

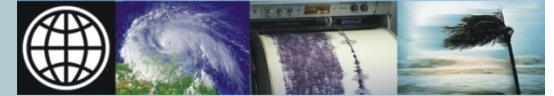
Risk transfer via parametric insurance; the CCRIF experience

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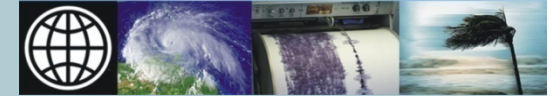
CCRIF

The Caribbean Catastrophe Risk Insurance Facility



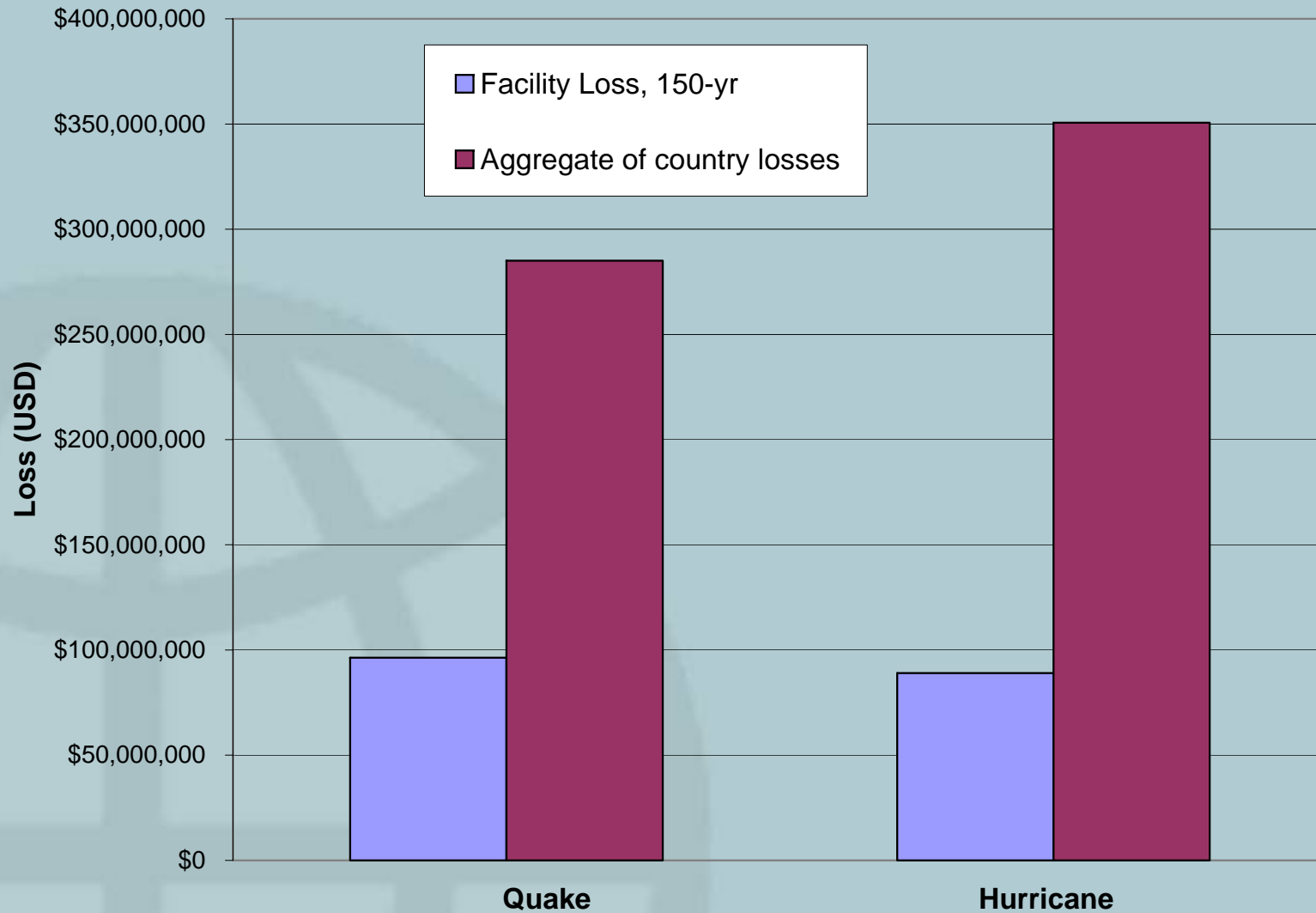
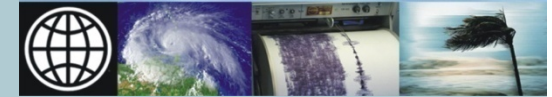
- Provides Hurricane and Earthquake catastrophe coverage to Caribbean governments
- Designed to cover “liquidity gap” due to loss of revenue after a major hurricane or earthquake
- Coverage provided through the use of parametric policies with capacity (capital) held in a joint reserve fund

Key benefits of CCRIF concept

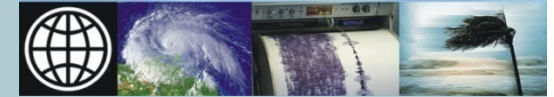


- Its cheap – because of regional pooling, donor-provided seed capital and low overhead, Facility prices in year one are about half of what the open-market cost of coverage would be (were the same coverage available, which it is not)
- Its reliable – no negotiating with loss adjustors or paperwork to prove all the loss; once the event has happened, Participants are informed within a couple of days exactly what the payout will be, and paperwork is minimal

Tangible benefits of pooling

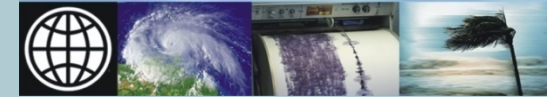


More key benefits



- It has long term sustainability – sophisticated financial modelling demonstrates that the Facility won't go belly up in the first big storm or earthquake, or even a succession of them
- Its tailored to needs – the payout will go directly to the Treasury, most of the payout within 1 month and the remainder within 2 months; it can be used for the most pressing needs during the “liquidity gap” between short term disaster relief and long term redevelopment aid

Even more key benefits



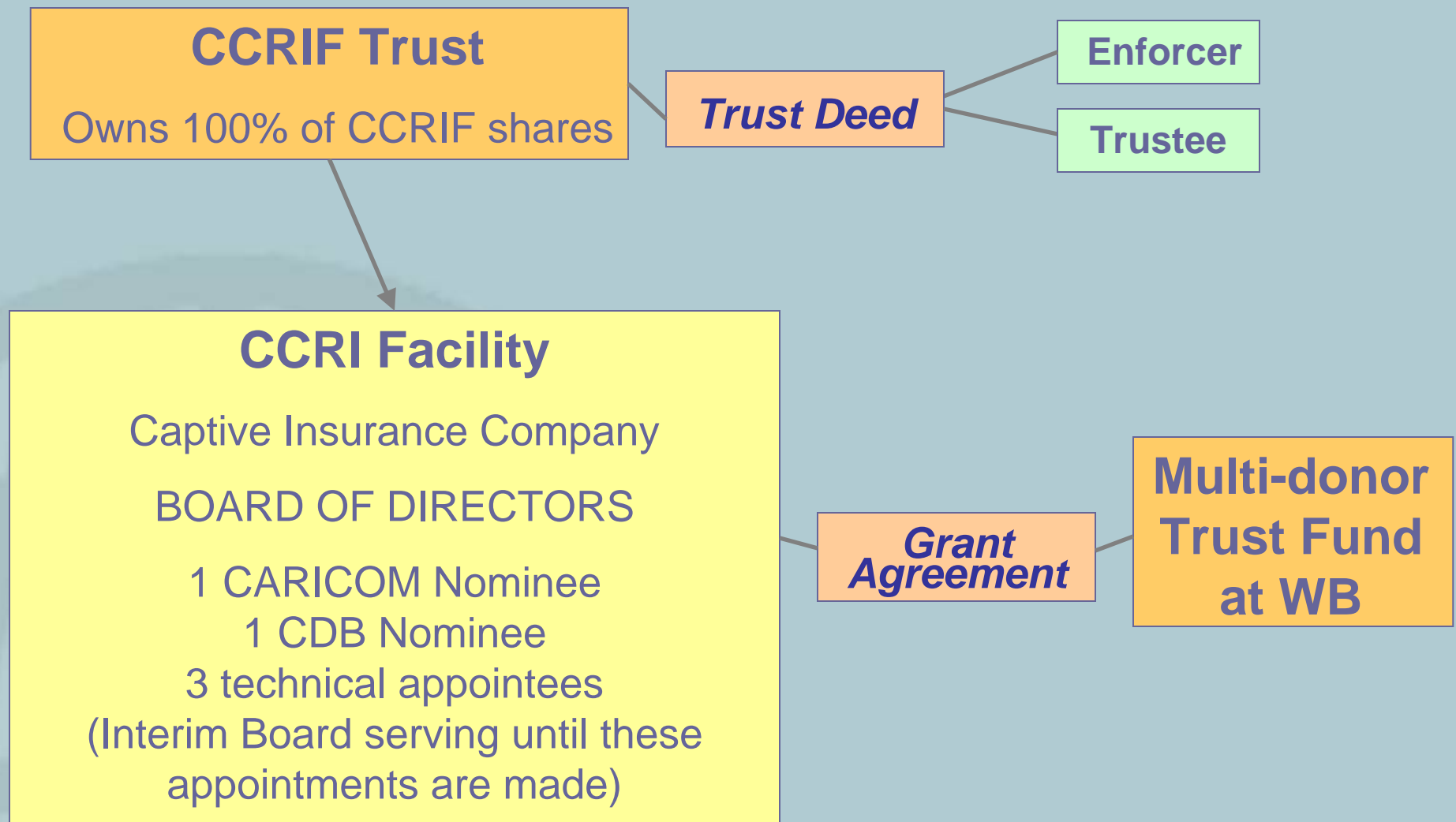
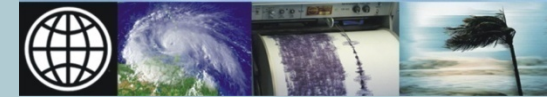
- CCRIF has regional “ownership”; Participants are on a level playing field (they pay what they should pay to cover the risk), but by joining together, there is diversification of the risk and everyone benefits
- Seed donor funding, Participation Fees and direct access to global reinsurance and capital markets have enabled the Facility to achieve unmatched security at excellent prices
- CCRIF has the capacity to respond to Participants’ needs, and are looking at developing new “products” such as rainfall-driven parametric and parametric instruments for specific exposures (e.g. agriculture)

Some secondary benefits

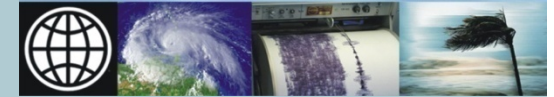


- Country sends message to wider world that it is committed to effective risk management, and is taking steps to safeguard government operations after a disaster
- CCRIF fits hand-in-glove with CDM frameworks which take a holistic view of risk and its mitigation/management

Facility Governance



Facility Operations

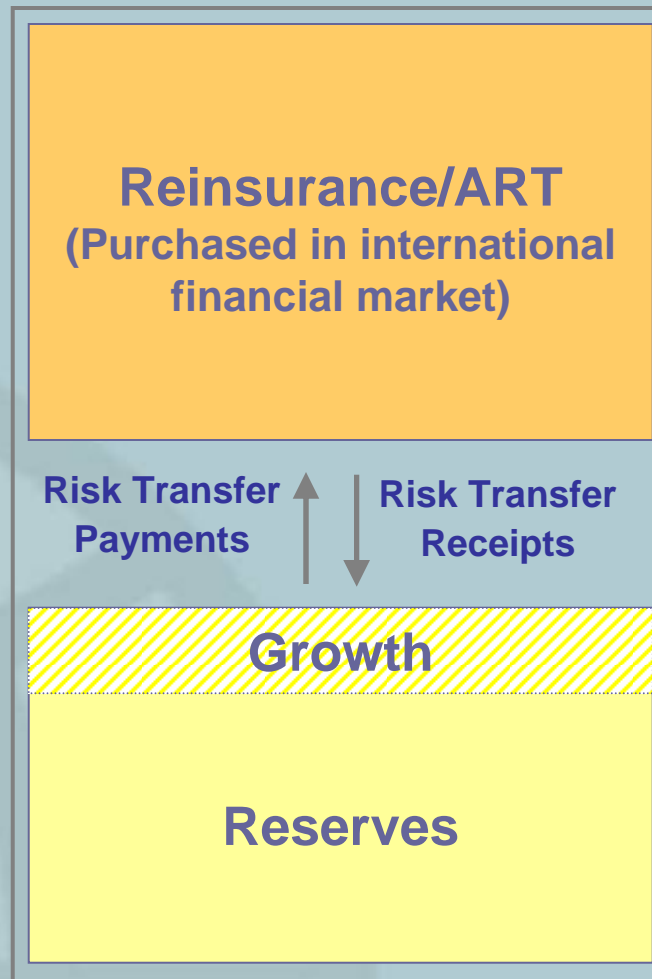


A **Captive Manager** performs 'back-office' functions of the Facility

The Facility

Supervisor performs 'front-office' functions, including:

- Risk management and financial modelling
- Policy sales and collections
- Claims adjudication and settlement



Reinsurance or ART is placed in international market through a **Placement Broker**

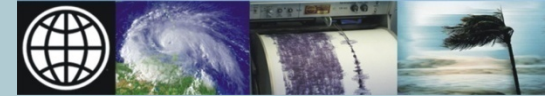
Reserves managed by the **World Bank** (for MDTF) and **Asset Manager** (for CCRIF assets)

The Insurance Instrument



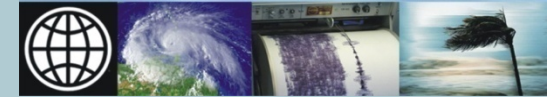
- Annual parametric policy contract
- Hurricane and/or Earthquake perils can be covered
- Up to 50% of modelled Government losses can be covered between selected attachment (deductible) and exhaustion (loss limit) levels
- Annual premium for each country is a multiple of the technical risk (AAL) for the selected coverage. Countries therefore pay in direct proportion to the risk the Facility is covering, so no cross-subsidisation
- Contract formulation enables reinsurance coverage from both the traditional reinsurance markets (as reinsurance mirroring the policy) and from the capital markets (as a financial derivative again mirroring the underlying policy)

Parametric Policy



- Parametric policies pay out on the basis of the expected loss based on a measured parameter of the hazard event rather than on actual value of the loss
- For hurricanes, the parameter is wind speed, for earthquakes it is ground acceleration
- Using published information characterising an event (by NHC for hurricanes, USGS for earthquakes), an equation is used to calculate the parametric index value (equating to loss) for each country for the event. For larger countries, the total index value is a weighted average from two or more measurement point

Financial Principles

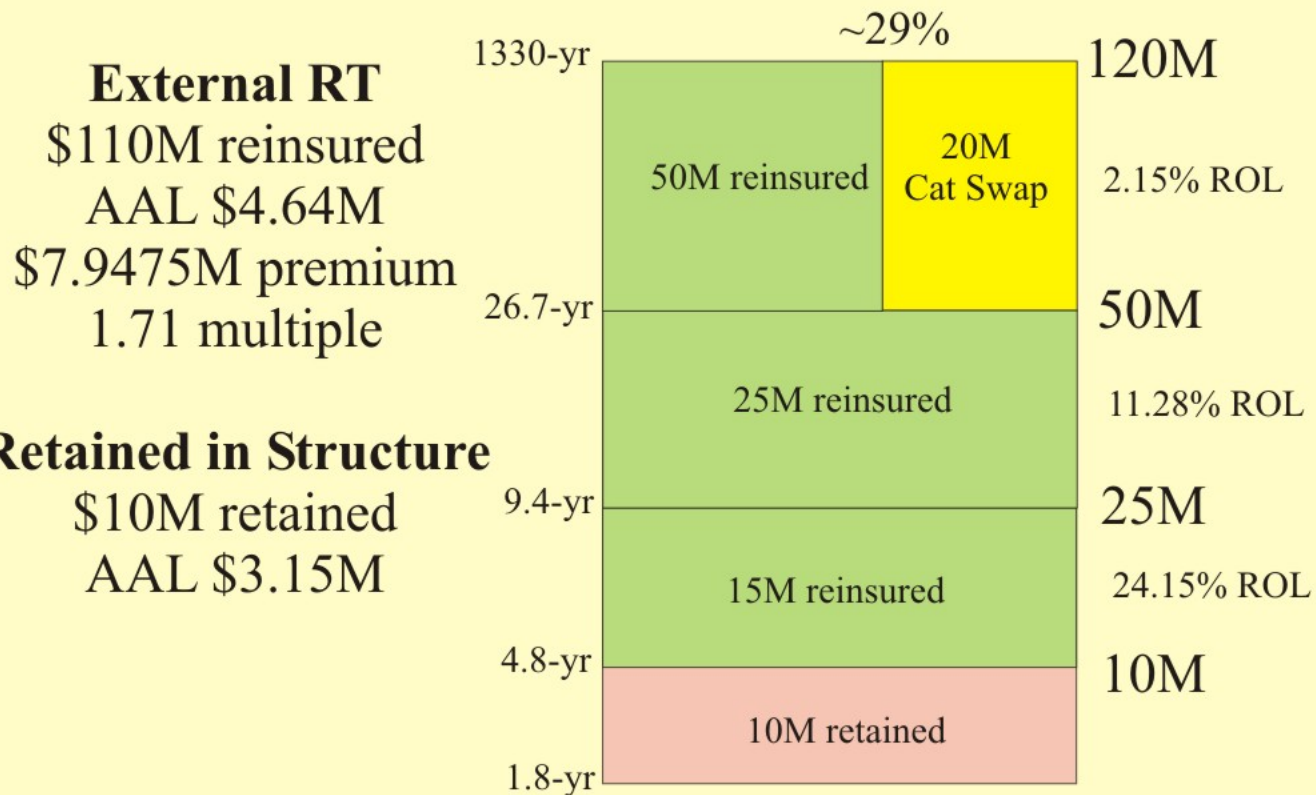


- Capitalisation by donors via World Bank Multi-donor Trust Fund (MDTF) and by Participants direct to CCRIF
- MDTF covers Facility costs on a reimbursable basis for all approved expenditure (including operating costs & risk transfer premiums)
- MDTF also provides claims-paying capacity (10 M of which is assigned in the formal risk transfer structure)
- CCRIF assets (premiums and Participation Fees) are extensively protected so can grow rapidly

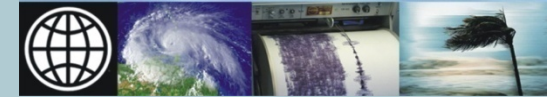
Risk Transfer Structure



Reinsurance Structure (~1,330-yr Limit)



Challenges



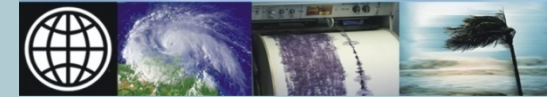
- CCRIF policies cover only a small portion of the risks retained by governments
- CCRIF is designed to kick in when country-wide impact threatens the entire economy, so big events only are covered
- Parametrics are difficult to design for smaller cat events (modelling resolution is finite), so meeting client wishes is technically challenging
- Insurance isn't most efficient financial instrument for very frequent events

Wrap-up



- CCRIF is a unique financial instrument pioneered through regional collaboration
- Innovative use of parametrics has created a cross-over between reinsurance and capital markets, creating great interest in both
- CCRIF is not the answer to everything, but the institution has the financial security to develop and promote companion products
- Best viewed as a joint reserve fund with totally objective rules for payout qualification

Some needs & actions



- CCRIF has identified the need to better include the regional DM community and will be taking pro-active action in this regard
- Plan to send a brief questionnaire to all regional DM heads this week, the results of which will help to improve current loss models used by CCRIF
- CCRIF is supporting a regional initiative funded and coordinated by World Bank and including CDERA, CIMH and UWI