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DISASTER RISK FINANCING & INSURANCE CASE STUDY

Fiscal Management of Natural Disasters in Colombia

Assessing and managing contingent liabilities related to natural disasters

Background

Colombia suffers more than 600 natural disasters a year, the highest rate of recurrent natural disasters in Latin America. The number of disasters is on the rise. With 85 percent of the population and assets located in areas exposed to two or more natural hazards, so is their economic impact (Figure 1). In the past 30 years, over 15 million people have been affected. In 2010-2011 alone, heavy rains due to La Niña affected approximately 3.5 million people and damages were estimated at around 2 percent of GDP.

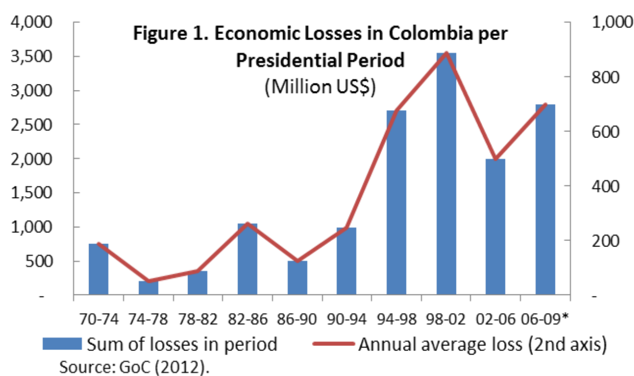

Figure 1. Economic Losses in Colombia per Presidential Period (Million US$)

Source: GoC (2012).

Objectives

The Government of Colombia (GoC) has been strengthening its financial response capacity to natural disasters for over a decade. The Ministry of Finance (MHCP) has established contingency funds and has contracted contingent line of credit for disasters from the World Bank – the Catastrophe Deferred Drawdown Option (Cat-DDO).

More broadly, the MHCP has been improving its fiscal resilience toward contingent liabilities (financial obligations that can be triggered by an unexpected event, including disasters). In the early 2000s, the MHCP began identifying and assessing its explicit (i.e., legally defined) contingent liabilities. More recently, in recognition of its significant implicit fiscal exposure to disasters, the GoC embarked on:

- Assessing its contingent liabilities to natural disasters; and
- Developing a sovereign disaster risk financing and insurance (DRFI) strategy that builds on its existing disaster and fiscal risk management.

Highlights

- The Government of Colombia (GoC) is developing an integrated financial strategy against natural disasters, which includes the fiscal accounting of contingencies arising from natural hazards.
- Natural disasters are the GoC's second most important source of contingent liabilities, with annual expected losses estimated at US$490 million (0.7 percent of its budget) and one in 100 year losses estimated at US$3.0 billion (4.4 percent of its budget).
- Integrating contingent liabilities in fiscal risk management frameworks can help improve the fiscal resilience of the country.

Outcomes

The GoC performed the first comprehensive review of its contingent liabilities, including disaster risks, in 2010. Its contingent liability to natural disasters was estimated based on potential losses to public assets and low-income housing. Natural disasters emerged as the second most important source of contingent liabilities for the GoC, with the Annual Expected Loss (AEL) valued at US$490 million, or 0.7 percent of the GoC's 2010 budget. The Probable Maximum Loss (PML) for 100-year and 500-year return periods are US$2.9 and US$5.6 billion, respectively, or 4.4 and 8.4 percent of the budget, respectively (table 1).

Table 1. Estimated Annual Expected liability

Contingent Liability	US$ Million	% GDP *	% Budget *
Legal Actions	18,642	7.5	27.7
Natural Disasters	490	0.2	0.7
Public Credit Operations	56	0.02	0.1
Infrastructure Projects	26	0.01	0.0
Probable Maximum Loss from Natural Disasters			
	US$ Million	% GDP *	% Budget *
100 year PML	2,976	1.2	4.4
250 year PML	4,417	1.8	6.6
500 year PML	5,655	2.3	8.4

Source: MHCP (2011) and ERN (2011). * Estimations used 2010 figures: GDP of COP$546.9 and GoC Budget of COP$147.3 billion.

To reduce its financial exposure to its contingent liabilities, the MHCP is strengthening its fiscal risk management strategy by integrating risks arising from natural disasters as an implicit contingent liability.

In 2011, the MHCP published the report "Contingent Liabilities: The Colombian Experience," which highlights technical and normative efforts and policy reforms on the management of contingent liabilities implemented by the GoC. The government also formally recognized natural hazards as a source of risk which must be estimated in the mandatory fiscal risk assessments of the MHCP. Furthermore, the GoC acknowledged the reduction of fiscal vulnerability as key for achieving a more sustainable and equitable development in its "Vision Colombia 2019" policy planning document.

The realization that disasters pose the second largest fiscal risk to the GoC motivated the MHCP to further mitigate and manage this risk by working closely with the World Bank in developing a sovereign DRFI strategy. In 2008, the GoC secured financial protection against disasters in the form of a US$150 million Cat DDO (which it fully drew down during the 2010 floods). In 2011, it became the first country to engage in a program by the World Bank and Switzerland's State Secretariat for Economic Affairs (SECO) that assists countries in developing an integrated DRFI strategy within their broader fiscal risk and disaster risk management agendas. In 2012, the GoC legally established a new National Disaster Risk Management Fund and signed a new US$250 million Cat DDO.

As the GoC continues to develop its sovereign DRFI strategy, it is prioritizing three key areas for improvement:

- Improving the insurance of public assets through a centralized approach to insurance purchase and enhanced insurance requirements for concessions;
- Further developing its approach to budget management of disaster risk through market-based risk transfer solutions;
- Establishing policy guidelines for DRFI to guide the overall design and implementation of financial solutions for natural disasters.

Lessons Learned

1. Natural disasters can represent a significant contingent liability of the government and should be integrated into broader fiscal risk assessment. In Colombia, natural disasters represent the second greatest fiscal risk posed to the government. Including disasters in its assessment of contingent liabilities allows the MHCP to understand its fiscal exposure and take steps to respond to disaster and other fiscal risks in a more integrated way.

2. Fiscal risk assessment can inform the development of a sovereign DRFI strategy. Assessment of contingent liabilities is an essential input into the development of a government's DRFI strategy. Including disasters into fiscal risk assessment elucidated the GoC's exposure in financial terms, enabling the government to make informed decisions on its sovereign DRFI strategy.

3. Disaster risk financing can represent an integrated component of a broader fiscal risk management strategy. Fiscal risks to the government are often interlinked, thus an integrated fiscal risk management strategy is essential. The GoC, for example, is working on enhancing catastrophe insurance requirements for concessions, which also contributes to reducing its contingent liability to public-private partnerships for infrastructure construction and operation.

References

DRFI Program (2012). Fiscal Risk Assessment of Contingent Liabilities Associated with Natural Disasters: The Colombian Experience. The World Bank. Washington, DC.

Evaluación de Riesgos Naturales (ERN, 2011). Global Assessment Report on Disaster Risk Reduction, Probabilistic Modeling of Natural Risks at the Global Level, Phase 1A, Development of Methodology and Case Studies.

MHCP (2011). Contingent Liabilities: The Colombian Experience. Bogota, Colombia.

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