

Green Infrastructure Investment— Implications for Insurance Regulators

AFG Workshop and NGFS Stakeholder Outreach

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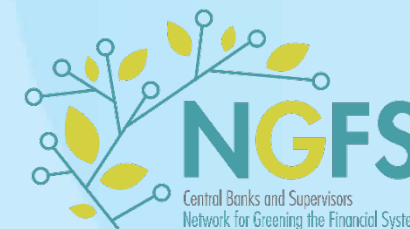
October 10, 2018



ANNUAL MEETINGS
2018 | indonesia
INTERNATIONAL MONETARY FUND
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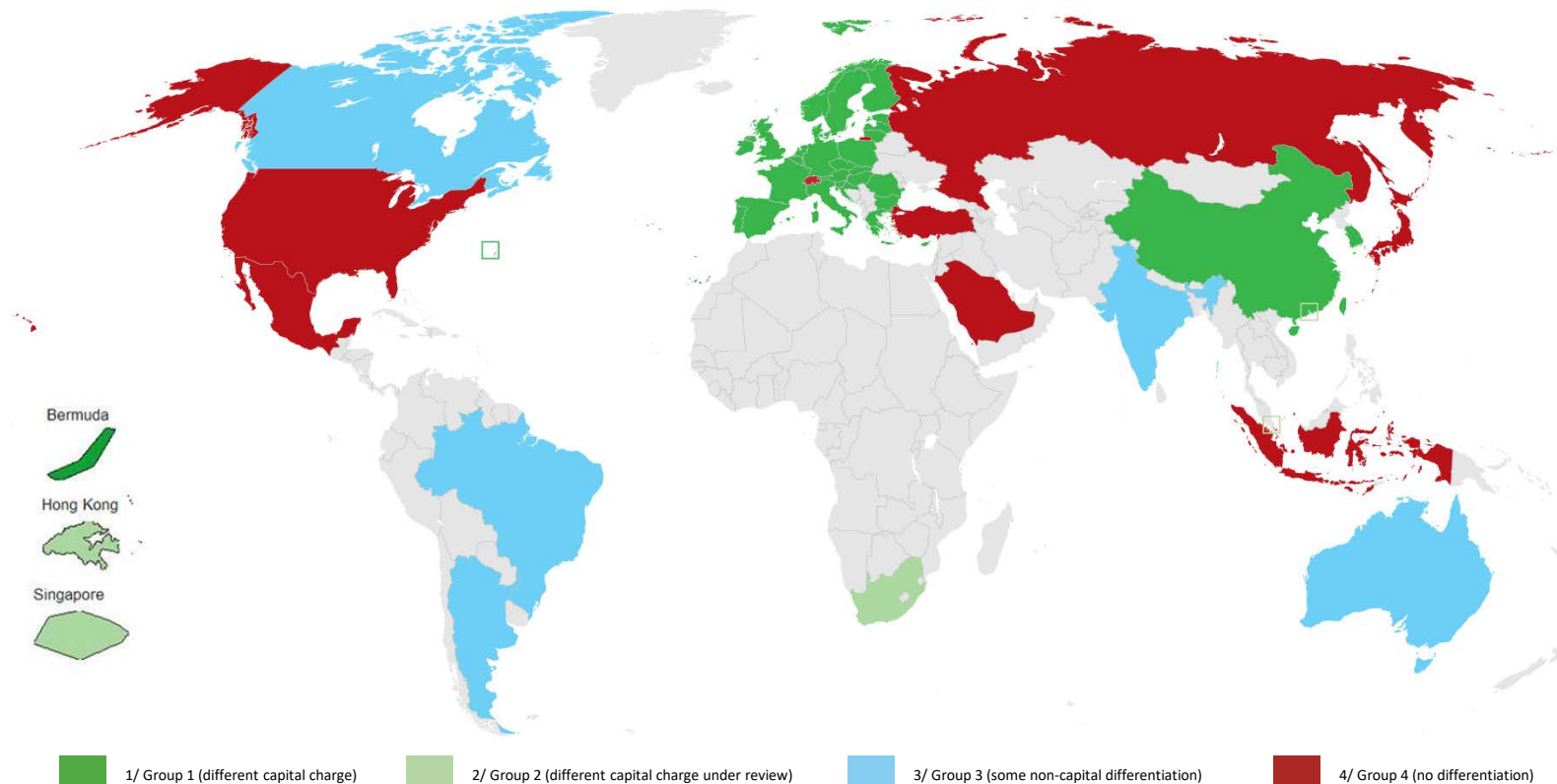
Regulatory Treatment of Infrastructure Investment by Insurance Companies

Enabling regulatory environment is fundamental to mobilizing long-term finance for infrastructure investment ...

- **Most EMDEs require more private investment in infrastructure to enhance resilience**
 - Maximizing Finance for Development
 - “Climate-smart” infrastructure helps reduce carbon footprint of economic progress
- **Infrastructure Investment**
 - Natural match for life insurers’ liabilities-driven investment: predictable and stable cash flows, with low correlation to other assets
 - Self-insurance: mitigate transition risk on existing assets that support insurers’ current liabilities (“stranded assets”)
- **Most insurance regulations do not treat infrastructure as distinct asset class**
 - High capital charges for long-term debt investments, esp. for unrated transactions
- **In most countries, data constraints have limited scope of possible differentiation**

Overview of Insurance Solvency Regimes—Regulatory Treatment of Infrastructure

Overview of Current Regulatory Treatment of Infrastructure Finance in Insurance Solvency Regimes in G-20 Countries*
(status as of October 2018)



Jobst and Menville (forthcoming). Note: *Includes also Bermuda, Guernsey, Hong Kong SAR, and Singapore as important offshore financial centers (OFCs), all non-G20 EU countries, Norway (which adopted the EU Solvency II Directive), and Switzerland as important jurisdiction for insurance activities;

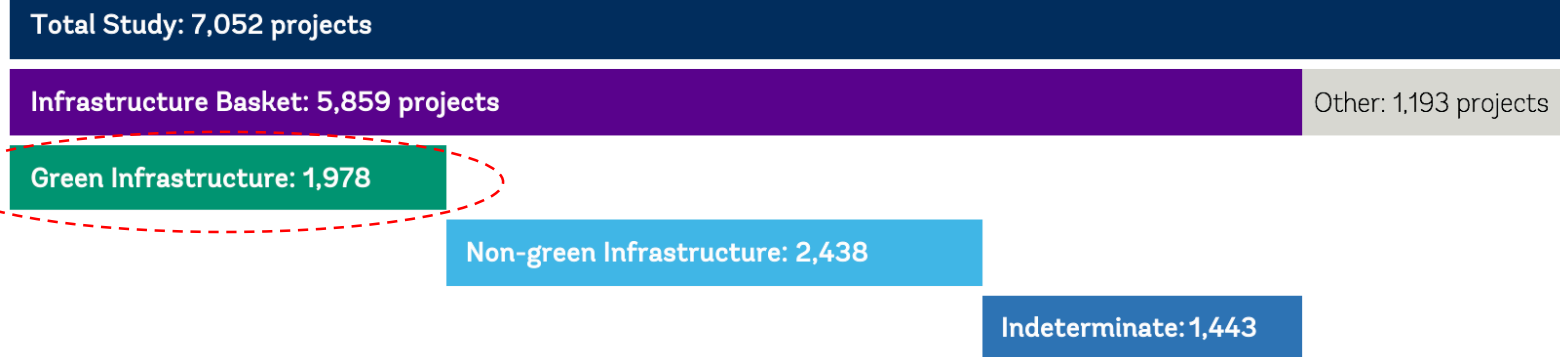
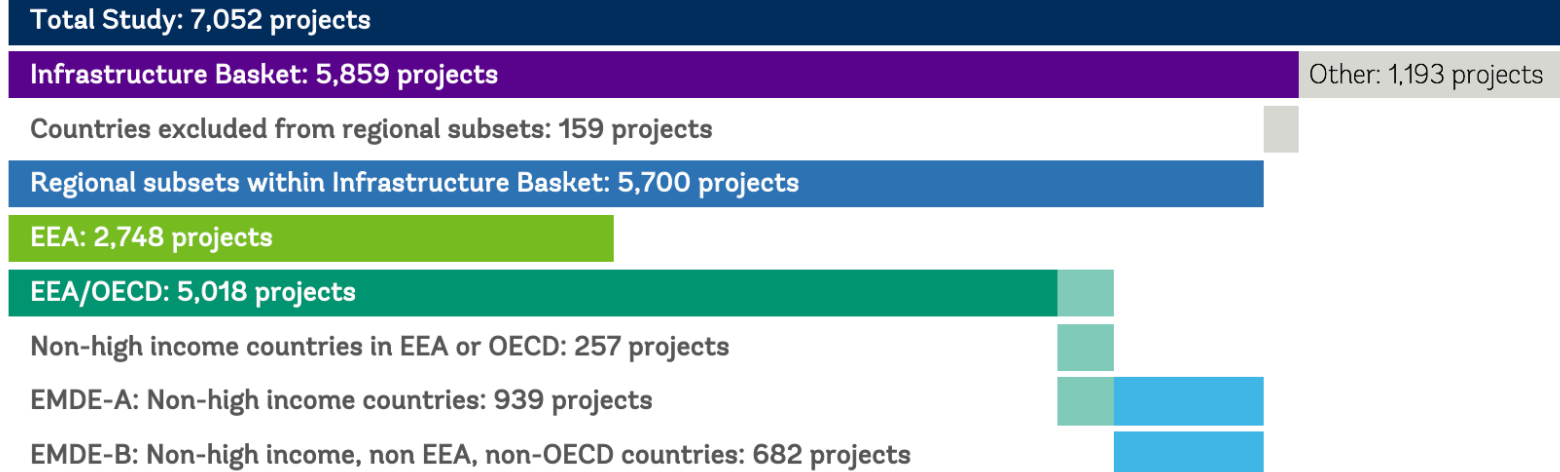
1/ Country Group 1 (dark green): countries with a reduced capital charge for rated/unrated infrastructure debt and/or equity (Bermuda (equity only), P.R. China (equity and debt), European Union (equity and debt), Norway (equity and debt) and South Korea (debt in social overhead projects only));

2/ Country Group 2 (light green): countries where a reduced capital charge for rated/unrated infrastructure is under discussion (Hong Kong SAR (under review), Singapore (RBC 2 Review – Third Consultation), South Africa (QIS 3 Consultation));

3/ Country Group 3 (light blue): countries with some (but incomplete or non-capital) differentiation of infrastructure finance (Argentina (up to 40% in PPP projects), Australia (additional property stress applied to earning yield associated with infrastructure assets), Brazil (removal of restriction of infrastructure finance), Canada (infrastructure investments without contractually fixed cash flows), India (min. portfolio allocation in infrastructure bonds of 15%);

4/ Country Group 4 (red): no differentiation (all other G-20 countries (Indonesia, Mexico, Japan, Russian Federation, Saudi Arabia, Switzerland, Turkey, and United States) and Guernsey.

Moody's published a series of reports on the credit performance of infrastructure finance ...



Green Infrastructure: 1,978

Non-green Infrastructure: 2,438

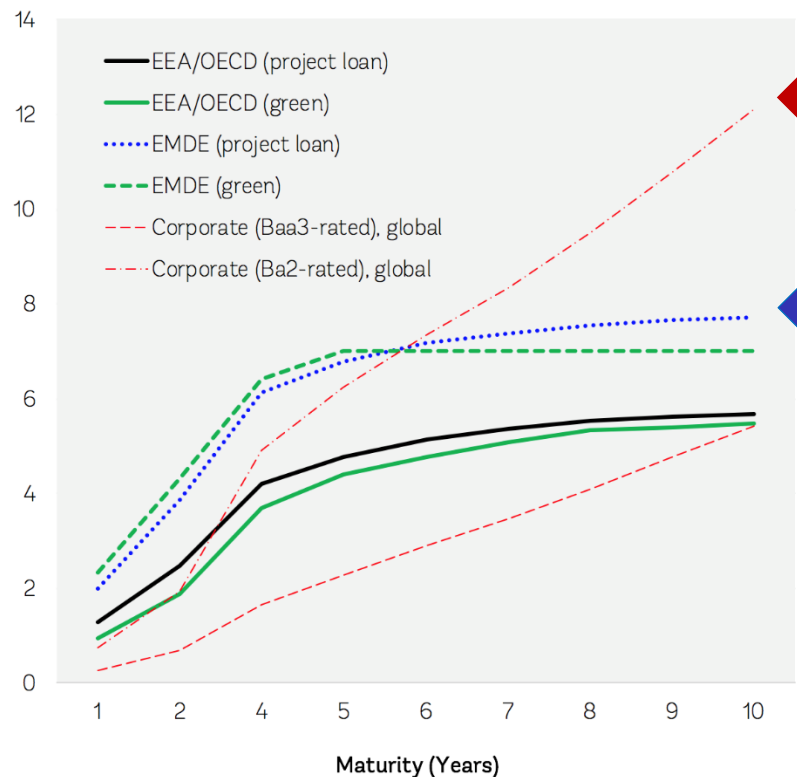
Indeterminate: 1,443

Credit Risk Profile—Green Infrastructure Investment

We find a high degree of resilience of project loans in both advanced and developing countries, esp. for green investments ...

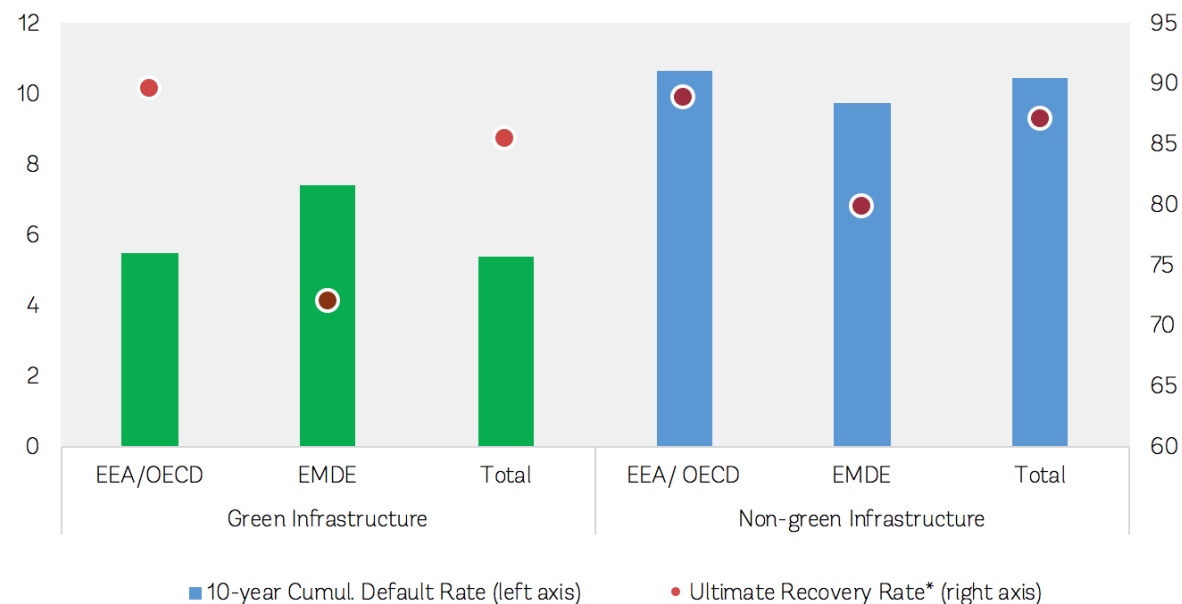
Infrastructure Project Loans—Credit Performance (1995-2016)

Cumulative Default Probability, In percent



Infrastructure Project Loans—Credit Performance (1995-2016)

Cumulative Default Probability and Ultimate Recovery Rate, In percent



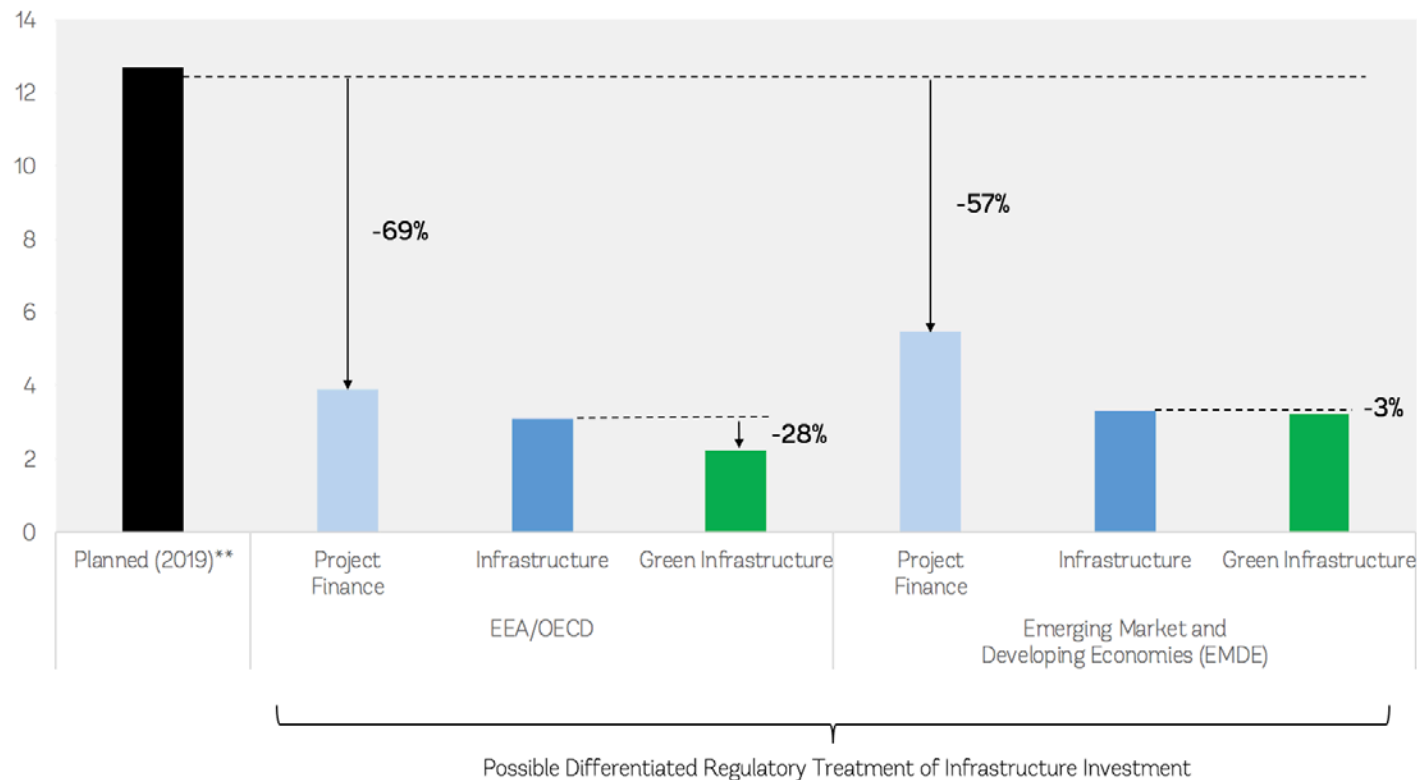
Source: Jobst (2018 and forthcoming), Levy (2017 and 2018), and Moody's Investors Service. Note: "green" denotes project finance in industry sectors that meet the use-of-proceeds eligibility criteria of the Green Bond Principles.

Differentiated Capital Charge—Green Infrastructure Investment

... which would translate into lower capital charges to reflect the actual credit risk profile, fully consistent with regulation.

Insurance Capital Standard (ICS)—Capital Charge for Investment Bonds/Loans*

In percent of nominal exposure (at maturity of 10 years)



Source: Jobst (2018 and forthcoming), Levy (2017 and 2018), IAIS, and Moody's Investors Service. Note: "green" denotes project finance in industry sectors that meet the use-of-proceeds eligibility criteria of the Green Bond Principles; */ calibrated using a single factor model consistent with Vasiček (with actual default and recovery rates); **/ currently in field-testing, to be adopted after the end of 2019.

Insurance regulators may want to assess the adequate calibration of capital charges for infrastructure finance.

Evaluation of the Effects of Financial Regulatory Reforms on Infrastructure Finance (Consultative Document)



For the regulations in scope, the analysis thus far does not identify material negative effects of the reforms on IF. This conclusion, which is subject to additional analysis (including the consultation responses), is consistent with the observation from the literature that other, non-regulatory factors are important impediments to IF. Many of these factors are already being considered elsewhere, including the G20's work to develop infrastructure as an asset class. **The conclusion also does not preclude international standard-setting bodies from continuing to assess the extent to which their standards are adequately calibrated to the particular characteristics and risks of IF.** The feasibility and desirability of a different regulatory calibration for different sectors go beyond the scope of this evaluation, and would depend on factors such as the existence of a harmonised definition for IF, data availability, and considerations on the balance between complexity and risk-sensitivity of regulation.

Source: Financial Stability Board (July 18, 2018), available at <http://www.fsb.org/wp-content/uploads/P180718.pdf>

... which is consistent with G20 EPG recommendation on prudential policies supporting infrastructure finance ...

Report of the Eminent Persons Group



Report of the G20
Eminent Persons Group
on Global Finance Governance

Reassessing regulatory capital and other prudential norms for the Multilateral Development Banks (MDBs), as well as institutional investors in infrastructure⁹, based on the evidence of their default experience.

— “ —
We must strengthen joint capacity to tackle challenges of the global commons.
— ” —

◀ **Proposal 5:** *‘Right-size’ capital requirements for MDBs and other investors in infrastructure, given their default experience.*

Proposal 5a: *Establish tailor-made capital and liquidity frameworks for the MDBs.*

Proposal 5b: *Review the regulatory treatment of infrastructure investment by institutional investors.*

Source: G20 Eminent Persons Group (EPG), 2018, “Making the Global Financial System Work for All” (October), available at <https://www.globalfinancialgovernance.org/assets/pdf/G20EPG-Full%20Report.pdf>.

... and also addresses an important item on the SIF Agenda for 2019.

Sustainable Insurance Forum: Building Resilient Economies



**SUSTAINABLE
INSURANCE
FORUM**



SIF AGENDA

1. Issues Paper – July 2018

- Developing new ancillary materials
- Outreach
- Engagement and promotion

2. Question Bank – Nov 2018

- Member input
- Field-test
- Cross-Referencing
- Final launch at SIF5 in November

3. TCFD Implementation – 2018/19

- Member Survey
- Risk Signaling
- Scenario Analysis

4. Building Resilient Economies – 2019

- **Infrastructure investment**
- Low carbon future
- Role of insurance

5. Capacity Building – Ongoing

- IAIS 5 year strategy
- NGFS
- WBG (?)

ENGAGE
PARTNERS



SUPPORT
IMPLEMENTATION
AND BUILD CAPACITY



LEAD RESEARCH

Thank you!



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