

The logo features a large '10' where the '0' is a multi-colored ring (green, yellow, orange, red) with 'th' inside. To the right, 'UNCTAD' is in green, and 'DEBT MANAGEMENT CONFERENCE' is in a smaller green font.

10th UNCTAD DEBT MANAGEMENT CONFERENCE

Geneva, 23th – 25th November 2015

Ensuring Sustainability in the Face of Climate Change

by

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The views expressed are those of the author and do not necessarily reflect the views of UNCTAD

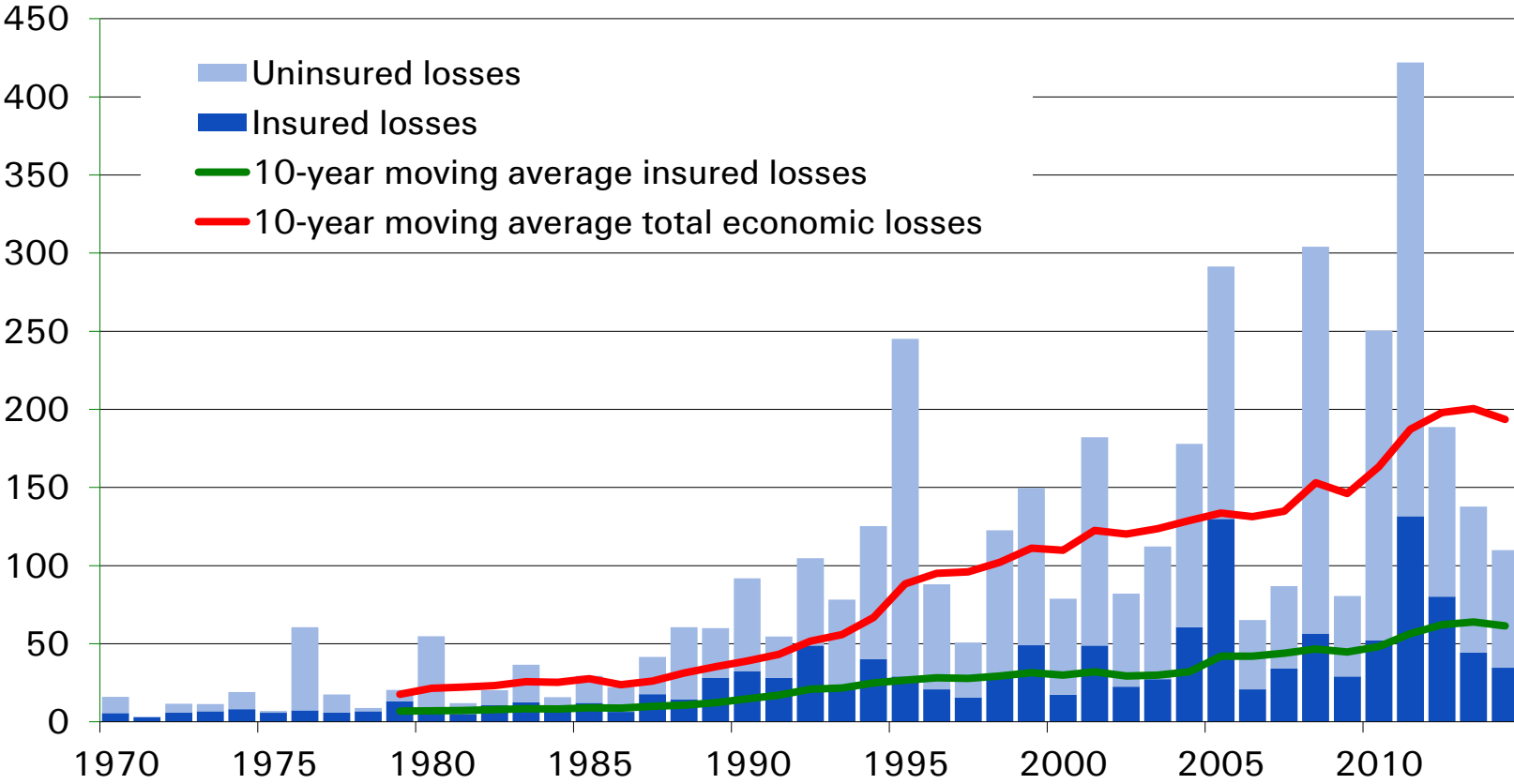
Sovereign climate risk transfer

Tobias Meier, 24 November 2015



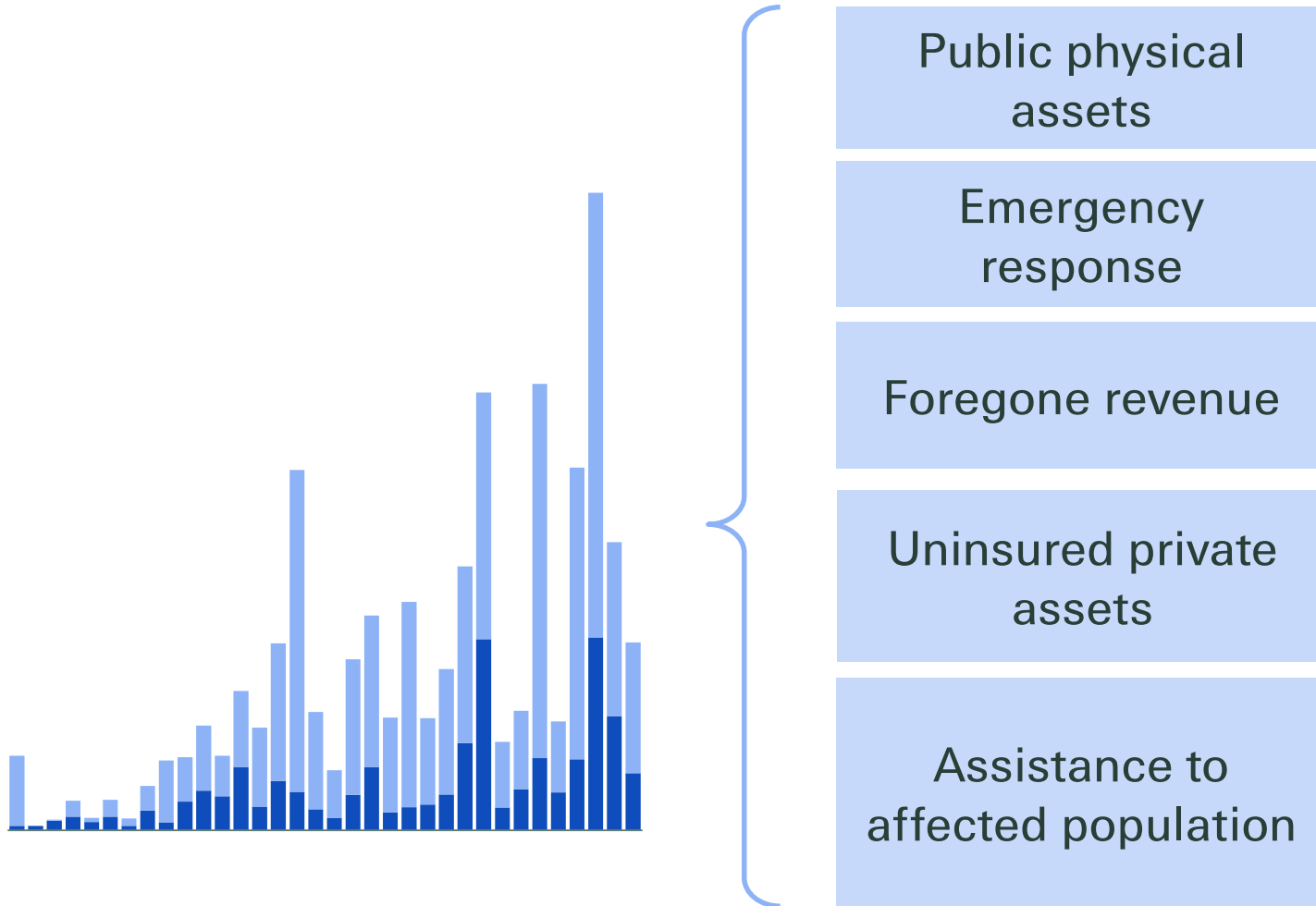
Natural catastrophe losses 1970 – 2014

(in 2014 USD)



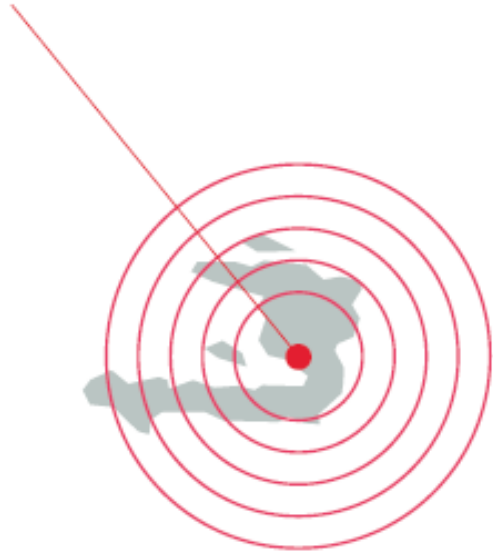
Source: Swiss Re Economic Research & Consulting and Cat Perils.

Disasters place a significant burden on the public sector



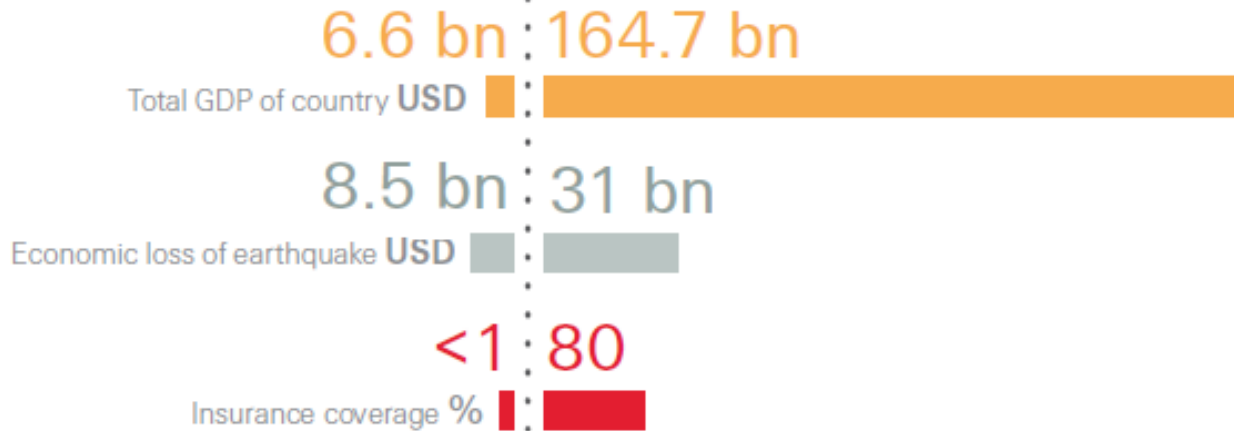
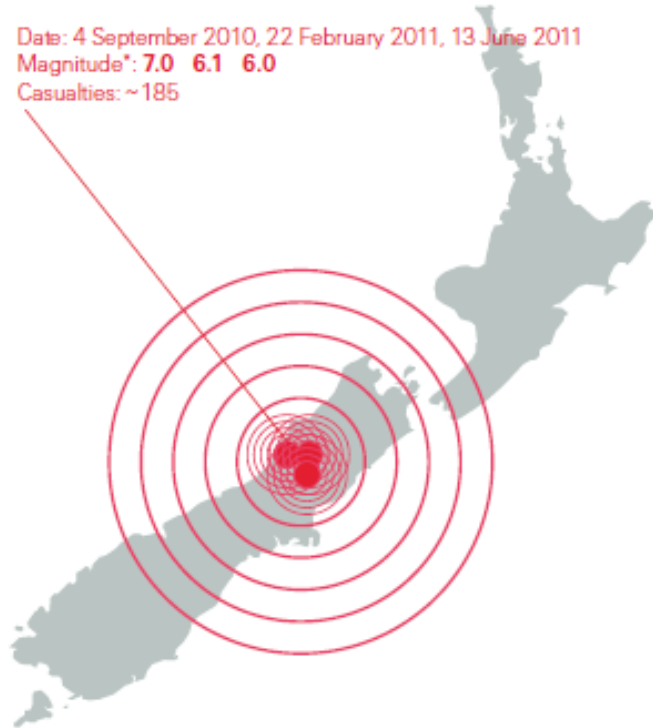
Haiti

Date: 12 January 2010
Magnitude*: 7.0
Casualties: ~200 000

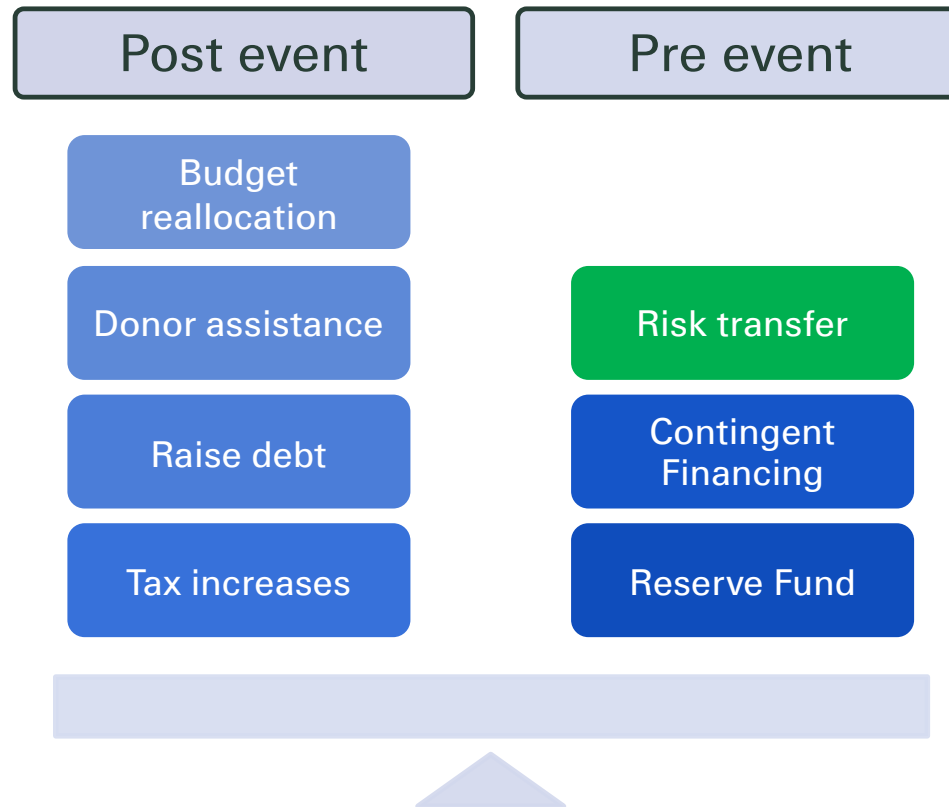


New Zealand

Date: 4 September 2010, 22 February 2011, 13 June 2011
Magnitude*: 7.0 6.1 6.0
Casualties: ~185



Governments' financing options: Post-event vs pre-event





9 October 2015

Tanzania closing hydropower plants

All hydropower plants in Tanzania are being switched off because a lack of rain has led to low water levels in the country's dams.

Hydro-electricity generation has fallen to 20% of capacity, making it difficult for the dams to operate.

It is the first time the East African nation has closed all hydro plants, which generate 35% of its electricity. (...)

Ethiopia: Gov't Readies 4 Billion Birr Aid for Drought Affected Areas

- The number of people affected by the disaster has reached 8.2 million.
- ... purchase of one million metric tons of grain and 20,250 metric tons of edible oil.
- “The government is handling the latest disaster as it is yet to get response from aid agencies.”
- “Aid agencies are focusing on severe calamities occurring elsewhere.”

"Natural Disasters Can Damage Sovereign Creditworthiness"

Storm Alert: Natural Disasters Can Damage Sovereign Creditworthiness, September 2015

"Climate change is likely to be one of the global megatrends impacting sovereign creditworthiness.... Government budgets could come under additional pressure as disaster recovery and emergency support for affected populations is likely to fall on the state in most cases."

Climate Change is a Global Mega Trend for Sovereign Risk, May 2014

Case study Mexico: MultiCat - Funding for immediate relief efforts after disasters



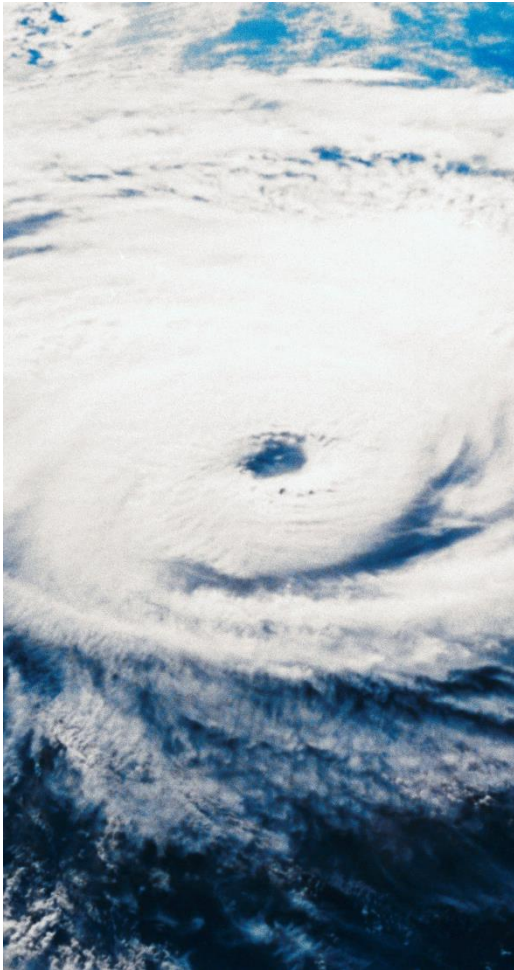
Solution features

- Insured perils: Earthquake and hurricane
- Payments to be used for immediate emergency relief after a disaster
- Parametric catastrophe bond: USD 315 m
- Trigger type: Index
 - Earthquake: physical trigger (quake magnitude)
 - Hurricane: physical trigger (barometric pressure)
- Time horizon: October 2012 – November 2015
- Renewed cat bond launched through the World Bank's MultiCat facility and third cat bond for Mexico

Involved parties

- Insured: Fund for Natural Disasters (FONDEN) of Mexico
- Reinsured: AGROASEMEX S.A.
- Arranger: World Bank Treasury
- Swiss Re: Co-lead manager and joint bookrunner

Case study Asia-Pacific: Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI)



Solution features

- First-of-its-kind sovereign catastrophe risk transfer in the Asia Pacific region
- The PCRAFI offers parametric earthquake (including tsunami) and tropical cyclone insurance policies to 6 pilot Pacific Island countries: Marshall Islands, Samoa, Solomon Islands, Tonga and Vanuatu, Cook Islands
- The policies provide immediate liquidity to participating governments in the aftermath of a disaster with an approximate probability of 1 in 15 years
- Insurance coverage provided to the 6 Pacific Island countries is about USD 67m
- Similarly to CCRIF, the swap payout will be triggered by the intensity of the event (modelled loss approach)

Involved parties

- World Bank, ADB, Japan MoF
- Derivative placed by World Bank Treasury

Payouts to date

- 2014: Kingdom of Tonga USD1.27m following typhoon Ian
- 2015: Vanuatu USD 1.9m following cyclone Pam



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