Impact of Climate Change Risk on sovereign credit

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Small, agriculture-reliant sovereign credits most susceptible to climate change

Source: Moody’s Investors Service

[Map showing the susceptibility of sovereign credits to climate change risk]
# Heatmap for climate change risk

## Exposure (to Climate Change Risk)
- **Economic diversification**
  - Nominal GDP (US$)
  - Agricultural employment (% Labor force)
  - Agricultural Value Added (% GDP)
- **Geographical location**
  - ND-GAIN (Notre Dame Global Adaptation Initiative) Exposure
  - ND-GAIN sensitivity
  - Number of annual disaster and damages

## Resilience (to Climate Change Risk)
- **Development level**
  - GDP per capita (PPP)
  - ND-GAIN capacity
- **Fiscal flexibility**
  - Moody’s fiscal strength
  - Government debt (% GDP)
  - Government interest payments (% GDP)
  - Fiscal deficit (% GDP)

Source: Moody's Investors Service

[How Moody's Assesses the Physical Effects of Climate Change on Sovereign Issuers](#)
High ND-GAIN exposure can be consistent with high ratings

» Some sovereigns, like Japan and Singapore, have a high ND-GAIN Exposure index but are highly resilient to climate change.

» Some little exposed sovereigns like Jordan have, for different reasons, relatively low ratings.

Notre Dame Global Adaptation Initiative (ND-GAIN)
Exposure index measures the extent to which “human society and its supporting sectors are likely to be stressed” by future changing climate conditions.
Sovereigns with high climate change exposure tend to have weak institutions

» Most vulnerable sovereigns to climate risk tend to also have weak institutions.

» Average institutional strength of this group of vulnerable sovereigns is « Low ».

» Strongest institutional frameworks are assessed to be « Medium »
MDBs support credit profiles by enhancing resiliency to climate change on low-cost terms

» MDBs will play an increasingly important role as sources of climate finance. Through their development mandate, high credit quality and technical expertise they offer climate-vulnerable sovereigns relatively low-cost project financing and technical assistance, which supports resiliency in credit profiles. MDBs also help “crowd-in” co-financing.

» Adaptation and mitigation finance offer sovereigns an opportunity to reduce exposure to climate change risks on relatively affordable terms by supporting projects that limit the channels through which climate shocks and trends negatively impact credit profiles.

MDBs began to comprehensively report climate co-finance statistics in 2015. Source: Moody’s Investors Service

Environmental risks - Sovereigns – MDB climate finance builds resiliency in climate-vulnerable sovereign credit profiles
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