ACTUARIAL SOCIETY OF SOUTH AFRICA

Quantifying Risk, Enabling Opportunity.

Infrastructure investment for Insurance companies

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Infrastructure Investment: An introduction

SAM & Solvency II definition

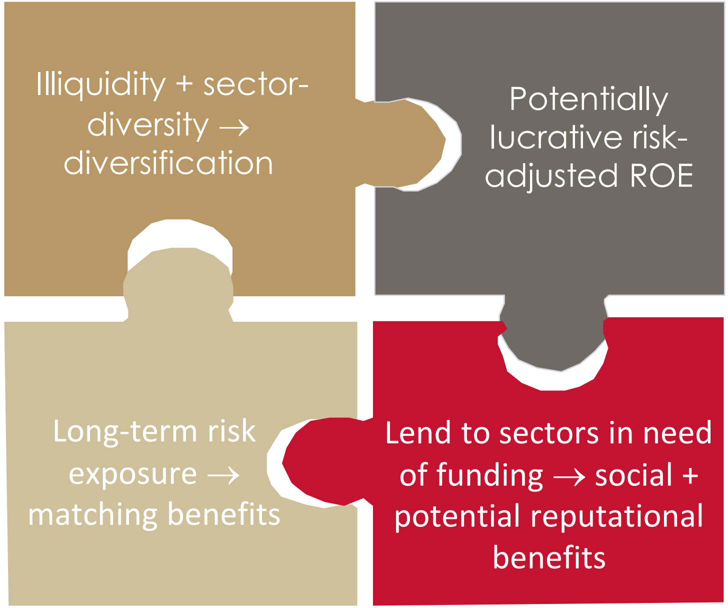
SII

Infrastructure refers to the fundamental facilities serving a country, city, or area, including the services and facilities necessary for its economy to function. Infrastructure assets includes physical assets, structures or facilities, systems and networks that provide or support essential public services.

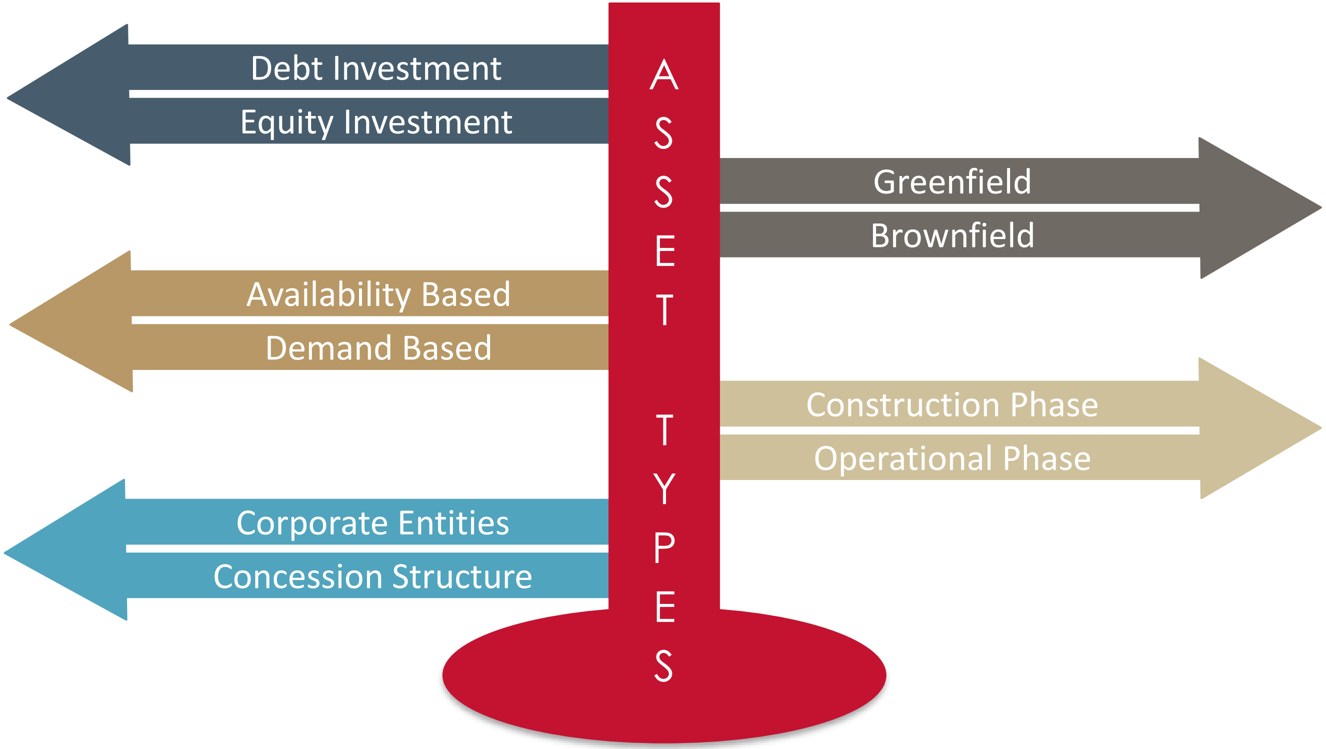
SAM

Infrastructure asset: The physical structures or facilities, systems and networks that provide or support essential public services subject to meeting the requirements set out in FSI 4.1
(Market Risk Capital Requirement).

Benefits



Infrastructure Investment: An introduction



Regulatory requirements

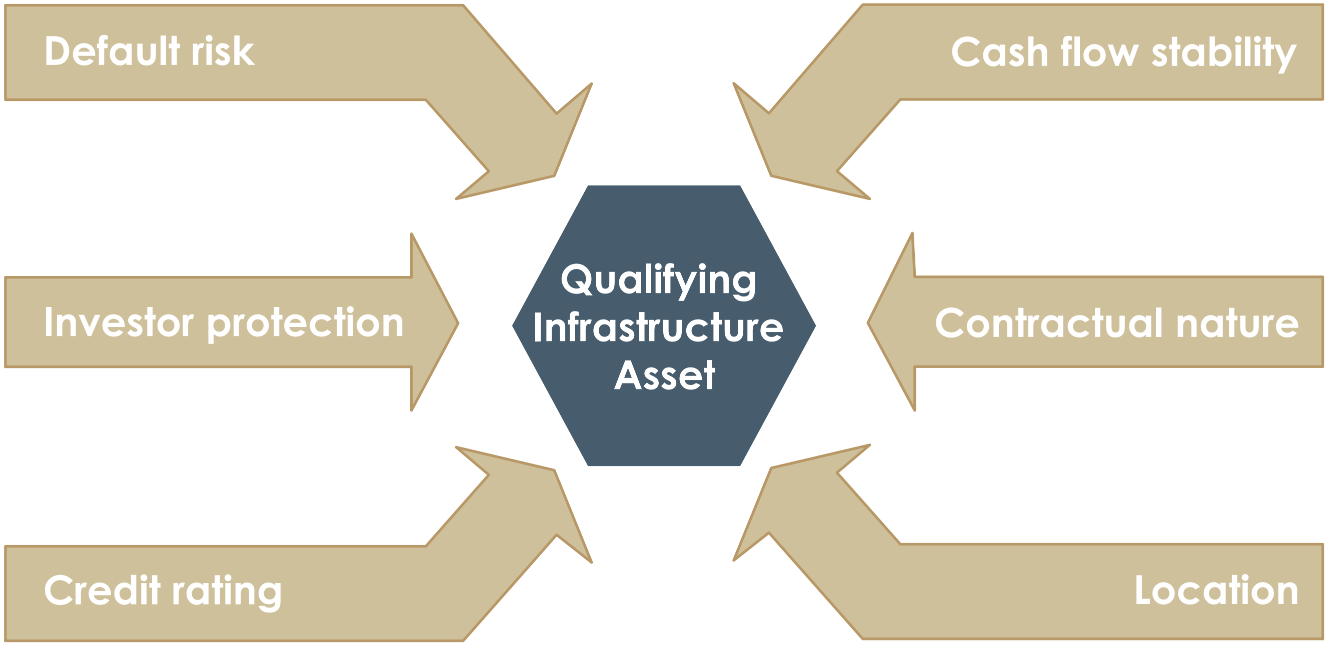
South Africa

- Recent amendments to Regulation 28
  - Explicit infrastructure investment definition
  - Update to asset class limits to encourage infrastructure investments
- Infrastructure assets defined under SAM
  - Infrastructure assets under SAM receive lower capital charges for spread and equity risk

Europe

- "Qualifying" infrastructure investments receive less punitive capital treatment
  - Requires demonstration of variety of characteristics to ensure particular infrastructure credit is appropriate
  - Roughly between 25% and 33% reduction in spread capital requirement for qualified infrastructure debt depending on specifics
- Insurers may have significant exposure to illiquid debt which often includes infrastructure credit exposure
- Use of matching adjustment under Solvency II also drives appetite for illiquid assets in portfolios backing annuities
- Private Public Partnerships (PPPs) commonly used for variety of public infrastructure transactions

Regulatory requirements: Qualifying criteria



Asset examples

Transport Networks

- Marine port terminals
- Toll roads
- Natural gas and crude oil pipelines

Energy Generation: Renewable and Oil & Gas

- Wind farms
- Solar power plants
- Natural gas processing facilities
- Crude oil refineries

Asset examples

Telecommunications

- Optic fibre
- Broadband services
- Fixed-line products (copper, co-axial, fibre) & mobile network coverage

Ancillary Infrastructure Services

- Airport ground support equipment services
- Car parks

Principal investment risks

Credit ratings

Risks for Infrastructure Investments

Sponsor risk

Infrastructure bond marketability risk

Optionality risk

Project risk

Supply chain default risk

Gearing risk

Corporate risk

Currency risk

Revenue risk

For an investor entering into an agreement **not** backed by a government guarantee is subject to the risk of being unable to meet its liabilities.

Operational risk

Operating risk

Environmental risk

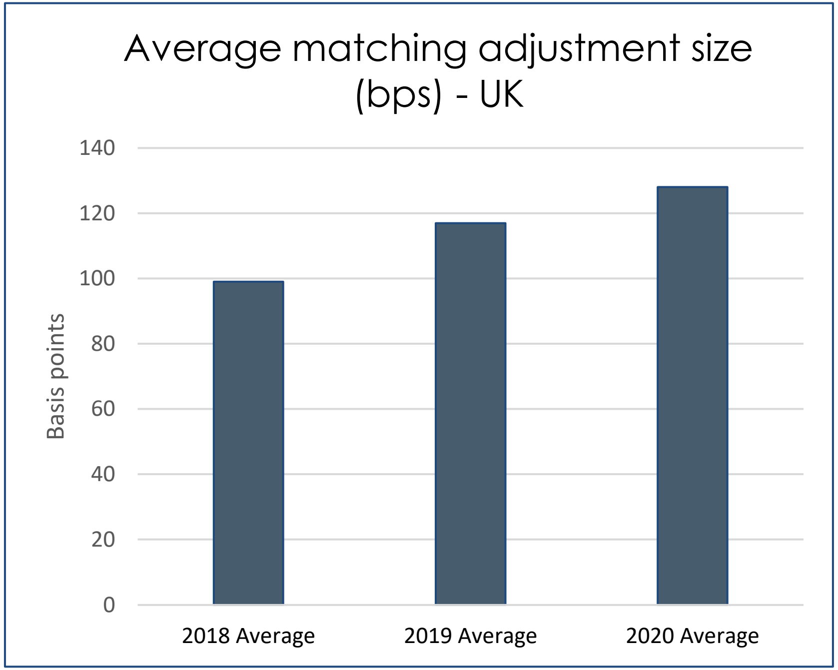
Regulatory, political and social risk

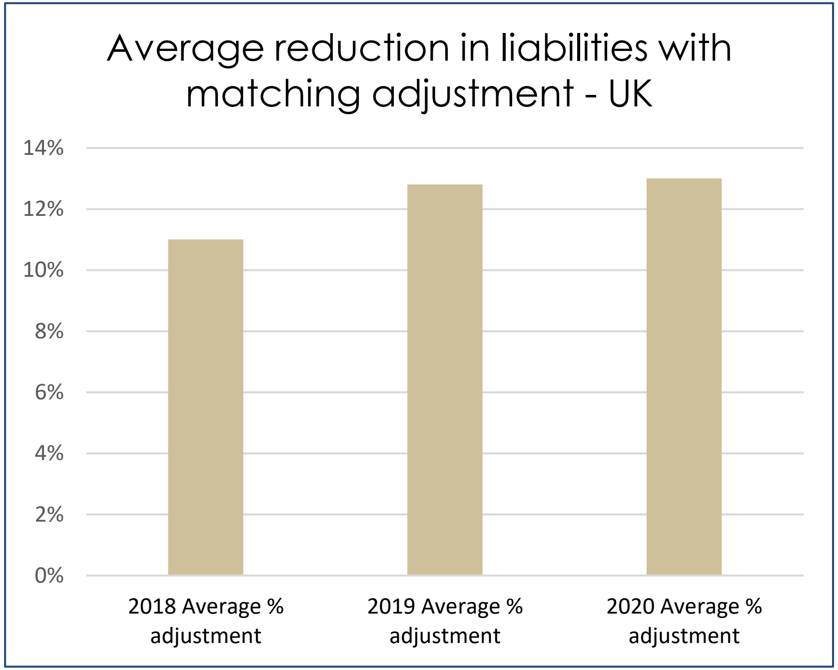
Movements in local government debt yields and local swap rates

Construction risk

Failure to finish construction on time, according to specifications and within budget, will pose a considerable risk to the investor.

Matching adjustment: Impacts on liabilities





COVID-19 impact on infrastructure investment: Poll Question

Which sectors out those listed below, do you believe will have the most negative impact due to COVID-19?

A. Telecommunications

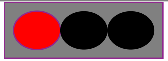
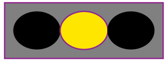
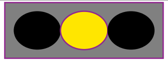
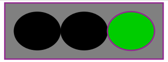
B. Hospitals

C. Defence

D. Transport

COVID-19 impact on infrastructure investment

- Financial markets more volatile
- Governments released large amounts of sovereign finance to address short-term issues.
- COVID-19 triggered a reshuffling of investment priorities for governments and investors globally
- Performance of infrastructure assets is likely to vary by sector, a few examples are listed below:

Infrastructure Sector	Level of impact
Transport	
Renewable energy	
Hospitals	
Defence	
Telecommunications