Professional Investors only – Confidential, not for public distribution

Battle of the Asset Classes
IIIS 2016 - Infrastructure Debt

BNPP Capital Partners & Orion Partners

November 2016

AIDF

The Scene of the Battle - Investment Climate since 2009

Low interest rates

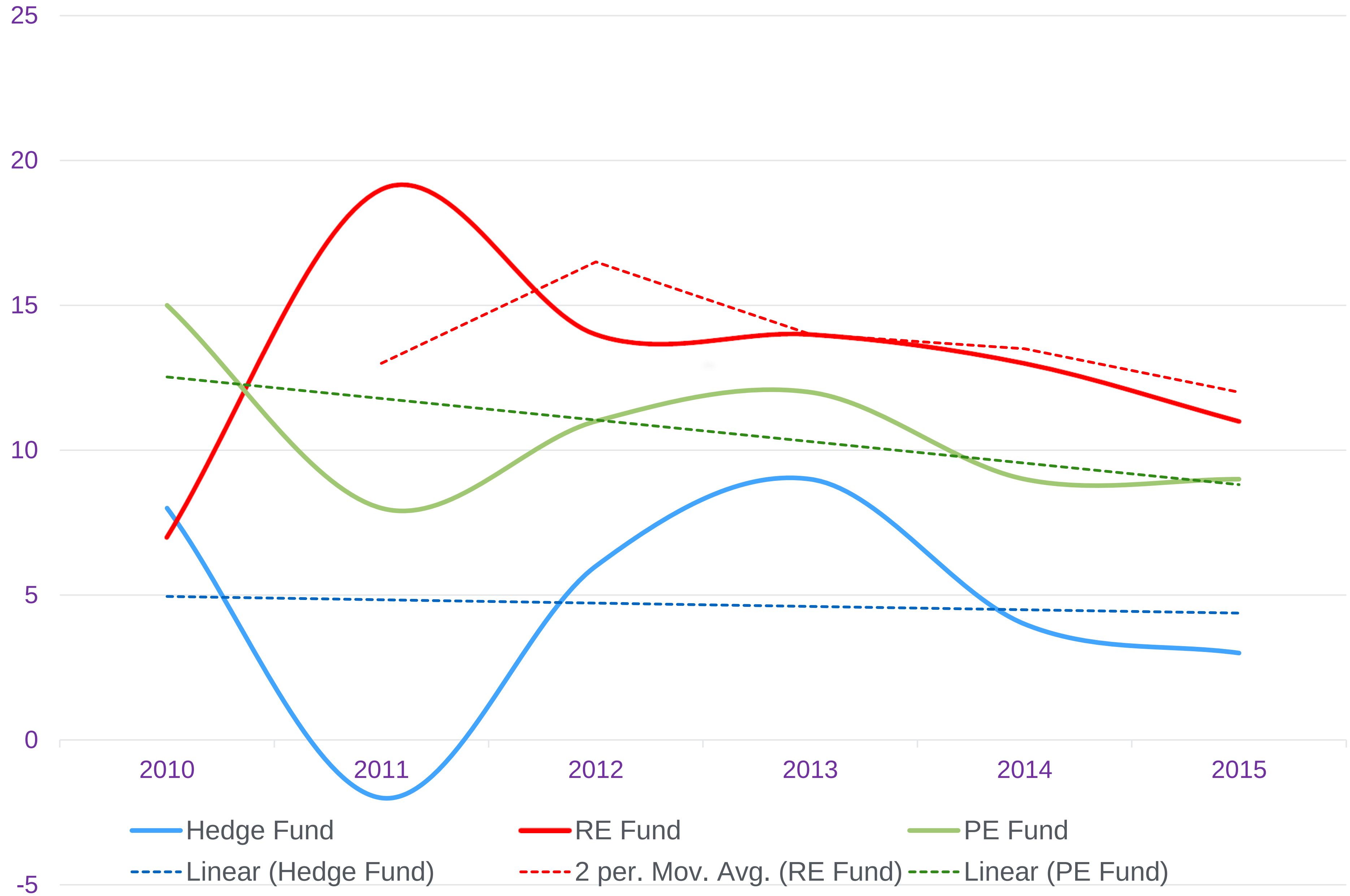
Low growth

Quantitative Easing

Substantial liquidity seeking yield

- Piling into all asset classes
- Resulted in a market where the risk premium is negligible or unbearable

Impact on Returns of Asset Classes



Source:
Barclays Hedge Fund Index Historical Data
PreqinReal Estate Online
Pitchbook U.S

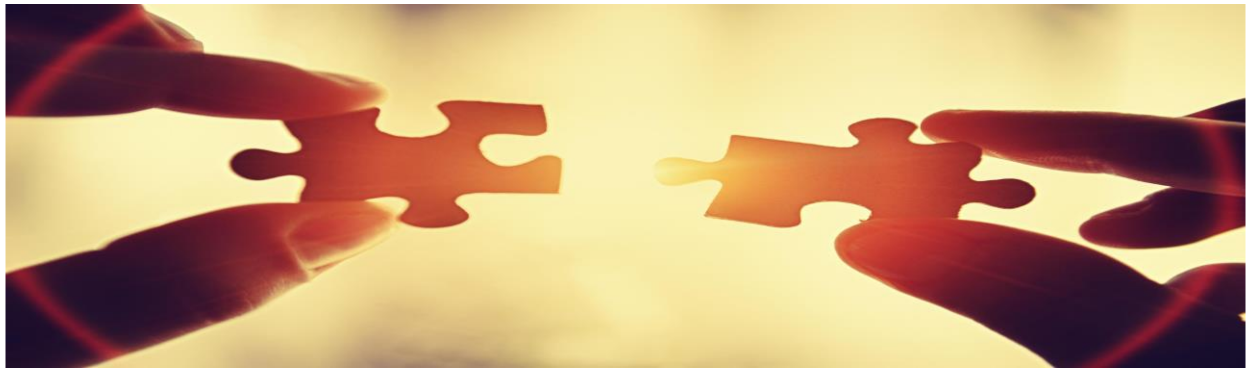
Looking forward

- Average returns on equities will decline by 150 to 400 basis points
- The gap in fixed income could be even wider, with long term returns between 300 to 500 basis points lower
- Institutional and retail investors will face ever-widening gaps in meeting their liabilities
- A classic 40/60 portfolio leaves pension funds with a gap of 2.9 to 5.2%

Source: McKinsey & Company, November 2016

Solutions

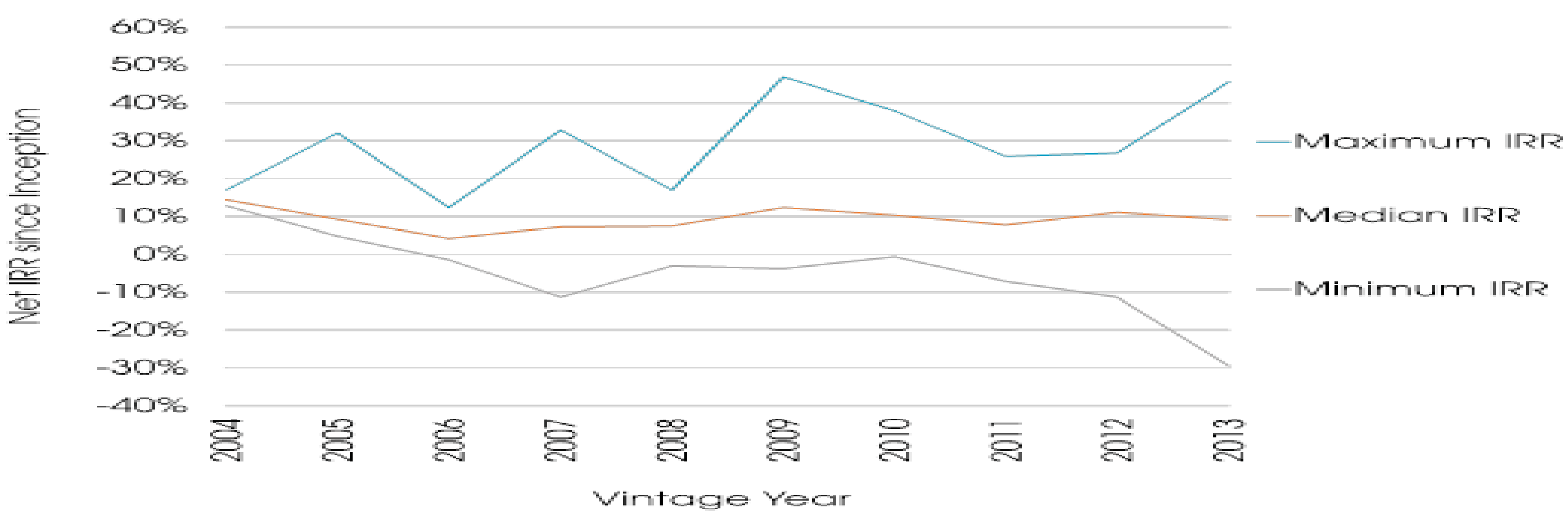
- Real assets, such as Infrastructure, represent an especially large growth opportunity
- Robust demand for illiquid private market segments is picking up
- Infrastructure in particular represent a distinct opportunity for growth, given the confluence of real world needs and investor demand
- Infrastructure represent a robust growth opportunity, as many institutional investors are hungry for yield but below target allocations
- Target allocations to Infrastructure are on average increasing 50% next year



Source: McKinsey & Company, November 2016

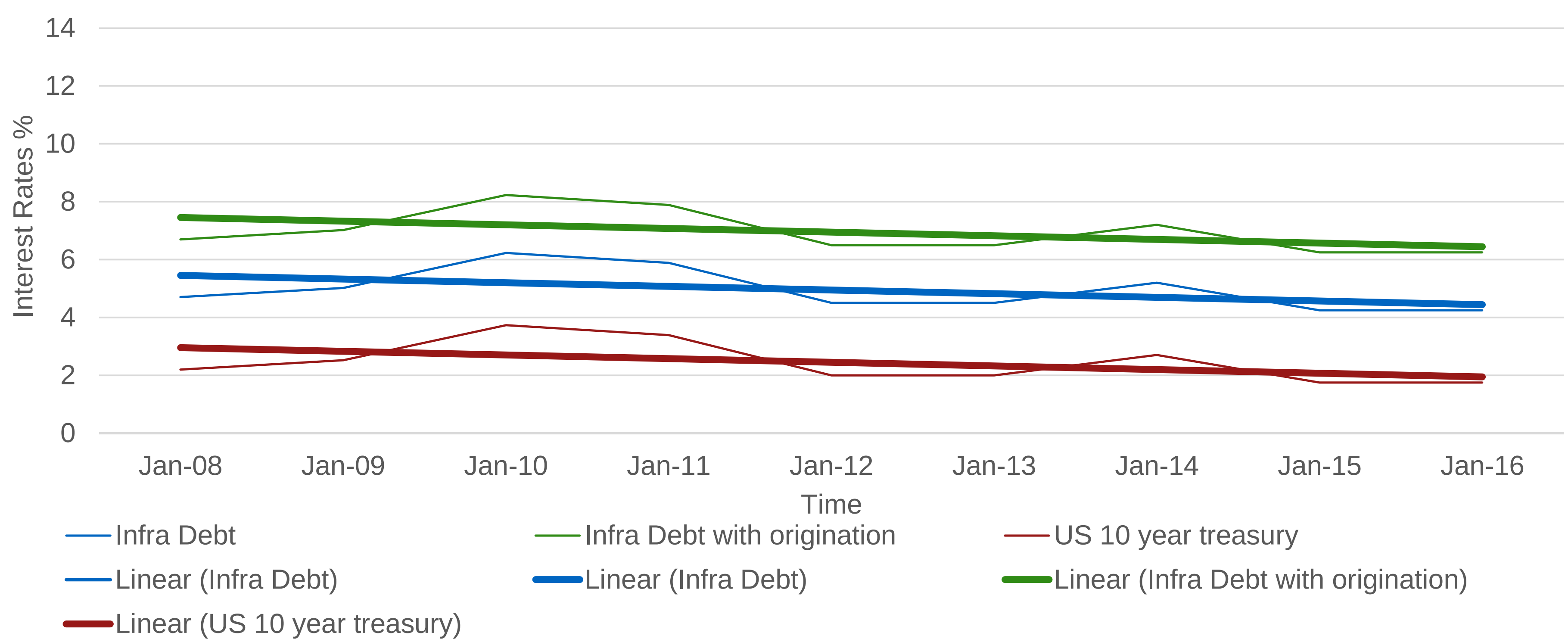
Infra Equity and Debt

Infra Equity



Source: Preqin Infrastructure Online

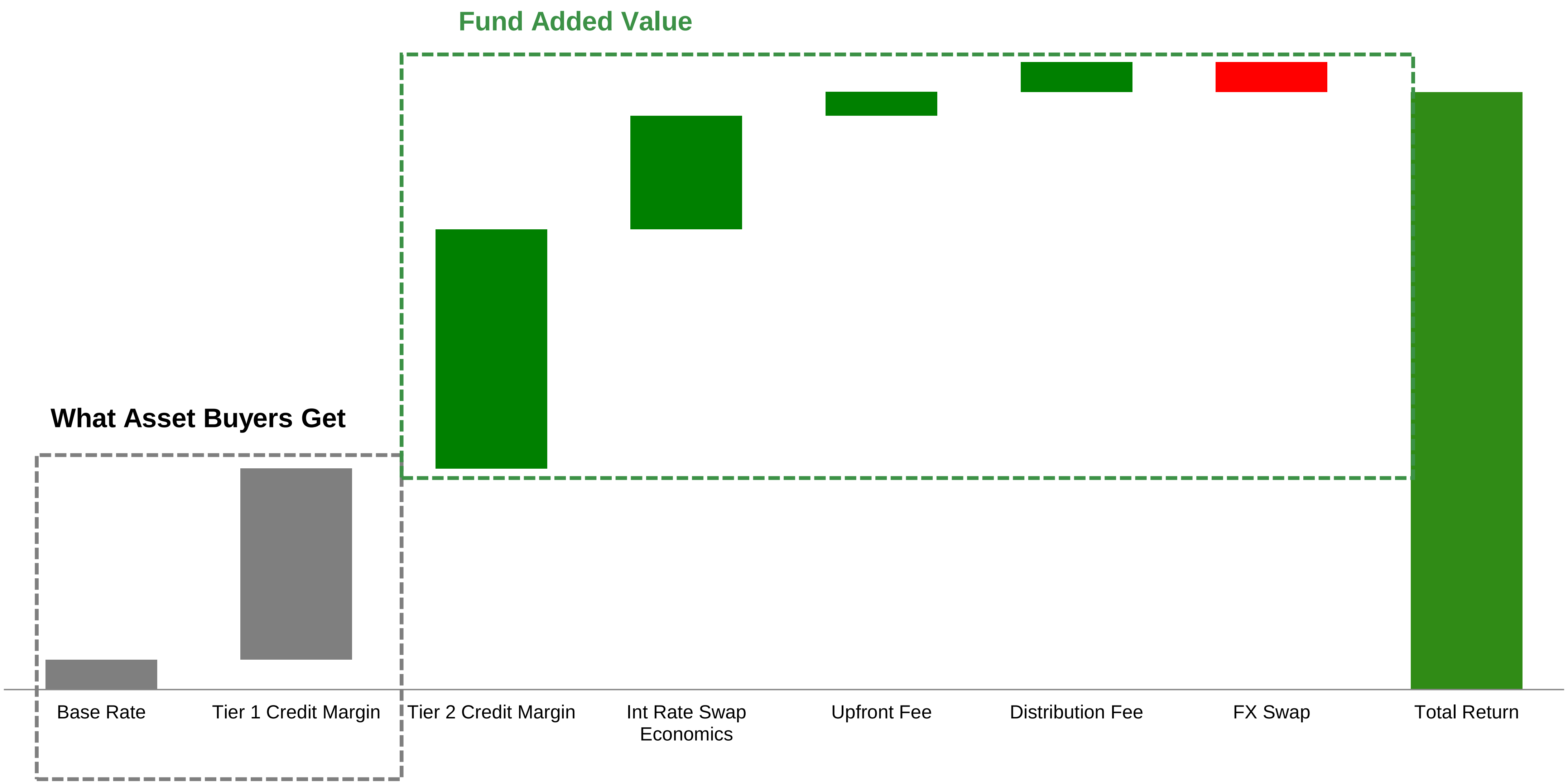
Infra Debt



Source:
Orion Partners

Origination Drives Enhanced Yields

Debt Fund returns enhanced by origination fees, swap economics and selective credits



Source: Orion Partners, September 2016

Infrastructure Debt as an Asset Class

What is Infrastructure

Moody's definition

"Strategically important capital intensive assets, utilities, services and primary industries, fulfilling major economical and social needs. Typically characterized by robust or inelastic demand which underpins predictable and resilient long-term revenues."

Power	**Transport**	**Oil & Gas**
Petro-chemical	**Telco**	**Water**
Social Services	**Mining**	**Defense**

Source: www.moodys.com, August 2016

Why Infrastructure

Global infrastructure spending will grow dramatically and governments are increasingly looking to the private sector for investment

Diversification

Low Correlation to Other Asset Classes

- Monopoly rents
- Critical assets

Risk / Return

Investment Grade Yields

- Excellent risk statistics
- Capital preservation
- Enhanced yields
- Stable current income

Duration Match

Long-Dated Assets

- Long asset lives
- Long concessions
- Lower volatility and mark-to-market exposure
- Solvency II recognition

Key Characteristics of Infrastructure Debt

Financing critical services to government and the population

- **Long dated assets**
- **Attractive risk returns**
- **Stable cash yields**

- Normally tied to a single project
- Heavily influenced by government policy
- Large assets and significant capital costs
- Natural monopoly, duopolies
- Diversification – across sectors, countries
- Non-correlated to macro conditions
- Long asset lives

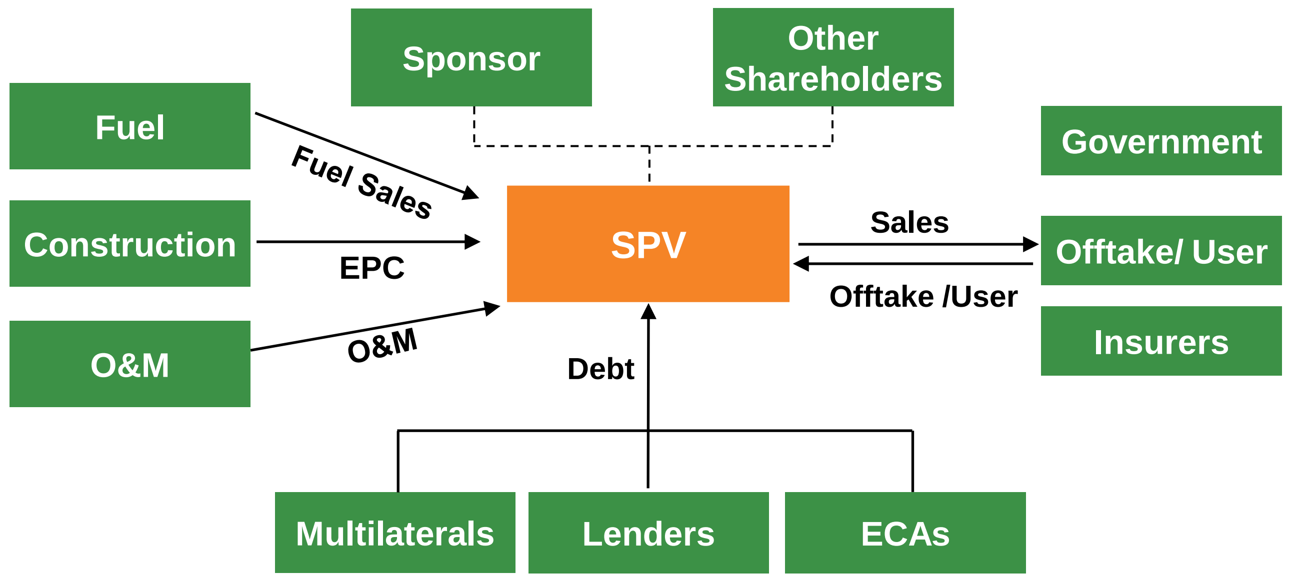
Proven Financing Structures

Robust documentation leads to enhanced credit quality

Security

- "Ring-fenced' security over contracts, assets, accounts
- Guarantees/undertakings from sponsors, contractors and off-takers
- Seniority in the cash flow cascade – priority payment
- Loan tenors less than concession and asset life

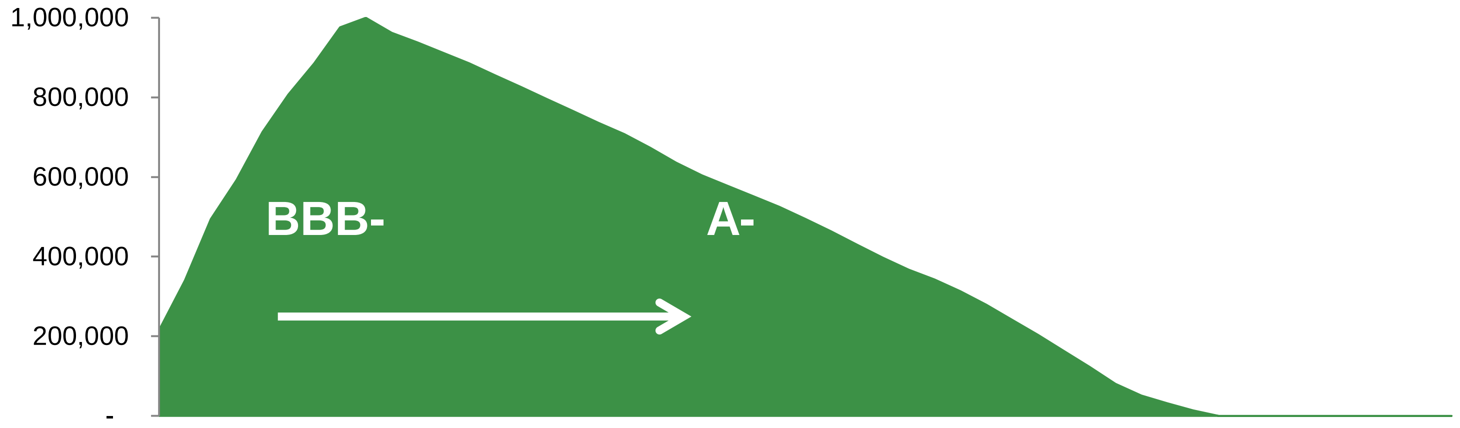
Contractual Undertakings from Multiple Counterparties



Proven Credit Quality*

- Generally BBB- rated at close of financing*
- Often rising to A- by year 5-7
- Natural exit plan through repayment
- >50 years of precedent and development
- Extensive due diligence and scenario analysis
- Robust documentation; forward looking covenants

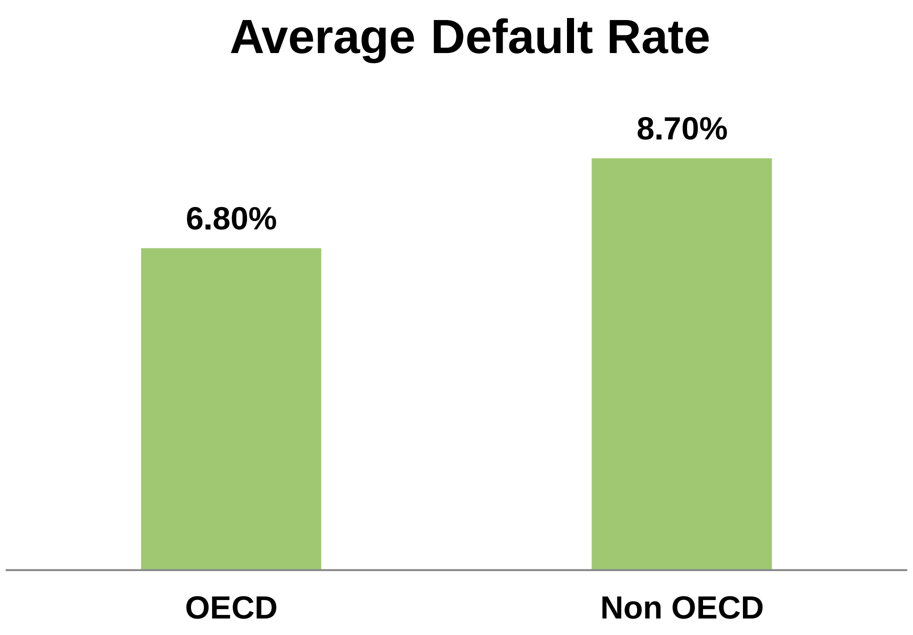
Typical Debt Repayment Profile

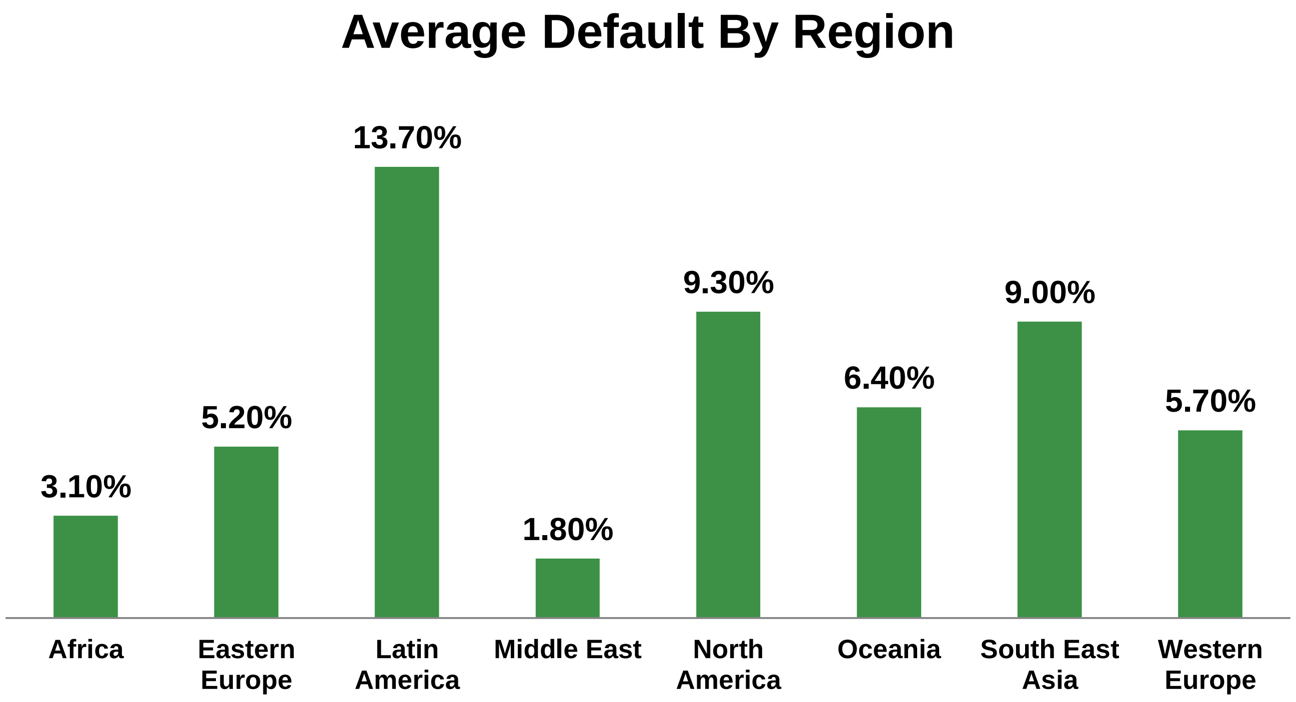


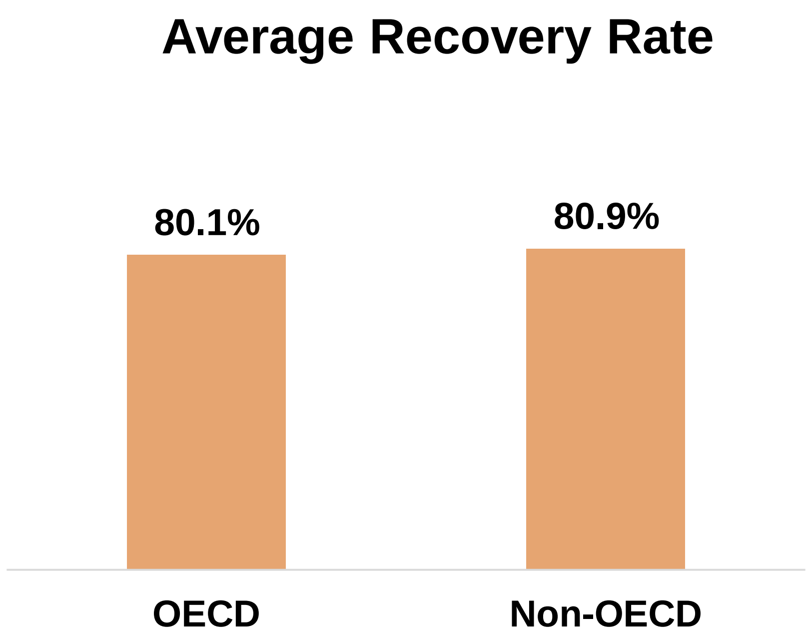
Source: Orion Partners Research, 2016

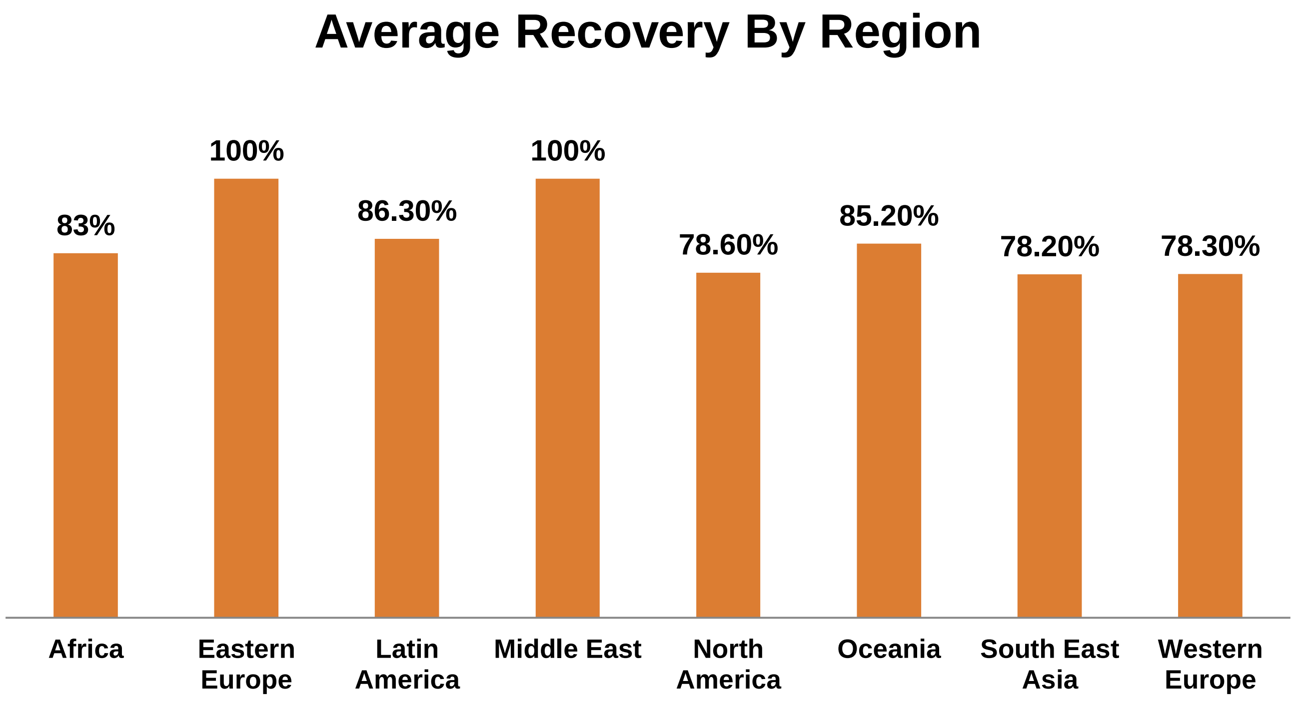
** Based on our internal private rating system*

Favorable Credit Statistics in Asia-Pacific









Source: Moody's, Default and recovery rates for project finance bank loans 1983-2014, 2016

An Enormous Market

$57tn

Forecast Aggregate Global Infrastructure Spending

Source: McKinsey Global Institute estimate 2013 to 2030, 2013

$30tn+

Forecast Aggregate Global Infrastructure Debt

Source: PFIe online and Orion Partners analysis – 2015 to 2030, 2016

Many Providers But…

…a "funding gap" has been created by Basel III with a shift away from long-term lending and project finance by global commercial banks

Agency	Promoting	Institutions	Lending Criteria	Trend
Banks	• Commercial lending terms	OCBC, MIZUHO, KfW Bankengruppe, ING, BBVA, MUFG, SMBC, ICBC, 中国建设银行 China Construction Bank, 中国工商银行, 中国银行 Bank of China, NATIXIS, Crédit Agricole, BNP Paribas, HSBC, UniCredit Group, NAIB Bank	• Credit profile selection based on country, sector, and risk allocation • Relationship-driven lending (total return)	
Export Credit Agencies	• National exports	JBIC, 中国进出口银行 The Export-Import Bank of China, EXIM Bank Malaysia, CESCE, ONDD, Korea Eximbank, EKF, FINNVERA, Euler Hermes, Česká Exportní Banka, EDC, coface, ECGD, SINOSURE, OeKB, Korea Export Insurance Corporation, EGAP, NEXI	• Up to 85% of the amount of export goods and services • Up to 15% of the export contract value in local costs • Other OECD consensus rules	
Multi-Lateral Agencies	• Development • Global • Regional	AIIB Asian Infrastructure Investment Bank, IFC, MIGA, ADB Asian Development Bank, OPIC, European Bank for Reconstruction and Development	• Case-by-case, dependent on transaction (e.g.: shareholding and other nexus)	
Institutional Investors	• Allocations • Commercial terms	Babson Capital Management LLC, Prudential, KDB KIAMCO, AMP, Manulife, MetLife, AXA, Allianz, Westbourne Capital	• Typically long dated investment grade • Lack of exposure to Asia historically	

Battle Assessment: Infra Debt needs to be in your portfolio

	Volatility	Correlation	Cash Yield	Liability matching	Capital Preservation
Real Estate	○	○	●	●	○
Private Equity	○	○	○	○	○
Hedge Fund	○	○	○	○	○
INFRA Debt	●	●	●	●	●

Conclusion

- Given the new return environment, you can't afford large losses in a low-return environment given asymmetry of risk
- Quantitative measure of quality is clear – infrastructure debt is rated.
- Infra Debt needs to be part of your portfolio allocation to hedge market volatility to correlated assets and preserve capital.
- Battle of the Asset Classes Winner – Infrastructure Debt

Disclaimer

- This document is issued and approved for publication in Malaysia by BNP Paribas Investment Partners Malaysia Sdn. Bhd. (BNPP IP Malaysia)*, a member of BNP Paribas Investment Partners (BNPP IP)**. This document is produced for information purposes only and does not constitute: an offer to buy nor a solicitation to sell, nor shall it form the basis of or be relied upon in connection with any contract or commitment whatsoever; or be taken as investment advice.

- Any opinions included in this document constitute the judgement of BNPP IP Malaysia or its relevant BNPP IP affiliate(s) at the time specified and may be subject to change without notice. Such opinions are not to be relied upon as authoritative or taken in substitution for the exercise of judgement by any recipient and are not intended to provide the sole basis of evaluation of any strategy or instrument discussed herein. The contents of this presentation are based upon sources of information believed to be reliable, but no warranty or declaration, either explicit or implicit, is given as to their accuracy or completeness.

- Any reference to past performance of any market or instrument should not be taken as an indication of future performance. Neither BNPP IP Malaysia nor any BNP Paribas Group company accepts any liability whatsoever for any loss arising, whether direct or indirect, from the use of any part of such information. A BNP Paribas Group company may, to the extent permitted by law, have acted upon or used the information contained herein, or where relevant the research or analysis on which it was based, before its publication. This document is for the use of the intended recipients only and may not be delivered or transmitted to any other person without the prior written consent of BNPP IP Malaysia. Furthermore, any translation, adaptation or total or partial reproduction of this document, by any process whatsoever, in any country whatsoever, is prohibited unless BNPP IP Malaysia has given its prior written consent.

- For further information, please contact BNPP IP Malaysia.

- **BNPP IP Malaysia is an investment manager holding a Capital Markets Services Licence under the Capital Markets and Services Act 2007 of Malaysia, having its principal place of business at Vista Tower, Level 47, The Intermark 348 Jalan Tun Razak 50400 Kuala Lumpur, Malaysia.*

- ***"BNP Paribas Investment Partners" is the global brand name of the BNP Paribas group's asset management services. The individual asset management entities within BNP Paribas Investment Partners, if shown herein, are specified for information only and do not necessarily carry on business in your jurisdiction. For further information, please contact BNPP IP Malaysia*.