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Institute and Faculty of Actuaries

Solvency II: A Double Edged Sword For Infrastructure Investment?

Practical Solvency II For Life Actuaries, Institute And Faculty of Actuaries

Oliver Herbert
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Solvency II and Infrastructure

Drivers of infrastructure investment?

- **More than standard formula calibration**
- **More than matching adjustment**

Domain of the most sophisticated?

- **Approved internal models**

Could Solvency II promote a more disciplined approach to infrastructure investment?

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The Case For Infrastructure

A Funding Gap
- $3.4 trillion in total, $500 billion per year

Attractive Yield: Credit spread of 1% to 2%
- 4% to 5% yield from PFI bonds vs 3% yield from sovereign debt

Lower Annual Default Rate
- 1.5% for project finance debt vs 1.8% for corporate bonds

Higher Recovery Rate
- 75% for project finance debts vs 45% for corporate bonds

Diversification
- Low correlation with other asset classes

Liability Match
- Long term investment horizon

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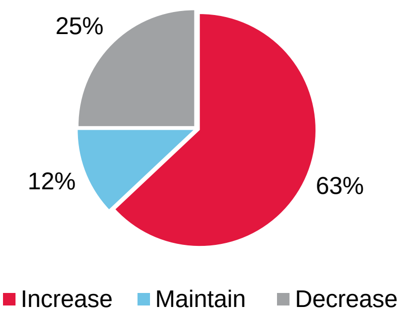
Investor Demand

Allocation to infrastructure over next 12 months



- **UK Insurance Growth Action Plan: £25 billion**
- **AXA: €10 billion**
- **AG Insurance: €3 billion**
- **CNP Assurances: €2 billion**

Source: Preqin Investor Outlook Alternative Investments H1 2014

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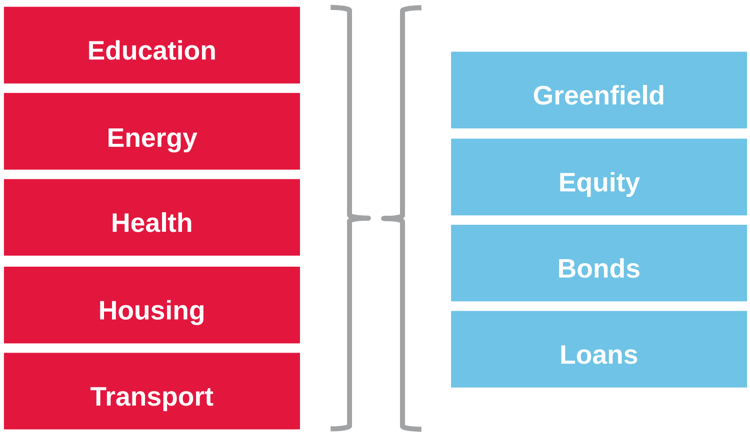
What Is Infrastructure Investment?

“heterogeneous and relatively new asset class”, EIOPA



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Standard Model Calibration

No tailored charges for infrastructure investments

- **Function of whether listed/unlisted/equity/loan**

Implications:

- **Not treated as a distinct asset class**
- **No specific diversification benefit**
- **Does not account for specific default and recovery prospects**

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Matching Adjustment

"What is important from the PRA's perspective is that a firm holds sufficient capital against the risks of its investments and that has

- **the right expertise**
- **information and;**
- **systems**

to be able to manage the risks of those investments both at the underwriting stage and in its subsequent monitoring of the exposure."

Andrew Bulley, Director of Life Insurance, Bank of England

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Not For The Faint Hearted

Regulatory and political risks	Construction risk	Liquidity risk
Hard to benchmark and value	Lack of industry data	Lack of knowledge and experience

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Conclusion

Tempting, but not straight forward asset class

- **Potential to increase yields**
- **Potential to reduce asset-liability mismatches**

Necessary expertise likely to be limited to a few

Availability of suitable projects

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Thank You

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S&P's Related Research

Investing In Infrastructure: Are Insurers Ready To Fill The Funding Gap?, July 7, 2014

Solvency II Could Be A Double-Edged Sword For Infrastructure Investment, July 7, 2014

Global Infrastructure: How To Fill A $500 Billion Hole, January 16, 2014

How To Unlock Long-Term Investment In EMEA Infrastructure, October 4, 2013

Project Finance Default And Recovery: Shale Gas Fuels Rise in U.S. Defaults, August 9, 2013

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