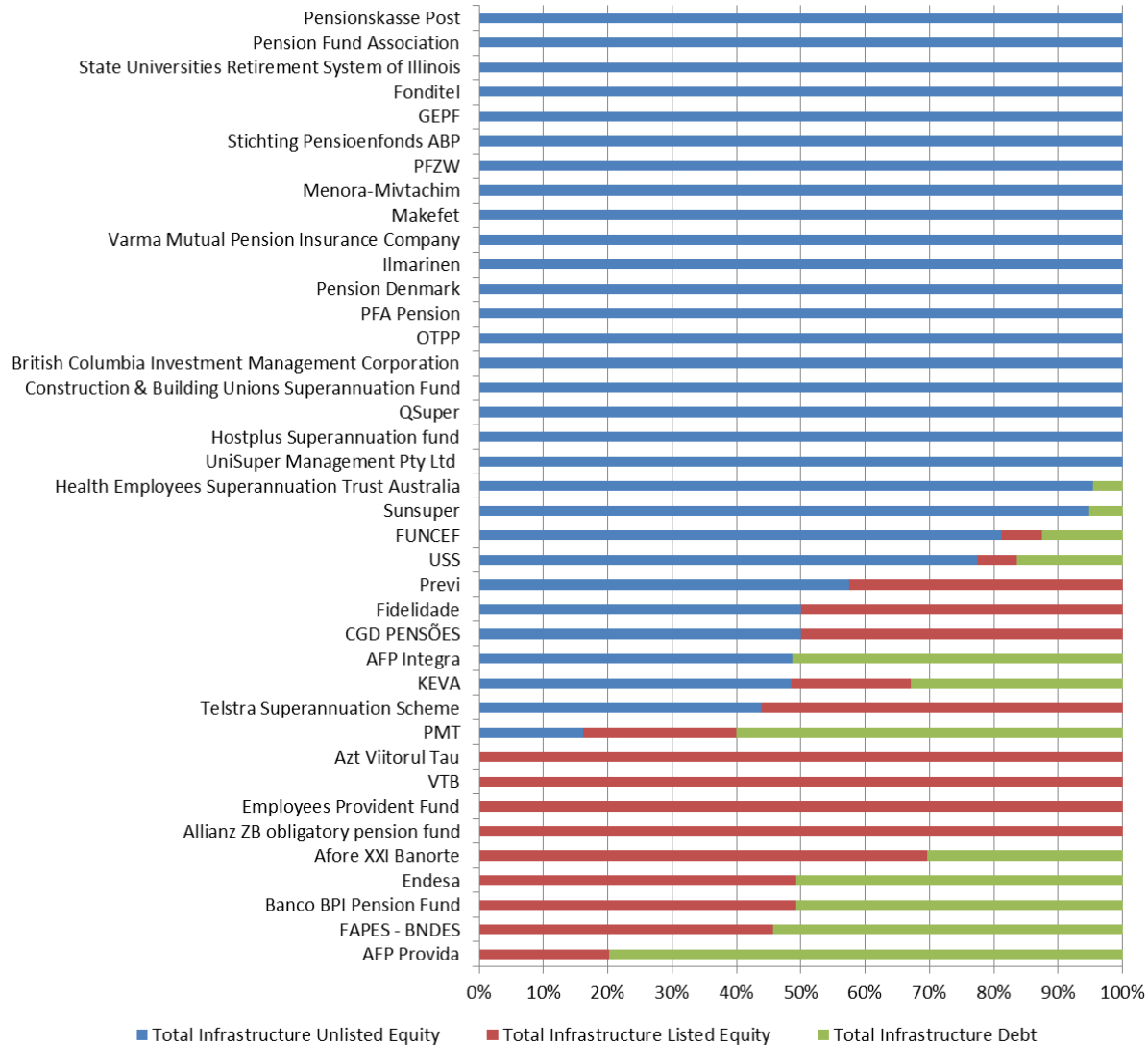


2015 Foreign allocation of alternative investments (% total portfolio)



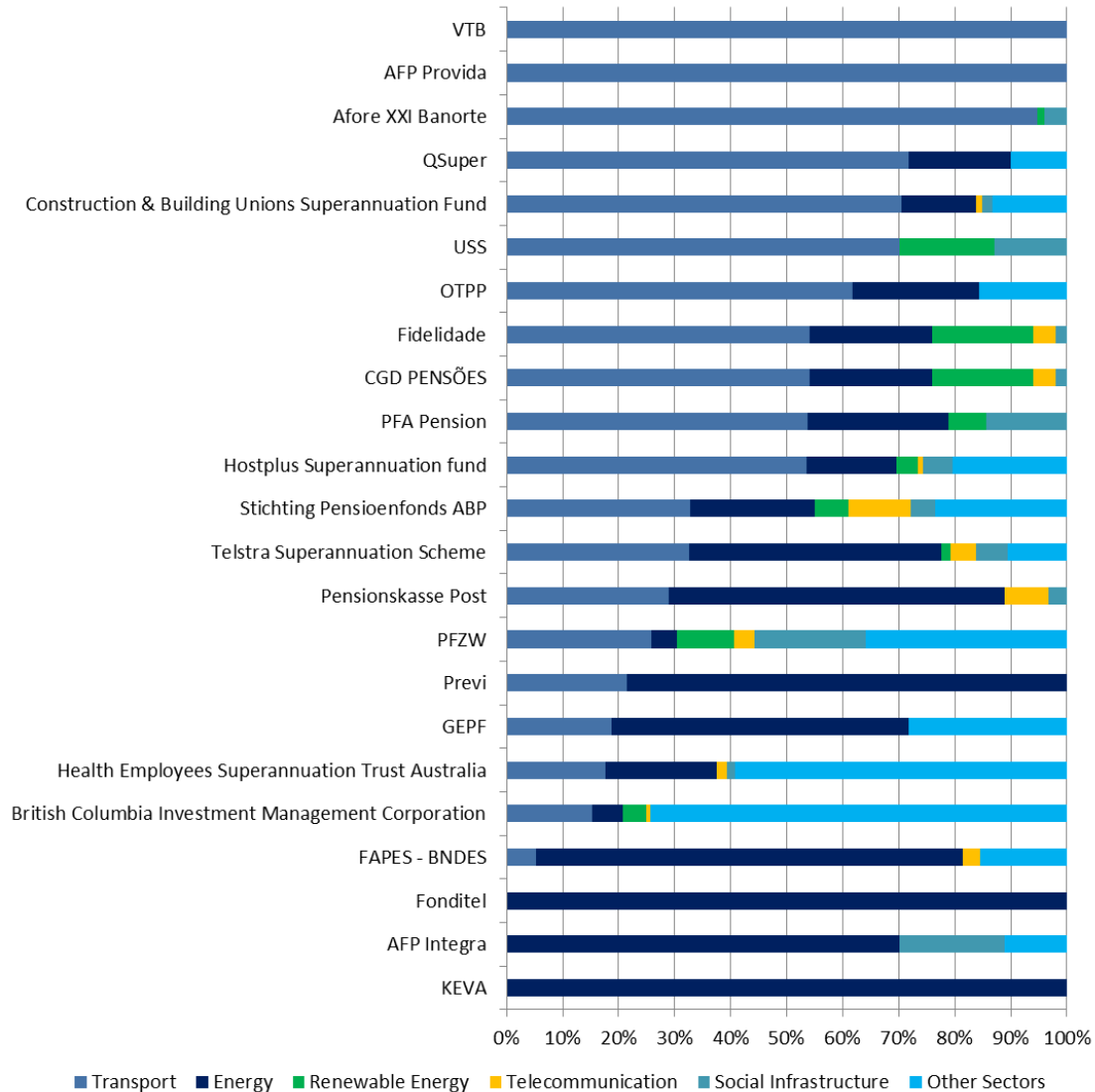


Infrastructure allocations by instrument (% total infrastructure allocation reported)





Infrastructure allocations by sector





INFRASTRUCTURE AS AN ASSET CLASS



Areas to address

- Principal/agent problems and asymmetric information
- Investment mandate ambiguity
 - The need to describe with strong empirical evidence the role of infrastructure investments in the portfolio
- Benchmarking and success metrics for infrastructure investment
 - Can include sustainability goals
- Legal and regulatory
 - Accounting standards, pension/insurance supervision, solvency, governance



Describing infrastructure as an asset class

- What are the common characteristics that differentiate infrastructure from other asset types?
 - Fundamentally, are the cash flows that infrastructure assets generate sufficiently different
 - Business activities or contractual arrangements that define the profile of future cash flows
 - Capital structure, leverage, regulatory environment, risk mitigation instruments, macroeconomics
- The need to describe with strong empirical evidence the role of infrastructure investments in the portfolio
 - Does infrastructure increase portfolio efficiency?
- Improving the quality and availability of information for investors to determine whether infrastructure makes sense as part of their long-term asset allocation
 - Benchmarking infrastructure investment
- Improve accessibility to information in order for investors to complete the due diligence process

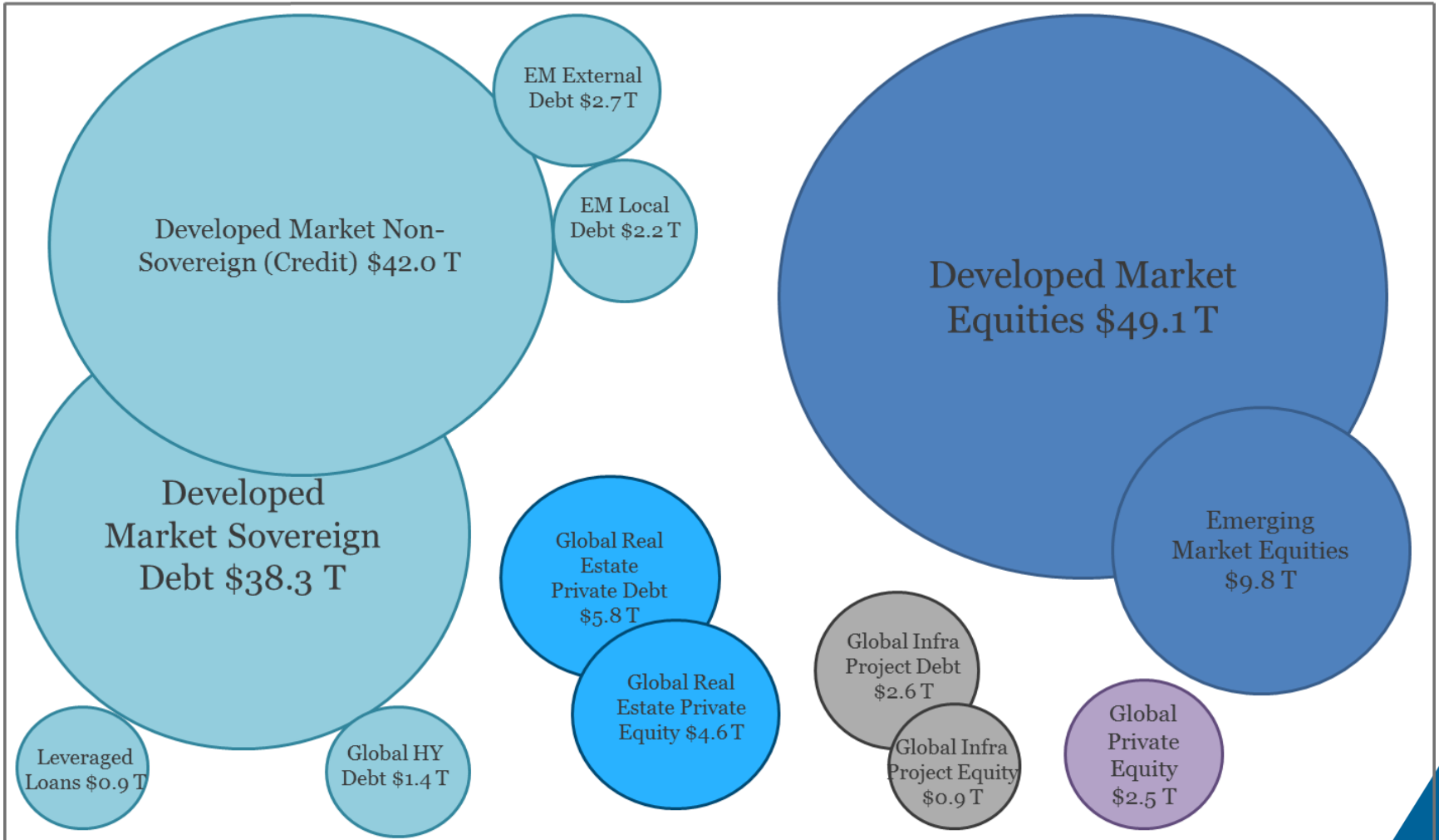


What is an asset class?

- A group of assets that have fundamental economic similarities that are distinct from other assets
 - Similar risk and return profiles, high correlation with each other
- Non-overlapping and mutually exclusive with other asset categories
- Sufficient market depth in order to foster diversification and competition
- Low correlation of a group of assets with the market is not enough to distinguish it as a separate asset class (e.g. a long/short equity hedge fund)
- May be subject to similar laws and regulations
- Access to information about the fundamentals of an asset class is crucial for investors to complete the due diligence process
- The note focuses on “capital assets” which would include infrastructure finance instruments
 - Assets that generate future cash flows that may be discounted to a net present value

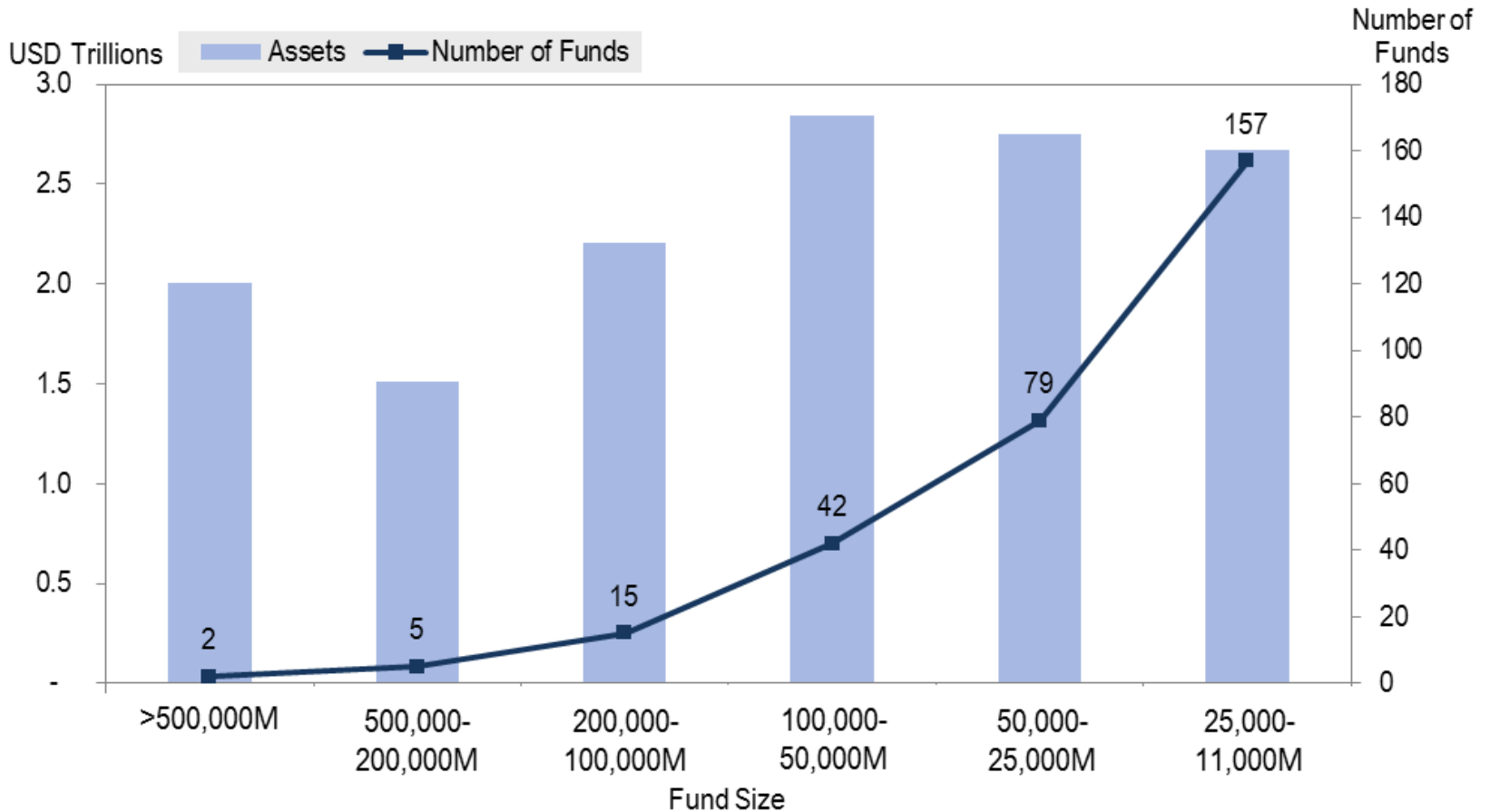


Global capital stock – The global market portfolio





Fragmentation of pension fund markets





Infrastructure as an Asset Class - Hypothesis

