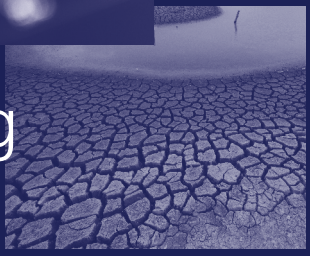
Climate Change and the Cost of Capital in Developing Countries



Assessing the impact of climate risks on sovereign borrowing costs

Executive Summary

UN environment

Imperial College Business School | Centre for Climate Finance & Investment

SOAS University of London

Executive summary

This report represents the first systematic effort to assess the relationship between climate vulnerability, sovereign credit profiles, and the cost of capital in developing countries. Climate risks are multi-dimensional, covering a range of geophysical, social, and economic issues. The intensification of these risks and the degree to which they are accurately priced by financial markets are of increasing concern to global economic stability.

Key messages:

– Integrating climate risks into financial decision-making is crucial to long-term economic and financial stability as these risks affect return on investment. Broader recognition of these risks will be necessary for sustainable development.

– For every ten dollars paid in interest by developing countries, an additional dollar will be spent due to climate vulnerability. This financial burden exacerbates the present-day economic challenges of poorer countries. The magnitude of this burden will at least double over the next decade.

– The climate consequences on poorer countries' cost of capital and overall fiscal health need to be addressed. A range of existing policy and market responses can build climate resilience in vulnerable countries and deliver demonstrable financial benefits.

– Investments that enhance the resilience of climate-vulnerable countries are crucial to not only helping vulnerable countries deal with the consequences of climate risks, but also bring down their cost of borrowing.

Core research findings:

– Our econometric modeling suggests that climate vulnerability has already raised the average cost of debt in a sample of developing countries by 117 basis points. In absolute terms, this translates into USD 40 billion in additional interest payments over the past 10 years on government debt alone.

– Incorporating higher sovereign borrowing rates into the cost of private external debt, we estimate that climate vulnerability has cost these countries USD 62 billion in higher interest payments across the public and private sectors. We expect the additional interest payments attributable to climate vulnerability to increase to between USD 146 – USD 168 billion over the next decade.

– Investments in social preparedness can partially mitigate, by an estimated -0.67%, the impacts of climate vulnerability on sovereign borrowing rates by increasing the social and economic resilience of countries.

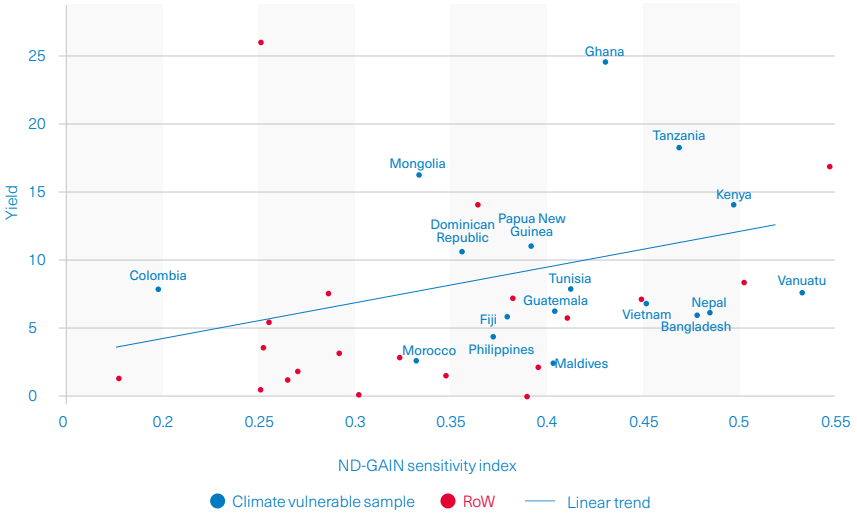
– Cooperative efforts to measure, monitor, and transfer climate risks provide an opportunity to prevent a deterioration of sovereign borrowing capacity in affected countries. Monitoring the financial indicators used by the major rating agencies is a crucial tool for anticipating impacts on sovereign credit profiles.

Our USD 62 billion estimate is based on historic public and private external debt levels for 40 climate-vulnerable countries, incorporating only a subset of climate vulnerabilities (which itself is a subset of the wider range of climate risks). The estimate is backward-looking and excludes indirect effects, such as the impact of higher project hurdle rates on economic growth. Our findings indicate that the financial costs of climate risks will rise in the future.

At stake is the capacity of least developed and developing countries to finance themselves through external borrowing.

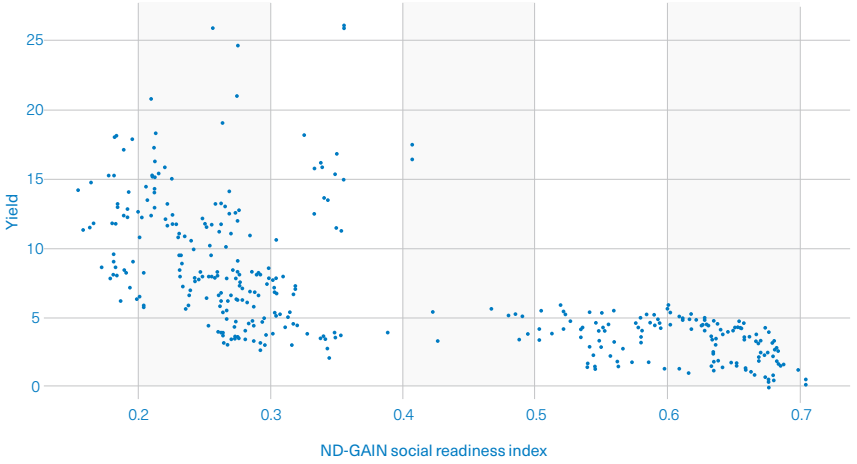
Figure 1 demonstrates that countries with greater sensitivity to climate impacts tend to have higher sovereign borrowing costs. Figure 2 indicates that the relationship is reversed for countries with higher social preparedness.

Figure 1. Cost of debt and ND-GAIN* Sensitivity, 2016



Source: Compiled with data from Bloomberg and ND-GAIN.
* Notre Dame Global Adaptation Index

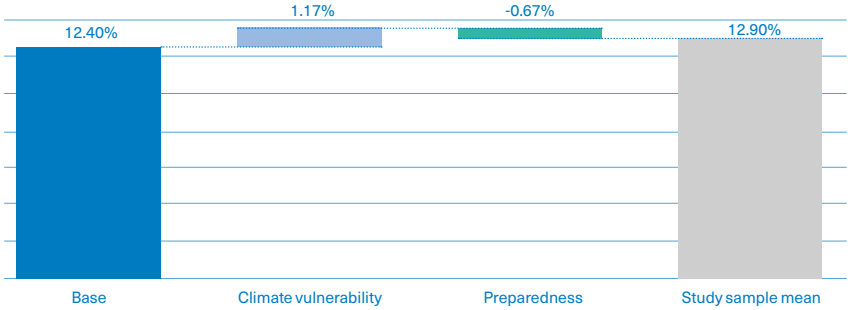
Figure 2. Cost of debt and ND-GAIN Social Readiness, 1996-2016



Source: Compiled with data from Bloomberg and ND-GAIN.

The graph below provides our base estimates of the expected cost of sovereign debt for climate-vulnerable countries.

Figure 3. Estimated impact on cost of debt



Source: Authors' own work, based on own estimations with data compiled from Bloomberg.

Our results are consistent with other studies that have demonstrated a material financial burden to developing countries from increased climate-related capital costs. We have sought to identify the mechanisms by which climate change impacts evolve into such financial risks through a series of case studies covering five countries (Bangladesh, Barbados, Guatemala, Kenya, and Vietnam). The report describes a range of market and policy initiatives that can help reduce these additional financial burdens by improving the resilience of affected countries. To be effective, climate adaptation initiatives must accomplish at least one of three imperatives: reduce the costs of climate impacts; improve the speed of economic recovery; and/or cost-effectively transfer climate-related financial risks. These imperatives are not mutually exclusive.

The increase in the costs of debt servicing associated with climate vulnerability is an issue of concern beyond economics and finance.

It touches upon a country's capacity to fund education, health, infrastructure, and enable basic standards of living. Because poorer countries tend to have relatively weak sovereign ratings and higher borrowing rates, they are particularly sensitive to new financial risks. Greater overall debt burdens could prevent poor countries from funding the investments required to protect their citizens and economies from the physical manifestations of climate change, at a time when those investments are most needed.

This report contributes to an emerging debate about whether global capital markets are efficiently pricing climate risks. These days, it is hardly unique to say that substantial investments in adaptation will be required to avoid the worst outcomes from climate change. But it is seldom observed that scaling up adaptation efforts can reduce not just social, ecological and economic harm, but also buffer against negative fiscal impacts. Resilience can have a positive effect on the cost of capital, but only if market participants recognize its benefits.

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To download a copy of the full report:

imprl.biz/CostofCapital

soas.ac.uk/economics/research/grants/climate-change-and-the-cost-of-capital-in-developing-countries-un-environment-2018.html

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