

Sovereign parametric Catastrophe Bonds as an example of Disaster Risk Financing instrument in the region of ECIS

State of play and opportunities

The human cost of disasters is not just measured in the deaths and injuries that they cause, but also in terms of their lasting economic impact on survivors and countries economies. Natural disasters don't just destroy homes, factories, shops and fields; they can altogether annihilate years of economic growth, which is essential for the developing economies.

That is why disaster risk financing, especially when it comes to prevention, sustainability and post event response plays vital role for developing economies across the globe. Financing that strengthens the management of risks associated with exposed assets, lessening vulnerability of people and property, improves management of land, water, and the environment, and improving preparedness for adverse events are all good examples of disaster risk reduction, which help to minimise their impact on an economy and the population.

According to the OECD, successful government adoption of risk financing means ensuring financial vulnerabilities in the economy are addressed through adequate and efficient compensation mechanisms, leading to:

- effective planning to ensure adequate financial capacity to manage risk, including rapid release of funds;
- establishment of clear rules regarding post-disaster financial compensation to enable rapid compensation; ensuring the soundness and resilience of the financial sector with respect to disaster risks, including through proper regulation, business continuity planning, and stress testing;
- ensuring the optimal allocation of resources for disaster risk management, including assessment of the cost-effectiveness of public investments in risk reduction.

In addition to the direct benefits of the financing of risk reduction and response, there is significant and almost untapped potential for the integration of industry expertise in risk financing into relevant government financial management and development planning.

However, a market analysis revealed a ten percent chance that developing countries will experience economic losses of \$47 billion due to natural disasters next year, affecting 180 million people. Should it happen, the devastating effects on the poor and vulnerable population would be enormous.

To put this into perspective, consider the 2010 earthquake in Haiti. This small, densely populated country saw over 220,000 people killed due to the earthquake. 250,000 houses, half of its schools, 50 healthcare facilities and 30,000 commercial buildings were destroyed.

Of the \$47 billion in economic losses, the research shows that \$6 billion (12 percent) are met by humanitarian aid. Only \$2 billion (5 percent) are covered by insurance. This means that a difference of \$39 billion must be shouldered by the people directly affected, or their governments, which are among the world's poorest. What can be done to meet this \$39 billion shortfall?

Annual aid expenditure for low and low-middle income countries in response to natural disas-

ters for the period 2000 to 2015 averaged \$2.2 billion. Much of this aid came from global appeals and was focused on 2004 Indian Ocean tsunami (\$15 billion raised) and the 2010 Haiti earthquake (\$8 billion).

Disaster relief aid by its very nature is reactive, pledged during and after the event, and the amount generated is unpredictable. Pledges made can also be slow to materialize, with examples of payments taking months or even years.

The role of insurers currently focuses mainly on the reconstruction of private assets. Most of the coverage is provided via traditional indemnity (insurance) products. Some sovereign states have put parametric (using pre-defined event's parameter, i.e. magnitude of earthquake, strength of wind or pressure during hurricane, amount of water precipitation during flood, etc.) schemes in place, which, if well-designed, can provide much needed help with post-event reconstruction.

There are of course barriers to stimulating the growth of risk transfer in the developing countries when the state instead of its retention arranges a transfer of disaster expenses to third parties like capital markets for example. Typically, there is no mature domestic insurance market to leverage. Nor are there sufficient government resources to fund sovereign backed insurance schemes. Without a concerted effort, the role of risk transfer in disaster recovery would largely remain at current levels.

But essentially, implementation of the right prevention measures and increases in expenditures on sustainability and resilience cost less than immediate post event financial response, from a macroeconomic point of view. The triple dividends of such resilience include: avoidance of losses when disasters strike, and more robust economic activity thanks to reduced disaster risk and the development of co-benefits, or uses, of a specific disaster risk management (DRM) investment.

In any case, when disaster strikes, immediate steps must be taken to protect survivors and provide them with temporary shelter and emergency food and clothing. In the medium and long term, homes need to be rebuilt, places of employment reconstructed, and local infrastructure reconstructed. Ideally, this can be done in a manner that is resilient to future disasters. All this costs money.

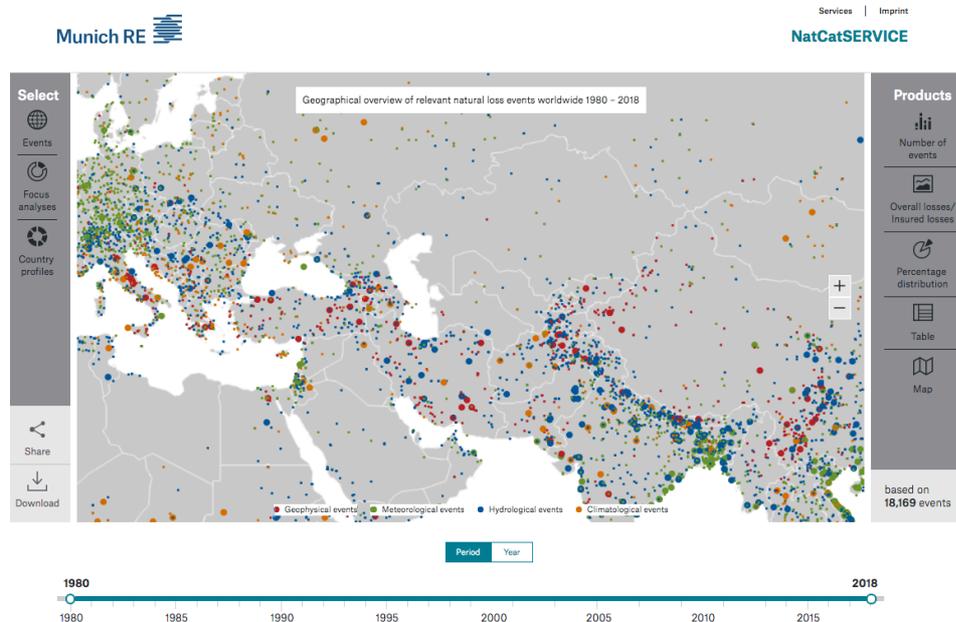
Climate-related disasters have increased significantly in frequency and severity, and climate change is expected to intensify losses, especially in poor and developing countries. From 1980 to 2018, global climate-related disasters rose steadily from around 200 events a year (with less than US\$50 billion in total losses) to around 800 events (with over \$150 billion in total losses) (*Munich Re 2019*).

During 2005-2014, the region of Eastern Europe and CIS alone suffered 314 disasters, resulting in more than 60,000 people killed, 11 million people affected and \$25 billion worth of damage. Going back further, the region has also suffered historically from earthquakes (Almaty (1911), Ashgabat (1948), Tashkent (1966), and Spitak (1988)) and the 2014-2016 Balkans floods.

Mobilizing relief efforts quickly after a disaster can limit long-term economic losses. Unfortunately, many developing countries have limited access to finance for immediate response. These governments need new ways to increase their access to finance to enable disaster response, recovery and rebuilding.

Ideally such features should also help make financial systems more predictable and stable before, during and after disasters, so to be able to avoid or lessen inevitable shocks to the economy in case of devastating events.

Numerous international frameworks and political bodies, including the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, and G20 have called for innovative financing mechanisms to assist developing countries cope with disaster.



Over the last two decades, financial markets, governments, and the development community have introduced important innovations in disaster risk finance, giving rise to new or improved funding sources to build resilience before disasters happen and **to respond**, recover, and rebuild **after disasters strike**. Given the urgency and scale of the challenges developing countries face, pressures to scale up both categories of disaster risk finance are intense.

For post-disaster emergency financing these innovations include national disaster funds, regional pooling schemes using parametric disaster risk insurance, contingent credit lines, Catastrophe bonds and other ILS (Insurance-Linked Securities) solutions.

Post-Disaster Risk Finance Instruments:

INSTRUMENT	DESCRIPTION & COST	EXAMPLES
National disaster funds	Internal budgetary exercise. Governments can capitalize reserve funds by using budgetary resources. The cost to the government is the amount budgeted for the reserve fund. Alternatively, governments can borrow money to finance disaster funds, in which case, the cost is the present value of principal and interest payments on the debt. Governments also may incur administrative or legal costs associated with establishing a reserve fund.	Mexico's national disaster risk fund (FONDEN); Costa Rica's National Emergency Fund

Contingent credit lines	<p>Pre-arranged “postponed” credit lines with IFI’s and the like (The World Bank, IBRD, IDB, etc.)</p> <p>There are two elements to the cost of a contingent credit: (i) the present value of principal and interest payments on any drawn-down portion of the credit (multilateral development banks typically offer interest rates that are lower than what the country would pay in the private market); and (ii) fees associated with the transaction.</p>	<p>IBRD CAT-DDO; IDA CAT-DDO; JICA Stand-by Emergency Credit for Urgent Recovery, IDB Contingent Credit Facility for Natural Disaster Emergencies</p>
Sovereign parametric insurance products	<p>Governments and development partners have created several regional insurance pools to offer sovereign parametric insurance to developing countries.</p> <p>The cost is the insurance premium on the policy paid by the state. The premium level is primarily determined by expected losses (given selected policy parameters). Other factors, including reinsurance and operating costs, also influence premium levels.</p>	<p>CCRIF policies covering tropical cyclone, excess rainfall, and earthquake risk; PCRIC policies covering tropical cyclone and earthquake risk; ARC policies covering drought risk</p>
Catastrophe bonds	<p>Disaster Risk Transfer to Private Capital Markets.</p> <p>There are two elements to the cost of catastrophe bonds: (i) the present value of the coupon payments that the issuer must pay on an annual basis over the lifetime of the catastrophe bonds; and (ii) fees and legal and administrative costs associated with the transaction.</p>	<p>FONDEN catastrophe bond; Pacific Alliance catastrophe bond</p>

Notes: IBRD - International Bank for Reconstruction and Development; CAT DDO - catastrophe deferred draw-down option; IDA - International Development Association; JICA - Japan International Cooperation Agency; IDB - Inter-American Development Bank; CCRIF - CCRIF SPC; PCRIC - Pacific Catastrophe Risk Insurance Company; ARC - African Risk Capacity. *Source:* WRI 2019 Working paper & Authors

Specific issues with ECIS regional Disaster Risk Finance

There is, in the region, a dearth of solutions available for Disaster Risk Finance in the short to medium terms due to some unique local historical, geopolitical and economic factors. Challenges to be addressed include legislation, regulations, institutional capacity, culture, trust, and the size of the country/regional market to make it viable/attractive to the private sector.

One solution might be the creation of **National Disaster funds**. This, however, could be problematic due to existing tax, legislative and regulatory frameworks. The time required for changes to this framework across the region is likely to be lengthy as a result of other national priorities.

Contingent Credit lines with international organisations, while attractive, can run into issues due to the low sovereign credit rating.

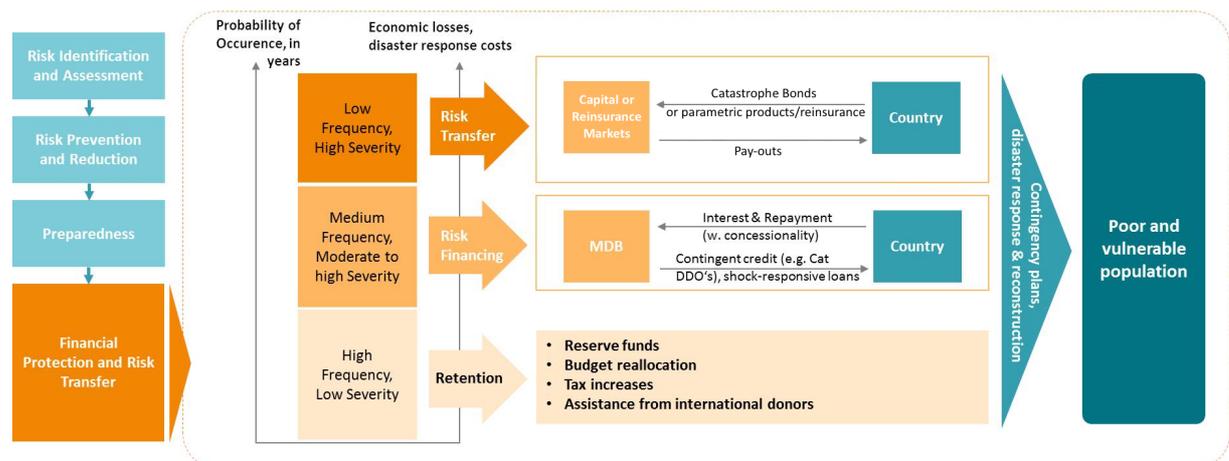
Sovereign Parametric Insurance schemes (potentially developing into regional pooling arrangements) face the problem of **extremely low insurance penetration** (below 1-1,5% across

ECIS countries, with only Kazakhstan and Turkey around 2%) and overall geopolitical and even religious fragmentation between the countries of the region. The time required to increase insurance penetration is simply too long.

Some other obstacles like heavy **protectionism** obstructing general international insurance “know-how” transfer in particular insurance markets and state ownership of critical infrastructure (meaning direct state responsibility with lack of insurable interest) make national or

regional parametric pooling solutions feasible only in the really long term.

In the meantime, if there is to be a solution that benefits everyone for the peak (really big) exposures, it will probably have to be organised by the government (whether on a sovereign or sub-sovereign level) in the form of a Disaster Risk Transfer solution (instrument), ideally combining best practices and lessons learned with a simple, clear and effective working mechanism. The so called “layering approach”, allowing the government to employ various options, is one such well tested framework. To illustrate:



So out of potentially available instruments the transfer of sovereign disaster risks for large events to capital markets in the form of Catastrophe bonds seems to be pragmatic and possible to introduce quickly in the ECIS region.

Catastrophe Bonds (CAT Bonds) are part of a developing class of mechanism for protection against disasters. They pay out automatically when disasters hit. While in their most common form, they might be a loss suffered by, say, an insurer, they can also be structured to get triggered by specific parameters, like the measured force of an earthquake or storm and have a government as an issuer (“sponsor”).

Through CAT bonds, governments can access revenue streams that can finance timely shelter and support to victims and then set about rebuilding in a resilient manner. These bonds also allow a government to spread the cost of disaster response and prevention over several fiscal years, rather than creating a massive demand for funds in one particular year (when the disaster occurs). As the money will flow from international financial markets, it will create a positive macroeconomic boost to the economy of the whole country.

Any government considering such a form of disaster risk transfer and post-disaster finance

will benefit from:

- 1) Guaranteed access to funds for recovery, up to agreed cover limits;
- 2) Budget planning certainty (pre-determined premiums (coupons) vs highly volatile disaster expenses);
- 3) Speedy delivery (days/weeks) in case of parametric triggering structure;
- 4) No payback obligation contrary to debt finance or credit lines, which means that if a bond defaulted due to the event and government received money - there is no obligation to pay it back as it was completely at investors' risk/reward informed expectation;
- 5) Diversified source of funding to cope with the impact of natural catastrophes;
- 6) Reduction of a country's contingent liabilities to acceptable levels (positive implications for sovereign rating and currency);
- 7) Reduced need to divert own funds from other projects to disaster-affected areas;
- 8) Price tag on risks allowing for comparison of different risk management measures – as a side effect;

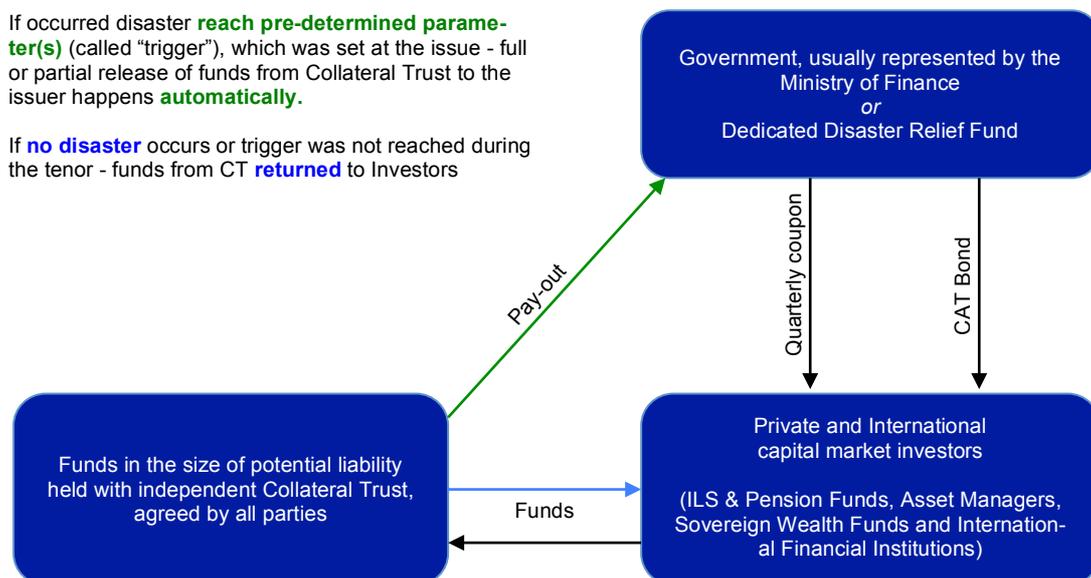
Sovereign Parametric Catastrophe Bonds

Given the relative simplicity of issuing and maintaining processes, as well as established mechanisms for triggering construction and pay-out receivables, this type of protection is now used with increasing frequency by single states and regional pooling schemes in different parts of the world (USA, Caribbean, Latin America, Mexico, Africa, Japan).

This is determined by quick (almost instant) access to financial resources in case of catastrophe emergency as well obvious [increase of macroeconomic stability](#) due to reduction on foreign aid's dependence.

In practice, catastrophic bonds are issued for a period of 3 years, being market optimum between 5- and 1-2-year tenors and representing a balance between issuer protection demand and investors' appetite

Possible structure of Parametric CAT Bond for a ECIS regional country (simplified):



Source: Authors

An example of parametric CAT bond behaviour with the trigger being set as a particular magnitude strength window and **\$200 million** size of issue:

MAGNITUDE	PAY-OUT TO THE GOVERNMENT
< 7.0 Mn	No pay-out
7.0 < 7.2 Mn	\$50 mln.
7.2 < 7.5 Mn	\$100 mln.
7.5 < 7.8 Mn	\$150 mln.
7.8 Mn <	\$200 mln.

Source: Authors

Sovereign Catastrophic bonds issued by governments (state agencies) have been present on since 2006 and currently amount to more than \$ 3.1 billion in volume. Such bonds overwhelmingly use a simple, understandable and transparent parametric payment mechanism (trigger).

To illustrate here are some examples of sovereign cat bonds:

Year	Issuer	Beneficiary	Size, \$mln.	Trigger	Perils
2006	Mexico	FONDEN	\$160	Parametric	Hurricane, earthquake
2009	Mexico	FONDEN	\$290	Parametric	Hurricane, earthquake
2012	Mexico	FONDEN	\$315	Parametric	Hurricane, earthquake
2012	Turkey	TCIP	\$100	Parametric	Istanbul earthquake
2014	Caribbean (CCRIF) countries	CCRIF	\$30	Parametric	Hurricane
2015	Turkey	TCIP	\$100	Parametric	Istanbul earthquake
2017	Mexico	FONDEN	\$360	Parametric	Hurricane, earthquake
2017	African Union Countries	PEF	\$320	Parametric	Pandemic
2018	Chile/Columbia/Mexico/Peru	AGROASEMEX	\$1.360	Parametric	Earthquake

Source: Artemis

This list can be extended to sub-sovereign level of specialized jurisdictions in the US and other countries, since many issues there organized by the relevant Authorities at the level of particular state, i.e. California Earthquake Authority, NY Metropolitan Authority, etc.:

Cedant (issuer)	What are they?	Bond	\$ mln.	Issued
California Earthquake Authority (CEA)	One of the world largest providers of residential earthquake insurance, with more than 1 mln. California households placing. Backed by the expertise of 24 participating insurance companies and more than \$17bln. in claims paying capacity	Series 2018-1	\$250	September 2018
		Series 2017-2	\$400	November 2017
		Series 2017-1	\$925	May 2018
		Series 2016-1	\$500	November 2016
		Series 2015-1	\$250	September 2015
		Series 2014-1	\$400	December 2014
		Series 2012-2	\$300	July 2012
		Series 2012-1	\$150	January 2012
		Series 2011-1	\$150	August 2011
		Western Capital	\$100	February 2001
Federal Emergency Management Agency (FEMA)	The agency's primary purpose is to coordinate the response to a disaster that has occurred in the United States and that overwhelms the resources of local and state authorities	Series 2019-1	\$300	April 2019
		Series 2018-1	\$500	July 2018
Texas Windstorm Insurance Association (TWIA)	Provides wind and hail insurance to 14 Texas gulf coast counties and a portion of Harris county	Series 2019-1	\$200	May 2019
		Series 2018-1	\$400	May 2018
		Series 2017-1	\$400	May 2017
Pool Re	Established in 1993 as a response to market failure triggered by the bombing of the Baltic Exchange in London	Series 2019	£75	February 2019

Source: Artemis

A noteworthy example is the Government of Mexico, which has been organizing the issuance of bonds for FONDEN (State Natural Disaster Fund) since 2006. In 2015 and 2017 due to Hurricane Patricia and the Chiapo earthquake (exceeded the declared output parameters or “triggers”) they almost instantly received payments of 50 and 150 million US dollars (50% for the hurricane and 100% for the earthquake).

As well, here to mention 100% payment of \$ 300 million on the parametric bond Muteki, issued by the largest Japanese mutual insurance scheme Zenkyoren and triggered due to the infamous Tohoku (Fukushima) earthquake in 2011.

Some examples of various types of cat bonds' **payouts** as of September 2018 (*does not include PEF pandemic transactions in Africa, payouts marked yellow represent pure sovereign parametric cat bonds performance as described in this paper, all figures in \$ millions*):

Year	Event	Transaction	Trigger	Issue size	Paid / Estimate	Note
1999	Europe Windstorm Lothar	Georgetown Re	Indemnity; Aggregate	\$44,5	\$43,2	Final Loss
2005	Hurricane Katrina	Kamp Re	Indemnity; Occurrence	\$190	\$142,5	Final Loss
2011	Japan earthquake	Muteki	Parametric; Occurrence	\$300	\$300,0	Full loss of principal
2011	Japan earthquake	Vega Capital 2010 Class D	Index & Parametric; Occurrence	\$42,6	\$16,0	\$16mn loss to reserve account
2011	Severe Thunderstorm	Mariah Re 2010-1 & 2	Index; Aggregate	\$200	\$200	Full Loss of principal
2015	Hurricane Patricia	MultiCat 2012-1 Class C	Parametric; Occurrence	\$100	\$50	Final Loss
2016	Aggregated Storm Losses	Gator Re	Indemnity; Aggregate & Occurrence	\$200	\$35	Final Loss
2017	Mexico EQ	IBRD CAR 113 Class A	Parametric; Occurrence	\$150	\$150	Final Loss
2017	Hurricane Irma	Manatee Re 2016-1 Class C	Indemnity; Occurrence	\$20	\$15 / \$20	-
2017	Hurricanes Harvey, Irma, Maria	Loma Re 2013-1 Class C	Indemnity & Industry Index	\$65	\$0 / \$46,7	-
2017	Hurricanes Harvey, Irma, Maria	Atlas IX Capital 2015	Index; Annual Aggregate	\$150	\$1,5	PCS to adjust further
2017	Hurricanes Harvey & Irma, thunderstorms, CA wildfires, winter storms	Caelus Re V 2017-1 Classes B,C,D	Indemnity; Aggregate	\$300	\$0 / \$204	-
2017	Hurricane Irma	Citrus Re 2015-1 Class B,C Citrus Re 2016-1 Class D,E Citrus Re Classes A & 2B	Indemnity; Occurrence	\$387,5	\$252 / \$294,2	-
2017/1	Hurricanes Harvey, Irma, CA wildfires, winter storms	Residential Re 2014-1 10 Residential Re 2015-1 10 Residential Re 2016-1 10 Residential Re 2017-1 10 Residential Re 2013-II 1	Indemnity; Occurrence & Aggregate	\$325	\$60 / \$23	Extension until December 6, 2018
2018	Hurricanes Matthew, Harvey, Irma	Blue Halo Re 2016-1 Class B	Index; Term Aggregate	\$55	\$0,82	-
				TOTAL: \$2.53B	\$1,27B / 1,74B	

Source: Artemis

Use of the catastrophic bond mechanism can solve two fundamental problems: addressing the “protection gap” on the macro level and dealing with low insurance penetration.

The “protection gap” is the difference between what is insured (could be insured) and state owned in ECIS countries critical infrastructure objects (bridges, roads, dams, social infrastructure facilities, etc.) which are not subject to insurance in the classical sense, by virtue of direct responsibility for them from the state budget. In this case, quasi-insurance is made through establishment of dedicated state fund/budget allocations for significant use of budget funds in case of devastating disasters. Cat bonds can relieve the burden on such a fund.

The problem of underinsurance is also critical for the ECIS countries, because over 30 years of independent development of the industry, insurance penetration, at best, is at the level of 2% in the most progressive places (insurance penetration is contribution of insurance premium to the Gross Domestic Product of a country).

This situation does not allow the state to consider insurance as an effective mechanism in case of a serious disaster while issuance of cat bonds resolve this at a macro level.

Presuming active involvement in the region of various International Financial Institutions and Development partners, issuing governments could be interested in blended financing approach, i.e. use of IFI's grants to cover the sponsorship of issuances as their contribution to sovereign Cat Bonds programs.

Who invests in Cat Bonds?

Cat bonds, as a class of investment, offer stable high-yield fixed income returns independent from macroeconomic risks and cycles and widely perceived by institutional investors, especially hedge & pension funds as an ideal portfolio diversifier.

This corresponds with points mentioned on recent Wall Street Journal article "Pension Funds' Dilemma: What to Buy When Nothing Is Cheap?" whereby "*The goal of most pension funds is to pay for future benefits by earning 7% to 8% a year. After the 2008 financial crisis, many funds tried to hit those marks by lowering their holdings of bonds as interest rates dropped, and by turning to real estate, commodities, hedge funds and private equity holdings. These so-called alternative investments rose to 26% of holdings at about 150 of the biggest U.S. funds in 2016, according to the Public Plans database, compared with 7% more than a decade earlier.*"

Further, to illustrate, below are some pension funds already invested in Insurance-Linked Securities (ILS) with stakes **over \$200mn**:

Pension Fund / Scheme	Size in \$ bln.	ILS allocation in \$ mln.	Incepted with ILS
PGGM	245	4,776	2006
RBS	64	1,400	2012
Pensionskassernes Administration (PKA)	39	1,370	2012
Pennsylvania Public School Employees	49	650	2011
AP2	40	640	2012
New Zealand Super Fund	26	235	2010
MLC	78	392	2007
Coca-Cola Pension	7.6	380	n/a
AP3	40	325	2006
Teacher Retirement System of Texas	145	300	2013
MassPRIM	69.4	250	2017
Ontario Teachers' Pension Fund	138	236	2005
IBM UK	9	229	2014
Maryland State Retirement and Pension	46	200	2014

Source: Trading Risk

Other investors who are keen on that type of asset are International Financial Institutions, Regional Development Banks and Sovereign Wealth Funds.

Important regional advantage for investors

Due to its effectiveness and certain uniqueness as an asset class, catastrophic bonds received serious development over the past 10 years. However, the market for alternative investors in Insurance-Linked Securities (including CatBonds) that currently stands at \$ 100 billion (including \$ 30 billion in catastrophic bonds) is geographically unbalanced due to the high concentration of investments in insurance against North American flood & hurricane risks.

Since investors are politically neutral to the world regions - any expansion of the list or geography of the covered perils brings significant *intra-class diversification* within the asset class. Basically, it means that those investors who already allocated and investing in Insurance-Linked Securities (Cat bonds) will be able to invest in new territories, which were not presented on the market before. These options bring significant diversification element into their existing allocations / ILS portfolios.

In this connection, we can firmly expect stable demand for catastrophic bonds from the "new" and unexplored/unexposed for bonds region.

The offer

To address existing challenges in Disaster risk finance in the ECIS region, UNDP Eurasia is now working to develop solutions and resilience measures with over 200 development, financial and insurance industry members.

UNDP's expertise and track record lends itself to facilitating multi-stakeholder convening to discuss mechanisms for risk-financing, conducting market soundings (demand generation, reasons for low/no coverage), and enabling solutions through field testing.

In this regard and in order to strengthen macroeconomic stability in ECIS countries, UNDP in partnership with its partners from private sector, offer an **introduction** and **development** of Sovereign Parametric Catastrophe Bonds Concept and assistance in its issues as use of modern and effective mechanism for transfer of sovereign disaster risk to international capital markets.

We propose Govts of ECIS region to cooperate in the following areas:

- Regional, sub-regional and national awareness raising and capacity building campaigns for the Governments of ECIS countries on use of existing risk transfer mechanisms including Sovereign and sub-sovereign parametric catastrophe bonds to promote informed decision-making on disaster risk financing;
- Enhancing the understanding of different disaster risk financing tools, such as indemnity insurance, parametric products, contingency funds and use of ILS products to support national Governments to manage their fiscal risks related to natural disasters (this may be done with current or future regional expertise provided by UNDP's Insurance and Risk Finance team as well as academia and private market partners;
- Carrying out regional/national gap analysis for disaster risk financing, including both financial and policy considerations, and assessing demand for sovereign disaster risk financing products;
- Identifying the financial exposure or contingent liabilities associated with geophysical

and climate related disasters;

- Support in the assessment and development of normative and institutional bases for the introduction of disaster risk financing at national and regional levels;
- Developing feasibility assessments to acquire the most appropriate insurance products (or combinations therein) and develop of region/country specific innovative disaster risk financing options, including sovereign parametric insurance mechanisms; and
- Knowledge exchange and trainings on disaster risk financing products and budget classification. Comprehensive introduction, education and assistance for implementation in case of interest for Sovereign Parametric Cat Bonds as one of the Disaster Risk Financing mechanisms using existing expertise from other regions and available convergence with private market participants.

On a final note, the Insurance and Risk Finance team of UNDP (HQ) will be deploying regional expertise as part of new financing and there will be some regional expertise in this subject available.

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*Empowered lives.
Resilient nations.*

6 December 2019

Subject: Cooperation between Phoenix CRetro Reinsurance Company and UNDP on introduction and development of Disaster Risk Finance solutions for the countries of ECIS region

Dear Mr. Savrassov,

Thank you for your letter of November 11, proposing cooperation between UNDP and Phoenix CRetro Reinsurance Company on Disaster Risk Financing in the ECIS region. We would propose to focus our prospective cooperation on improving the capacities of partners in the region in the area of disaster risk finance as follows:

- Regional, sub-regional and national awareness raising and capacity building campaigns for the governments of ECIS countries on the use of risk transfer mechanisms to promote informed decision-making on disaster risk financing options for the reduction of financial vulnerability to natural hazards;
- Enhancement of local understanding for different disaster risk financing tools, such as regional/sub-regional/national disaster risk transfer facilities, parametric products, contingency funds and potential use of Insurance-Linked Securities (ILS) to support national governments to manage their fiscal risks related to natural disasters;
- Regional/sub-regional/national gap analysis for disaster risk finance, including financial and policy considerations, and assessment of demand for sovereign disaster risk financing products;
- Review of existing national/sub-regional/regional policies, plans and strategies for disaster risk management and financing, including past and ongoing projects and initiatives being undertaken by other multilateral and bilateral development partners in this area;
- Support in assessment and development of legislative and institutional base for disaster risk financing instruments at national, sub-regional and regional levels;
- Advice and cooperation on development and implementation of various IT solutions, required to enhance informed decision-making process of disaster risk finance;

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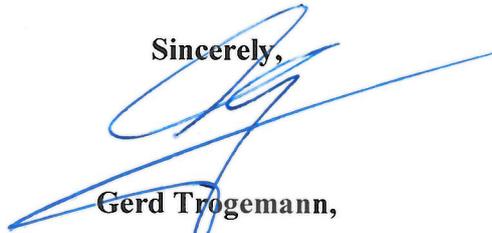
**United Nations Development Programme
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- Feasibility assessments to acquire the most appropriate product(s) and development of region/country specific innovative disaster risk financing options. Knowledge exchange and trainings on disaster risk financing ILS products and budget classification;
- Comprehensive introduction, education and assistance in implementation (issuance) of sovereign parametric catastrophe bonds as one of the modern disaster risk financing instruments with the best practices and lessons learned from disaster risk transfer solutions being developed in other parts of the world.

We are proposing these focus areas against the background of the recognized practical experience of UNDP in designing and implementing disaster and climate risks management projects to improve resilience of the countries and their populations, as well as the expertise of the Phoenix CRetro in the area of disaster risk financing.

We hope that our cooperation in this workstream will contribute to the overarching, shared priority of financing the Agenda 2030 and the SDGs. On a final note, I hope that through this partnership we will mobilize funding to support our joint interventions for introduction of disaster risk financing in the region.

Sincerely,



**Gerd Trogemann,
Manager of UNDP Istanbul Regional hub**

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