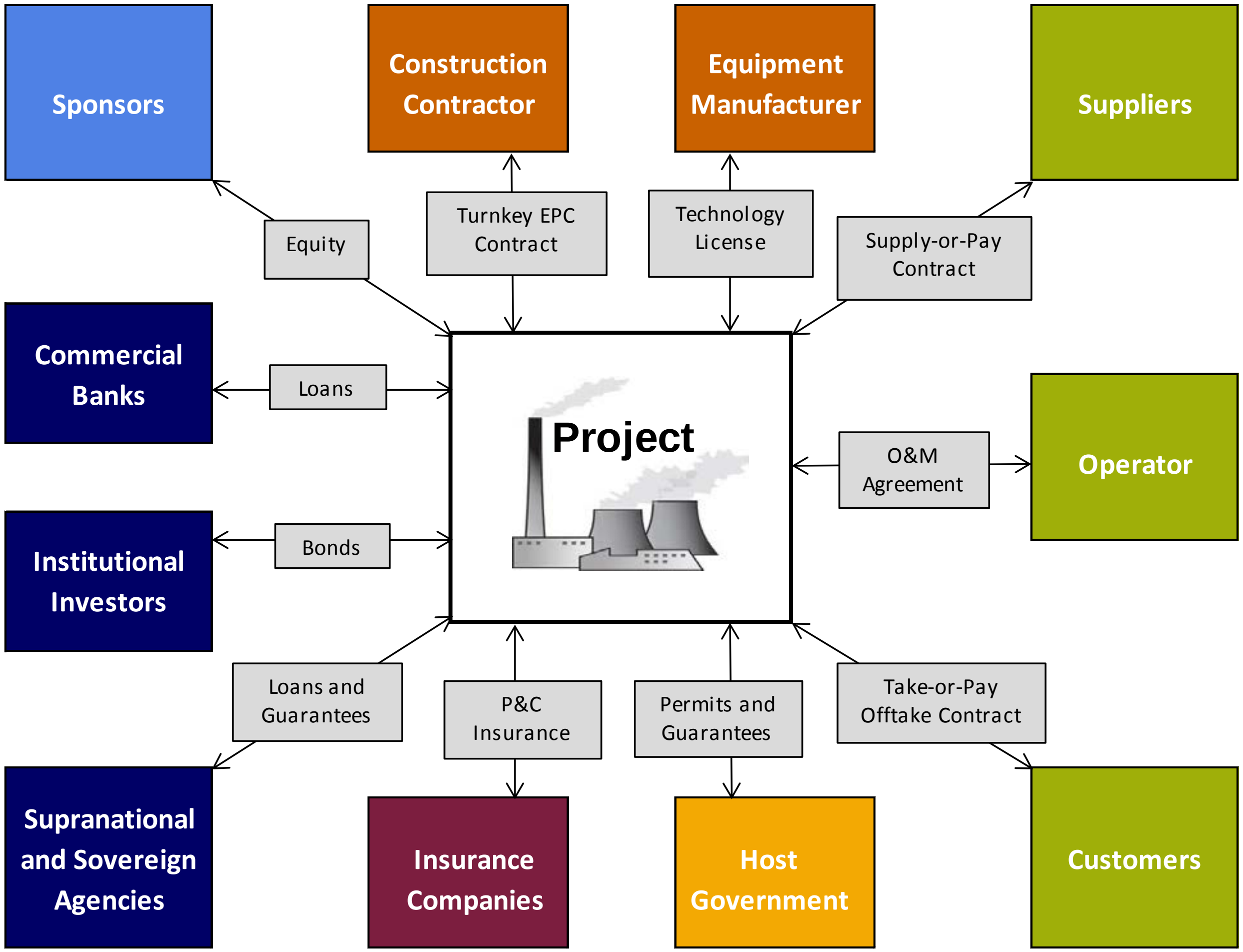
Infrastructure Debt Overview

- **Key Infrastructure Characteristics**
  - Real economic assets
  - Essential services
  - Capital intensive
  - Long useful life (30-40 years)
  - Stable cash flow from long-term contracts
- **Project Finance Approach**
  - Secured asset-based lending
  - Non-recourse, off-balance sheet financing through special purpose vehicle
  - Tool of risk management: contracts/covenants used to manage/mitigate construction, operating, financial, regulatory and political/sovereign risks
  - Highly-complex, document-intensive deals requiring sophisticated legal, tax, accounting, financial and engineering skills
  - Average 70/30 mix of debt and equity
- **Asset Class Attributes**
  - Illiquid investment grade debt product
  - Low default rates and correlations versus more liquid asset classes
  - Attractive yield pick-up versus liquid public credit markets
  - Means of credit and portfolio diversification
  - Long-term asset/liability matching
  - Inflation hedge

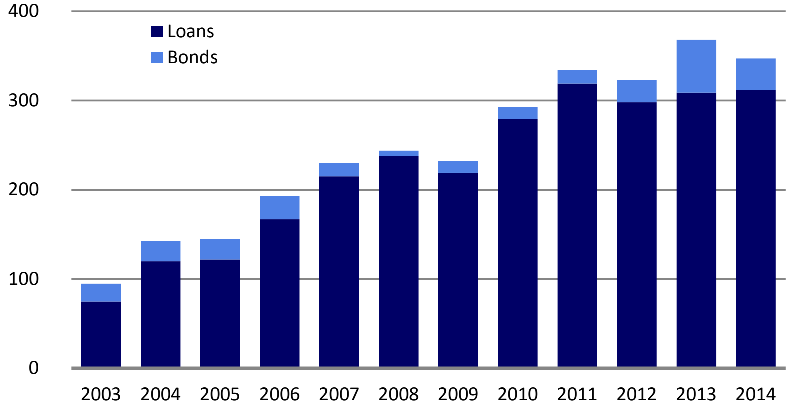
Typical Project Finance Deal Structure



Source: Walter, Ingo, Paul Tice and Ilya Bozhenkov. "BlackRock's Infrastructure Debt Initiative: Addressing the Market Opportunity in Project Finance." New York University Leonard N. Stern School of Business, 2013. Print.

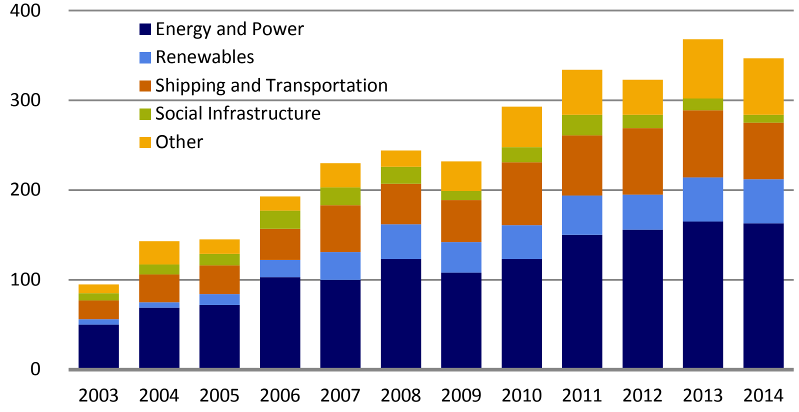
Project Finance Debt Market Snapshot

Global Project Finance Debt by Type ($ in billions)



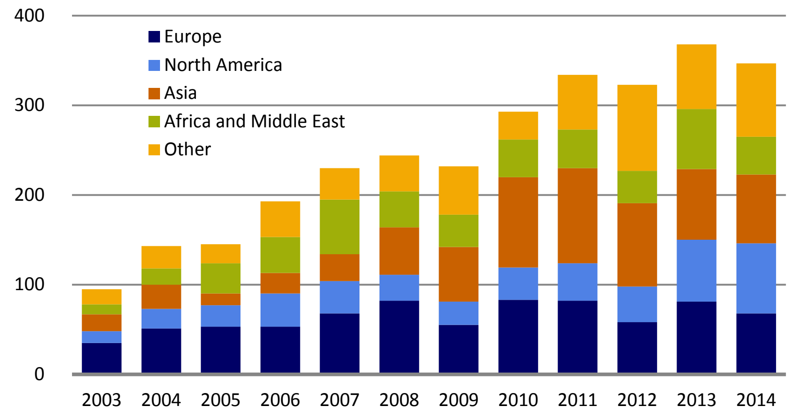
Source: Dealogic

Global Project Finance Debt by Sector ($ in billions)



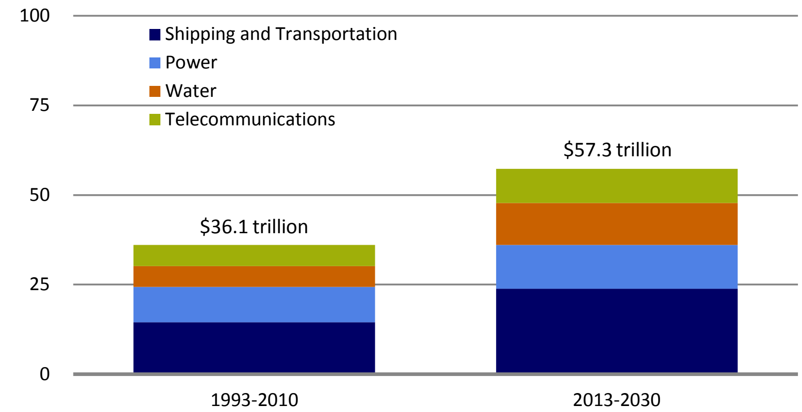
Source: Dealogic

Global Project Finance Debt by Region ($ in billions)



Source: Dealogic

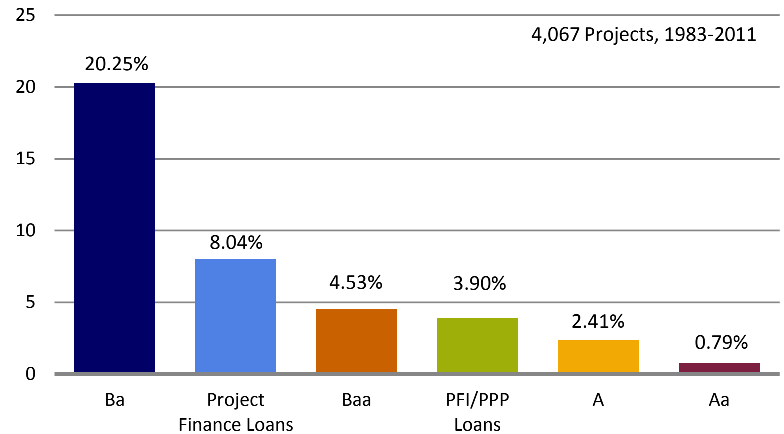
Global Infrastructure Spending (2010 constant $ in trillions)



Source: McKinsey Global Institute

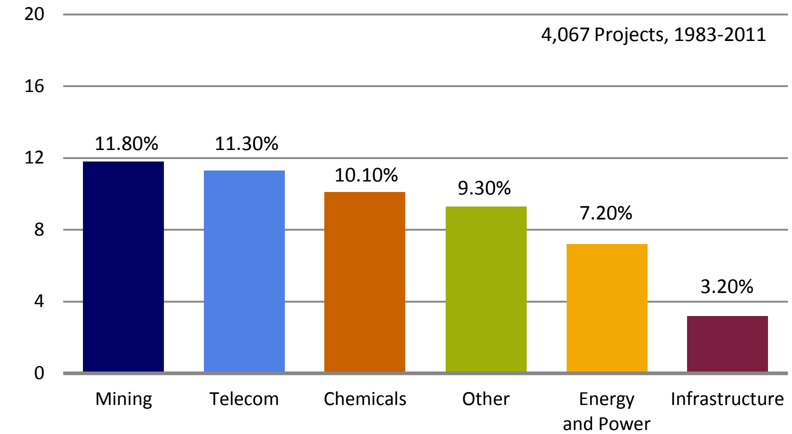
Moody’s Default and Recovery Rates

10-Year Cumulative Default Rates (%)



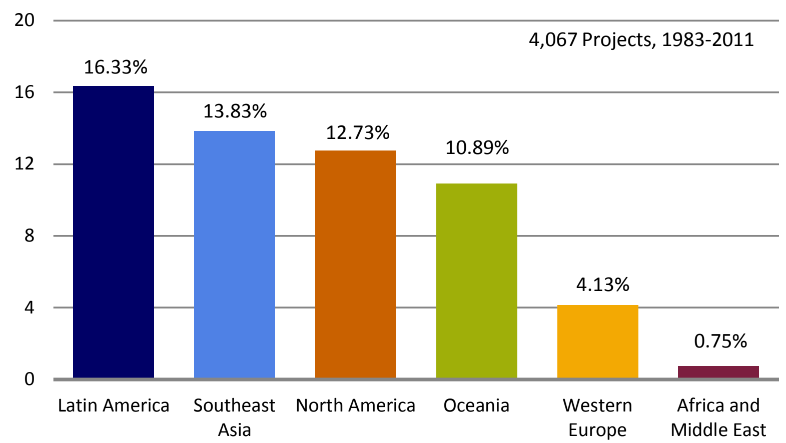
Source: Moody’s

Average Default Rates by Sector (%)



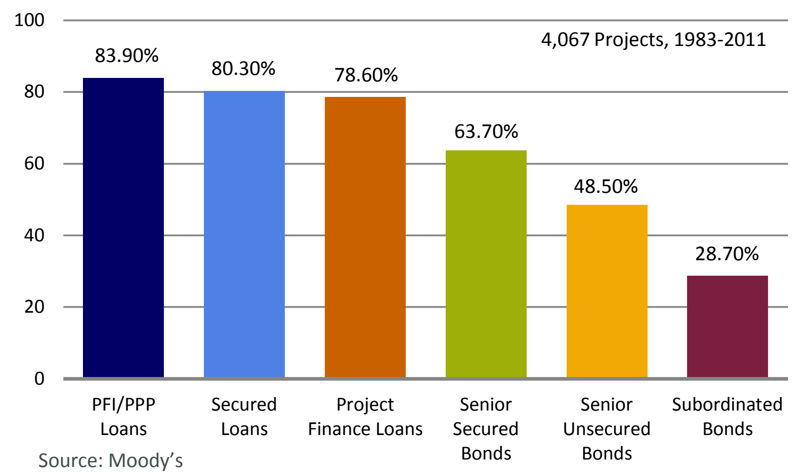
Source: Moody’s

10-Year Cumulative Default Rates by Region (%)



Source: Moody’s

Average Ultimate Recovery Rates (%)



Source: Moody’s

Typical Project Finance Capital Structure

		% Capital
Supranational Agency Loans	• 1-2% average cost of debt • World Bank average yield on loans = 1.43% in FY2014 • Asian Development Bank average yield on loans = 1.23% in 2013 • Multilateral development banks (World Bank, Asian Development Bank and European Investment Bank)	**2%**
Sovereign Agency Loans	• 2-3% average cost of debt • Export Development Canada average yield on loans = 2.43% in 2013 • Government-owned financial institutions (Export Development Canada, KfW Group, Japan Bank for International Cooperation, Korea Finance Corporation, IDBI Bank and State Bank of India)	**11%**
Commercial Bank Loans	• 3-4% average cost of debt • L + 250-350 bp • European banks (BNP Paribas, Royal Bank of Scotland, Credit Agricole, Banco Santander and Societe Generale) • Japanese banks (Mitsubishi UFJ Financial, Sumitomo Mitsui Financial and Mizuho Financial)	**52%**
Bonds	• 4-6% average cost of debt • T + 200-300 bp • Investment grade bonds (traditional and 144A private placements) • Insurance companies (AIG, Allstate, John Hancock, MetLife, New York Life, Northwestern Mutual and Prudential)	**5%**
Equity	• 8-15% targeted IRR • Governments (United Kingdom) and corporate sponsors (BHP Billiton, EDF, Chevron, Exxon Mobil, Lyondell Basell) • PE infrastructure funds (Alinda Capital Partners, Brookfield Asset Management and Global Infrastructure Partners) • Bank infrastructure funds (Macquarie Infrastructure Group, Citi Infrastructure Investors, GS Infrastructure Partners and Morgan Stanley Infrastructure)	**30%**

Note: Capital structure percentage calculations based on typical 70/30 debt/equity project funding mix and breakdown of total $2.947 trillion project finance debt issuance over 2003-2014 between loans (91%) and bonds (9%), with loan component segmented as follows: 80% commercial bank loans, 17% sovereign agency loans and 3% supranational agency loans.