Innovative and resilient debt management: managing risks and navigating crises

17-19 March 2025, Geneva

Panel 5: Debt-climate Nexus: Innovative Debt Instruments to Manage Fiscal Risk

Developing countries with high debt and climate vulnerabilities face a vicious cycle where disaster recovery and climate-resilient structural transformation require investment, leading to costly borrowing increase and deteriorated debt sustainability, perpetuating underinvestment in climate actions. Novel financial instruments are needed to enhance flexibility and resilience in public debt management amid shifting economic challenges. This panel will delve into innovative debt instruments that can equip policymakers and practitioners to effectively navigate complex debt landscapes and break out the debt-climate vicious cycle.

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Celine Tan

Professor of International Economic Law

University of Warwick

Celine Tan is Professor of International Economic Law. She is also the Co-Director of the Centre for Law, Regulation and Governance of the Global Economy (GLOBE) based at Warwick Law School. Celine is a founding member of The IEL Collective, a community for scholars and practitioners interested in critical reflection of the interactions between law and the global economy. Prior to Warwick, she was at the University of Birmingham. She completed her PhD at the University of Warwick where she held a Postgraduate Research Fellowship.

João Augusto Ribeiro Nardes

Minister, Federal Court of Accounts

Government of Brazil

João Augusto Ribeiro Nardes : H.E. Mr. João Augusto Ribeiro Nardes is currently minister and former president of the Federal Court of Auditors (TCU). For Rio Grande do Sul (a state in the South of Brazil), he was a federal deputy for three terms and a state deputy for two terms. He has a degree in business administration, a postgraduate degree in development policy and a master's degree in development studies from the Institut Université d'Études in Geneva, Switzerland.

Sharon Almanza

Treasurer

Department of Finance of the Philippines

Sharon Almanza is a Career Executive Service Officer and currently the Treasurer of the Philippines of the Bureau of the Treasury, an attached agency of the Department of Finance. Before assuming her current role, she served as the Officer-in-Charge of the Bureau of the Treasury. Preceding this position, she held the title of Deputy Treasurer of the Philippines wherein she headed the Accounting Service, Research and Regional Operations, and Asset Management Service. he was seconded to the World Bank Group (WBG) from 2021 to 2023 as the Alternate Executive Director and Senior Advisor for the Constituency of Brazil, Colombia, Dominican Republic, Ecuador, Haiti, Panama, Philippines, Suriname, and Trinidad & Tobago. She also held various positions at the Department of Finance as the Chief of the Debt and Risk Management Division (DRMD) of the International Finance Group and Officer-in-Charge of the Multilateral Assistance Division.

Natalia Turdyeva

Head of the Regional and Industry Research Unit

Bank of Russia

Natalia Turdyeva is the Head of the Regional and Industry Research Unit in the Department of Forecasting at the Bank of Russia, a position she has held since 2018. Prior to this, she was a Leading Researcher at the Center for Economic and Financial Research at the New Economic School in Moscow. Ms. Turdyeva holds a Master of Computer Science degree from the Russian National University of Science and Technology MISiS and a Master of Arts in Economics from the New Economic School. Her main areas of research include climate economics and trade policy. Ms. Turdyeva is among Russia's leading experts in computable general equilibrium (CGE) models and currently applies her expertise in CGE modeling as part of the Bank of Russia's climate stress-testing initiatives.

Jill Dauchy

Founder and Chief Executive

Potomac Group LLC

Jill Dauchy is the founder and chief executive of Potomac Group LLC, a financial advisory firm based in Washington DC that specializes in advising governments on complex matters of the sovereign balance sheet. Ms. Dauchy's career as a trusted advisor to governments and public entities spans more than twenty years and over a dozen countries throughout Europe, Asia, Africa, and Latin America. Prior to forming Potomac Group, Ms. Dauchy was Managing Director at Millstein & Co. Ms. Dauchy is the host of Sovereign Debt, a podcast that is regularly downloaded in over 120 countries. In addition, Ms. Dauchy serves as an external expert to the IMF and is a member of the Institute of International Finance (IIF), where she regularly participates in the Principles Consultative Group, the Committee for Sovereign Risk Management, and the Committee for Debt Transparency. Ms. Dauchy earned an M.B.A. from the Wharton School of Business and an M.A. in International Studies from the Lauder Institute, both of the University of Pennsylvania. She also received a B.A. in Soviet/Russian studies from Barnard College of Columbia University. She is fluent in French and Russian.

Nicole Kearse

Head of Sovereign Finance

African Legal Support Facility (AfDB)

Nicole Kearse has a diverse career in law, finance, and consulting, with a focus on Africa's development. She began her legal career in 2003 at Curtis, Mallet-Prevost, later moving to Baker McKenzie and then Shearman & Sterling LLP as a finance associate. In 2010, she became Deputy Managing Director at DaMina Advisors. By 2015, Ms. Kearse co-founded Krescent Consulting LLP and led Learning and Development at ILFA, also serving on its board. Her financial sector experience includes a secondment at Citibank's Latin America and Caribbean Division. Since 2018, she has worked at the African Development Bank Group's African Legal Support Facility, currently heading the sovereign finance sector. Ms. Kearse holds a JD from Georgetown, an MA from Columbia, and an MA (law and diplomacy) from the Fletcher School at Tufts. She is a Solicitor in England and Wales and admitted to the New York Bar.

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

14th Debt Management Conference

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Panel 5

Climate Innovative Instruments in the Philippines

Sharon P. Almanza

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UN trade & development UNCTAD

CLIMATE INNOVATIVE INSTRUMENTS IN THE PHILIPPINES

SHARON P. ALMANZA
Treasurer of the Philippines
14th UN Trade & Development Debt Management Conference

1

SETTING THE SCENE

The Philippines is among the countries **most vulnerable to the impacts of climate change**, facing a multitude of environmental, economic, and social challenges.

According to the World Risk Report 2024, the Philippines has the **highest disaster risk globally**, posing severe threats to the country's social and economic progress.

2

PLEDGE

In 2015, the Republic of the Philippines, along with 192 other member states of the United Nations, committed to achieving the **17 Sustainable Development Goals (SDGs)** and their 169 targets.

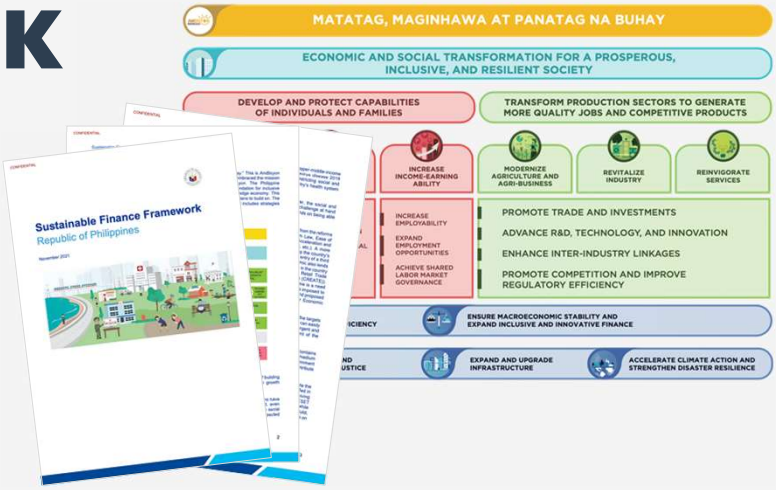
3

SUSTAINABLE FINANCE

4

SUSTAINABLE FINANCE FRAMEWORK

The Framework supports the **Philippine Development Plan 2023-2028**, a medium-term plan for deep transformation in the social, economic, and environmental sectors.



5

OUR SUSTAINABLE FINANCE JOURNEY

January 2022
Publication of Sustainable Finance Framework

March 2022
Inaugural Sustainability Issuance
25-year USD Sustainability Bonds

April 2022
2nd Sustainability Issuance
5-, 7-, 10-, and 20-year Inaugural Samurai Sustainability Bonds

October 2022
3rd Sustainability Issuance
25-year *USD Sustainability Bonds*

January 2023
4th Sustainability Issuance
25-year USD Sustainability Bonds

September 2023
Publication of Allocation and Impact Report

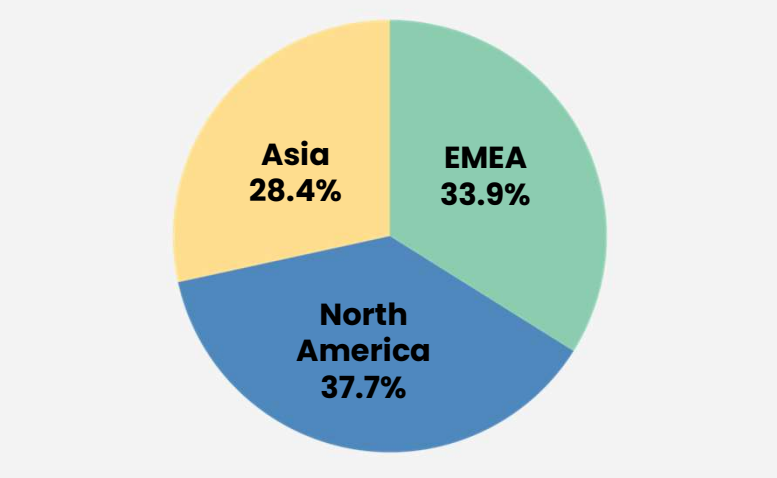
May 2024
5th Sustainability Issuance
25-year USD Sustainability Bonds

August 2024
6th Sustainability Issuance
25-year USD Sustainability Bonds

January 2025
7th Sustainability Issuance
25-year USD Sustainability Bonds and 7-year Inaugural EUR Sustainability Bonds

6

To date, the Republic has issued approximately **US$7.5 billion** across seven (7) sustainability bond offerings in **USD**, **JPY**, and **EUR** markets.



ROP USD & EUR Sustainability Bonds Geographical Breakdown (2022-present)

7

Highlights of Sustainability Bond Issuances

$1 billion • *25Y tranche* • *Mar 2022*	• ***Inaugural Sustainability bond issuance*** • *Aggressive price tightening of 25-50 bps with an order book peaking over US$15 billion*
¥70.1 billion • *5Y, 7Y, 10Y, 20Y tranches* • *April 2022*	• ***First-ever sovereign Sustainability bond issuance in the Samurai market*** • *Sizable demand led to an upsize equivalent to US$550 million*
$750 million • *25Y tranche* • *Oct 2022*	• ***First global bond issuance under the Marcos Jr. administration*** • *Strong demand for the 25Y ESG tranche enabled an upsize to US$750 million despite significant tightening*
$1.25 billion • *25Y tranche* • *Jan 2023*	• ***Largest Sustainability tranche of the ROP to date*** • *Aggressive price compression of 45-50 bps across tranches, with order books topped at over US$28 billion (~ 14x the initial offered amount of US$2 billion)*

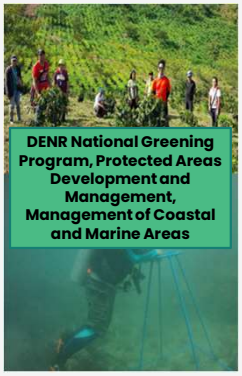
8

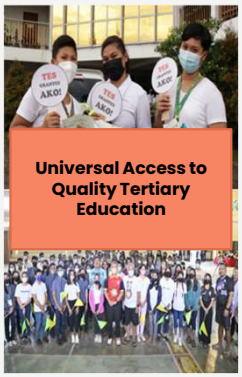
$1 billion • *25Y tranche* • *May 2024*	• ***Fifth sustainability bond offering*** • *Combined order books topped at over $16b (~ 8.3x oversubscription for a $2b issuance)* • *Sustainability tranche was priced 45 bps tighter than the initial price guidance*
$900 million • *25Y tranche* • *August 2024*	• ***Sixth sustainability bond offering*** • *Combined order books topped at over $11.3b (~ 4.5x oversubscription for a $2.5b issuance)* • *Sustainability tranche was priced 32.5 bps tighter than the initial price guidance*
$1 billion • *25Y tranche* • *January 2025* **€1 billion** • *7Y tranche* • *January 2025*	• ***First dual-currency issuance,*** *leading to a effective multi-currency execution strategy* • ***Maiden EUR-denominated sustainability bond,*** *as well as the Republic's return to EUR bond markets since April 2021*

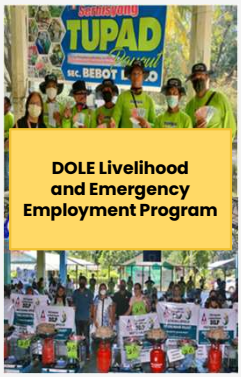
9

FUNDING THE REPUBLIC

Projects featured in the **2023 Allocation and Impact Report**







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NEXT STEPS

Publish the next **Allocation and Impact Report** for 2024 and 2025 issuances

Update the Republic's **Sustainable Finance Framework** to to expand scope of eligible expenditures

11

DISASTER RISK FINANCING

12

CONTINGENT LOANS/ FINANCING

- Contingent line of credit that can **provide immediate liquidity** to countries in the aftermath of a disaster
- Philippines was the **first sovereign in Asia to have a CAT DDO with the World Bank**
- Unlocked in the event of a State of Calamity
- Pre-negotiated loan

13

NATIONAL ASSET REGISTRY SYSTEM (NARS)

- Consolidated database of non-financial critical and strategically important government assets
- Goal is to enable **more efficient financial risk management, enhance service delivery**, and **improve risk reduction** for sustainable asset management in the long term

14

NATIONAL INDEMNITY INSURANCE PROGRAM (NIIP)

- The NIIP aims to provide **adequate and comprehensive insurance coverage to government's strategically important assets**
- The 2024 pilot program of the NIIP covered **132,862 Department of Education school buildings nationwide**, with an estimated value **exceeding PHP 843.11 million**

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> This is a significant win for every Filipino as we are raising funds at very affordable costs to support programs and projects that will boost economic growth, create quality jobs, increase incomes, and reduce poverty.

HON. RALPH G. RECTO
Secretary of Finance

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CLIMATE INNOVATIVE INSTRUMENTS IN THE PHILIPPINES

SHARON P. ALMANZA
Treasurer of the Philippines
14th UN Trade & Development Debt Management Conference

17

How Should Banks Incorporate Climate Factors into Their Pricing?

Speaking Notes for UNCTAD Debt Conference Panel 5: Debt-climate Nexus: Innovative Debt Instruments to Manage Fiscal Risks

By Natalia Turdyeva

Research and Forecasting Department, Bank of Russia

Excellences, distinguished delegates, and esteemed participants,

It is a great honour to address this gathering at the fourteenth session of the Debt Management Conference, at the panel devoted to the Debt-climate nexus. Climate change is a defining issue of our time, and the way financial institutions respond to climate-related risks will shape economic stability for decades to come. Today, I would like to present my perspective on how banks can integrate climate factors into their pricing strategies to build resilience and foster sustainable development. Additionally, I will highlight some key challenges that must be addressed and overcome along the way.

The views expressed herein are solely mine and should not be considered or referred to as the Bank of Russia's official position, official policy, or decisions.

1. Introduction

Russia is experiencing climate change at an accelerated pace compared to the global average, with rising temperatures, shifting precipitation patterns, and increased frequency of extreme weather events.

These changes have direct implications for economic stability, infrastructure resilience, and financial sector risk assessment. The financial sector faces a fundamental challenge: how to incorporate climate risks into pricing models to ensure financial stability, mitigate systemic risks, and support a sustainable economy[1].

Climate change is not a hypothetical risk—it is already reshaping asset values, default probabilities, and financial stability. The traditional backward-looking risk models used in credit assessment and pricing are ill-suited to capture the rapidly evolving nature of global economic dynamics.

We need a forward-looking approach to dealing with climate risks, including both transition risks (which cover regulatory changes, carbon pricing, stranded assets) and physical risks (risks of extreme weather, infrastructure degradation).

In this presentation, I will argue that banks should adopt **forward-looking climate risk models** and incorporate **scenario-based assessment frameworks** into pricing strategies. While this transition introduces **data-related and methodological hurdles**, regulatory requirements are evolving to necessitate such integration. The global financial community—including the **Financial Stability Board, Basel Committee, and Bank for International Settlements, and the Bank of Russia among central banks worldwide**—is moving toward mandatory climate risk stress testing, highlighting the urgency of action.

The Bank of Russia has initiated its own climate risk stress-testing framework, which evaluates the potential impact of climate change and regulatory transition risks on the Russian financial sector. The Central Bank has also introduced "Recommendations on Climate Risk Management for Financial Institutions"[2], encouraging Russian financial institutions to incorporate forward-looking climate risk assessment into their risk management practice. These measures aim to enhance financial stability, ensuring that Russian financial institutions remain resilient amid the global shift toward sustainable finance.

2. The Problem with Backward-Looking Risk Models

Most current financial risk models rely on historical data, assuming that past risk patterns provide a reliable basis for estimating future defaults and asset values. This approach is increasingly failing in the face of **climate risks**, which are fundamentally **non-stationary, uncertain, and systemic in nature**.

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[1] "Only a small percentage of Russian financial institutions include all the risks related to greenhouse gas emission reductions and climate change adaptation in their corporate risk management systems. These are the findings of the survey conducted by the Bank of Russia to evaluate compliance with its recommendations." (http://cbr.ru/eng/press/event/?id=23338#highlight=climate%7Crisks%7Crisk)

[2] http://cbr.ru/Content/Document/File/157989/Recommendations_on_Climate_Risk.pdf

- **Physical Climate Risks**: Banks with large mortgage portfolios are already experiencing the financial impacts of wildfires, hurricanes, and floods that **were not accounted for in historical risk models**.
- **Transition Risks**: Governments worldwide are implementing **carbon pricing, emissions standards, and industry transition policies** that could render certain business models obsolete.

The **Basel Committee on Banking Supervision (2022)**[3] and the **Financial Stability Board (2025)**[4] highlight that traditional probability of default models need to be adapted to incorporate **forward-looking climate scenarios**. Without this shift, banks will **misprice loans, underestimate credit risk, and expose themselves to financial instability**.

3. The Case for Forward-Looking Climate Risk Assessment in Lending

To improve risk pricing, banks must **integrate climate risk awareness into lending decisions**. This requires:

- **Enhanced due diligence on borrowers' climate risk exposure.**
- **Requiring firms to disclose climate change adaptation plans and transition strategies.**
- **Developing internal expertise in climate science and scenario-based risk modelling.**

4. Challenges in Integrating Climate Risk into Pricing

Despite growing regulatory momentum, integrating climate risk into financial models presents **significant challenges**:

1. **Uncertainty in Climate Models**: Climate scenarios depend on variables such as emission trajectories, government policies, and technological advancements, making risk quantification difficult. The complexity and long-term nature of climate change create substantial model uncertainty, complicating the integration of climate risks into existing risk management frameworks.

2. **Data Gaps and Granularity Issues**: Climate risk data is not standardized across jurisdictions, limiting banks' ability to make accurate assessments. The availability and quality of data pose significant challenges, particularly in emerging markets and developing economies.

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[3] "51. Supervisors should maintain sufficiently frequent contact, as appropriate, with board and senior management to develop an understanding of, and assess the bank's long-term approach to, addressing climate-related financial risks in a **forward-looking manner**. Where necessary, supervisors should challenge the bank on the assumptions made in setting strategies and business models." BCBS (2022) Principles for the effective management and supervision of climate-related financial risks (https://www.bis.org/bcbs/publ/d532.htm)

[4] "These unique features [of climate-related risks] include, for example, **the forward-looking nature** of these risks wherein climate shocks *are expected to grow* in terms of their frequency and magnitude, which makes **historical data ill-suited to assess future impacts**." FSB (2025) "Assessment of Climate-related Vulnerabilities:
Analytical framework and toolkit" (https://www.fsb.org/uploads/P160125.pdf)

3. **Potential Financial Exclusion ("Climate Redlining")**: Overly strict risk assessments could lead banks to withdraw financing from climate-vulnerable regions, undermining climate adaptation efforts. This risk is particularly acute in emerging economies with institutional weaknesses, where climate-related financial regulation may inadvertently create barriers to credit access for vulnerable segments.

4. **Conditionality of Green vs. Brown Sectors**: The traditional division of industries into "green" and "brown" categories is often oversimplified. Emerging "green" industries are unlikely to form entirely from scratch; instead, they will likely evolve out of existing "brown" sectors. For example, the transition to renewable energy relies heavily on advancements in industries like mining (for critical minerals) and manufacturing (for solar panels and wind turbines). Similarly, sectors currently considered "green," such as IT, may shift toward being classified as "brown" due to their growing energy consumption—particularly in areas like AI development and data center operations.

5. **Increased Systemic Risk from Overconcentration in "Low-Risk" Sectors**: If banks disproportionately allocate credit to low-carbon industries, they could create asset bubbles and concentration risk, amplifying financial instability. This highlights the need for a balanced approach to climate risk management that considers both stability and inclusion.

6. **Capacity Constraints**: Financial institutions may face increased capacity constraints in implementing complex climate risk models, potentially leading to conservative practices and exclusionary risk management approaches.

The NGFS (2022) report on climate risk data gaps and recent research on climate redlining highlight the urgent need for regulatory guidance and data standardization to address these challenges. Furthermore, policymakers should recognize that the green transition is not a binary shift but rather a continuous evolution involving existing sectors. This nuanced understanding can prevent misclassification risks and ensure a more inclusive approach to financing the transition. For example, supporting innovation within traditionally "brown" industries rather than excluding them entirely could accelerate decarbonisation while avoiding unintended consequences like financial exclusion or systemic instability.

5. Strategies for Overcoming Barriers

To successfully integrate climate risk into financial pricing models, banks and regulators might find it helpful to look for solutions in the following directions:

1. **Enhance Data Accuracy and Transparency**:

- **Mandatory Climate Risk Disclosure**: Implement mandatory disclosure requirements aligned with frameworks such as TCFD, SEC, IFRS S2 guidelines. These disclosures improve transparency and allow for more accurate climate risk assessments.
- **Collaboration for Better Forecasting**: Partner with central banks, meteorological institutions, and platforms like the World Bank's Climate Change Knowledge Portal and the IMF Climate Data Dashboard. Those

data hubs provide access to comprehensive global, regional, and country-level climate data, including historical trends, future projections, and vulnerability assessments. These tools can help banks better understand climate risks at multiple scales.

2. **Develop Industry-Wide Risk Frameworks**

- **Adopt unified Scenarios: For example, financial institutions might** use NGFS scenarios as a baseline for stress testing while integrating sector-specific transition pathways into probability of default models. Enhanced methodologies, such as linking Integrated Assessment Models with financial risk models, can improve scenario relevance.

3. **Balance Risk-Based Pricing with Sustainable Finance**

- **Support Climate Adaptation Financing:** Instead of withdrawing financing from high-risk areas ("climate redlining"), banks should finance projects like flood defences or renewable infrastructure to build resilience in vulnerable regions.
- **Blended Finance Mechanisms**: Governments should provide tools such as climate risk guarantees or transition bonds to de-risk private investments in high-risk sectors. This ensures financial inclusion while promoting sustainable development.

4. Regulatory Coordination

- **Harmonize Policies:** Align financial regulations with government policies and central bank mandates to facilitate a smooth integration of climate risks without excessive market disruption.
- **Incentivize Early Adoption**: Encourage early movers in climate risk integration by providing regulatory incentives, such as reduced capital requirements for sustainable investments. Bank of Russia plans to reduce risk weights for loans and bonds directed at financing "green projects" in 2025[5].

The G20 Sustainable Finance Roadmap (2021), the Financial Stability Board's (2025) Analytical framework, BRICS[6] approach to harmonizing information disclosure standards as well as tools like the World Bank's Climate Change Knowledge Portal provide blueprints for scaling these solutions globally.

[5] https://www.interfax.ru/business/1010965

[6] Bank of Russia (2025) "Main Approaches to Harmonizing Information Disclosure Standards In the Area of Sustainable Development In the BRICS Countries"
http://cbr.ru/statichtml/file/159718/brics_finance_report.pdf

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Panel 5

Debt-climate Nexus: Innovative Debt Instruments to Manage Fiscal Risk

Jill Dauchy

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14TH DEBT MANAGEMENT CONFERENCE
PANEL 5: DEBT-CLIMATE NEXUS: INNOVATIVE DEBT INSTRUMENTS TO ADDRESS RISKS

POTOMAC
GROUP

WASHINGTON, D.C.

MARCH 2025

I. TAXONOMY AND MARKET DEVELOPMENT

II. LESSONS LEARNED

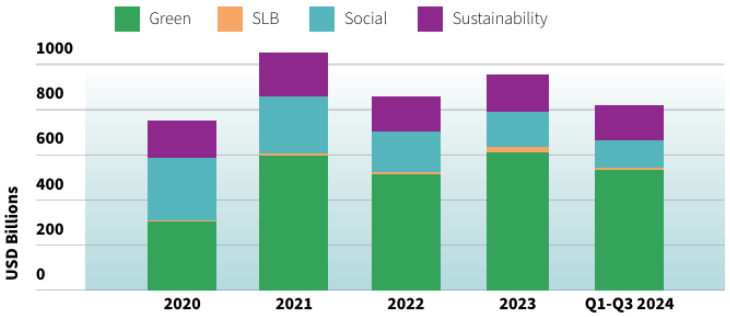
I. TAXONOMY AND MARKET DEVELOPMENT

OVERVIEW OF GSS+ FINANCING INSTRUMENTS

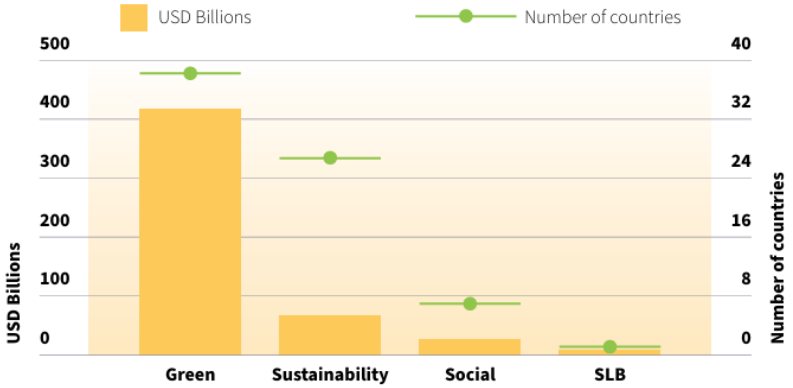
Green / Blue Bonds	Social Bonds	Sustainability Bonds	Sustainability-Linked Bonds (SLB)
Thematic Bonds			
Proceeds will be exclusively applied to finance or re-finance, in part or in full, new and/or existing projects or activities with positive environmental impacts.	Proceeds will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible social projects.	Proceeds will be used to finance or re-finance a combination of green and social projects or activities.	Proceeds would be primarily for the general purposes, but the value of coupon and/or principal repayments is linked to attaining Key Performance Indicators (KPIs) and Sustainability Performance Targets (SPTs).
			

EVOLUTION OF GLOBAL GSS+ CAPITAL MARKETS AND INNOVATIVE FINANCING

Breakdown of GSS+ Volumes in Recent Years



Breakdown of Cumulative GSS+ Sovereign Volume, which reached USD 630 billion as of end Q3 2024



Source : Climate Bonds Initiative, *"Sustainable Debt Market Summary Q3 2024"*, November 2024

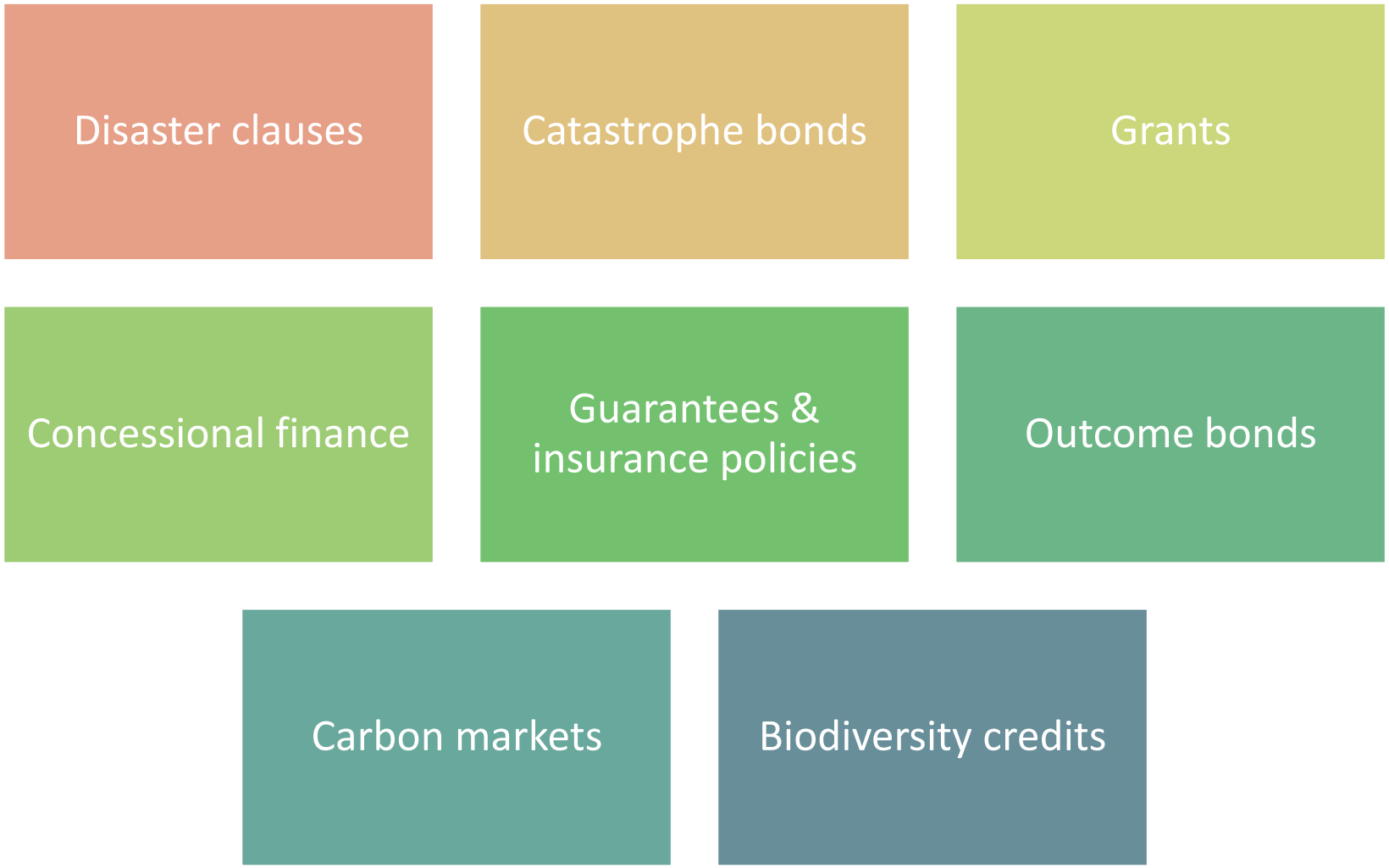
A debt swap aims to reallocate part of a sovereign's budget from debt service to a targeted activity

A debt swap is not a total solution to restoring debt sustainability, nor is it intended to replace current government expenditure on the targeted activity

TYPES OF “DEBT SWAPS”

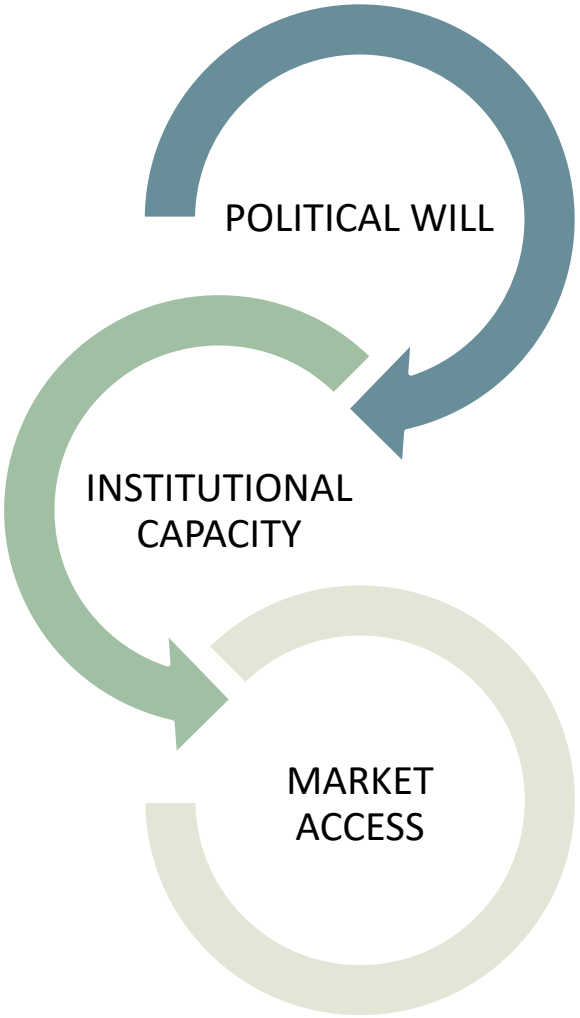
Bilateral / Negotiated	Multi-Party / Market-Based
• Consists of the cancellation of a bilateral loan by a creditor in exchange for pre-agreed actions by the debtor country • Negotiated bilaterally between creditor and debtor	• Involves a third party (donor or other intermediary) repurchasing an existing debt instrument at a discount from the original creditors • In exchange for this reduction in the debt burden, the debtor country allocates part of the savings to a Trust Fund for agreed activities

OTHER MARKET INNOVATIONS THAT CAN BUILD RESILIENCE IN THE DEBT PORTFOLIO AND MOBILIZE ADDITIONAL FINANCING



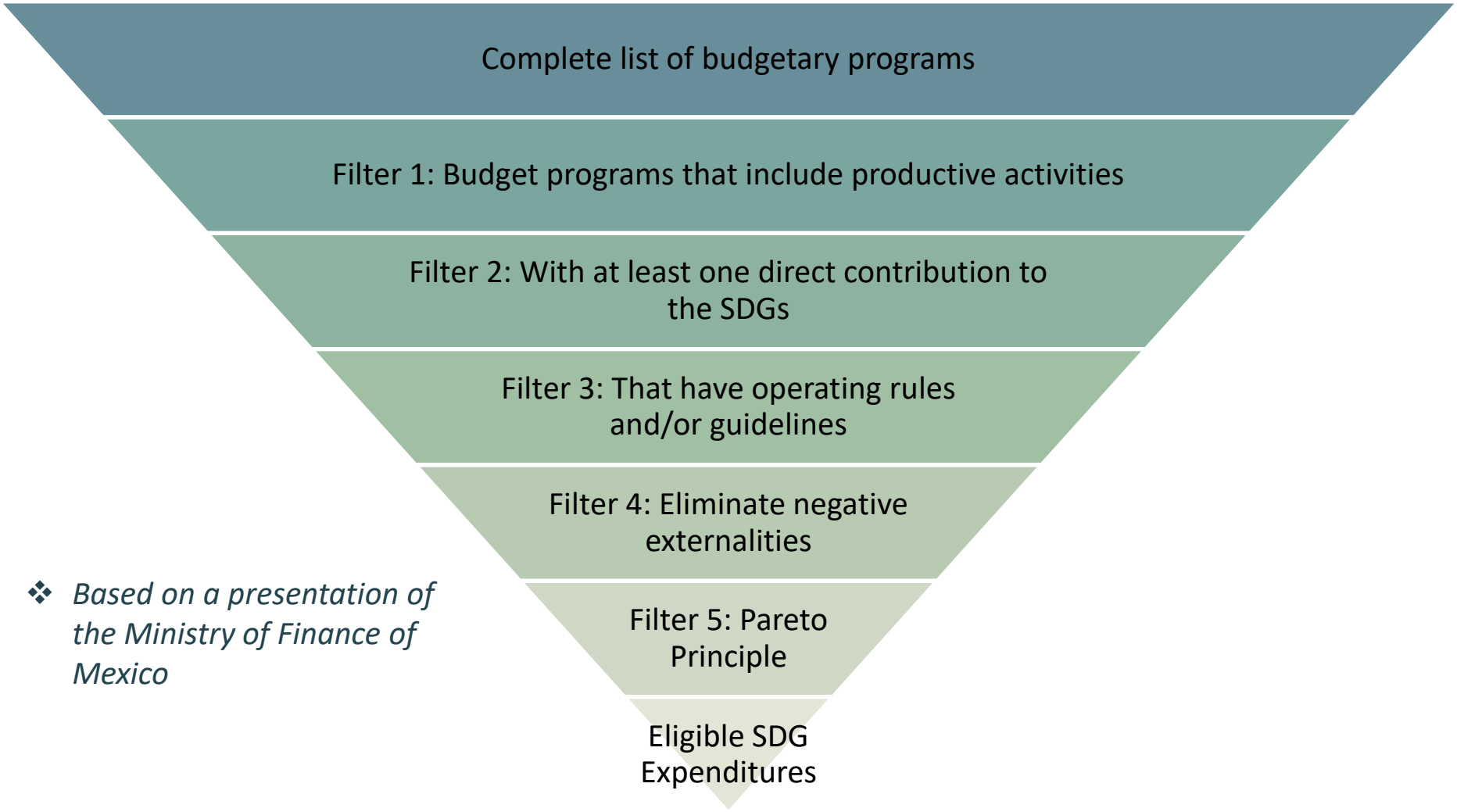
II. LESSONS LEARNED

ELIGIBILITY CRITERIA FOR GSS+ ISSUANCE



FEDERAL BUDGET: ALIGNMENT WITH SUSTAINABLE DEVELOPMENT GOALS

CREATING SELECTION CRITERIA FOR ELIGIBLE EXPENDITURES



- *Based on a presentation of the Ministry of Finance of Mexico*

National Council

External Verification (SPO), e.g. UNDP or Moody's Investor Service

Other independent bodies, e.g. Superior Audit of the Federation in Mexico

The financial markets and rating agencies with ESG scoring

Monitoring of Key Performance Indicator

Allocation and Impact Reporting

CREATING A NATIONAL FRAMEWORK

	Green / Blue Bonds	Social Bonds	Sustainability Bonds	Sustainability-Linked Bonds (SLB)
	Thematic Bonds			
Voluntary process guidelines	• ICMA Green Bond Principles (GBP) • EU Blue Economy Framework	• ICMA Social Bond Principles (SBP)	• ICMA GBP & SBP • ICMA Sustainability Bond Guidelines	• ICMA Sustainability-Linked Bond Guidelines
Key principles	• Use of proceeds • Process for project evaluation and selection • Management of proceeds • Reporting			• Selection of KPIs • Calibration of SPTs • Bond Characteristics • Reporting • Verification

THANK YOU

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Panel 5

Building Resiliency into Debt Documents – Climate Resilient Debt Clauses (CRDCs)

Nicole Kearse

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Building Resiliency into Debt Documents – Climate Resilient Debt

ALSF

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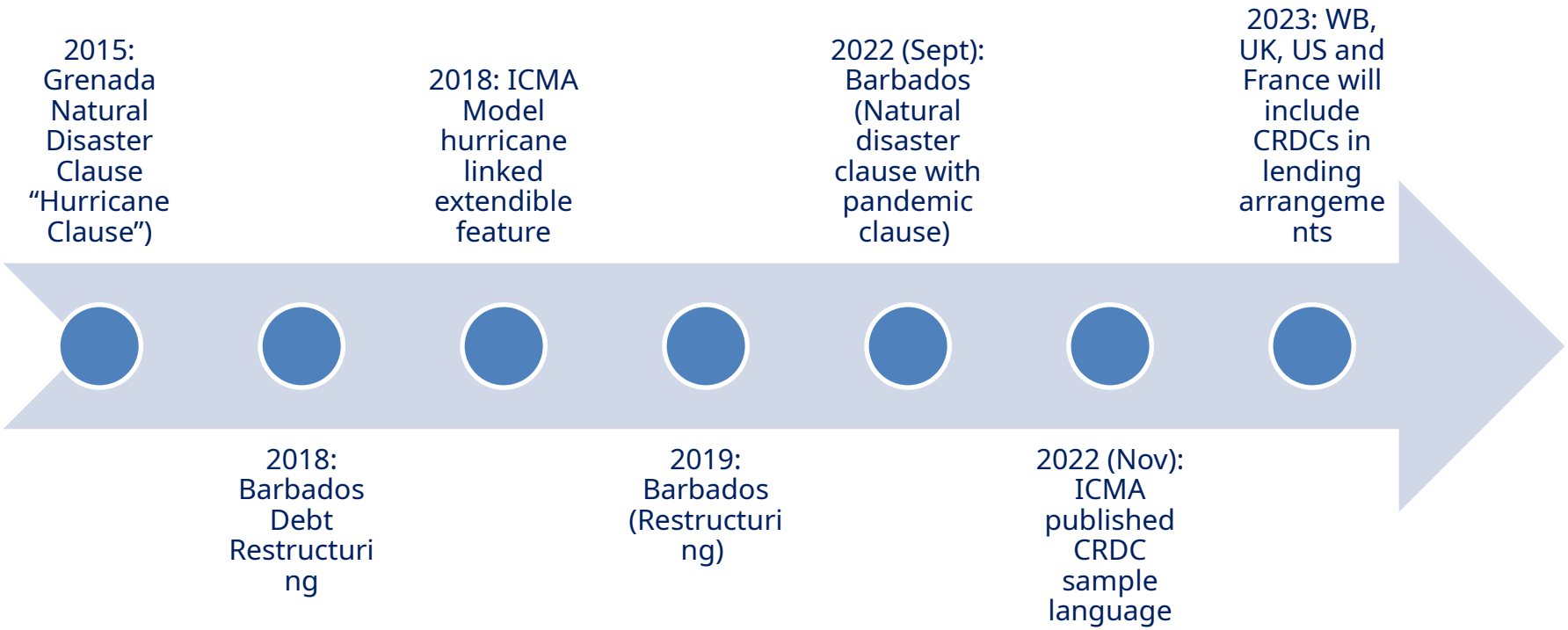
Definition and Benefits

- CRDCs are clauses in debt documents (related to loans or bonds) that offer baked in relief for climate-related shocks leading to financial loss; allow borrower to suspend or lower principal and/or interest payments following a predefined climate shock or natural disaster.
- Borrower benefits:
  - Receives fiscal breathing room/ financial relief during crisis
  - Can redirect funds from debt servicing to disaster response and reconstruction
  - Supports future economic recovery by alleviating immediate fiscal pressures
  - Could reduce need to take on emergency loans
  - May preempt costly and complicated restructuring or disorderly default by reducing debt service burdens during climate-induced crises
- Creditor benefits:
  - May preempt costly and complicated restructuring, disorderly default or litigation by reducing debt service burdens during climate-induced crises
  - Provides some certainty around repayment in and following crisis
  - Could help with aligning ESG investment goals; showcases responsible lending practices

History of Climate Continency Clauses



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Recent Uptake

- CRDCs have picked up traction over the past 2 years. Lenders that offer this option include:
- **Multilateral Development Banks (MDBs):**
  - African Development Bank (AfDB) (2024) – for African Development Fund countries
  - European Bank for Reconstruction and Development (EBRD) (2024) – for climate induced or natural disasters in LMICs in EBRD regions
  - European Investment Bank (EIB) (2024) – for LDCs or SIDS
  - Inter-American Development Bank (IDB) (2024)
  - World Bank (2024) - for IBRD and IDA-eligible Small State Economies, members of the Small States Forum, and Small Island Developing States
- **Bilateral lenders:**
  - United Kingdom through United Kingdom Export Finance – first export credit agency to introduce these into loan agreements – for LICs and SIDS
  - France through Agence Française de Développement (2024) – mainly for LDCs or SIDS
  - Japan (2024) through Japan International Cooperation Agency for vulnerable countries
  - Australia (2025) for small and vulnerable countries

How They Work

How They Work

- **The Trigger**
  - Must have a predefined event that allows the borrower to activate (or request) the pause – the trigger should be "timely and reliable, independently and reliably verified (e.g., through neutral third party), relevant and mutually agreed" (ICMA on CRDCs)
  - Triggers are typically based on:
    - **Hard/Parametric criteria** i.e., based on objective, measurable data points (such as rainfall levels, earthquake magnitude, or temperature thresholds)
    - **Soft/Proxies** e.g., based on third-party declarations (such as a government's declaration of a state of emergency or a disaster declaration by an international organization)
    - **Hybrid** i.e., a combination of the two

How They Work

- **The Trigger**
  - **Grenada**: Determination based on CCRIF (Caribbean Catastrophe Risk Insurance Facility) payout related to a tropical cyclone
  - **Barbados**: Also relies on CCRIF, but includes earthquakes and excess rainfall triggers
  - **ICMA model hurricane-linked extendible feature**: Determination based on CCRIF payout related to tropical cyclones
  - **ICMA model CRDC**: Provides examples of potential trigger determinations based on:
    - African Union's African Risk Capacity (ARC)
    - Pacific Catastrophic Risk Insurance Company (PCRIC)
    - Southeast Asia Disaster Risk Insurance Facility (SEADRIF)

How They Work

- **The Suspension Period**
  - Often ranges from 12 to 36 months (but are negotiated between the parties):
    - **Barbados**: principal and interest payment deferrals for **two years** – with a limit of three times - and a majority lender veto to prevent opportunistic behaviors
    - **Inter-American Development Bank** (called the Principal Payment Option) allows **two-year** deferral of principle only.
    - **ICMA hurricane-linked extendible feature** - principal and interest payment deferrals for **three years**; maturity date extended – no limit to the number of deferrals
    - **ICMA CRDC** propose deferral of principal and interest for **one** to **two years** – to be allowed from one to three times
    - **United Kingdom Export Finance ("UKEF") CRDC:** principal and interest payments may be suspended for **one year** to be repayable over a 5-year period
    - The **AfDB**, **EBRD**, **World Bank**'s CRDC will enable the deferral of repayment of loan principal (and/or interest) for **two years**
  - **What to keep in mind:**
    - Debt servicing obligations post repayment resumption → deferral period should "strike a balance between providing sufficient fiscal space to support the affected country to deal with the climate shock or natural disaster, whilst not adding too heavily to the future payment burden" (ICMA model term sheet)

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How They Work

- **Post Resumption Repayment Structures**
  - **Grenada and Barbados**: Deferred interest capitalized into principal; remaining principal amortizations increased *pro rata*
  - **ICMA CRDC provides options**: Deferred amounts could be capitalized and repaid over a set period of time, *pro rata* during the life of the debt or at maturity
  - **World Bank**: Allows borrower to restart payments of the deferred amounts according to a modified amortization schedule that maintains the original average weighted maturity of the loan
  - **For the UKEF:** Interest is capitalized and converted into a new loan

Impact on Pricing

- Some **MDBs** charge a fee for including a CRDC in their loan documentation e.g., IDB and WB charge fee of 5 bps annually on the outstanding loan balance (although in the case of the WB, this is not charged to borrower)
- **Private sector lending**
  - Too soon to know definitively, but there could be:
    - Premium for potential payment delays – mitigated by designing the instrument to be NVP neutral
    - Costs tied to potential reduced liquidity of the instrument including a CRDC as compared to a plain vanilla instrument – mitigated by standardization
    - Costs tied to more complex structuring requirements (designing triggers and document structuring) – mitigated by standardization
  - Potential premium and costs are balanced by:
    - Reduced default risk/increased repayment possibility following shocks, as CRDCs enhance the borrower's ability to manage repayment following severe climate shocks.
    - Existing debt pricing already reflecting climate disaster risk in the country. So CRDCs only serve to help to proactively manage existing climate risks.
    - Use of standardized documentation (e.g., model term sheet) reduces complexity and implementation costs.

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Impact on Ratings

- **Rating the instrument**
  - Rating agency representatives stated that if certain assumptions are met – e.g., NPV neutrality – instruments with these clauses would be rating neutral or positive compared to those without
    - In a December 2024 article, S&P notes that it generally treats debt instruments with CRDCs as rating neutral, provided the deferral conditions are met (including triggers based on pre-defined natural disasters, independent verification of events, neutral NPV adjustments, and no selective default on other debts).
- **Rating impact after clause activation**
  - As they are contractual features, there should be no impact on a rating following a deferral event (so long as the deferral aligns with the agreed terms).
    - On the Barbados bond with this feature, Fitch noted that it "would not treat payment deferrals as a default event if they were in line with the bond terms."

Compared to Force Majeure

Feature	Force Majeure	CRDCs
Purpose	Excuses party's performance due to unforeseen, uncontrollable event	Provides payment relief during/ following climate-related disaster
Trigger	Broad: natural disaster, war, strike, pandemic, acts of God (negotiated clause within document)	Country-specific climate-related event
Process and Timing	Pre-agreed but typically notice of the force majeure event and demonstration that the force majeure impacted repayment ability. If the parties disagree as to whether the event occurred or whether it had the impact impaired its ability to perform, it could be litigated in the relevant jurisdiction.	Pre-agreed but typically notice describing the climate event along with in some cases a certificate or report.
Effect	May suspend payment obligations	Best structured as giving borrower automatic right to suspend payments
Duration	Duration of the force majeure event	Negotiated

Comparison Cont'd: Legal Basis and Enforcement

Feature	Force Majeure (UK Law)	Force Majeure (US Law)	CRDCs
Legal Basis	No automatic recognition. Must be explicitly included in the contract and defined	Recognised under common law (in some jurisdictions) and the Uniform Commercial Code for commercial contracts.	Explicitly negotiated and embedded in bond/loan contracts
Enforceability	Courts interpret force majeure strictly, focusing on contract wording and whether the event truly made performance impossible.	Enforceability depends on state law, contract terms, and whether performance was truly impossible or merely more difficult/expensive.	Enforceable as contractual provisions with predefined, measurable triggers.
Requirement of Causation	The party invoking force majeure must prove that the event caused non-performance and that no alternative means were available.	The party must demonstrate reasonable efforts to mitigate non-performance before invoking force majeure.	Activation may be automatic upon meeting the agreed criteria (e.g., a country is hit by a Category 5 hurricane).

Final Observations and Key Takeaways

- **Importance of Scale and Standardization**: To be truly impactful, CRDCs should be incorporated into a significant portion of a borrower's debt agreements, spanning different creditor types and instruments. This approach maximizes the benefits for the borrower and helps reduce disparities among lenders.
- **Think Before Activating**: While CRDCs are a valuable tool, debt managers need to bear in mind that they are intended to pause payments, typically not eliminate or reduce them. Careful consideration is required before activating them to ensure that they don't create unmanageable concentrated repayment pressures down the line.
- **Should Be Part of a Broader Climate Resiliency Strategy**: CRDCs should not be viewed as a standalone solution. Countries must also have robust disaster risk management frameworks in place, including tools like insurance and catastrophe bonds, to enhance overall climate resilience.

Thank you!

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