



THE BORROWING FLOOR

Examining the
Cost-of-Capital Crisis
Keeping Climate Finance
Expensive in the Global
South

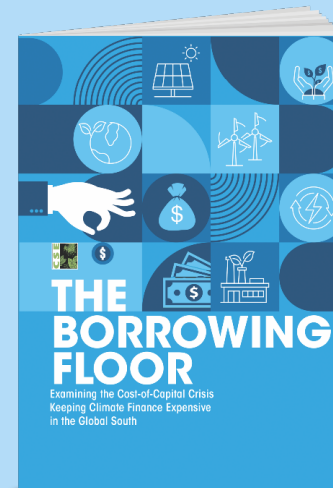
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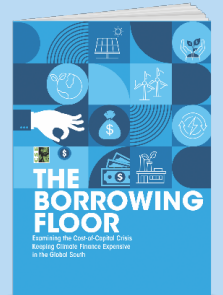


Our discussion today

1. Clean energy needs capital, but capital is not equally affordable
2. What do we mean by the cost of capital?
3. What makes capital more expensive in the Global South?
4. Risk - real and perceived - shapes the cost of capital
5. Indian Stakeholder Survey - What does the evidence tell us?
6. De-risking can lower project premiums - not the underlying floor
7. To lower the floor, the financial architecture has to change



1. Clean energy needs capital – but capital is not equally affordable



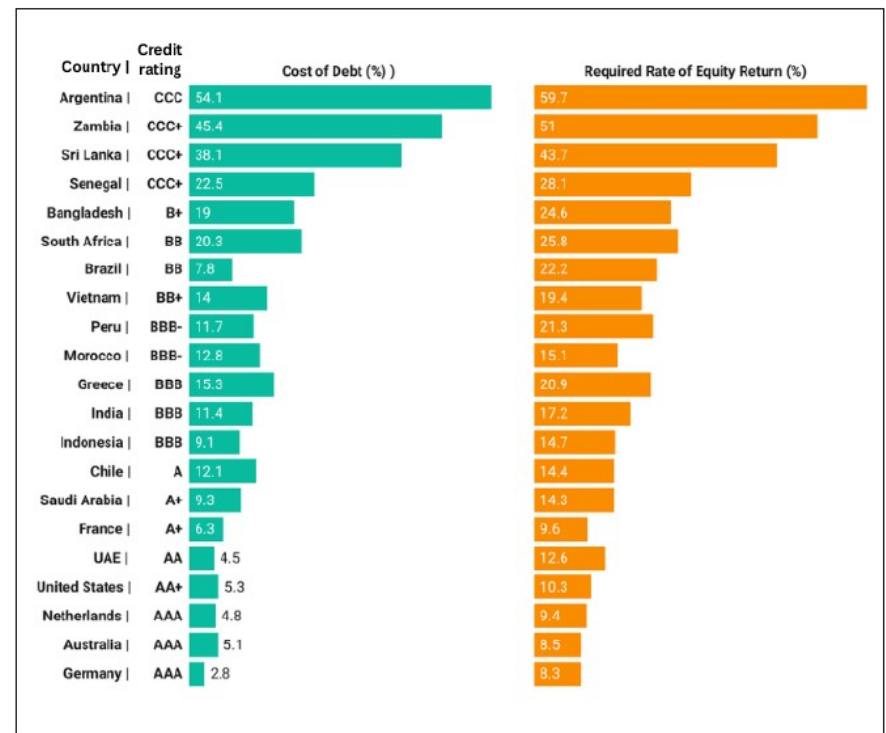
EMDEs account for **2/3rd of the world's population**; but **only 15% of global clean energy investment** since 2020
 → despite accounting for 1/3rd of global GDP

On average, EMDEs face **financing costs that are twice as high as those in advanced economies** for the same technologies

Global finance often **structurally disadvantages lower-income countries**, regardless of project fundamentals.

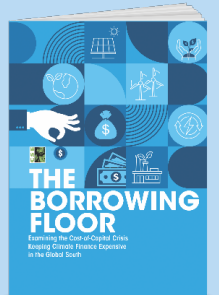


Figure 7: Country ratings and cost of capital indicators of solar energy projects for select countries



Sources: S&P Global Ratings 2025 (accessed on January 28, 2026), Climate Policy Initiative 14, 2023

2. What do we mean by cost of capital?

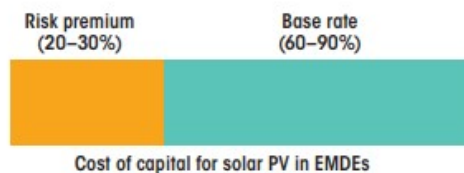


What do we mean by the cost of capital?

A project's cost of capital is primarily composed of a base rate and a risk premium:

1. The base rate, also known as the risk-free rate, refers to a benchmark for the minimum cost of borrowing (or interest) required to invest in a given country, such as long-term sovereign bond yields.
2. The risk premium is further incurred to compensate investors for project-level, sectoral, technology-specific or country-related uncertainties in achieving expected returns.

Figure 3: Composition of cost of capital for solar PV projects in emerging economies



Source: IEA

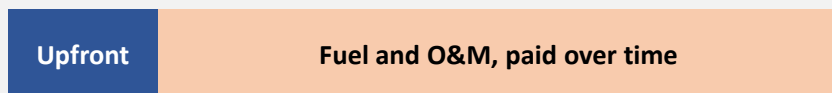
Why do financing costs matter more for clean energy?



Clean energy and fossil fuel-based power generation differ fundamentally in their cost structures

Fossil fuel-based power projects

Variable costs dominate: mainly fuel and O&M over the plant's lifetime



Illustrative, not to scale

Renewables-based power projects

Near-zero variable costs: wind and sunshine are “free” and do not compound with the amount of electricity generated. **Upfront investment dominates.**



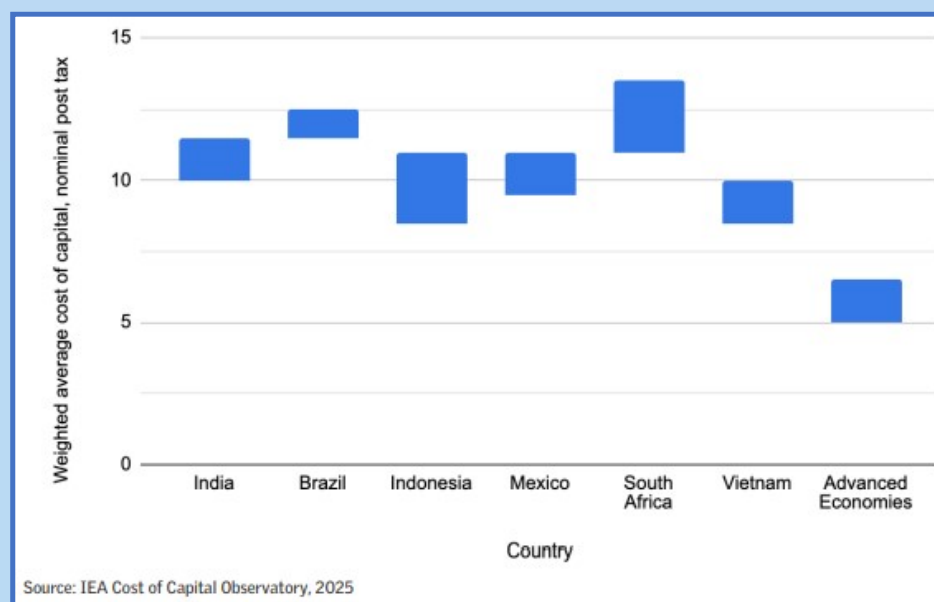
Illustrative, not to scale

Upfront vs. spread-over-time payments shape each technology's exposure to financing conditions, such as interest rates and debt repayment periods

Weighted average cost of capital for utility-scale solar PV projects in select economies



- COC can be almost twice as high in developing economies (about 8 – 12%) compared to advanced economies (about 5 - 6.5%), even for mature technologies like utility scale solar PV
- Reflects differences in underlying financing conditions.

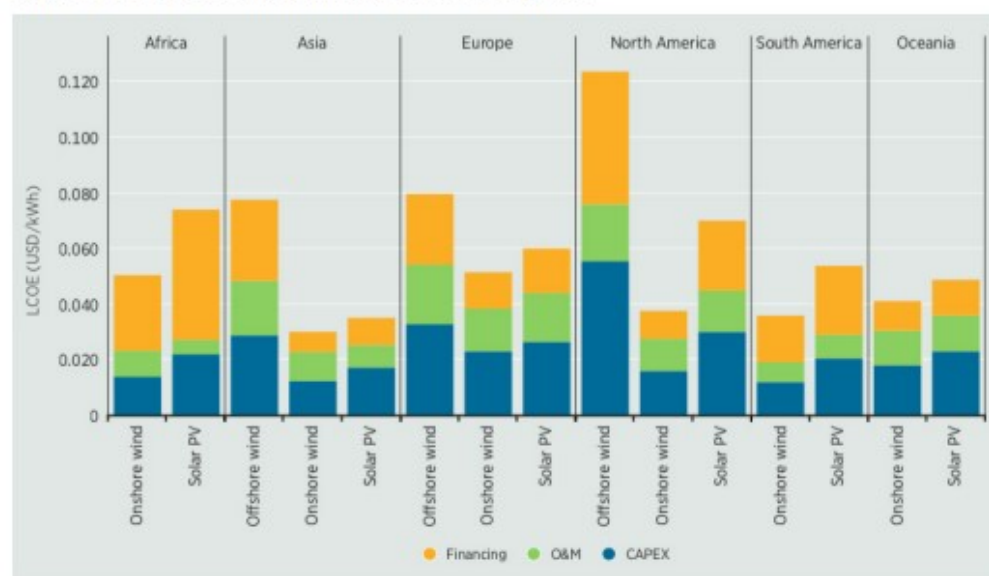


A higher cost of capital directly affects project viability



- **Cost of capital represents the minimum return financiers expect, so a higher cost signals higher project risk**
- This typically combines: Debt (interest repaid to lenders) + Equity (returns via dividends and capital appreciation)
- For an overall assessment of the cost of capital for a particular project, the debt and equity components can be factored in using weights that reflect their respective contribution to provide the Weighted Average Cost of Capital, or **WACC**.
- **LCOE** (levelized cost of electricity - the average cost per unit of electricity over a project's lifetime) shows that financing costs take a high share of renewable energy costs, especially in regions like Africa

Figure 5: LCOE breakdown in selected regions

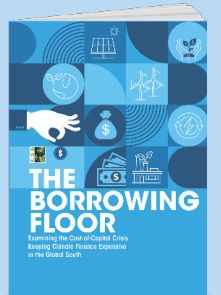


Notes: CAPEX = capital expenditure; kWh = kilowatt hour; LCOE = levelized cost of electricity; O&M = operation and maintenance; PV = photovoltaic; USD = United States dollar.

Source: IRENA (2025)

Developing countries face higher cost of capital even for relatively mature technologies compared to the Global North

3. What makes capital more expensive in the Global South?





What makes capital more expensive in the Global South?



The cost of capital for energy projects in the Global South is shaped by two layers of risk, global and domestic.
These compound to produce borrowing costs well above those in developed economies.

Global factors

Dollar-dominated currency hierarchy



Countries borrow in “hard currency” but earn revenues in local currency



A stronger dollar or euro raises repayment burdens

Domestic factors

High inflation and interest rates

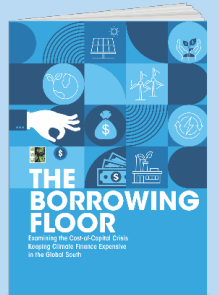
Large current account or public debt deficits

Underdeveloped local financial markets

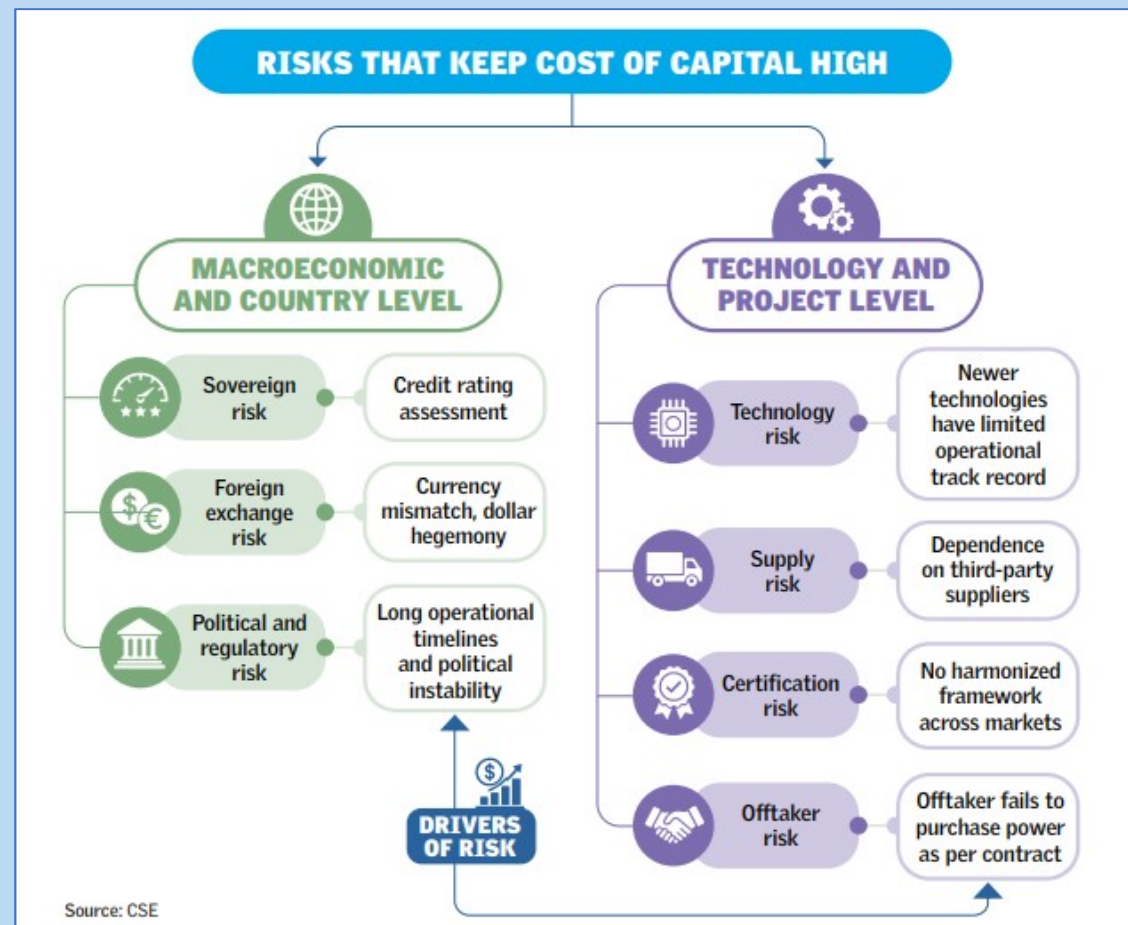
Reliance on costlier, more volatile international borrowing

Capital-intensive renewables: data gaps and limited track records further inflate perceived risk, though state-led schemes (e.g., India's offshore wind support) can build investor confidence

4. Risk – real and perceived – shapes the cost of capital



- Perceived as high-risk, EMDEs face a higher cost of capital and lower clean energy investment
- India's cost of capital for grid-scale renewables is among the lowest in EMDEs, yet still 80% higher than in advanced economies



Some of that risk is built into how countries are assessed



- **Sovereign risk ratings:** Set by a few global actors (CRAs, institutional investors, regulators) with opaque, discretionary methodologies, underpin how a country's investments are assessed
- **Income over creditworthiness (CCSI study):** GDP per capita directly determines sovereign credit scores, while debt-to-GDP was not statistically significant, so many AAA-rated developed countries exceed 100% debt-to-GDP and lower-debt developing countries are rated worse.
- **Sovereign ceiling trap:** A country's rating caps project-level risk assessment, so EMDEs face higher capital costs even with strong PPAs and payment security, reinforcing a self-fulfilling cycle that limits climate finance access.

Table 1: The bias of CRAs against developing countries in numbers

Country	Status	S&P Credit Rating	Growth rates for 2026 (in %)	Debt to GDP ratio in 2024 (in %)
India	Developing	BBB	6.5	81.2
Italy	Developed	BBB+	0.5	135.3
Spain	Developed	A+	2.1	101.6

Source: IMF - growth rates: https://www.imf.org/external/datamapper/NGDP_RPCH@WE0/OEMDC/ADVEC/WEOWORLD

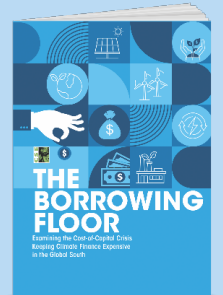
Public debt as percentage of GDP: <https://www.imf.org/external/datamapper/d@FPP/FRA/JPN/GBR/SWE/ESP/ITA/ZAF/IND>



Structural forces can compound the risk premium

- CRAs penalize developing countries for climate vulnerability:
 - The Maldives, a tourism-dependent island nation exposed to rising seas and flooding, was downgraded with agencies citing its climate risk, pushing borrowing costs to 9-12%.
 - Pakistan's 2022 floods (33 million displaced) weakened its finances, forced IMF-backed austerity that delayed climate resilience spending, and led Fitch to cut its rating, so climate risk and low ratings now reinforce each other. (*Dancing to Their Tune: Credit Rating Agencies, Sovereign Risk, and Financing Conditions in the Global South, 2026*)
- Other structural drivers include:
 - Dominance of dollar-denominated debt
 - Global banking regulations with inherent bias against EMDEs (Basel III)

5. Indian Stakeholder Survey: What does the evidence tell us?

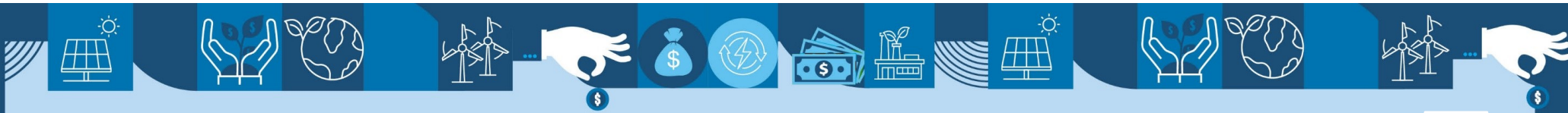




Indian Stakeholder Survey - What does the evidence tell us?

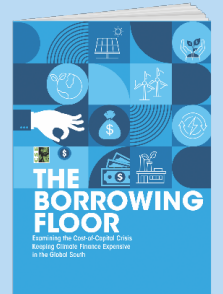


- Survey method:
 - 14 respondents from India's renewable energy financing ecosystem, mainly NBFCs
 - Half working on rooftop / distributed solar, a quarter on utility-scale solar, and the rest on onshore wind and hybrids
 - Sample size varies by question, as not everyone answered every question
- The findings are organized across three themes:
 - A. Risk perceptions
 - B. Translation of risk into financing terms
 - C. Effectiveness of interventions



A. Risk perceptions: What do Indian financiers see as risky?

- Insights from India Survey



For Indian financiers, offtaker payment risk stands out

- Offtaker payment risk is the top-ranked concern for financiers
- Foreign exchange risk ranks low
- Risk perceptions are shaped by three factors (ranked highest to lowest):
 - Past policy reversals
 - Early-stage market failures, including payment delays and contract renegotiation
 - Credit committee conservatism
- Hence → lending behaviour continues to be shaped by past and present factors even as project fundamentals keep improving.

Table 2: Risks that impact the viability of a project

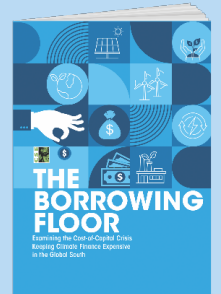
Risk	Score
Offtaker payment risk	3.9
Resource risk	3.5
Construction risk	3.5
Policy/regulatory change risk	3.5
Land acquisition/permitting risk	3.2
Grid curtailment risk	3.3
Refinancing risk	3.0
FX risk	2.1

Source: CSE analysis



B. Translation of risk into financing terms: How does perceived risk actually affect financing?

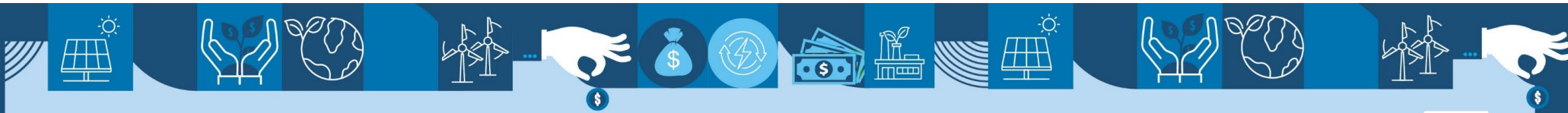
- Insights from India Survey





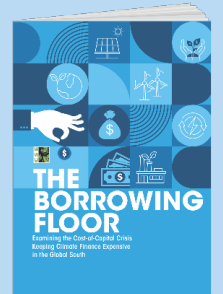
Risk shows up as higher rates and tougher financing terms

- Risk is reflected in financing agreements as higher interest rates and additional collateral requirements - **not necessarily deal rejection**
- Project finance is the near-universal mode of financing clean energy projects in India
- Interest rates for most respondents fall between less than 10% and 10 – 13%; but this range hides the even sharper drop in costs for rooftop solar through PM-SURYAGHAR
- A developer's financial strength and track record are weighed more heavily than the technology being deployed
- CRISIL's own ratings criteria confirm this, placing track record and cash flow discipline ahead of technology assessment once a project is operational



C. Effectiveness of interventions: What actually helps bring financing costs down?

- Insights from India Survey



De-risking tools help - but their effectiveness varies

- Government-backed offtaker guarantees and concessional loans are rated the most effective tools for reducing the cost of capital
- Closely followed by standardized PPAs
- Two interventions look effective in theory but under-deliver in practice:
 - 1) Partial credit guarantees
 - 2) Political risk insurance
- Reforms to sector-wide risk pricing rate highest in impact, above portfolio-level financing measures and project-specific support.
- ~ 40% of respondents point to regulatory reform as the government's foremost responsibility in lowering the cost of capital, ahead of market creation for clean energy technologies.
- Increasing support for a dedicated green financing institution.

Table 3: Most effective interventions in reducing cost of capital

Interventions	Score
Government-backed offtaker guarantees	4.2
Concessional loans	4.0
Standardized PPAs	3.9
Policy credibility and governance	3.6
Partial credit guarantees	3.2
Currency hedging facilities	2.7
Political risk insurance	2.3

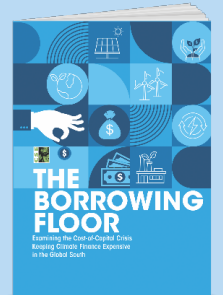
Source: CSE analysis



Summary of reflections from Indian experts

- **Offtaker risk is the biggest barrier** to domestic clean energy financing in India, so **government-backed offtaker guarantees and concessional loans** top the list of effective interventions
- **India has moved away from partial credit guarantees at utility scale** towards letters of credit and tripartite agreements with a central nodal agency. The core problem is **delayed payment by distribution companies**, and credit guarantees cover default, not delay
- **Tenders backed by central agencies were seen as less risky** than similar state-backed ones: lenders value a strong counterparty
- **Round-the-clock and firm dispatchable RE tenders** require developers to build extra capacity and sell the surplus on power exchanges, exposing them to **price and volume risks** that the survey does not yet capture
- **Project-level de-risking is not enough** as procurement structures diversify and newer technologies enter. It cannot address the **sovereign-level constraints** experts flagged, which require **IFA reform**

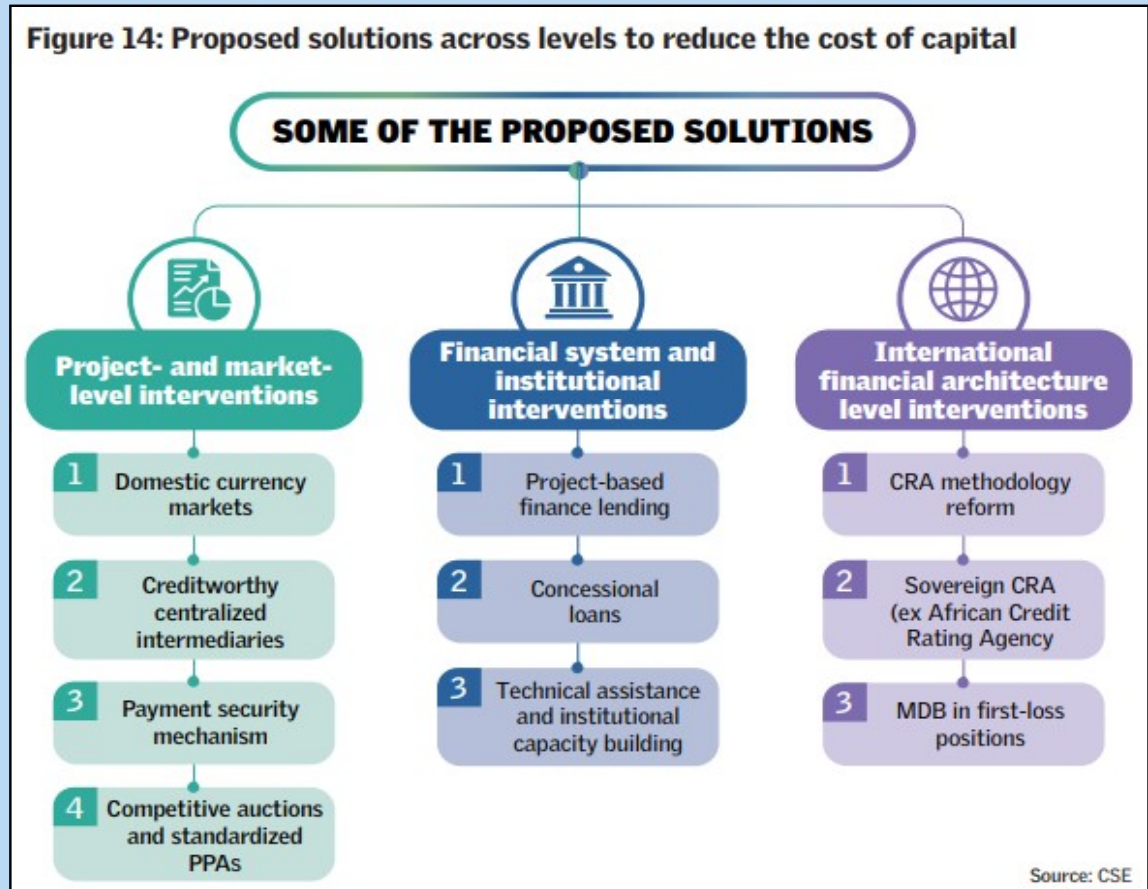
6. De-risking can lower project premiums - not the underlying floor



Can project-level de-risking lower the borrowing floor?

Not alone.

Figure 14: Proposed solutions across levels to reduce the cost of capital

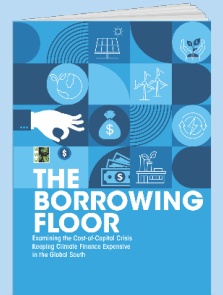




De-risking can lower project premiums - not the underlying floor

- Much of the international response to the high cost of capital has **centered on de-risking**
- These approaches **enable financing for projects** that might otherwise struggle, and improve bankability for immature technologies or projects facing construction, regulatory, or offtake risks.
- But this paper suggests these interventions address only part of the problem.
- Sovereign ratings, currency risk, macroeconomic conditions, banking regulations, and US dollar dominance **create a borrowing floor for developing countries**, on top of which project-specific risks are priced.
- **Instruments can reduce individual project premiums but cannot lower this floor**
- Project-level fixes **cannot change the structural mechanisms** that price risk across developing economies.

7. To lower the 'borrowing floor', the financial architecture has to change





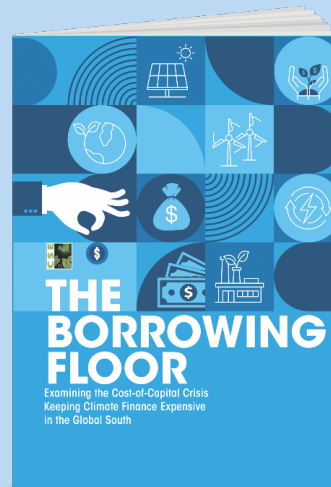
To lower
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1. Fix the floor, not just the projects – Reforms to credit rating methodology and transparency, debt restructuring, MDB lending capacity, and local-currency finance

Reform is already on the global agenda – Bridgetown Initiative, the V20 agenda, FfD4 (Seville Commitment), G20 and BRICS discussions, UNCTAD and UN Secretary-General proposals, and regional efforts like the African Credit Rating Agency

More money is not enough (nor rushing in) - If structural drivers stay unchanged, even if higher climate finance volumes are achieved (NCQG, B2B \$1.3 trillion) they may not be affordable for all.

De-risking is necessary, not sufficient - Lowering the cost of capital means correcting the structural asymmetries that make the transition costliest where investment is needed most.



Thank you

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