Building Sovereign Financial Resilience in Middle Income Countries

Disaster Risk Financing & Insurance Program

SUPPORTED BY WORLD BANK GROUP

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Introduction

Middle-income countries face fiscal challenges in effectively responding to disasters. Relief, recovery, and reconstruction efforts are often constrained by limited fiscal capacity and capability, with many governments often relying on short-term international support as their primary source of post-disaster funding. Establishing the appropriate risk financing strategies can help address these challenges and build national resilience.

Since 2012, Switzerland's State Secretariat for Economic Affairs (SECO) and the World Bank Group's Disaster Risk Financing and Insurance Program (DRFIP) have developed a joint program to support middle-income countries (MICs) in building their financial resilience to withstand natural disasters. The Sovereign Disaster Risk Financing and Insurance Program for Middle-Income Countries (the Program) is one component of a broader World Bank-SECO partnership to address fiscal risk management in MICs. The Program provides tailored advisory services and institutional capacity building for public financial management of natural disasters. Program outcomes over the last eight years have been promising. Indeed, participating countries have improved their understanding of the financial and other impacts of natural disasters and have made significant regulatory, institutional, and operational changes to improve financial planning for disasters. In addition, they have successfully adopted innovative risk financing instruments.

As part of the Program, this webinar series aims to assist governments in developing and implementing more effective and cost-efficient financial protection strategies, which are key to better managing government disaster-related contingent liabilities and risks. In the process, they are also becoming more effective risk managers. The series also aims to bring countries together to share knowledge, experiences, and good practices concerning disaster risk financing.

Overview

The eight webinars in the series (and corresponding fact sheets) address four key aspects of disaster risk financing:

1. Component 1: Policies and frameworks for managing disaster-related contingent liabilities:
Webinar 1: Managing disaster-related contingent liabilities
Webinar 2: Fiscal and financial resilience for subnational governments

2. Component 2: Instruments for financial management of disasters
Webinar 3: Disaster reserve funds
Webinar 4: Sovereign disaster risk insurance
Webinar 5: Catastrophe bonds

3. Component 3: Market development for disaster risks
Webinar 6: Catastrophe risk insurance market development

4. Component 4: Data, information, and analytics for sovereign risk financing
Webinar 7: Data and information for sovereign disaster risk financing
Webinar 8: Disaster risk financing analytics training

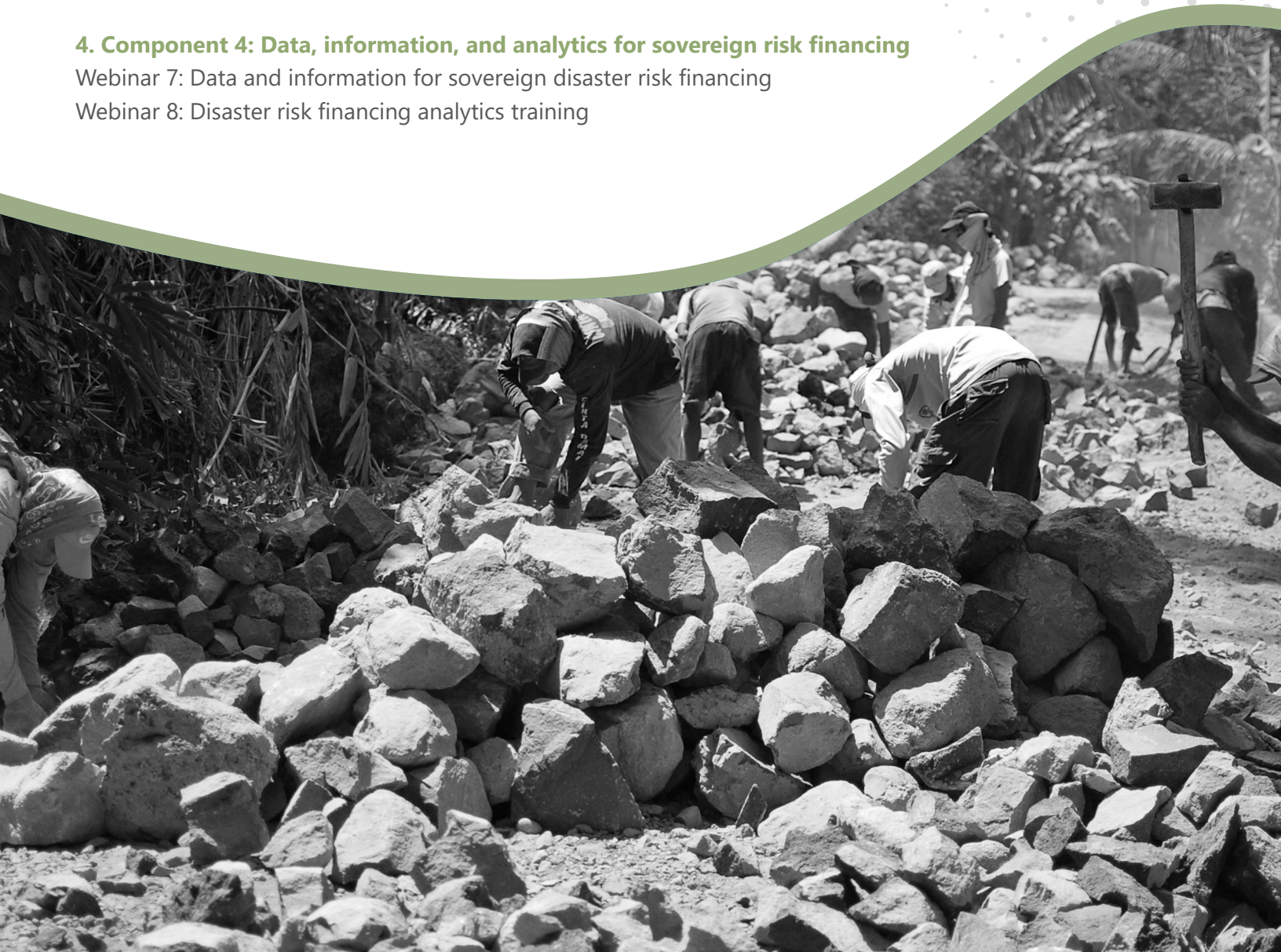


FIGURE 1: OVERVIEW OF THE WEBINAR SERIES

Policies and frameworks for managing disaster-related contingent liabilities

1. Managing disaster-related contingent liabilities
2. Fiscal and financial resilience for subnational governments

FACT SHEET 1-2

Instruments for financial management of disasters

1. Disaster reserve funds
2. Sovereign disaster risk insurance
3. Catastrophe bonds

FACT SHEET 3-5

Data, information, and analytics for sovereign risk financing

1. Data and information for sovereign disaster risk financing
2. Disaster risk financing analytics training

FACT SHEET 7-8

Market development for disaster risks

1. Catastrophe risk insurance market development

FACT SHEET 6

Component 1: Policies and Frameworks for Managing Disaster-related Contingent Liabilities

Topic 1: Managing Disaster-related Contingent Liabilities

IMPACTS OF DISASTERS

Direct and indirect economic damage from natural disasters has grown from USD 70 billion per year on average in the 1990s to USD 113 billion per year since 2000[1]. Over the period of 1998 to 2017, disaster-hit countries reported total direct economic losses valued at USD 2,908 billion, of which climate-related disasters caused USD 2,245 billion or 77 percent of the total. This figure is up from 68 percent (USD 895 billion) of losses (USD 1,313 billion) reported between 1978 and 1997. Overall, reported losses from extreme weather events rose by 151 percent between these two 20-year periods[2].

The impacts of disasters tend to be more significant in smaller economies, such as in the Pacific, when expressed relative to national population or GDP. From 2000-2018, 11 percent of the residents of the Pacific island economies were affected by disasters, and economic losses equalled 7 percent of GDP. The Caribbean region and other small economies evidence a similar pattern[3]. Even in advanced economies, major disasters have caused damage worth up to 20 percent of GDP, such as the earthquakes in Chile and New Zealand in 2010[4].

Disasters can also take a huge social toll, mainly through the loss of life and livelihoods, negatively affecting human capital and well-being.

[1] International Monetary Fund. 2017. "Unleashing Growth and Strengthening Resilience in the Caribbean".

[2] Centre for Research on the Epidemiology of Disasters and UN Office for Disaster Risk Reduction. 2018. "Economic Losses, Poverty & Disasters 1998-2017".

[3] Asian Development Bank. 2019. "Asian Development Outlook 2019 – Strengthening Disaster Resilience".

[4] Global Facility for Disaster Reduction and Recovery and State Secretariat for Economic Affairs (GFDRR and SECO). 2014. Financial Protection Against Natural Disasters: An Operational Framework for Disaster Risk Financing and Insurance.

MANAGING THE FINANCIAL IMPACT OF DISASTERS – POLICY AND INSTITUTIONAL ARRANGEMENTS

All governments exercise operating controls on public expenditures through a combination of legislative and administrative frameworks. These frameworks incorporate the government's fiscal policy settings, which may include the following policy considerations:

Protecting the national balance sheet (budget surplus/minimum debt levels)

Economic stimulus

Disaster relief and recovery

Funding sub-national governments

Decreasing poverty

Improving/upgrading infrastructure

Governments bear the primary financial responsibility for disaster response due to their central role in emergency relief, recovery, and reconstruction. However, government fiscal frameworks, especially those using cash based accounting, often do not directly consider or account for such expenditures in the same way as planned recurrent expenditure, such as for infrastructure, health, housing, education, and other social services. Instead, governments often leave disaster-related expenditures as unquantified contingent liabilities in the government balance sheet.

This approach is understandable for a variety of reasons, including: (i) the opportunity cost of withholding/ segregating disaster-related funds instead of applying them to address current policies and competing priorities; (ii) ready access to fiscal reserves or external loans; (iii) difficulties in making fiscal risk management a priority for decision makers (iv) the uncertain timing and extent of disaster-related expenditures; and (v) the lack of reliable analysis to improve fiscal certainty[5].

However, this approach has disadvantages in that governments are captive to sudden and very significant increases in disaster-related expenditures, which place pressure on government finances. This is because the sudden expenditure costs usually coincide with decreased revenues, increasing public debt, and escalating borrowing costs - especially for already highly indebted nations. Countries can also suffer a sharp deterioration in the trade balance, with increased expenditure on food, raw materials and reconstruction materials against a general decline in exports. More recent, complicating factors for governments include demographic changes (an older workforce, paying less in taxes, and entailing increased welfare and medical costs), depleting government reserves, and the emergence of increasingly complex and globally interconnected risks[6]. Taken together, these factors are likely to lead to more frequent, and more significant, national fiscal risks.

The failure by governments to properly assess and plan for contingent liabilities also means there is less time to provide coordinated responses to disasters. This, in turn, increases the likelihood of responses being rushed, poorly planned, and not assisting those most affected by disasters.

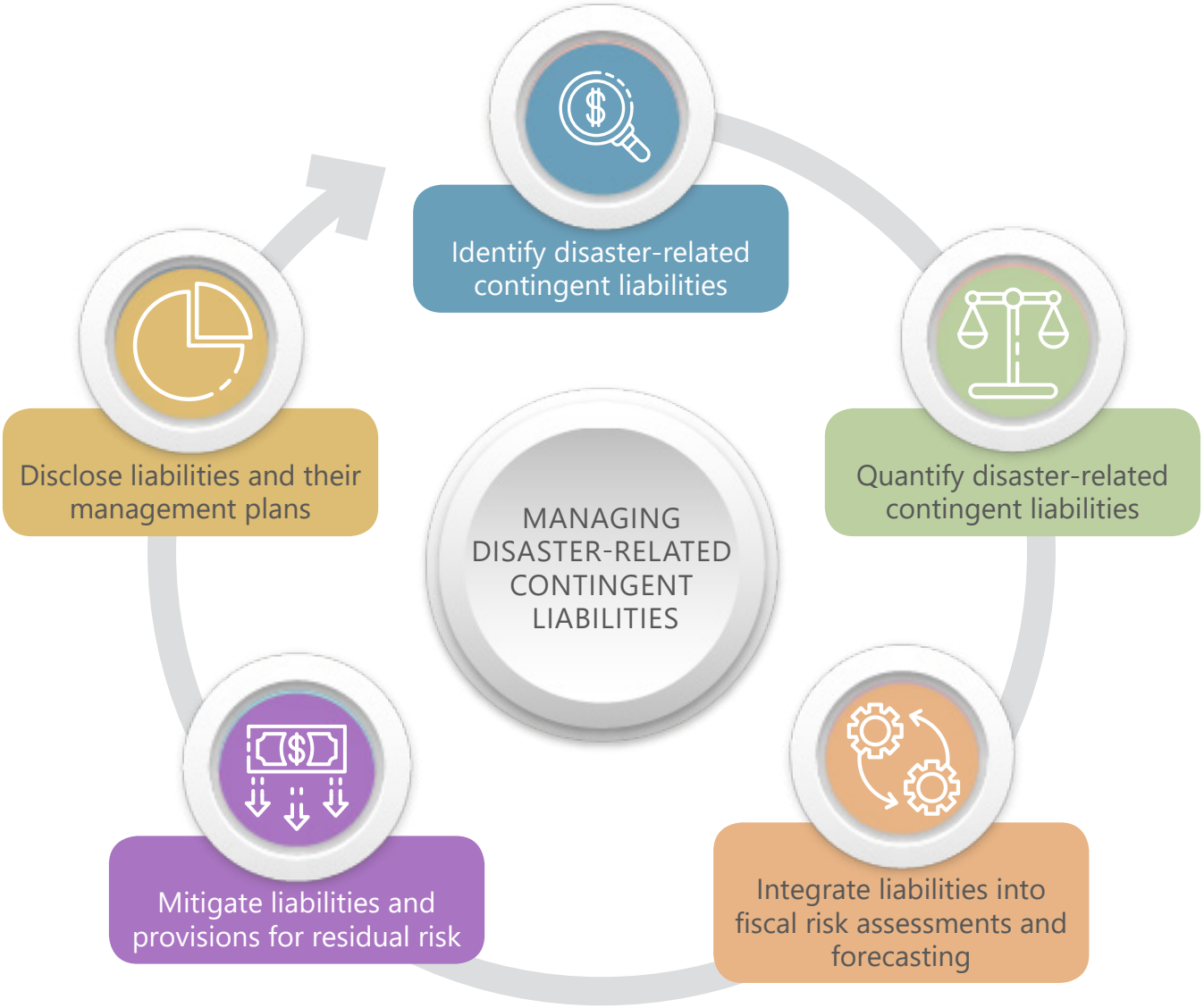
[5]Organisation for Economic Co-operation and Development. 2020. "OECD Best Practice Note on Fiscal Risk Management".

[6]The 2021 World Economic Forum Global Risk Report identified extreme weather, climate change, human-led environmental damage, infectious diseases, and information technology (IT) infrastructure breakdowns as among the highest likelihood and highest impact risks for the next decade.

A CONCEPTUAL FRAMEWORK FOR MANAGING THE FINANCIAL IMPACTS OF DISASTERS

A framework for managing disaster related contingent liabilities was developed by the OECD and World Bank to support countries in managing the financial impacts from disasters. The key aspects of the framework are identified in Figure 2[7].

FIGURE 2. FRAMEWORK FOR MANAGING DISASTER RELATED CONTINGENT LIABILITIES



Source: OECD and World Bank, 2019.

[7]OECD/The World Bank. (2019). "Fiscal Resilience to Natural Disasters: Lessons from Country Experiences".

Understanding the impacts of disaster risk on sovereign assets and liabilities plays a key part in understanding the potential impact of sovereign DRFI strategies which can allow governments to reduce the costs of disasters using prearranged financing and insurance methods. When governments understand the impacts from natural disasters including the increased risks posed by climate change, for example, they can link their debt and cash management strategies with their DRFI strategy by considering their country's risk profile.

An increasing number of governments are now incorporating disaster risk financing strategies into national planning to help smooth fiscal shocks and avoid disruption of longer-term economic growth and fiscal objectives. About 60 percent of Organisation for Economic Co-operation and Development (OECD) countries have a framework for monitoring fiscal risks, and around 75 percent publicly disclose information about their fiscal risks.

The remainder of this fact sheet focuses on two aspects of financial protection in particular:
- Identifying and better managing disaster-related contingent liabilities; and
- Risk financing strategies to fund disaster-related contingent liabilities.

IDENTIFYING DISASTER-RELATED CONTINGENT LIABILITIES

Disaster-related contingent liabilities usually represent the major part of post-disaster expenditures, impacting the government's explicit and implicit liabilities/commitments. The identification and assessment of a government's potential disaster-related contingent liabilities usually occurs as part of an overall strategic analysis framework (and/or fiscal stress testing) of the country's fiscal risk environment.

Explicit commitments usually comprise the bulk of government expenditures. They are payment obligations based on contracts, laws, and/or clearly articulated government policies. These expenditures often include cost-sharing arrangements with subnational governments; recovery and reconstruction of damaged public assets (buildings, schools, hospitals, roads, and so on); government guarantees for public corporations or public-private partnerships (PPPs); and other legal or policy commitments to compensate for losses to private assets, farmers, or the wider community.

Implicit commitments are government expenditures based on moral or community expectations to provide support, as well as political pressure and/or an increased risk of prolonged economic downturn. These expenditures commonly involve disaster relief and recovery assistance to affected households and businesses, and tax relief and economic support or stimulus measures.

QUANTIFYING AND DISCLOSING CONTINGENT LIABILITIES

Although uncertain in timing and amount, government expenditures for disaster-related contingent liabilities can still be assessed, quantified, and budgeted to some extent, thereby helping to 'smooth out' disaster-related fiscal shocks. However, this information is often stored in a scattered way and rarely collated to support future financial planning.

The benefits of putting a notional 'price tag' on contingent liabilities include helping to quantify policy options in response to the potential costs and benefits of each option, whether it is ex-ante resilience investment, risk transfer, or more targeted ex-post expenditures. Disaster-related fiscal risks could then be incorporated into macro-fiscal planning and national budgets. In this context, including disaster-related contingent liability risk in national accounts is also consistent with other aspects of long-term government budgeting (such as government pension payments, and employee retirement liabilities), as well as approaches taken by the financial markets.

Identifying, clarifying, and quantifying contingent liabilities enables sufficient and effective financial preparedness. At the same time, it also supports risk ownership in clarifying who pays for what in the event of a disaster.

Countries have used several methods and techniques to quantify disaster related contingent liabilities. These include assessment of impact of disasters using historical data and forward looking assessment using probabilistic catastrophe risk models.

Country examples

Colombia: In 2013, through the Disaster Risk Financial Protection Strategy, Colombia established the guiding framework that allows the reduction of fiscal vulnerability and the sustainability of the macroeconomic balance due to the occurrence of natural and/ or non-intentional anthropical catastrophes. The policy guidelines proposed and adopted by the country, encouraged the first implicit contingent liability quantification associated with disasters, which was included in 2017 in the medium-term fiscal framework of the Nation, which is published annually by the Colombian government. Currently, Colombia has seismic, floods and droughts risk estimations in place, thanks to the technical support of international modeling entities, financed by SECO and the World Bank, to support financial protection.

Nepal: Contingent Liabilities from Natural Disasters: Analysis was conducted to identify and estimate the contingent liabilities arising from natural disasters in Nepal and to also provide options to manage them. Two of the techniques used to estimate the value of contingent liabilities from natural disasters were direct estimation, using historical expenditure data, and probabilistic modeling.

United Kingdom: The United Kingdom has a financial framework to assess and manage contingent liabilities, enabling it to better handle fiscal risks and integrate risk governance and management across the government. When taking on new contingent liabilities, line ministries are required to go through an approval process with the Treasury, which allows the Treasury to actively monitor, manage, and mitigate contingent liabilities across the government.

New Zealand: New Zealand has merged its critical risk and fiscal risk management frameworks. At the fiscal level, the Public Finance Act requires the disclosure of all Government decisions and circumstances that may materially affect the economic and fiscal outlook. In 2006, New Zealand modelled the impact of a pandemic on the economy, and that model was subsequently used to inform the Treasury's preparedness during the 2009 H1N1 virus crisis.

Colombia, Panama, Peru, and Serbia are at various stages in establishing dedicated fiscal risk management units within their governments to support the identification, disclosure, and mitigation of disaster-related contingent liabilities.

Albania, Georgia, Vietnam are in the process of developing or improving their fiscal risk statements including disclosure of disaster related contingent liabilities.

RISK FINANCE STRATEGIES FOR CONTINGENT LIABILITIES

Utilising the above framework and risk layering approach described below, countries then design financial protection strategies, that is, a suite of policies and financial instruments to secure access to financing in advance of shocks, protect the fiscal balance and budget, and ensure timely and sufficient access to funds. Importantly, more predictable and timely funding also improves the resilience of national and subnational governments, businesses and households.

Country examples

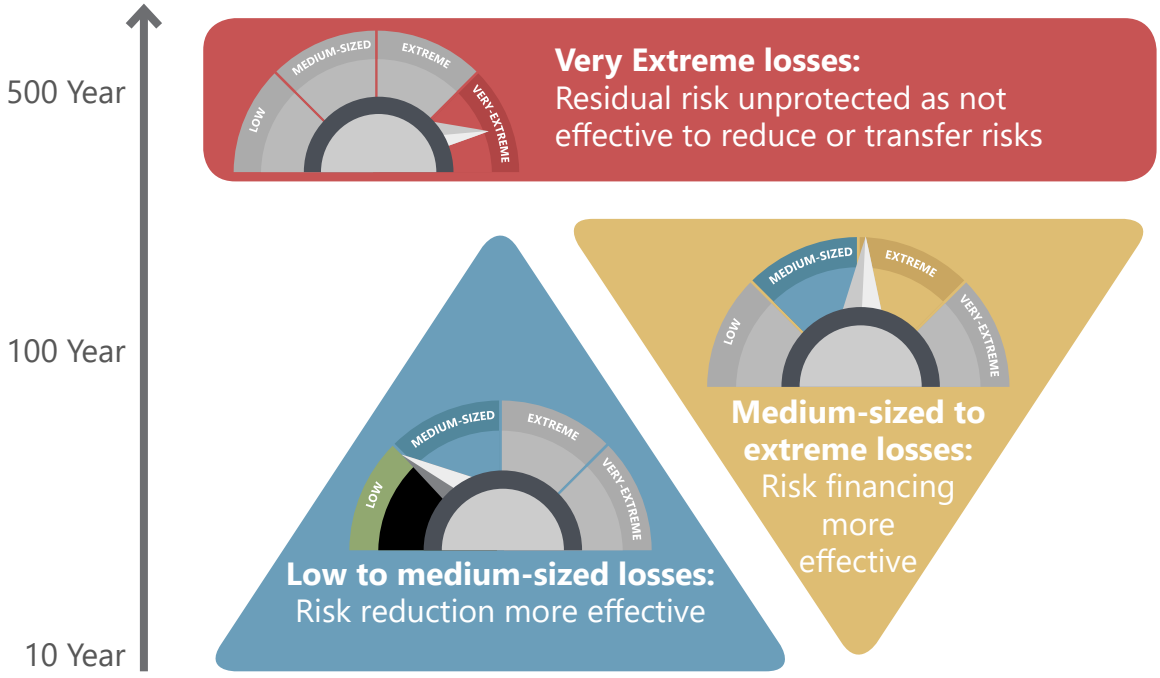
Nepal recently applied this framework to find that government expenditures following the 2015 Gorka earthquake more than doubled expenditures for the two proceeding years. Using the probabilistic estimation of contingent liabilities, the annual average explicit contingent liability attributable to the government of Nepal from natural disasters is estimated to be over 1 percent of GDP and 2.5 percent of GoN's annual budget, with the average annual loss for flood and earthquake risk being USD 80 million and USD 250 million, respectively. The Government can potentially finance disaster response using a mix of its contingency budget and Cat DDO for events that occur once in every five years (or that have a 20 percent chance of occurring in any given year) or more frequently. For events that occur less frequently, the government would face a significant funding gap as shown by the Gorka earthquake in 2016, which incurred a total loss of USD 5.6 billion of which USD 1.6 billion was identified as the government's explicit contingent liability (World Bank (forthcoming).

Some countries, such as Indonesia, Peru, and others have already developed disaster risk finance strategies, whereas other countries, such as Albania and Tunisia, are in the process of developing their own strategies using a risk layering approach to optimize a mix of risk financing instruments.

RISK LAYERING

A further consideration for governments is the balance to be struck between ex-post and ex-ante financing instruments. This balance will depend on factors such as the costs and benefits of both types of activities, the incentives (and disincentives) generated by those instruments, and the nature of the hazards and risks to be protected. This balance, which entails risk layering, is illustrated in Figure 3[8].

FIGURE 3: THE LAYERING APPROACH FOR RISK REDUCTION AND FINANCING



Source: Mechler et al., (2014, p. 18)

• For the low-to medium-loss events that happen relatively frequently, risk reduction is likely to be cost effective in reducing burdens. The reason is that the costs of **risk reduction** often increase disproportionately with the severity of the consequences. Moreover, individuals and governments are generally better able to finance lower consequence events (disasters) from their own means, for instance, through savings or calamity reserve funds, as well as international assistance.

• The opposite is generally the case for **risk financing** instruments, including reserve funds, catastrophe bonds and contingent credit arrangements. For this reason, it is generally advisable to use those instruments mainly for the lower probability hazards that could have potentially debilitating consequences (such as catastrophes).

• Finally, as shown in the uppermost layer of Figure 2, individuals and governments will generally find it **too costly to use risk-financing** instruments to cover very extreme risks that occur less frequently, such as those occurring every 500 years.

[8]World Bank Group. 2016. "Disaster Risk Management and Fiscal Policy – Narratives, Tools, and Evidence Associated with Assessing Fiscal Risk and Building Resilience." World Bank Development Economics, Climate Change Cross-Cutting Solutions Area.

Budgetary policies and risk financing options can, in principle, lead to incentives to place a stronger emphasis on risk reduction. Implementing a structured process for risk detection in the balance sheet has the potential to provide a "price signal." In turn, a strong focus on ex-post disaster management (as noted, the still, somewhat dominant approach) offers little in the way of risk awareness and reduction.

RISK FINANCE INSTRUMENTS

No single financial instrument can meet the funding needs for all risks. Therefore, a combination of financial instruments is necessary. The government's financial protection strategy should match the frequency and severity of expected disaster events along with associated funding needs. Other factors can include the strength of the government's legislative and fiscal frameworks, the current national balance sheet and debt levels, political and social (in)stability, and the maturity of national financial and insurance markets.

For example, in countries with relatively weak or developing financial and legal systems, a private sector insurance scheme may provide a faster and more transparent funding option in the short-to medium-term while the government's own fiscal governance and budget systems mature.

With these factors in mind, options for financing instruments generally fall into two categories: those arranged before a disaster (ex-ante) versus those used after a disaster (ex-post). Table 1 provides examples of both.

TABLE 1: EX-ANTE AND EX-POST DISASTER FINANCING INSTRUMENTS

Ex-ante Disaster Financing Instruments	Ex-post Disaster Financing Instruments
Disaster reserve fund: A dedicated disaster response fund that accumulates undisbursed funds over time.	Budget reallocation: Redistribution of funds from other programs to meet emergency response and recovery costs.
Contingency budget: A separate budget line that can be used to drawn down funds in the event of a disaster.	Borrowing: Raising funds through bonds or loans for recovery and reconstruction.
Contingent credit: A loan arranged in advance to provide immediate liquidity once a predetermined trigger is met.	Tax increase: Temporary or permanent tax increase(s) as a last resort.
(Sovereign) risk transfer instruments: Insurance, catastrophe bonds and similar products can transfer government disaster risks to financial markets and enable rapid payouts.	International aid: External development assistance, which is less predictable and likely to involve lags in delivery time.
International aid: pre-arranged funding mechanisms through international donors.	

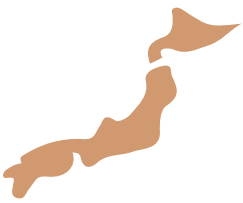
These financing instruments offer different advantages and disadvantages. Insurance is the most common form of risk transfer, with traditional or parametric/index-based insurance indemnifying against losses in exchange for a premium payment. However, premium costs can be substantial and require an immediate budget outlay.

Reserve funds help to build disaster funding capacity over time; however, it may be at the cost of ignoring more immediate and potentially more pressing economic and social needs. Alternatively, in the absence of disasters, the fund may be 'raided' by governments focused on other priorities.

Country examples

Colombia, Chile, Mexico, and Peru: In 2018, the World Bank issued a joint catastrophe bond for four Pacific Alliance countries, including Colombia, Chile, Mexico, and Peru, providing total earthquake coverage of USD 1.36 billion. The issuance consists of five classes of bonds to cover earthquake risks: one each for Chile, Colombia, and Peru, and two classes of bonds for Mexico. The bond enables Chile, Colombia, and Peru to access international capital markets for the first time. As such, they are eligible to receive insurance coverage against natural disasters. The insurance coverage of the catastrophe bond amounts to USD 500 million for Chile, USD 400 million for Colombia, USD 260 million for Mexico, and USD 200 million for Peru. Earthquakes exceeding a pre-agreed severity will trigger the catastrophe bond, releasing an insurance payout to the countries. In this case, the investor would lose part or all of the capital. The joint catastrophe bond has had many benefits, contributing to risk diversification for investors, achieving economies of scale, and securing better premium rates for the four participating countries.

Caribbean: The Caribbean Catastrophe Risk Insurance Facility (CCRIF), created in 2007, was the first sovereign catastrophe risk pool. The CCRIF is a segregated portfolio company (CCRIF SPC) owned by the CCRIF special purpose trust whose beneficiaries are the CCRIF members. As of 2017, 14 Caribbean countries participated in the pool. As part of the ongoing expansion of the CCRIF into Central America, Nicaragua purchased a policy in 2018. As of 2018, CCRIF had made total payouts of USD 136.3 million, including more than USD 50 million during the 2017 hurricane season. The latest payout of USD 5.8 million to Barbados was triggered by excess rainfall in October 2018.



Japan: Japan's Ministry of Finance has developed a public-private earthquake insurance program for residential assets based on risk sharing between the private insurance sector and the government-backed Japan Earthquake Reinsurance Co. (JER). Payouts are not proportionate to damage, but instead rely on a four-step system of total, large, small, and partial losses, corresponding to 100 percent, 60 percent, 30 percent, and 5 percent, respectively, of the earthquake insurance policy limit. This system allowed claims to be settled quickly after the Great East Japan Earthquake, which caused USD 300 billion in losses in 2011, resulting in total payouts of around ¥1.27 trillion (USD 11.4 billion). Satellite images were used to identify total losses for buildings. As a result, 60 percent of claims were paid within two months and 90 percent within five months.

CONCLUSION

Identifying, disclosing, and mitigating disaster-related contingent liabilities enables governments to integrate disaster-related fiscal risks into macro-fiscal planning and the formulation of national budgets. Potential benefits of this approach include:

1. Medium-to long-term fiscal decisions would more explicitly consider the advantages of investing ex-ante. Most governments have a severe bias toward reactive funding, that is, funding once a crisis happens rather than adopting a risk reduction and preparedness approach. Incorporating risk analysis into fiscal decision making can lead to more evidence-based choices in favour of 'up-front' expenditures that could mitigate and/or prevent far more significant expenditures and social upheaval due to a disaster event.

2. An increased focus on the social and well being benefits would protect more citizens and keep them from falling into poverty after a disaster.

3. Incorporating stronger risk-based signals into fiscal policy can, in turn, drive improved risk management through all-of-government spending, providing higher confidence that government agencies are spending limited public funds more effectively.

4. Stronger financial resilience frameworks can also aid disaster responses, specifically by integrating financial resilience into key fiscal planning tools, such as macro-models, fiscal risk statements, debt sustainability analyses, public expenditure reviews, public investment diagnostics, and poverty diagnostics.

5. Broadening the scope of financial protection strategies and instruments would include other crises-from public health shocks, cyber risks, conflict, to famine, and displacement and migration.

NEXT STEPS

Generating these benefits require coordinated and ongoing efforts across government, including:

Leadership by government finance ministers and their department officials, who are key influencers involved in setting national fiscal and financial expenditure policies.

Close collaboration with line ministries and disaster management agencies to develop financial protection measures.

Enhancing legal, institutional, and policy frameworks to implement sustainable disaster-related budget policies, as well as disaster risk financing and insurance solutions.

Designing clear and effective rules related to governmental post-disaster financial assistance, including national and subnational cost sharing.

Improved governmental understanding and management of the government's disaster-related contingent liabilities as part of broader fiscal risk management measures.

Further exploring the application of the Sovereign Asset and Liability Management (SALM) framework, which is a new and comprehensive way of looking at the potential impact of a disaster on public assets and liabilities.

Working with development partners and the private market to develop and implement financial protection strategies.

FORTHCOMING PUBLICATIONS:

The Impacts of Disaster Risk on Sovereign Asset and Liability Management

A new and comprehensive way of looking at the potential impacts of a disaster on public assets and liabilities is by applying the Sovereign Asset and Liability Management (SALM) framework.

The SALM framework is aimed at understanding the potential impact of natural disasters on countries' economy and public finances through a process of considering existing alternatives for modelling and stress testing. Three case studies (relating to Peru, Serbia and New Zealand referred to below) firstly, highlight the importance of accounting for disaster impacts across public sector balance sheets, and secondly, demonstrate that viable mechanisms to assist timely post disaster response and reconstruction can have very high payoffs, especially when assisted by an appropriate SALM framework - and conversely, very costly without one.

Assessment of Fiscal Impacts of Disasters in Albania

Assessment of fiscal impacts of disasters: The government of Albania is building its understanding of the contingent liabilities arising from natural disasters. This analysis is based upon scenarios to demonstrate how disaster impacts translate into unplanned spending (through costs of public assets reconstruction, support to households and social assistance) and revenues.

COVID-19 Expenditure Analysis in Albania

COVID-19 expenditure analysis: To support the development of the risk layering strategy, the World Bank and the Ministry of Finance and Economy are finalizing the COVID-19 expenditure analysis to understand the opportunity cost of financial management of the pandemic through budget cuts.

Towards Proactively Managing the Fiscal Risk from Disasters in Serbia

Serbia's Fiscal Risk Unit (FRU) has started to analyze various sources of fiscal risk, with particular emphasis on SOEs and natural disasters. To better understand the fiscal implications of the latter, the FRU conducted analysis based on an adaptation of the Solow-Swan economic growth model to evaluate how damages to assets caused by disasters impact GDP and key fiscal indicators such as the budget deficit and national debt. This analysis will be updated on a regular basis and will inform the country's macro-fiscal strategy going forward.

REFERENCES

Asian Development Bank. 2019. "Asian Development Outlook 2019 – Strengthening Disaster Resilience".

Centre for Research on the Epidemiology of Disasters and UN Office for Disaster Risk Reduction. 2018. "Economic Losses, Poverty & Disasters 1998-2017".

Global Facility for Disaster Reduction and Recovery and State Secretariat for Economic Affairs (GFDRR and SECO). 2014. "Financial Protection Against Natural Disasters: An Operational Framework for Disaster Risk Financing and Insurance".

Global Facility for Disaster Reduction and Recovery and State Secretariat for Economic Affairs (GFDRR and SECO). 2017. "Assessing Financial Protection against Disasters: A Guidance Note on Conducting a Disaster Risk Finance Diagnostic".

International Monetary Fund. 2017. "Unleashing Growth and Strengthening Resilience in the Caribbean.

Organisation for Economic Co-operation and Development (OECD and the World Bank. 2019. "Fiscal Resilience to Natural Disasters: Lessons from Country Experiences". (Paris: OECD).

Organisation for Economic Co-operation and Development (OECD). 2020. "OECD Best Practice Note on Fiscal Risk Management". (Paris: OECD).

World Bank Group. 2016. "Disaster Risk Management and Fiscal Policy – Narratives, Tools, and Evidence Associated with Assessing Fiscal Risk and Building Resilience." World Bank Development Economics, Climate Change Cross-Cutting Solutions Area.

World Bank Group. 2019. "Boosting Financial Resilience to Disaster Shocks: Good Practices and New Frontiers." World Bank Technical Contribution to the 2019 G20 Finance Ministers' and Central Bank Governors' Meeting.

World Economic Forum (WEF). 2021. The 2021 World Economic Forum Global Risk Report. (Geneva: WEF).

WORK SHEET 1: MANAGING DISASTER RELATED CONTINGENT LIABILITIES

Test your understanding and record your insights through this easy, DIY worksheet!

Activity 1: Given below are examples of financing instruments. Identify which of the following instruments fall into "ex ante" (arrangement made before disaster) or "ex post" (arrangement made after disaster) funding.

Financing Instruments	Ex Ante	Ex Post
1. Contingent credit: A loan arranged in advance that provides immediate liquidity once a predetermined trigger is met.	◯	◯
2. Borrowing: Raising funds through bonds or loans for recovery and reconstruction.	◯	◯
3. Tax increase: Temporary or permanent tax increase as a last resort.	◯	◯
4. International aid: External development partners' assistance, which is less predictable and likely to involve delivery time-lags.	◯	◯
5. Disaster reserve fund: A dedicated disaster response fund, which accumulates undisbursed funds over time.	◯	◯
6. Budget reallocation: Redistribution of funds from other programs to meet emergency response and recovery costs.	◯	◯

Activity 2: Identify some of the ex ante and ex post financing instruments available/in-use in your country.

#	Financing Instruments Ex Ante	Financing Instruments Ex Post
1.		
2.		
3.		

Activity 3: Based on the probability of occurrence (frequency) and impact, intensity or potential to cause losses (severity), taking into consideration the risk layering approach, identify the different risk management strategies that can be implemented.

#	Frequency/Severity	Risk Reduction	Risk Transfer	Unprotected Risk
1.	Higher frequency, low-medium losses	☐	☐	☐
2.	Low frequency, high losses	☐	☐	☐
3.	Very low frequency, very high losses	☐	☐	☐

Activity 4: Identify if the following statements about contingent liabilities are true or false.

#	Statement	True	False
1.	Implicit commitments are payment obligations based on contracts, laws, and/or clearly articulated government policies and usually comprise the bulk of government expenditures.	○	○
2.	Identifying, clarifying, and quantifying contingent liabilities supports risk ownership in clarifying who pays for what in the event of a disaster.	○	○
3.	Because ofuncertainty in timing and amount, government expenditures for disaster-related contingent liabilities cannot be quantifiedand budgeted at all.	○	○
4.	All types of disaster risks can be assessed, but not all types of disaster risks can be protected using financial instruments.	○	○
5.	No single financial instrument can meet the funding needs for all risks.	○	○

Activity 5: Reflections

[1] My Top 2 Takeaways from this Factsheet are:

[2] Two concepts/ideas I would like more information on are: