ACLI SENIOR INVESTMENT MANAGERS MEMBERS ONLY DISCUSSION

TUESDAY, NOVEMBER 10, 2020

1:00–2:30 PM EST

Sponsored by: MACQUARIE

Today’s Speakers

Scott Jeffreys

Senior Insurance Strategist, Insurance Solutions

Scott Jeffreys joined Macquarie in March 2018 as a senior insurance strategist on the Macquarie Insurance Solutions team.

Prior to joining the firm, he was a senior member of BlackRock’s Insurance Advisory business. During his more than 10 years at BlackRock, Jeffreys helped drive the expansion of BlackRock’s strategic engagement with insurers in North America. His experience is focused in the design and implementation of complex investment solutions for the insurance industry, including strategic asset allocation, risk advisory, portfolio optimization, risk-based capital management, peer analysis, and other drivers of investment strategy. he began his career with BlackRock as a risk and trading analyst.

Jeffreys earned his bachelor’s degree in policy analysis and management from Cornell University.

Tom Danielsen, FIA

Investment Specialist, Private Credit

Tom Danielsen is the Investment Specialist for Private Credit for the Americas region. Danielsen moved to the team’s New York office in 2019 with a focus on capital raising for infrastructure debt in the Americas.

Prior to this Danielsen was a member of the Macquarie Infrastructure Debt Investment Solutions (MIDIS) team based in London from 2016, where he was responsible for capital raising and fund structuring. Danielsen was also involved in a number of principal transactions involving Export Credit Agency guarantees, the most notable of which was an investment of over £500m in 2017 into the Walney Extension, and offshore wind farm based in the UK.

Prior to joining Macquarie in 2016, Danielsen worked in the Liability Driven Investment (LDI) team at Towers Watson where he was primarily responsible for structuring risk management and derivative strategies for pension schemes. Danielsen also led the UK LDI Manager Research Team which assessed and rated asset managers offering these strategies.

Danielsen became a Fellow of the Institute and Faculty of Actuaries in 2015 and holds a BSc (Hons) in Mathematics and Economics from the London School of Economics (LSE).

The infrastructure asset class

Power / midstream

Transportation

Renewable energy

Telecommunications

Key features of infrastructure debt

Return premium	Contractual CFs	Diversification

Underpinned by strong credit characteristics

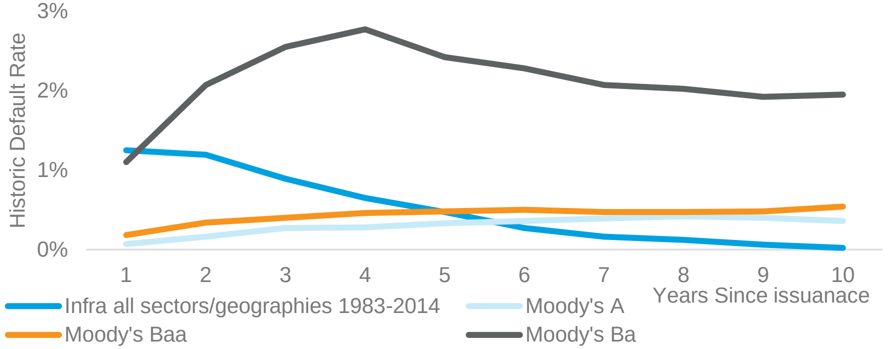
Key risks

- Infrastructure debt is less liquid than equivalent corporate bonds
- Lenders are subject to credit risk of borrowers
- Past performance is not a reliable indicator of future performance

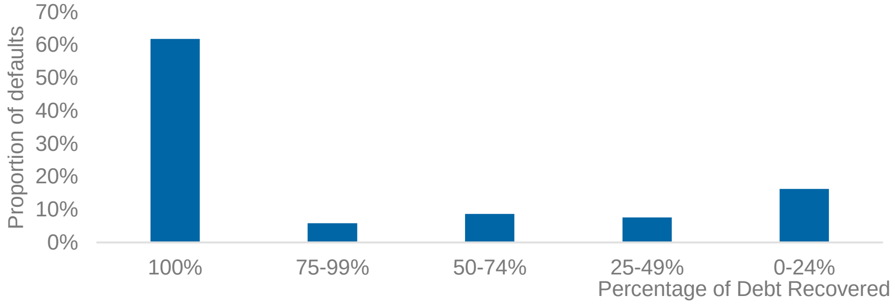
Credit quality consistent with high quality bonds

Infrastructure loans calibrate to A/AA rated corporate bonds on an expected loss basis

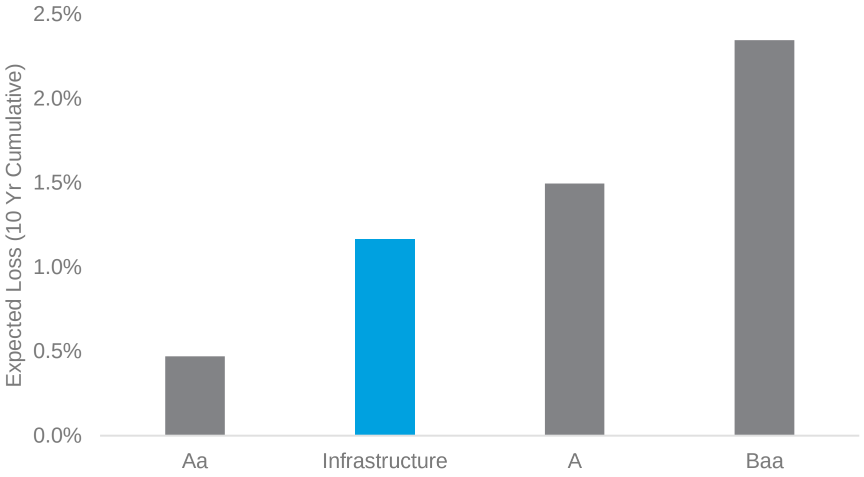
Infrastructure debt default rates improve with maturity to strong investment grade



Infrastructure debt recovery rates significantly better than bonds



Infrastructure expected loss sits between A and Aa rated corporate bonds



- ✓ Infrastructure debt can provide lenders additional security and protections relative to unsecured corporate bonds
- ✓ This may result in significantly better expected loss

Source: Moody's report (March 2016): "Default and Recovery Rates for Project Finance Bank Loans 1983-2014" and Moody's report (Feb 2016): "Annual Default Study: Corporate Default and Recovery Rates 1920-2015".

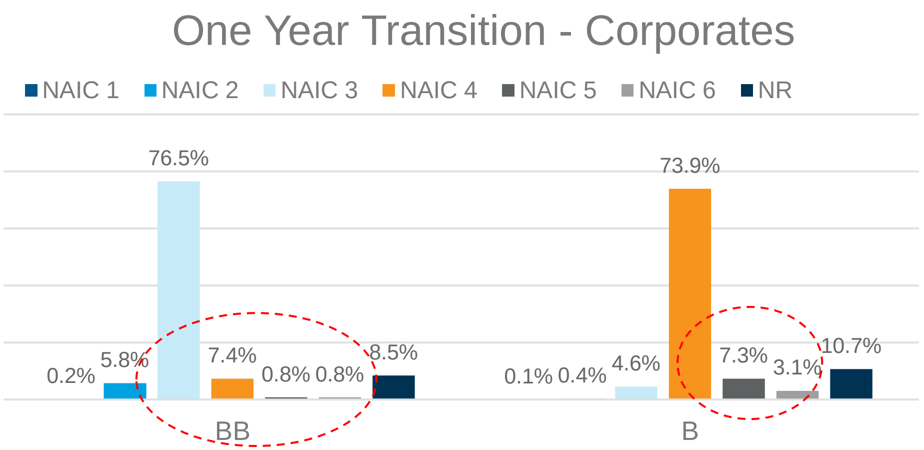
Capital Adjusted Yield Framework

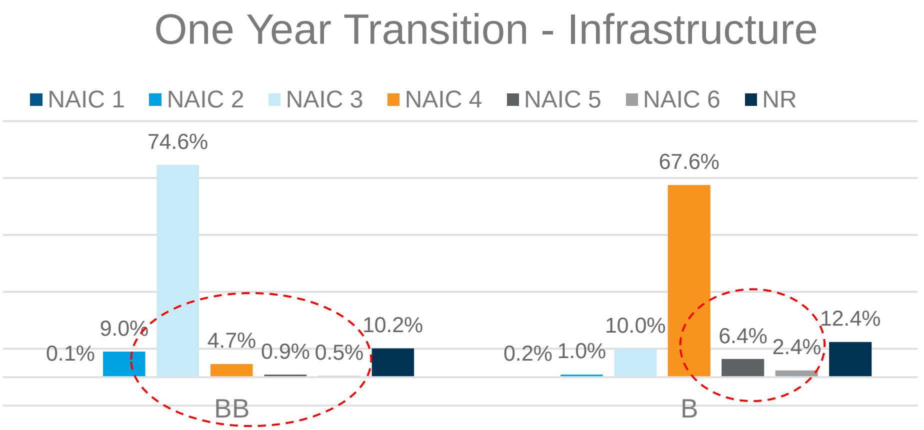
	Sub-IG Infrastructure Debt (50/50: BB/B)	HY Corporate (50/50: BB/B)
A. Investment Yield	4.75%	3.90%
B. Loss Rate (Default x 1-Recovery)	0.52%	2.08%
C. Effective RBC Charge (One-Year Transition)	5.10%	5.38%
D. Target RBC Ratio	400%	400%
E. Weighted Average Cost of Capital (WACC)	10%	10%
F. Cost of Required Capital *[C x D x E]*	2.04%	2.15%
G. Capital Adjusted Yield *[A-B-F]*	2.19%	-0.33%

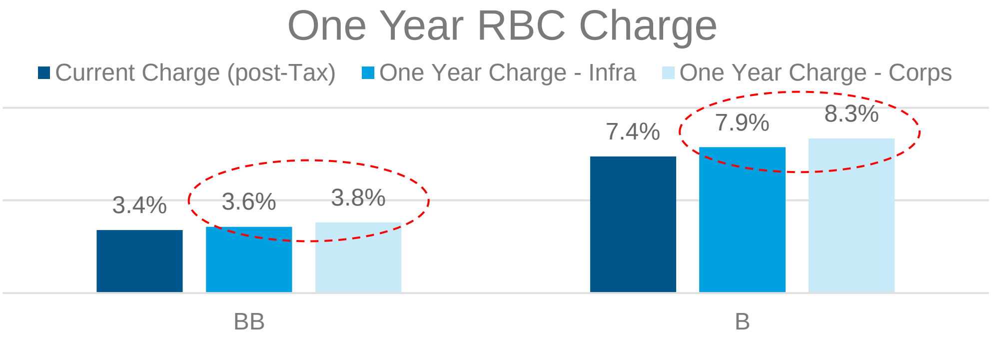
- ✓ Assumes a 50% BB and 50% B split rating for both High Yield Corporates and Sub-IG Infra Debt
- ✓ Sub-IG Infra Debt has a starting yield pick-up of 85bps over High Yield Corporates
- ✓ **After adjusting for losses and cost of required capital, Sub-IG Infra Debt has a pick-up of 252 bps over High Yield Corporates on a capital adjusted basis**

Investment yield for High Yield Corporates sourced from Barclays BB/B 2% Issuer Capped Index (as of 11/9/2020) , investment yield for Sub-IG Infrastructure Debt assumes base rate of 0.25% with a spread achieved of 4.5%. Loss rate assumes 38% recovery rate for High Yield Corporates and 73% for secured infrastructure debt sourced from Moody's.

Ratings Transition and Effective RBC







- ✓ Infrastructure debt has lower downgrades and higher upgrades than Corporate debt for both BB-rated and B-rated cohorts
- ✓ In our calculation of a One-Year RBC effective charge, Infrastructure carries a lower charge than Corporates given the above ratings migration trends

Source: Moody's Infrastructure & Project Finance: Infrastructure default and recovery rates,1983-2018

Insurance solutions team

Deep experience across multiple business lines, geographies and capital pools

Questions? Contact: InsuranceSolutions@Macquarie.com

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Strategic Asset Allocation

- ALM Analysis
- Income Optimization
- Total Return Optimization

Risk Budgeting

- VaR and Risk Factor Analysis
- Default / Loss Analysis
- Stress Scenarios and Tail Risk

Benchmark Construction

- Enterprise level performance and risk evaluation
- Illiquid / non-public benchmarking

Regulatory / Required Capital

- Cost of required capital and capital adjusted return analysis
- Capital consumption through time given potential ratings migration

Peer Analysis

- Industry segmentation customized for insurers to evaluate drivers of risk and return amongst their peers
- Peer asset data can inform allocation and risk budgets

Thought Leadership

- Synthesizing specific client work to broad insurance marketplace
- Industry Insights with implications for investment portfolios