INNOVATIONS IN SOVEREIGN DEBT: TAKING DEBT PAUSE CLAUSES TO SCALE





INSIGHT PAPER

Authors: Shakira Mustapha, Theodore Talbot & Jonathon Gascoigne **Date:** April 2023



About the Centre for Disaster Protection

The Centre for Disaster Protection works to prevent disasters devastating lives, by helping people, countries, and organisations change how they plan and pay for disasters. The Centre is funded with UK aid through the UK government.

Suggested citation

Mustapha, S.; Talbot, T.; Gascoigne, J. (2023) 'Innovations in Sovereign Debt: Taking Debt Pause Clauses to Scale.' Insight Paper. Centre for Disaster Protection: London.

Disclaimer

This publication reflects the views of the authors and not necessarily the views of the Centre for Disaster Protection. This material has been funded by UK aid from the UK government; however the views expressed do not necessarily reflect the UK government's official policies.

DAI provides the operational and administrative platform for the Centre's delivery and is a key implementing partner. DAI Global UK is registered in England: 01858644. 3rd Floor Block C, Westside, London Road, Apsley, Hemel Hempstead, HP3 9TD United Kingdom.

CONTENTS

SUMMARY		03
1	OVERVIEW	04
2	RATIONALE	05
3	A WINDOW OF OPPORTUNITY	07
4	SUPPLY-SIDE CONSIDERATIONS	09
5	DEMAND-SIDE CONSIDERATIONS	15
6	FUTURE WORK AND POLICY RECOMMENDATIONS	18
References		21

SUMMARY

- A debt pause clause also known as a climate resilient debt clause is a statecontingent debt instrument that suspends repayments for a pre-agreed period when a pre-defined trigger threshold is met, for example, a violent earthquake.
- These built-in debt deferrals can be designed to be Net Present Value (NPV) neutral and not extend the instrument's original maturity date.
- Uptake is currently limited but poised to grow. Three Small Island Developing States (Grenada, Barbados, and the Bahamas) and two creditors (Inter-American Development Bank and UK Export Finance) have these instruments in place or plan to offer them soon.
- Pauses clauses have the potential to provide significant benefits to both sovereign borrowers and their creditors. But they are not a one-size fits all solution and face complications relating to triggers, pricing, market appetite, legal risks, reputational risks, and the lack of a proven track record.
- Capturing the potential benefits of pausable debt will require thoughtful design
 of the instruments and active policy support to ensure countries and their
 creditors make informed decisions. Transparency, learning and iteration as these
 instruments are rolled out will be essential.
- Scaling up the adoption of these clauses, especially among lower-income and climate-vulnerable countries, is a pragmatic step towards creating an international debt architecture that can absorb shocks better amidst accelerating debt, climate and disaster risk.

OVERVIEW

We need a new suite of both creative and pragmatic financial solutions to help lower-income and climate-vulnerable countries manage their heightened disaster and climate risks amidst shrinking fiscal space.

Scaling the adoption of debt pause clauses, also known as climate resilient debt clauses (CRDCs), is a step in the right direction. Pause clauses offer a practical example of how governments can re-orient their public finances toward a state of readiness for future crises, introducing flexibility to increasingly brittle country balance sheets. These clauses are not a stand-alone solution. But they may provide a critical part of a country's disaster risk management framework, alongside

investments in risk reduction and preparedness, and other pre-arranged finance such as contingency funds, catastrophe bonds and insurance.

This policy brief provides an overview of the key features and underlying motivations for debt pause clauses. It also highlights issues that may affect the incentives of sovereign governments and creditors to adopt them. It builds on confidential advice to the UK-chaired Private Sector Working Group (PSWG) by the Centre for Disaster Protection and has been informed by a private roundtable discussion with key legal, sovereign finance and development experts convened by the Centre in March 2023.

RATIONALE

A pause clause is an innovative provision in sovereign debt contracts that enables the borrower to stop repaying debt temporarily (generally, both interest and principal repayments) for a pre-agreed period when a pre-defined event hits, like a violent storm or severe flooding. In this briefing note, we focus on a pause that is NPV-neutral, meaning that the total discounted value of cash flows from a loan or bond that has been paused is the same as one that has not, as interest accrues at contractual rates on all deferred amounts. Creditors generally see this as an essential feature to facilitate the uptake of these clauses (Private Sector Working Group 2022a).

As such, these clauses do not reduce the debt service burdens of the disaster-affected country; debt service after a pause will increase in nominal terms due to the compounding of (pre-agreed) interest on deferrals. A debt pause clause does not have to be activated even if the trigger is met. All clauses to date have been designed to give the borrower the discretion to request the pause – or not – if the triggers are met. A decision that should be informed by the costs and benefits of the debt pause relative to other options that may be on the table.

Pause clauses can be a valuable addition to the disaster risk financing toolkit, especially for

countries prone to severe liquidity problems and foreign exchange shortages following a disaster, and with little access to affordable and quick financing.

Properly designed and executed, debt pause clauses offer the following potential benefits:

- Speed. They provide a built-in debt deferral mechanism for pre-agreed shocks, facilitating a faster response to help avoid further human suffering and economic loss by quickly freeing up fiscal space. In contrast, mobilising and programming post-event crisis financing from external actors can delay the response at the expense of the most vulnerable. Their take-up would help move governments towards faster, more reliable post-disaster finance.
- An alternative to costly budget reallocations. While essential for saving lives and cushioning economies from the worst of the immediate impacts, budget reallocations often entail cutting other important public expenditures, imposing an opportunity cost in terms of foregone or delayed social returns (Allan and Bayley, 2023; Skalon et al., 2022). These clauses, once triggered, provide an alternative mechanism to quickly free up fiscal space by temporarily reallocating cash that would otherwise be used for repaying debt.

- Pre-empting the need to restructure debt. Many developing countries are entering dangerous territory in terms of liquidity risk, with debt service a large and persistent weight on their budgets (Albinet and Kessler, 2022). The shocks of the covid-19 pandemic have exacerbated pre-existing trends. Under a conservative scenario1, while the median developing country is projected to pay 10% of its government revenues in repaying external creditors in 2025, a significant minority of countries (about 28) reach 18%, which is roughly equivalent to the combined health and education budgets for the average country (Albinet and Kessler, 2022). Public finances may become even more strained following a disaster, aggravating liquidity problems that can lead to a disorderly default and an unpredictable debt restructuring process. For well-studied reasons, this would be difficult and drawn out for both the borrower and its creditors (IMF, 2020). A temporary deferral may avoid this by giving the sovereign borrower's economy time to recover before resuming debt service. This is good for creditors, borrowers, and the global financial system. And if markets or creditors price in this reduced credit risk, it may reduce the cost of borrowing.
- Promoting risk management and ex-ante response design. Debt pause clauses alone cannot lead to effective disaster response: The funding freed must then be used effectively. Having pre-arranged liquidity relief, even if not new finance, can be a way for political leaders to spur better planning and preparedness within the public sector. It can also be used to increase confidence in the

- government's commitment to protect public finances against future shocks if these clauses are framed as part of a wider risk management framework. However, these benefits are unlikely to happen automatically, and may require conditions. This has been the Inter-American Development Bank (IDB)'s approach: debt deferrals (via Principal Payment Option; see Box 1 below for further details) are only available to countries with an active Contingent Credit Facility for Natural Disaster Emergencies (CCF)² with the IDB. The CCF requires countries to have a Comprehensive Natural Disaster Risk Management Program, which includes measures on governance, risk identification, risk reduction, emergency preparedness and response, and financial protection and risk transfer.
- Potential scale. Pause clauses can be integrated directly into countries' future borrowing operations and so cover a much larger share of repayments more quickly than alternative, more complex approaches for freeing up fiscal space. IDB's option allows integrating these clauses into existing loans once certain conditions are met. Countries restructuring their debt with external creditors can also expedite this transition by adding these clauses into restructured instruments, as was done for Grenada and Barbados. Outside of a sovereign debt restructuring, it will take time for the existing stock of a country's debt with private sector creditors to be replaced with debt pause instruments. However, the sooner a country includes such features, the sooner it will benefit from them.

¹ This is under a conservative scenario, where financial conditions return to their 2015-19 average with lower interest rates and a stable exchange rate.

² Provides contingent loans that are prepared in advance but disbursed after the occurrence of a disaster event.

A WINDOW OF OPPORTUNITY

Though not new, the concept of debt pause clauses has attracted significant attention in the aftermath of the covid-19 pandemic, given many countries are facing the twin risks of a deteriorating debt situation, as well as growing climate and disaster risks (UNCTAD, 2022). To date, these clauses have been adopted by three Small Island Developing States: Grenada, Barbados and the Bahamas.³

There is now political momentum and a window of opportunity to bring these clauses to scale, akin to what was accomplished for Collective Action Clauses (CACs)⁴ in the 2000s with the support of the US Treasury, the International Monetary Fund (IMF) and the G20 (Gelpern and Gulati, 2013).

The Bridgetown Initiative, launched in 2022 by The Honourable Mia Mottley, Prime Minister of Barbados, calls for debt pause clauses to be normalised in all debt instruments (Government of Barbados, 2022). Important policy fora are taking forward exploration of pause clauses — as well as to improve the international debt architecture more broadly — including the ongoing Global Sovereign Debt Roundtable

jointly convened by the IMF, the World Bank, and the 2023 India G20 Presidency; the 2023 Spring Meetings of the World Bank Group and the IMF, and the Paris Summit for a New Global Financial Pact, to be jointly convened in June 2023 by French President Emmanuel Macron, in close partnership with the India G20 Presidency and with support of the Prime Minister of Barbados.

Further grounds for optimism lie in the concrete steps already being taken by creditors to make these clauses a reality. The IDB and UK Export Finance became the first multilateral development bank (MDB) and first export credit agency, respectively, to integrate or commit to offer these clauses. Furthermore, the PSWG⁵ prepared a standardised term sheet in 2022 to help facilitate the wider uptake of these clauses by the private sector (PSWG, 2022b).

Pause clauses may benefit from an effort like the one made to popularise CACs which are integrated into bonds to enable a pre-defined majority of creditors to approve a restructuring of the debt, reducing the uncertainty that accompanies this process and lowering the returns to so-called holdout creditors. As with

³ Grenada (2015) and Barbados (2018/2019) as part of their debt restructuring, Barbados (2022) in a primary market issuance, and Barbados and the Bahamas (2022) for all eligible IDB loans.

⁴ Through CACs, bondholders agree upfront to be bound by the terms of a restructuring if a specified supermajority of bondholders approves of the terms proposed by the issuer.

⁵ Builds on the previous work by the IMF, International Capital Market Association and Clifford Chance LLP under the Canadian G7 Presidency in 2018.

pause clauses, the net effects of CACs on key variables like credit risk (and so price) is ambiguous, varying by type of borrower and market episode. Nevertheless, almost all emerging market borrowing now includes CACs and their overall pricing impact appears to be limited. As of March 2020, out of the estimated US\$ 1.3 trillion in foreign law-governed debt stock outstanding, only around 4% did not include any form of collective action provision (Chung and Papaioannou, 2021).

The example of CACs is instructive. But the scaleup of debt pause clauses is likely to be more complicated because the need for clearly defined, country-specific triggers (discussed in Section 4) makes them more difficult to standardise. Moreover, there is still significant uncertainty about whether these clauses will go mainstream across all creditor groups, by which we mean official bilateral and multilateral creditors and private sector creditors.

We set out considerations for both these groups in further detail below. Identifying these obstacles and devising pragmatic solutions to overcome them are key to making the most of this political momentum.



SUPPLY-SIDE CONSIDERATIONS

There are at least five factors that we expect to affect whether suppliers of credit – that is, providers of sovereign loans or purchasers of sovereign bonds – offer pause clauses to a broad cross-section of borrowers.

First, many lower-income countries continue to borrow heavily through the multilateral system. MDBs are likely to be reluctant to offer pausable debt at scale if they believe this would adversely affect their creditworthiness. Second, structuring triggers, which are the conditions under which debt can be paused, is not a trivial undertaking, technically or politically, and may prove a limiting factor. Third, debt pauses may not be triggered when borrowers are impacted by a disaster, due to mismatches between the trigger mechanism and the realisation of the risk. These twin risks – the reputational risk to lenders that do not provide liquidity when governments need or hope for it and the basis risk to governments that expect to be able to pause repayment but cannot – may be challenging and so curtail interest. Fourth, pause clauses may be neutral in NPV terms but are likely to create other pricing effects. Based on current evidence and analysis, we should generally not expect them to be free. Finally, pause clauses could offer countervailing benefits, notably by making borrowers' balance sheets more resilient. We discuss each of these considerations in turn below.

Potential negative impact on creditors' costs and MDBs' credit ratings. Providing loans with pause clauses may be more costly for lenders even if they are constructed to have the same present value as equivalent products without them. This is because lenders' cost of capital is generally increasing in term, so provisioning capital against repayments that are expected to occur in the future is relatively more expensive. For their part, MDBs may prove reluctant to provide debt deferrals due to fears that it will jeopardise their preferred creditor treatment (PCT). This is an informal rule (that has nevertheless been empirically validated) that MDBs are first to be repaid before bilateral or private creditors if a sovereign faces external debt payment difficulties (Schlegl et al., 2019). This is seen as a key element underpinning MDBs' AAA bond ratings, leading to fears that granting even a temporary suspension on debt payments for a meaningful share of MDBs' portfolios could trigger a rating downgrade resulting in higher borrowing costs and lower lending capacity. In fact, this risk was one of the main justifications for MDBs' decision to not participate in the G20 Debt Service Suspension Initiative which suspended debt service payments to official bilateral creditors between May 2020 and December 2021 (Humphrey and Mustapha, 2020). Nonetheless, as discussed in Box 1, IDB has developed a package of measures (including offering clients

these instruments at non-zero cost) to reassure credit rating agencies that deferrals will not impair its PCT. This suggests that debt pause clauses and PCT can exist in harmony if appropriate steps are taken.

There are also concerns that if private sector creditors do not adopt these clauses at scale, the freed fiscal space created from suspending debt payments to the official sector is used to maintain

payments to private sector creditors rather than finance a disaster response. This is a risk shared with other disaster risk finance instruments that are provided as general budget support, like MDBs' contingent credit instruments, and not unique to debt pauses. The IDB approach also seeks to mitigate the risk by linking its debt pause option with its contingent credit instrument which has prior actions related to strengthening disaster risk management.

Box 1: The IDB is the first MDB offering debt pause clauses

IDB offers debt pauses through its Flexible Financing Facility via the Principal Payment Option (PPO). Through this option, following the occurrence of an eligible event (earthquake, tropical cyclone and/or other natural hazard), borrowers can trigger a one-time deferral of principal repayments for two years, repaying those amounts in future amortisation instalments.

Eligible borrowing member countries are those with a current Contingent Credit Facility for Natural Disaster Emergencies. PPOs can be used once and can be added to new or existing loans (provided they have not started amortising). The activation of the PPO requires both a parametric trigger (which is verified by the IDB using data provided by independent third parties) and the declaration of national emergency.

A key obstacle standing in the way of MDBs to provide contractual debt pauses is the potential adverse impact on its PCT. IDB's experience offers important lessons relevant to other MDBs wary about debt pause clauses threatening their PCT. These include ensuring that the debt pause is designed in a way that does not resemble a debt restructuring through the following features:

- The borrower activates the PPO before the Eligible Natural Disaster.
- The borrower pays a transaction fee to activate the PPO in a loan, which is perceived to be necessary for the Credit Rating Agencies to consider the PPO an option that clients 'buy'.
 This is currently 0.10% per annum on the outstanding loan balance.
- The loan's original Weighted Average Life is maintained. This mathematical formula allows comparing – from a cash flow perspective – the equivalence of different types of amortisation schedules. To meet this condition, the loan would amortise faster, resulting in an increase in the amounts paid by the borrower to the IDB in the remaining

continued overleaf →

amortisation payments. In this case, the IDB would determine the required amount to be applied to each affected amortisation payment to re-establish the Loan's original WAL.

The loan's original final maturity cannot be exceeded.

The latter two limitations are established in the loan contract, For further details see IDB (2022).

Furthermore, the PPO is one component of IDB's wider risk layering approach to strengthen climate change resilience and disaster risk management in its borrowing member countries. IDB sees the PPO as being most suitable for disaster events that are low probability and medium to high impact. Other solutions in other layers include (i) investment loans that finance prevention and readiness and investment in resilience and mitigation before disasters occur and (ii) catastrophe bonds for low probability and high to catastrophic impact. Unlike the PPO, the latter shifts the risk of extreme natural disasters to third parties, securing additional funds to respond to a disaster.

Getting triggers right is not trivial and off-theshelf solutions may be inappropriate, Good triggers are the foundation of any effective crisis risk financing framework and central to structuring a pause clause (Lung, 2020). Such a trigger should ideally be reliable, timely, resistant to manipulation, cost-effective, legitimate, and mutually agreed. Triggers range from 'hard' quantitative assessment of event loss to 'soft' subjective judgement, such as declaring a national emergency (as discussed in Box 2). Investors are likely to prefer independently verifiable triggers with high reliability (i.e., hard triggers) which may be easier to price, though the PSWG noted that "declarations by trusted international organisations might be acceptable as well for some disasters" (PSWG, 2022). The IDB product discussed in Box 1 uses a combination of soft and parametric triggers. There is no objectively measurable, commonly agreed definition of a disaster, and any attempts to develop triggers for disasters will always be imperfect and have the potential to be contentious.

Piggy-backing on existing triggers from sovereign risk pool models (as with CCRIF7 and the debt pause clauses of Barbados and Grenada) provides a practical solution but can be somewhat problematic, since they are parameterised for specific events and severities. These are not automatically the same as the level or type of risk that policymakers want to protect against by suspending debt repayments (for example, their policy might address severe storms but not earthquakes or might cover moderate storms not just extreme storms). Such existing risk pool models are also only available for limited hazards and territories (Martinez-Diaz et al, 2019). Furthermore, some hazards are easier to design and apply trigger mechanisms to than others: hurricane and earthquake compared to flood and epidemic, for example (Lung, 2020). Finally, no existing pause clause has yet been triggered, though Barbados came close to having the option to delay payments with Tropical Cyclone Elsa in 2021.

⁷ CCRIF, formerly the Caribbean Catastrophe Risk Insurance Facility https://www.ccrif.org/?language_content_entity=en

Box 2: Soft triggers are often feasible and practical

Risk analytics in disaster risk financing has largely focused on formulating hard parametric measures to trigger pre-agreed action and finance.

A key driver for this work has been to increase speed of response and pay-out after a disaster to mitigate amplifying impacts over time. Hard triggers can be automated to accelerate decision-making, usually monitored by a third-party 'calculation agent' that processes 'reporting agent' data, thus also providing resistance to manipulation of the measure. Hard triggers make it easier to statistically assess frequency and severity of the event and therefore to develop risk-based premium pricing in familiar actuarial terms. It is less clear how such analytics is directly incorporated into debt-related metrics, such as default risk, and subsequent instrument pricing.

Hard triggers are not available for all places or hazards, often developed piecemeal by institutions or regionally by sovereign catastrophe risk pools (Martinez-Diaz et al, 2019). Although recency bias from disasters can influence prioritisation, parametric trigger implementation focuses on primary 'existential' hazards, such as hurricanes (and earthquakes, less frequently) in the Caribbean and drought in sub-Saharan Africa. Epidemics are particularly difficult to model effectively (Meenan, 2020), due to multiple potential sources, data scarcity in vulnerable regions, and influences of human behaviour (Dyson, 2020). Maintenance costs accompany trigger monitoring, as does establishing specific threshold levels for contextual circumstances and instrument needs.

Soft triggers leave an element of discretion to a deciding party around activation. National declarations of state of emergency are a common application, as with the World Bank's 'Catastrophe Deferred Drawdown Option' (Cat DDO) (World Bank, 2018), a contingent credit financing for general budget support. Soft triggers are also used as secondary triggers⁸ and as a corrective mechanism to add flexibility in complex response scenarios. Soft triggers are thus potentially open to delay and political bias. The possibility of gaming exists, with potentially multiple triggering when extra liquidity is not required by a country (from an attritional event), or even not triggering when a country does require funds. However, associated risks can be mitigated around both declarations and their use within a pause clause, by limiting the number of triggering events during the term of an instrument, and inclusion of investor blocking rights via veto, for example.

The description of hard/soft triggers, and labelling as objective/subjective respectively, can obscure the pros and cons of these mechanisms. Basis risk is a well-discussed issue with parametric triggers. Economic measures, such as GDP, are not immune from manipulation (Cai et al., 2022; Martinez, 2022).

continued overleaf →

The Northern Ugandan Social Action Fund (NUSAF) is a World Bank-funded social safety net which has scaled up twice using a secondary trigger based on Integrated Food Security Phase Classification (IPC) reporting (World Bank, 2018b).

As an example of balancing quantitative and qualitative approaches, the international re/insurance industry has operated successful natural catastrophe ('nat cat') risk transfer long before the advent of catastrophe risk modelling around 30 years ago. Insurance policies are available for 'named perils' and 'all risks'9, but the latter are usually more expensive. Policy wordings around event definition can be used to define what is in and out of coverage, as is often the case for 'non-modelled' (ABI, 2014) or non-modellable risks, such as volcanic events, landslide, and aspects of flood risk such as dam failure. There is a trade-off between catastrophe risk modellers (who also design data-based triggers) and lawyers (who design policy wordings). Soft trigger approaches are often feasible and can be workable for governments. The risk of moral hazard arising from softer triggers is easy to overstate in relation to declarations of national emergency, where sovereign borrowers are conscious of their reputations with markets and ratings agencies.

On balance, if global and hazard comprehensiveness for triggering (including compounding and cascading of threats) (Sillman et al., 2022) is an essential condition for pause clauses, then improved perception of – and attention to – softer 'just because' triggers is warranted.

Reputational damage from contract

enforcement. Basis risk arises in insurance products when triggers are not perfectly correlated with the shock that the trigger is proxying. For example, the modelled loss from a severe storm may be small, hence not triggering the expected pay-out, while the actual damage is large. Strengthening existing models can address this risk, but in many scenarios, private creditors' preference for hard triggers is likely to create some element of negative basis risk (the clause is not triggered though the underlying damage it seeks to protect against has occurred). In these cases, lenders adhering to the agreed contract may incur reputational damage from not providing liquidity to affected countries in a moment of crisis. The Government of Mexico's experience with catastrophe (cat) bonds - risklinked securities designed to cover tropical cyclone and earthquake hazards – provides a demonstration of parametric triggers not

performing as expected. For example, highly destructive events such as Hurricane Odile in 2014 (Muir-Wood, 2017) and the Puebla earthquake in 2017 did not trigger or yielded only partial pay-outs, as technical parameters fell below pre-defined thresholds, leaving the government to pick up the bill (Blackman et al., 2018). Lenders may judge these reputational risks to exceed the benefits of offering pausable debt.

Pause clauses are unlikely to be free. There is currently insufficient evidence about whether such clauses affect the price of borrowing. However, they are unlikely to be free due to a combination of structuring costs (including those related to setting up and monitoring triggers), market frictions (liquidity and novelty premia), and the increase in duration (the likelihood that payments on paused lending will be received later than payments on an equivalent bond without such a clause).

⁹ As the global re/insurance sector experiences a hardening of the market, with increasing associated premium costs, the relationship between named perils and all risks policies is being revisited for property catastrophe cover. For example, see (The Insurer, 2022).

Evidence on public sector lending is limited. In the case of MDB lending, the IDB charges 0.10% per annum on the outstanding loan balance for the inclusion of these clauses. (At the date of writing, no information is available about UK Export Finance's intended approach).

In the case of the lending priced by markets, the comparison is not straightforward. The restructured bonds of Grenada or Barbados containing debt pause clauses did not trade at a wider spread than similar peers (PSWG, 2022). However, in the latter case, the bonds resulted from a comprehensive debt restructuring process and both Grenada and Barbados added sweeteners that may have helped to offset negative pricing effects. In the case of Grenada, the debt pause clause was accompanied by another contractual innovation, a Citizenship by **Investment Program Revenue Sharing Clause** (Asonuma et al., 2017). This gave holders of the new 2030 bonds the possibility to earn a portion of revenue from the lucrative scheme¹⁰. More recently, the embedded 'hurricane and pandemic clause' (in the only primary bond issuance to date) also did not noticeably affect Barbados' cost of borrowing in 2022. Though not a restructuring, the debt pause clause was part of a larger debt conversion for nature transaction involving guarantees from IDB and The Nature Conservancy. This, together with the power of a defined share of bondholders to prevent deferral by exercising veto rights, 11 potentially helped to minimise the negative pricing impact of the pandemic clause in a primary issuance.

Market frictions and seniority issues could also raise borrowing costs. Small island sovereign borrowers may be the exception rather than the norm if investors in larger countries perceive debt pause instruments as less liquid than plain vanilla

instruments and thus demand a liquidity premium (as suggested in Cohen et al., 2020). Outside of a debt restructuring, whereby legacy bonds are replaced with new bonds with debt pauses, the fact that an issuer's existing bonds do not contain these clauses may become another market impediment to implementing them in any new issuance (since first buyers risk subordination to other fixed income creditors - if a clause is activated, repayments on pausable loans will temporarily stop while repayments on lending without this feature will not). Investors may need to be compensated for the novelty and/ or complexity of the instrument. This 'novelty premium' may gradually disappear, however, as market participants become familiar with these clauses. And ESG investors may also be attracted to these bonds if they are clearly linked to sustainability and resilience building. This can be an entry point for building the market that should be further explored. As noted above, Barbados' bond with pauses for both climate disasters and pandemics was part of a debt conversion for nature transaction.

Credit enhancement: An opposite pricing impact may arise if creditors believe that these clauses reduce the risk of defaults. This may be the case if maintaining a payment schedule becomes hard for borrowers because of the effects of a disaster. In these cases, the borrower's ability to pause repayments – if the underlying economic recovery were relatively fast – could lower the perceived risk of default. Because default risk drives up credit risk and hence the cost of borrowing, pausable debt may have a lower borrowing cost.

In addition to these considerations, borrowers may face trade-offs in deciding whether to experiment with these innovative instruments.

¹⁰ After the completion of its program with the IMF, certain conditions have to be met to trigger the clause, including: (1) the second step haircut has occurred; (2) more than US\$15 million in eligible CBI revenues has been received by Grenada in any given year; and (3) the cumulative limit (NPV of cumulative CBI revenue sharing cannot exceed 35% of the face value of the new 2030 bonds) for CBI payment amounts has not been reached (Asonuma et al., 2017).

Holders of 50% of the principal amount of the bonds have 15 days to block Barbados's deferral (Fitch Ratings, 2022).

DEMAND-SIDE CONSIDERATIONS

As with lenders, there are several considerations for borrowers assessing the merits of adopting pausable debt.

First, they may fear broader effects on their sovereign credit ratings, a calculus that has already influenced countries' behaviour in response to recent debt relief initiatives in the context of covid-19. Second, there is uncertainty about how rating agencies will address the inclusion of these clauses. Third, there are legal considerations around the interlinked web of default risk created by cross-default clauses. Fourth, with limited or slow uptake, the actual liquidity benefits to borrowers may be underwhelming if a small share of their overall borrowing is covered, and so not perceived to be worth the costs in terms of structuring time, potential borrowing costs, or political capital. Finally, borrowers using both pausable and nonpausable debt instruments may find that instruments with pause clauses are perceived to 'juniorise' other instruments, leading lenders of those products to bid up the cost of borrowing.

Reputational concerns and rating downgrades. Several sovereign borrowers are concerned that requesting such clauses, particularly from private sector creditors, would be penalised by the debt markets, resulting in credit downgrades and/or increased borrowing costs amidst increasingly unfavourable market conditions. In a separate but related discussion, three major credit agencies made it clear that requesting private sector participation in the G20 Debt Service Suspension Initiative (DSSI) could lead to a downgrade despite being NPV-neutral (IMF/ WB, 2020). As a result, few eligible countries requested that their private sector creditors participate on comparable terms. Grenada was among this group. Receiving liquidity relief of US\$1.4 million in 2020 from official bilateral creditors through the DSSI, the Government of Grenada unsuccessfully requested an eightmonth suspension of US\$15.4 million payment due on its restructured bond with a debt pause clause for hurricanes (Lawson, 2020).

● Country- and instrument-specific details matter. On the other hand, Fitch Ratings recently rated its first sovereign bond with a debt pause clause, which was the Barbados 2029 foreign currency external bond. Fitch equalized the bond rating to the sovereign Issuer Default Rating (IDR) and noted that it "would not treat payment deferrals, if in line with the bond terms, as a default event" (Fitch Ratings, 2022). The rating reflects several features of the clause, namely that deferred amounts accrue interest, deferral events are properly defined in the documentation and are

triggered by measurable events assessed by an independent calculation agent (in this case, associated with CCRIF SPC, a regional sovereign insurance vehicle), and that final maturity remains the same despite deferrals. While this was the rating action taken in this case, this does not guarantee that similar transactions will be automatically rated the same way.

- **Legal risks.** Bond contracts and loan agreements typically contain cross-default clauses. Although the precise drafting of crossdefault clauses varies, activating a debt pause clause in one contract could unintentionally trigger event of default clauses and possibly cross-default clauses in other private debt contracts, which could lead to an acceleration of those contracts, as well as litigation (Butler et al., 2023). To help mitigate such concerns, sovereigns looking to integrate these clauses in their debt instruments should carefully examine their legacy debt instruments to assess this risk. In addition, the possibility of a model waiver agreement that countries can use to obtain waivers from their private sector creditors of any possible event of default that could arise from activating debt pause clauses from its creditors should be explored.
- Liquidity relief may be small or uncertain. The extent to which these clauses are beneficial to the borrower in freeing up fiscal space in the event of a disaster primarily depends on: (i) the amount of debt affected, and (ii) debt service payments falling due and not the actual impact of the shock. Countries will need to carefully assess and quantify how much liquidity relief will be obtained if they make a claim and whether this provides significant fiscal space in the event of the eligible disaster. In the case of Grenada, estimated liquidity relief that may result from the hurricane clause is equivalent to the probable maximum loss of an event that

occurs once every 25 years (Asonuma et al., 2017). If three events are triggered, the total cash flow relief could be as much as 7.4% of GDP. This compares favourably to the liquidity the country created through the DSSI, equivalent to just 0.10% of GDP (World Bank, 2022).

Given that these clauses are unlikely to be free (as discussed above), countries should also determine whether similar but less costly disaster relief mechanisms may be available from other sources such as budget reallocations, contingent credit and insurance.

Finally, as also mentioned above, risk-averse officials may be wary of counting on payments that depend on clauses that may not be triggered in moments of need. This is a classic market for lemons problem, in which buyers are unwilling to pay a sufficiently high price for a product or service with uncertain value. For example, Barbados recently successfully issued sovereign debt with a pause clause for pandemic risk. But this bespoke instrument includes a provision that vetoes the government's ability to pause repayments (in this case, if a pre-defined share of bondholders blocks the pause). This effectively creates a form of basis risk for the borrower, i.e., the chance that the contract will not provide liquidity when expected or needed. In addition to potentially reducing demand for instruments with this feature, it may undermine incentives to prepare for disasters before they occur: effective response requires planning ahead, and good planning ahead requires reasonable clarity about the resources that will be available.

 Price distortions. A potential complexity of introducing pausable debt alongside standard instruments creates uncertainty about which type of instrument is prioritised ('senior'). This may cut in both directions. Private creditors may worry that the borrowing country treats pausable debt more favourably than instruments without this flexibility, especially if a debt restructuring happens after the debt pause has been triggered. Anticipating this, they may increase their view of credit risk, increasing borrowing costs for non-pausable debt. Alternatively, prior to a restructuring, bondholders of debt pause instruments may see their payments deferred, while holders of the non-debt pause bonds continue to be paid. This may negatively impact the pricing of debt pause bonds in the secondary market.

On balance, many of both the demand and supplyside considerations can potentially be addressed through thoughtful design. Below, we set out an initial programme of work that would tackle or obviate many of these concerns and frictions.

FUTURE WORK AND POLICY RECOMMENDATIONS

Creating a significant, stable market for debt instruments with pause clauses requires concerted policy effort involving both borrowing countries and global private and public sector institutions.

Both creditors and borrowers need clarity and guidance on the potential pricing implications of these clauses and their proposed triggers to assess if the costs outweigh the potential benefits. These clauses may not be free but, based on the liquidity they create, may be worthwhile, especially for vulnerable countries.

We must think through how development partners and others can enable a thriving, sustainable market for pausable debt. There are many roles to fill, including support for structuring and ensuring a transparent understanding of triggers, assisting climate-vulnerable countries to develop a clear-eyed evaluation of risks they face, and helping affected countries put plans in place to effectively use the freed fiscal space.

Our recommendations are as follows:

 Show global public sector leadership, All official bilateral and multilateral creditors should offer these clauses, specifically for the countries that are structurally vulnerable to exogenous shocks like climate disasters or epidemics. While Preferred Creditor Treatment (PCT) is critical to the MDB model and MDBs are not homogenous, this should not be unquestionably accepted as a justification to not adopt these clauses especially in light of the IDB experience. If the major MDBs consider that these clauses are not feasible given their portfolio, financial model, and/or planned reforms to their capital adequacy frameworks, they should provide the evidence for this position to their shareholders and stakeholders. Specifically, their Treasury functions should provide evidence of the linkages between contractual deferrals for borrowing member countries, MDBs' funding costs, and annual lending capacity for several years going forward. Estimates should be provided together with the underlying assumptions and explain why their approach differs from that of the IDB's.

Efficiently socialise the cost of flexibility. Even when NPV-neutral, limited evidence so far from existing transactions suggests that the added flexibility of pausable lending will likely have an additional cost to borrowers (for example, the IDB's PPO product). This could hamper demand, especially given the limited track record of debt pause instruments to date. International public finance can offset this extra cost so that it is free at the point of use, and in doing so, help countries make their public finances more resilient to climate and disaster risks.

With respect to MDBs instruments, given concerns over PCT, one option is for shareholders to provide capital or guarantees to MDBs—if needed— to facilitate scale-up of loans with this feature. This should be done in a way that minimises the risk of overcommitting scarce capital resources that would sit idle during normal times. Given low interest rates and very long repayment periods, new concessional lending and grants may be more beneficial to IDA-eligible countries in NPV terms than for MDBs to tie up that capital in enabling repayment flexibility. Facilitating informed choices by borrowers and showing value for money is thus critical to ensure that international public finance is used well.

• Use debt restructuring and conversions as an entry point for debt pause clauses. This tactic was successfully adopted by Grenada and Barbados, enabling them to quickly introduce these clauses across a sizeable portion of their debt stock. Currently, several countries are already or expected to soon be restructuring their debt with external creditors given their deeper debt sustainability issues. While most international attention is understandably focused on making this painful restructuring process faster and more predictable (World Bank, 2023), the international community

- should not overlook the potential long-term benefits of introducing these clauses into restructured debt portfolios, especially for those countries with significant climate and disaster risks. Relatedly, to inform this discussion, an evaluation of using sweeteners or blocking rights to speed up acceptance of these clauses among private sector creditors should be a priority.
- Establish clarity on rating risk. The three major credit rating agencies should communicate the potential impact of these clauses on the ratings of sovereign borrowers as well as creditors, highlighting the key country and instrument-specific factors that are likely to impact the perceived risk of sovereign default or MDB PCT.
- Position pause clauses as one element in a broader suite of tools to raise resilience. Pausable debt can only be one element in countries' risk finance and debt toolkits. Most importantly, these bonds and loans will be NPV-neutral. They can facilitate disaster response if they are paired with a strategy to disburse funding quickly and effectively in the wake of crises. But robust financial preparedness requires countries to have a range of instruments, including some that are NPV-positive (i.e., provide new funding). Put differently, pause clauses are primarily liquidity management tools.
- Strengthen and standardise trigger design (where feasible). Getting triggers right is crucial, yet tricky. Both borrowers and creditors will need impartial expertise on what the triggers can and should be and the extent to which they can be standardised across countries and disasters. Legal remedies may exist to allay the concerns of creditors and investors regarding the triggers being manipulated by the borrower (like giving

- lenders veto rights over pauses). But these remedies can dilute the benefits of these clauses in providing predictable liquidity relief, weakening borrower demand. Triggering conditions and attendant trade-offs need to be carefully considered by all parties.
- Coordinate and publish country-owned triggers. To facilitate these transactions and as part of a larger effort to create national frameworks for addressing disaster risks, countries could agree a country-specific 'library' of agreed triggers. These could be designed alongside MDBs or other public lenders able to offer pausable lending at low or zero cost to their clients. They can be developed with financial support from a growing pool of climate-focused donor funding. Identifying and publishing a small set of nationally agreed triggers would confer three benefits. First, it would reduce structuring costs of new loans or bonds. Second, it would harmonise triggers across the portfolio of new lending, increasing the liquidity released by the same events. Third, it would create a natural coordination device for national disaster risk finance strategies: the exercise of agreeing a small set of triggers and the severity of events that would activate them can incentivise planning ahead and risk reduction.
- Encourage innovation in private markets, learning from the ESG revolution.
 - Bondholders should seek to adopt clauses based on robust, nationally agreed triggers set out by borrowing countries. To the extent that borrowing costs rise, countries would still be best placed to decide whether the flexibility created is worth the added cost. Over time, competition and familiarity with pausable debt may erode any price differential that is created. And private markets can explore other ways to increase demand for these instruments, mirroring the wave of innovation in ESG-branded fixed income products. Certain investors may be enthusiastic to participate in issuances for bonds badged as increasing resilience and facilitating disaster response.
- Get started now but continue to learn and improve. Finally, embedding scrutiny and learning is key. Given the novelty and lack of practical experience with these clauses on both the borrower and creditor side, all actors need to engage in scrutiny, be open to learning and willing to be held accountable. This is one of the seven key habits identified by the Centre for unlocking effective disaster risk finance solutions (Scott, 2020).

REFERENCES

- Association of British Insurers, (2014),
 'Non-modelled risks: A guide to more
 complete catastrophe risk assessment
 for (re)insurers,' https://www.abi,
 org.uk/globalassets/sitecore/files/
 documents/publications/public/2014/
 prudential-regulation/nonmodelledrisks-a-guide-to-more-completecatastrophe-risk-assessment-forreinsurers,pdf
- Allan, S., Bayley, E. (2023) 'Opportunity Cost of Covid-19 Budget Reallocations. Cross-Country Synthesis'. Centre for Disaster Protection Report, London
- Albinet, C., Kessler, M. (2022). 'The Coming Debt Crisis Monitoring Liquidity and Solvency Risks.' Finance For Development Lab
- Asonuma, T., Li, X., Papaioannou, M., and Thomas, S. (2017). 'Sovereign Debt Restructurings in Grenada: Causes, Processes, Outcomes, and Lessons Learned.' IMF Working Paper
- Blackman, J., et al. (2018). 'Mexico's disaster bonds were meant to provide quick cash after hurricanes and earthquakes. But it often hasn't worked out that way.' Los Angeles Times. https://www.latimes.com/world/mexico-americas/la-na-mexico-catastrophe-bonds-20180405-htmlstory.html
- Butler, P., et al. (2023). 'Climate Resilience as a Proposed New Feature of Sovereign Debt Instruments.' https://www.whitecase.com/insight-alert/climate-resilience-proposed-new-feature-sovereign-debt-instruments
- Cai, G., Li, X., Lin, B, and Luo, D.
 (2022). 'GDP manipulation,
 political incentives, and earnings
 management.' Journal of Accounting
 and Public Policy, 41(5). https://www.sciencedirect.com/science/article/abs/pii/S0278425422000126.
- Chung, Kay, Papaioannou, M.G. (2021) 'Do enhanced collective action clauses affect sovereign borrowing costs?' Journal of Banking and Financial Economics. 1,15.: 59-87

- Cohen, B., S. M. Ali Abbas; Myrvin
 Anthony; Tom Best; Peter Breuer;
 Hui Miao; Alla Myrvoda; Eriko Togo
 (2020). 'The Role of State-Contingent
 Debt Instruments in Sovereign Debt
 Restructurings. IMF Staff Discussion
 Note.' https://www.imf.org/en/
 Publications/Staff-Discussion-Notes/
 Issues/2020/11/13/The-Role-ofState-Contingent-Debt-Instrumentsin-Sovereign-Debt-Restructurings-49732
- Dyson, B. (2020). 'Human behavior biggest challenge in race to model pandemic risk.' S&P Global. https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/human-behavior-biggest-challenge-in-race-to-model-pandemic-risk-60396503
- Fitch Rating Action Commentary (2022). 'Fitch Assigns Barbados 'B' IDR; Outlook Stable.' https:// www.fitchratings.com/research/ sovereigns/fitch-assigns-barbados-bidr-outlook-stable-20-10-2022
- Gelpern, A., Gulati, M. (2013). 'The wonder-clause. Journal of Comparative Economics,' 41(2), 367-385
- Government of Barbados (2022), 'Urgent and Decisive Action Required for an Unprecedented Combination of Crises' The 2022 Bridgetown Initiative for the Reform of the Global Financial Architecture, https://pmo.gov.bb/wp-content/uploads/2022/10/The-2022-Bridgetown-Initiative.pdf
- Humphrey, C.; Mustapha, S. (2020). 'Lend or suspend? Maximising the impact of multilateral bank financing in the Covid-19 crisis.' ODI
- IDB (2022). Operational Procedures for Flexible Financing Facility. https:// www.iadb.org/en/idb-finance/flexible-financing-facility
- IMF (2020) 'The International Architecture for Resolving Sovereign Debt Involving Private-Sector Creditors-Recent Developments, Challenges, And Reform Options.' Policy Paper No. 2020/043, International Monetary Fund, Washington, DC

- IMF and World Bank (2020)

 'Implementation and Extension
 of the Debt Service Suspension
 Initiative, 'https://documents1,
 worldbank.org/curated/
 en/612471605806788745/pdf/
 Implementation-and-Extension-ofthe-Debt-Service-Suspension-Initiative-Executive-Summary.pdfhttps://
 documents1,worldbank.org/curated/
 en/612471605806788745/pdf/Implementation-and-Extension-of-theDebt-Service-Suspension-InitiativeExecutive-Summary.pdf
- IMF and World Bank (2021) 'Joint
 IMF-WBG Staff Note DSSI Fiscal
 Monitoring Update: Supplementary
 Information Executive Summary
 (English).' World Bank Group.
 Washington, D.C. http://documents.
 worldbank.org/curated/
 en/826571632345396906/JointIMF-WBG-Staff-Note-DSSI-FiscalMonitoring-Update-SupplementaryInformation-Executive-Summary
- The Insurer. (2022). Named perils vs all risks: the new 1.1 battleground | The Insurer. https://www.theinsurer.com/comment/named-perils-vs-all-risks-the-new-1-1-battleground/
- Lawson, B. (2020) Capital Markets
 Weekly: Grenada tests scope
 for low-income debt relief while
 Bahrain extends sovereign risk
 threshold, S&P Global Market
 Intelligence https://www.spglobal.
 com/marketintelligence/en/mi/
 research-analysis/capital-marketsweekly-grenada-tests-scope-lowincome-debt,html
- Lung, F. (2020) 'Being timely: creating good triggers and plans in disaster risk financing.' Guidance Note, Centre for Disaster Protection, London.

 https://www.disasterprotection.org/
 publications-centre/being-timelycreating-good-triggers-and-plans-indisaster-risk-financing
- Martinez, Luis R. (2022) 'How much should we trust the dictator's GDP growth estimates?' Journal of Political Economy 130.10: 2731-2769. https://www.journals.uchicago.edu/doi/10.1086/720458.

- Martinez-Diaz, L., L. Sidner, J.

 McClamrock (2019) 'The Future of
 Disaster Risk Pooling for Developing
 Countries: Where Do We Go from
 Here?' Working Paper, World
 Resources Institute, Washington,
 DC: http://www.wri.org/publication/disaster-risk-pooling
- Meenan, C. (2020) 'The future of pandemic financing: Trigger design and 2020 hindsight.' https://www.disasterprotection.org/blogs/the-future-of-pandemic-financing-trigger-design-and-2020-hindsight.
- Muir-Wood, R. (2017) 'The Hurricane Hunter and the Cat Bond.' Moody's RMS. https://www.rms.com/ blog/2017/07/04/the-hurricane-hunter-and-the-cat-bond
- Private Sector Working Group Climate
 Resilient Debt Clauses (CRDCs)
 Chair's Summary (2022a) https://
 www.icmagroup.org/assets/ChairsSummary-UK-Chaired-Private-Sector-Working-Group-Sub-Group-onCRDCs.pdfhttps://www.icmagroup.
 org/assets/Chairs-Summary-UKChaired-Private-Sector-WorkingGroup-Sub-Group-on-CRDCs.pdf
- Private Sector Working Group, HM
 Treasury, & Clifford Chance LLP.
 (2022b). Indicative Voluntary Heads
 of Terms, Climate Resilient Debt
 Instruments. https://www.icmagroup.
 org/assets/CRDCs-November-2022.
 pdf
- Reeves, J. (2017) 'The wrong model for resilience: How G7-backed drought insurance failed Malawi, and what we must learn from it.' Action Aid. https://www.actionaid.org.uk/publications/wrong-model-resilience

- Schlegl, M., Trebesch C., Wright, Mark L.J. (2019) 'The Seniority Structure of Sovereign Debt.' Working Paper 25793, National Bureau of Economic Research, Cambridge.
- Scott, Z. (2020) 'Improving Constantly:
 Embedding Scrutiny and Learning
 in Disaster Risk Financing. Guidance
 Note.' Centre for Disaster Protection.
 https://www.disasterprotection.
 org/publications-centre/improvingconstantly-embedding-scrutiny-andlearning-in-disaster-risk-financing
- Skalon,T., Allan, S., Connolly, D.J.,
 Jaupi, F. (2022) 'Albania The
 Impact of COVID-19-Related
 Budget Reallocations' World Bank
 Group. Washington, D.C. http://
 documents.worldbank.org/
 curated/en/099505006202299116/
 P17481105fbb4f03f0a5400e6abe9e0952ahttp://documents.
 worldbank.org/curated/
 en/099505006202299116/
 P17481105fbb4f03f0a5400e6abe9e0952a
- Spearing, M. (2019). 'IDA's Crisis
 Response Window: Learning
 lessons to drive change', Centre For
 Disaster Protection Discussion Paper
 https://static1.squarespace.com/
 static/5c9d3c35ab1a62515124d7e9/
 t/5d9db406d1d15b27de92
 1d58/1570616479892/Paper_3
 IDAs_Crisis_Response_Window.
 pdfhttps://static1.squarespace.com/
 static/5c9d3c35ab1a62515124d7e9/
 t/5d9db406d1d15b27de92
 1d58/1570616479892/Paper_3_IDAs_Crisis_Response_Window.pdf

- Sillmann, J., et al. (2022)
 ISC-UNDRR-RISK KAN Briefing
 note on systemic risk, Paris, France,
 International Science Council.
 https://www.preventionweb.net/media/78607/download
- UNCTAD (2022) 'Tackling debt and climate challenges in tandem: A policy agenda' UNCTAD Policy Brief No. 104 (UNCTAD/PRESS/PB/2022/12) https://unctad.org/system/files/official-document/presspb2022d12_en.pdf
- World Bank, (2018), 'Product note: IDA Catastrophe Deferred Drawdown (Cat DDO)' https://thedocs.worldbank. org/en/doc/563361507314948638-0340022017/original/productnotecatddoidaenglish2018.pdf
- World Bank. (2022). 'Brief: Debt Service Suspension Initiative.' https://www.worldbank.org/en/topic/debt/brief/covid-19-debt-service-suspension-initiative.
- World Bank, (2023), 'Remarks by World Bank Group President David Malpass at the Global Sovereign Debt Roundtable in Bengaluru, India, Speeches and Transcripts,' https://www.worldbank.org/ en/news/speech/2023/02/25/ remarks-by-world-bank-grouppresident-david-malpass-at-theglobal-sovereign-debt-roundtable-inbengaluru-india#:~:text=Remarks%20 by%20World%20Bank%20 Group%20President%20David%20 Malpass,interest%20to%20 achieve%20a%20faster%20debt%20 restructuring%20process.

Contact information

Centre for Disaster Protection WeWork 1 Poultry London EC2R 8EJ United Kingdom

info@disasterprotection.org

✓ CentreForDP

disasterprotection.org

Cover Image: Danny E Hooks, Shutterstock



