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Flood & Protection Gap Roundtable 2016

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FOREWORD

Flood is a rapidly evolving and increasingly costly peril, responsible for the highest economic losses globally in 2015. While insurance penetration varies significantly from country to country, flood events are also resulting in significant insurance losses, particularly as assets at risk of flood continue to grow along the coast and in major cities that are close to sea level. Factors arising from climate change, such as sea level rise and more extreme precipitation events, are also expected to contribute to more extreme flood events in the future.

Yet in comparison to perils such as earthquake and windstorm, flood remains significantly underinsured. Widespread flooding along China's Yangtze River Basin has caused estimated economic damage of around $33 billion, according to Aon Benfield. Of this total, just two percent is thought to be insured.

But it is not just in emerging markets where there is a significant "protection gap." Mature insurance markets such as Canada, Germany, Italy and the Netherlands are among those where flood risk is significantly under-insured. As Swiss Re's Caspar Honegger points out in this roundtable discussion, Australia could point the way forward as a country that has made significant strides in closing its flood insurance gap since the Brisbane floods of 2010.

The appetite of governments to act as insurer-of-last-resort for flood risks appears to be dwindling in some markets, with most supporting a move towards more private market involvement.

In the UK, this issue was resolved through the Flood Re initiative, with the government and industry working together to create a solution that ensures a viable market for flood will continue to exist while allowing insurers to price the hazard appropriately.

As other markets explore the possibility of similar mechanisms, it is clear the role of the reinsurers and capital markets will continue to grow, with governments and the insurance industry working together to better monitor, mitigate and transfer the risk of flood.

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STEVE EVANS

How big an exposure is flood for the re/insurance market?

CHARLOTTE ACTON

Flood is a far more significant source of economic loss than for insured losses. Industry reports suggest that in 2015 flood was the most significant source of economic loss out of all natural hazards. Over the last ten years it has consistently been within the top three perils. So in terms of the underlying risk it's huge.

Flood insurance penetration is variable on a global scale and still very low in many areas. Even so there have been significant insurance events, such as the Thai floods in 2011 and the floods in Central Europe in 2013, and flood is still reported as being the third largest source of insured losses over the last ten years. So while it's a big risk it is somehow considered less of a peak peril than windstorm and earthquake.

Charlotte Acton – **"Flood is a far more significant source of economic loss than for insured losses"**

CHARLES WHITMORE

There are three main types of flood – riverine (fluvial), surface water (pluvial), and the other is sea surge. Sea surge has always been associated and modelled with the windstorm peril. It's always been a large exposure for the reinsurance market so it's been taken into account by reinsurers when assessing and pricing risk.

The pluvial and riverine floods are exposures that have grown significantly over the past decade, and there are several reasons for that. It's becoming a big exposure and a core global peril in its own right. Individual territorial flood numbers are becoming some of the main drivers of portfolio reinsurance purchase.

STEVE EVANS

How big is the protection gap?

CASPAR HONEGGER

We estimate the global economic loss for flood is exceeding $50 billion annually, but less than a third of this is insured. That's a really big protection gap for flood. If we drill further down into what's insured and what isn't insured we see that while the large commercial risks typically have full peril coverage, which includes flood, a large part of the protection gap today is on the homeowner side and the small commercial side – then it really varies country by country.

There are some countries where there are state-backed schemes, such as in France and Spain, where you have close to 100% insurance penetration across all the lines of business. In other countries, such as the UK, it's insured privately but there is almost full insurance penetration as catastrophe perils are bundled into primary insurance policies.

STEVE EVANS

In which markets is the flood protection gap a significant issue?

CASPAR HONEGGER

There are many countries where there is really a big protection gap in absolute expected loss terms. In the US where there is the National Flood Insurance Program (NFIP) there is only partial penetration and many homeowners are uninsured for flood. Canada also has a big protection gap. And in Europe we have large protection gaps in Italy and the Netherlands.

Caspar Honegger – **"There are many countries where there is really a big protection gap in absolute expected loss terms"**

In Asia, the biggest protection gap by far is in China where penetration on the homeowners' side is very low and where flood is one of the country's main perils. If insurance penetration in such a market increased it would add a lot of resilience to the market itself but it would also significantly increase the exposure for the insurance industry. Chinese nat cat risks, including typhoon and river flood risk, would become one of the top risks globally.

STEVE EVANS

What are some of the solutions that could help close the flood protection gap?

CASPAR HONEGGER

Countries like Australia are fully private but with a high personal lines insurance penetration for flood, which is estimated between 70% to 80%. That has drastically changed in the past five years since 2011, where it was only around five to ten percent. What happened in Australia to increase flood insurance penetration is an interesting case study and could be used elsewhere – in Canada for instance – to help grow the market for flood insurance.

At the end of 2010 and beginning of 2011 Queensland suffered extensive flooding. That raised awareness of the risk and also drew attention to the fact that many insureds only had partial coverage and that not all flood losses were included.

The other helpful factor was the fact the government made a very clear statement that the private market should insure homeowners. They don't see it as part of the government mandate to reimburse homeowners for flood losses. Then there are public flood maps available, supported on the governmental side, to help the market assess and price flood risk.

LUCA ALBERTINI

In my view it's important to avoid compulsory insurance, which is always a social and an economic issue and people see it as a tax. Politicians don't want to do it and people don't want to pay. And if it's an obligation we run the risk that some governments require cap on pricing which may make the business unattractive as we have seen for motor insurance in some countries.

Instead, why not heavily penalise the regulatory capital or the rating of mortgage lenders if they don't require adequate insurance against the key perils where the house is located? If you approach it that way flood insurance is not compulsory but if you don't have it it's very expensive for you to mortgage a house, so that drives take up. There is an important role here for regulators, rating agencies and banks. In California only a fraction of the residential properties are insured for quake and despite that the lenders still give mortgages to uninsured properties.

Luca Albertini – **"There is an important role here for regulators, rating agencies and banks"**

STEVE EVANS

Buying behaviour hinders uptake of coverage for catastrophe risks, how can corporates and homeowners be encouraged to buy more protection?

CHARLES WHITMORE

It's very important to close the protection gap. Insurance is one of the single most important drivers of economic growth, so from that perspective it is incredibly important. But it also has societal benefits and there are various ways insurance penetration can be encouraged. The industry needs to be more proactive with regards to producing products that are fit for purpose and advising homeowners and corporates around what cover is most appropriate for them.

CASPAR HONEGGER

The risk assessment needs to be there for flood. Then risk awareness or the need on the consumer side, which is often linked to having some experience of flood. Sometimes people think they are covered even though a standard policy excludes flood. There's also a perception that some policies are too complex and that people don't read all the details, so there is certainly potential to simplify products and make it easier for consumers to know what is included and what is excluded.

We can do better as an industry to make our products easier to understand. We recently had an event in Canada with primary insurers and there was the comment that one homeowner policy hadn't changed in the last 20 years – it still

has the exact same wording. As an industry we can simplify these products and probably be more innovative to tailor them to the needs of the insureds.

The accessibility of flood insurance is another important ingredient. We still see in some markets, due to a lack of knowhow on the insurance industry side, they are not offering flood cover and nor are they comfortable with the risk, even though we do today have adequate risk assessment tools. It is essential for insurers to have access to high resolution flood maps – that's one of the key tools that will enable them to carry out risk-based pricing.

STEVE EVANS

Do governments have less appetite today to pay for the losses from flood and other natural catastrophes than perhaps they once did?

CASPAR HONEGGER

We certainly see it in countries where there are public schemes that the private market is participating in via reinsurance, such as in France. Sometimes governments feel the motivation to step in and relieve homeowners post event, which certainly is a prudent thing to do in the short term but is not always supportive of the industry offering in the long term.

STEVE EVANS

How can the industry, with the help of governments, help to change perceptions and behaviours when it comes to buying catastrophe and weather coverage?

CASPAR HONEGGER

One of the most important steps is to have clear definition of roles and responsibilities. We see in some countries where the roles are not that clearly defined and there is no clear statement as to whether the government would step in and pay for losses in the case of a large event. That increases uncertainty and limits the motivation to buy insurance. So discussion between the industry and government to define these roles is key.

A lot can be done to control flood risk through protection measures – that's very much on the governmental side – and once you've addressed flood mitigation and protection, where it is economically feasible insurance is a very effective way of transferring the risk away. Governments and insurers jointly have an important role in raising risk awareness and educating corporates and homeowners on the value of insurance and rapid claims payments post event.

Caspar Honegger – **"Governments and insurers jointly have an important role in raising risk awareness"**

CHARLOTTE ACTON

There is still a big question of knowledge – the insurance industry and the financial services industry as a whole have worked with models for a long time now and the sophistication with which firms can evaluate the strengths and weaknesses in a model is pretty mature. In contrast, looking at risk on a probabilistic basis is a new area for governments.

To consider the 1-in-100 economic risk, for example, is a new way for governments to look at risk. Some are looking at deterministic scenarios and how to respond, but it's still a relatively new way of thinking, so education is one of the key things and there's a lot of scope for public and private collaboration to try and make the markets more efficient, particularly in flood.

And the dynamic in terms of how the government considers its responsibilities to provide things like flood insurance or emergency payouts after a large disaster varies considerably from country to country. This means there is no blanket approach but a need to work with individual governments to see what will work best for them.

CHARLES WHITMORE

The UK's Flood Re scheme is a really good example. The issue arose from insurers' improved ability to select and price risk, which actually led to certain sections of the UK population being unable to afford the flood cover that was being offered. Flood Re went live in April this year and it was a direct result of industry and government collaboration to ensure properties at the highest risk of flood would continue to be able to access affordable flood coverage.

STEVE EVANS

Could a Flood Re type solution work in another market?

CHARLES WHITMORE

It's not a tailor-made solution for all markets and all types of flood peril but I do think it has the ability to be replicated in other territories with similar issues. The increasing frequency and severity of the flood peril will lead to pooling mechanisms, such as Flood Re, being appropriate. And it's really all around insurers' increasing ability to identify and price risk.

It would work best in territories where insurers are making use of improved data and technology to avoid writing large tranches of properties exposed to extreme flood risk. Markets that might benefit from a Flood Re type solution are therefore sophisticated and data rich territories.

The pricing of risk ceded to Flood Re is based on council tax band information. So that sort of information would need to be available for a Flood Re type mechanism to flourish, and not every jurisdiction has that type of data available.

Flood Re is also interesting because no risks built after 2009 are eligible for Flood Re and that's a direct, deliberate effort not to incentivise building on flood plains. Governments have a real responsibility to promote risk management and improved risk mitigation. So it's one thing to put in place a cat pool but by doing so it's important not to take away any incentive to improve the risk itself.

CASPAR HONEGGER

We see Flood Re as quite innovative and a very positive solution to solve that affordability issue. Private market solutions work quite well for the large proportion of risk, but they have one weakness: where there is no cross subsidising of premiums and it is purely risk-based there are these affordability issues. There are high risk locations where the costs are too high for homeowners to insure themselves.

That's a weakness if you have a fully private market which is risk-based and that was overcome with the Flood Re solution, because it still has a functioning and competing private market and it combines that with that pool scheme for the high-risk properties where there is some cross subsidising.

There is replication potential in markets where there is a private market for flood with risk based pricing and high penetration rate, but unaffordable prices for the small portion of highly exposed risks. It needs to be tailored to the specific market because there are many policy and tax implications in how it is constructed. You always have to take into account the country-specific conditions.

STEVE EVANS

Could the capital markets be utilised to expand Flood Re's remit?

LUCA ALBERTINI

I think capital markets can play a role under two conditions: Firstly, capital markets are best equipped to participate in non working layers, so there should be a significant retention or lower layers placed with the traditional markets. And secondly, minimum rates on line, which are becoming more important with unleveraged capital markets investors who are no longer so keen on business paying two percent or below.

CHARLES WHITMORE

The main ingredient for promoting risk transfer from the public sector to the private insurance and reinsurance markets is not an increase in reinsurance or retrocession capacity or improved access to the capital markets. The ILS markets have a part to play – and they have an increasing part to play in the reinsurance industry in general – but I wouldn't say specifically to promote flood insurance.

STEVE EVANS

How can reinsurance and ILS capital help the NFIP to become financially viable, or replace it altogether?

LUCA ALBERTINI

In the US flood has always been covered by the government and there hasn't been a lot of data. Many insurers are offering flood as a standalone product but the issue is experience and data.

You have a situation where reinsurers are talking about overcapacity and leaving US property cat to go into some specialty lines because they need to deploy some of their capital. So if flood risk becomes available in the commercial market in areas where it can be underwritten I would think the private market should be able to take it.

You need flood modelling and claims data for the ILS, collateralised reinsurance and reinsurance markets to be able to play. This is the main challenge when it comes to the US residential flood insurance market and the NFIP.

Say that I have a residential home in Philadelphia, I'm covered by the state, but if I have a factory in Philadelphia I'm covered by a re/insurer. So if a reinsurer can cover a factory which has a higher severity loss after the water reaches the area, what's stopping them building a more granular portfolio of smaller values? I don't underwrite on primaries but I don't think the primary market lacks understanding of the risk associated with residential homes.

STEVE EVANS

Tell me about the importance of risk modelling in assessing and pricing the risk

CHARLOTTE ACTON

Re/insurers need to understand where accumulations of risk can build up. For example, understanding how flood risk is correlated across different river basins and different regions. That's where the models play an important part. But good data is also a key requirement. Without detailed exposure data from the insurers, surprises can still happen.

LUCA ALBERTINI

When the first models came out heights of buildings weren't included or the elevation of the land. They essentially had a bathtub effect in that they basically turned the water on and didn't pull out the plug, whereas in the natural world water moves in and out as well. So these models were based on a lot of inaccurate assumptions, but they have definitely changed and moved on.

Modelling flood is a very similar issue to modelling tornado and hail – it can be extremely localised. With perils like hurricanes and earthquakes it's an average of large numbers, but with floods and tornadoes it's a bit more difficult. With flood, if your neighbour has concrete and you don't, the water will go straight into that house. So there are many different reasons why some places flood and some places don't.

CHARLES WHITMORE

Flood modelling is embryonic. Because it's an emerging peril not nearly as many R&D dollars have been allocated to assessing and pricing the risk over time and so the science and the general understanding of the risk modelling of flood is still in its infancy compared to the more mainstream perils of windstorm and earthquake.

The vendor catastrophe modellers are all swiftly catching up however, with one on the verge of releasing its European flood model, which covers all the major European territories. And the others, including the major brokers, are developing their own models to fill in the gaps… and there are several gaps when it comes to flood risk modelling.

CASPAR HONEGGER

The key difference for flood compared to the other perils is the hazard changes over very short distances. If you elevated a few metres above the river or the sea your risk changes materially and you can have orders of magnitude different risk level over very short distances. That's very different to an earthquake or a wind risk where you have a much smoother distribution. Flood therefore requires high resolution modelling.

STEVE EVANS

How can the capital markets assist on narrowing the flood protection gap?

CASPAR HONEGGER

Flood is a risk that can be transferred to the capital markets. The main challenge we have to solve as an industry is to narrow the protection gap, because at the moment it's not so much an issue of the capacity from the reinsurance industry or capital markets. The risk appetite is there. It's more that we either don't have the right products or we don't have the capability to offer the solutions that consumers need. Capacity is certainly not the limiting factor today.

LUCA ALBERTINI

There is a level of frequency of loss where our money doesn't necessarily play properly. So a one-in-five year loss should not, in my mind, be sold to the capital markets. But there are low frequency, high severity events to consider.

I think flood has been sold to the capital markets, but mostly on a private basis. Some ILS funds experienced losses following the Bavarian floods of 2013 and the Australian floods of 2012, which means they were on it. The reality is there are more and more unmodelled perils (UMP) being underwritten using collateralised reinsurance.

Even a few cat bonds, like USAA's Residential Re and AIG's Tradewynd included a portion of unmodelled perils. But on the whole, I think the reinsurance market has capacity for non-peak perils. If there were more quality flood insurance risk written there wouldn't be a corresponding need for cat bonds. And with every peril you add to a cat bond the cost of modelling the cat bond goes up.

State pools aggregating and then selling the top layers of risk would work and would be a sensible thing to do for governments. But I'm less certain about the appetite for top layer standalone flood cat bond deals given the minimum rate on line issues and so having some of this risk underwritten by commercial insurers and reinsurers and sold to the capital markets together with wind, for example, could make it more palatable.

CHARLOTTE ACTON

In the catastrophe bond market, there are bonds that are specifically for transferring storm surge risk. Inland flood from tropical cyclone, however, is sometimes included alongside other perils, though mostly in a non-modelled capacity and is usually a very small contribution to the overall risk.

Particularly in regions where there are issues with capacity – very high risk flood plains for instance – the capital markets is a great home for that risk. It's a source of capital which is looking for uncorrelated risk and is not subject to the same constraints as the insurance or reinsurance industry in terms of not taking too much risk from certain zones.

This is something we've seen play out in Florida where the capital markets have played a very large part in reducing rates over the years in that region. Flood is an ideal risk in that respect, a diversifying peril from the perspective of an ILS fund, and a new source of risk that can be tapped into.

Charlotte Acton – **"Flood is an ideal risk in that respect, a diversifying peril from the perspective of an ILS fund, and a new source of risk that can be tapped into"**

But there's also this dynamic with the capital markets versus the reinsurance markets where traditionally the perils that are seen as diversifying are priced incredibly competitively in the traditional reinsurance market. So it can be difficult for the ILS markets to compete in that respect.

STEVE EVANS

Is there an opportunity for parametric triggers, say on flood extent or similar, to help to bring new sources of disaster capital to bear on flood risks?

LUCA ALBERTINI

I took part in the first and only flood cat bond deal, Blue Wings. At the time, there was a UK flood model that everyone knew was very conservative, so the capital markets were quite happy to take that view.

The bond was very difficult to structure however. We didn't want to disclose portfolio details for confidentiality reasons so we had to use a parametric index, but the river gauges that define height could break or be placed below a level you want to measure. We also considered using satellite data, but normally floods occur when it's raining and when it's raining there are clouds and satellite images would not be good enough. And also because the trigger of the bond requires a certain level of precision, satellite data was not deemed to be precise enough.

So the whole transaction was structured around the water marks left on buildings in a number of locations. I am not surprised there haven't been further issuances. In the UK the model was conservative and that particular analysis was okay for a very secure event, and in order for the flood to reach those wall markings it needs to breach the rivers and be of a certain height. Also the flood models have now been calibrated and the risk has come down.

CHARLOTTE ACTON

Traditionally flood has been harder to capture from a modelling perspective. The early models for hurricane and earthquake were relatively simple parametric models, and that's not something that's suitable for looking at flood risk. You have to consider ground elevation and flood defences on a very fine scale and then there are issues around defining the duration and spatial extent of an event, both of which can be very complex. Advances in scientific understanding and technology have now allowed us to tackle those issues.

You can now explicitly model hours clauses and the sensitivity to different assumptions around the hours clauses. That will make it far easier to communicate the risk to investors and to get them comfortable with the event definitions.

CASPAR HONEGGER

Satellites observations have great potential for application in parametric products. Rainfall intensities, but also inundated areas can be derived using state of the art instruments and methods. There are still some technical difficulties to solve, especially in urban areas, but for agricultural lines of business, it is feasible today.

We just completed the first ever transaction on that basis recently. The government of Heilongjiang is using this trigger to protect its farmers. This is the first time that the Chinese government employs commercial insurance programmes to protect farmers against financial risks from natural catastrophes. It's also the first anti-poverty insurance deal in China and the first tailored solution combining a weather index product with a satellite-based flood parametric product. Swiss Re designed the scheme as the technical adviser and the sole reinsurer.

STEVE EVANS

How do you see the peril evolving in the future?

CHARLES WHITMORE

I see the exposure increasing almost everywhere. My own particular area of specialty is EMEA and particularly across the European region I see the exposure increasing over the next five to ten year time period as a result of climate change, urbanisation and increased asset value growth. So yes, it's becoming a significant risk for insurers and reinsurers.

Charles Whitmore – **"I see the exposure increasing almost everywhere"**

CHARLOTTE ACTON

It's anticipated flood risk will alter with climate change – how that changes across different regions is not yet well understood and will likely vary from region to region. What we do know is that sea levels are rising and coastal surge flooding is very sensitive to sea levels. When

combined with extreme tides or hurricanes driving water towards the land the risk could be significantly higher in places. Meanwhile riverine and ground or surface water flooding is sensitive to sudden extreme rainfall, or increases in rainfall over a long period, both of which are likely to see changes in frequency due to climate change.

So there's a lot of variability in how flood risk can change and the sensitivity of different regions of the world. What we might find in the future is that using historical activity as a base for catastrophe models will not provide the best view of current or future activity. It's an area that RMS is looking into, working with our clients and other risk experts to understand the changing environment.

CASPAR HONEGGER

In addition, Flood is probably special in the sense that it's partially a manmade hazard. If you think about flood controls or retention reservoirs – there are actions that can be taken to reduce flood risk.

The combination of increasing exposure at the coast and expected sea level rise, poses a significant threat to many regions. Asia stands out, as many of the megacities are coastal and out of ten of the largest economic loss potentials for storm surge, eight are located in Asia. The coastal flood risk for many of these cities is already significant, but will likely increase in the future.

One of the key challenges in these markets is there is not yet a strong mechanism to dissuade, via zoning laws, development in highly-exposed coastal areas. If settlements have occurred, protection should be considered, where economically viable and then insurance as a third pillar. In many regions, actions to adapt to a changing climate have to start today.

Making the world more resilient: why we need a coordinated effort from the public and private sector

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When the earthquake hit Ecuador on 20 April 2016 it took the lives of over 570 people, injured over 1700 and left many more homeless. It also affected the lives of 15.6 million fellow citizens: In order to pay for the reconstruction bill of USD 3 billion, the country is raising its taxes.

Ecuadorian President Correa said he expects all levels of society to contribute financially, even if they do not live in the worst-hit Pacific region. Measures include an increase in sales tax from 12% to 14% for one year and a onetime payment of 0.9 % on wealth above USD 1 million. In addition, anyone who earns more than USD1000 a month is to pay the equivalent of one day's pay; anyone getting more than USD 2000 pays two days and so on, up to USD 5000 a month and five days' pay.

This creates a huge burden for the citizens of Ecuador at a time when they are already suffering from the effects of declining oil prices, a main pillar of the Ecuador economy. The increase in taxes will impair societal development – which is important in a country where one in four still lives below the poverty line.

The importance of preparing for catastrophic events

Private households in many developed countries prepare for unforeseen catastrophic events. Many have insurance policies that protect against the financial fallout of homes being damaged or even destroyed by fire, floods, storms and earthquakes. A clear benefit is swift payouts, which allow households to rebuild their lives. Such foresight also benefits society at large, because there is no additional cost burden. The economy also gets a boost at a time it is needed most through reconstruction work.

Swiss Re

Still, public infrastructure is not covered by insurance in many parts of the world today. This leaves taxpayers to foot the bill when they may actually need their private financial resources most. Moreover, collecting funds to reconstruct roads, powerlines, water networks, railroads and other critical infrastructure takes time. It delays the start of rebuilding, which in turn has negative ripple effects on the economy. A functioning infrastructure is the backbone of any economic development.

Solving these problems means that states need insurance for catastrophic events, too. The insurance industry today is able to provide such protection in the form of sovereign disaster risk transfers. The swift disaster-risk payouts for cyclone-hit Tonga and Vanuatu show the benefit of this concept.

Country insurance – a successful model

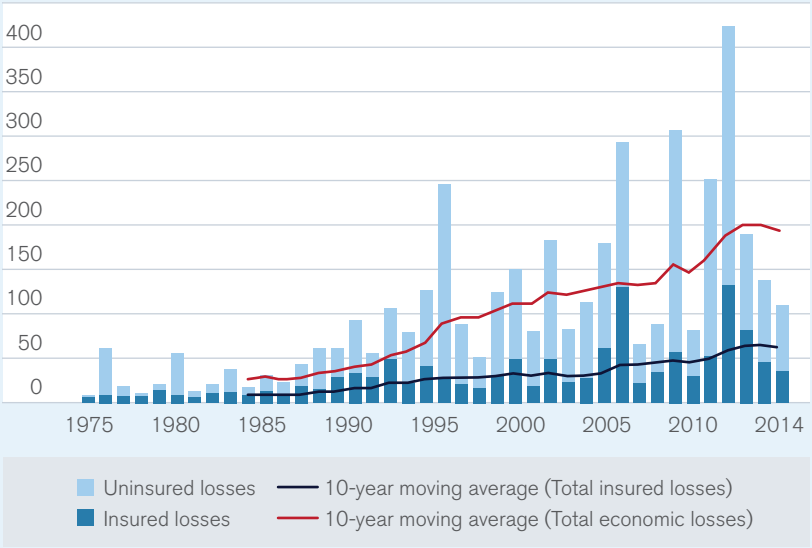
Arranged by the World Bank and supported by Swiss Re Global Partnerships for five Pacific Island nations, the initiative allows governments to finance relief efforts following tropical cyclones and earthquakes. Vanuatu received a payout of USD 1.9 million to support relief and recovery just 10 days after Cyclone Pam hit in March 2015. This is proof that the model works, and can help pave the way to increased financial resilience of states.

Other examples for sovereign disaster risk transfer to close the financial gap between economic losses and traditional insurance payouts are the Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company (CCRIF SPC) and FONDEN – Mexico's disaster relief fund.

Closing the personal protection gap

While states are starting to think about protection, there is still a lot of catch-up in the private sector. Private homeowners and businesses in many markets do not buy insurance even if it is available to them.

The global property protection gap in natural catastrophe risk has widened steadily over the past 40 years, even though claims payments have increased significantly during that time. Swiss Re's sigma report estimates a property protection gap of some USD 221 billion annually. The bulk (USD 153 billion) is from underinsurance for natural catastrophe risks, mainly earthquake, flood and windstorm exposures. Out of these, the largest uninsured natural catastrophe exposures are in the US, Japan and China. In emerging markets, insurance penetration is even lower and an even greater share of catastrophe losses are uninsured.



Natural catastrophes losses: insured vs uninsured losses. 1975–2014, in 2014 USD billions

Source: Swiss Re Economic Research & Consulting and Cat Perils

With economic development and ongoing urbanisation, particularly in emerging economies, the increase in the value of global property at risk has outpaced the purchase of insurance. There are different reasons for underinsurance. These include perceptions of risk, insurance knowledge, affordability, reliance on government post-disaster relief, lack of trust in insurers, and limited access and ease of doing business.

Innovating to reduce underinsurance

Drawing on expertise, insurers can strengthen the resilience of households and companies against property risk by addressing the issues above. Innovation carves out new areas of insurability.

One example is the Flood Re programme in the UK where Swiss Re is the leading reinsurer. It is designed to provide affordable flood cover for properties at highest risk of flooding. Flood Re is a not-for-profit flood reinsurance fund, owned and managed by the insurance industry. It accepts the transfer of insurance companies' risk above a specified flood-related risk. In the case of a flood event, insurers are reimbursed from Flood Re for the claims of the insured homeowners.

Another example protects homes uninsured against earthquake risk. In case of a large-loss event, many homeowners may get into financial difficulty and default on their mortgages. Consequently, much of the world's residential earthquake risk exposure is effectively borne by mortgage providers, who are usually uninsured. Together with mortgage lenders, who have an interest in protecting their collateral, Swiss Re has designed coverage for loans following an earthquake.

One more important area for innovation is microinsurance. By providing small amounts of coverage at low premiums per person, and using innovative product designs, microinsurance can make cover affordable for consumers and financially sustainable for providers. For instance, many microinsurance programmes use weather index-based products to cover crop damage. By paying claims according to local weather parameters rather than individual damage assessments, index-based products reduce the cost of underwriting and claims processing.

A private and societal responsibility

In order to meet the needs of those who are insufficiently insured or have no cover at all, the insurance industry needs to get better at innovation. This includes advancing today's data and analytical tools to track new risks and exposures not only with regard to natural catastrophes, but also for perils that are difficult to quantify such as terrorism, cyber, and supply chain risks.

That said, the innovation journey took a significant leap about a decade ago with insurance-linked securities (ILS). ILS, spearheaded by Swiss Re, helps to absorb some of the risk accumulation the industry faces, which in turn increases the availability of insurance for all. Further modernization of products, processes and distribution will be needed, in order to improve the access, speed and transparency required to attract previously uninsured consumers and build new markets.

The insurance industry must also help build awareness by making the concept of insurance more understandable. Simple language, while maintaining product integrity, is an important way for insurers to reach more customers.

All told, insurers cannot act alone. It requires supportive regulatory environments, risk information and, in specific cases such as terrorism or high-risk flood zones, government involvement to extend coverage capacity. Governments also have an important role in risk mitigation by setting and enforcing standards such as disaster-resistant building codes, overseeing flood control, providing risk data such as flood mapping, and promoting insurance. Successfully addressing property underinsurance requires a coordinated effort and innovative thinking by both the public and private sectors.

Swiss Re

Progress always offers the same choice: to embrace new technologies or not. Our choice is to do what we've always done and develop a keener understanding of what new technologies mean for the industry – from distribution to claims handling. By doing so we can harness the inevitable opportunities for our clients whenever and wherever they arise. To us, change means finding ways to do things better. Whether that's further refined risk assessments, more individualized pricing and service, or the ability to reach more consumers yet reduce costs. In constantly changing markets, we offer the stability of a partner you can trust to keep you ahead of the game. **We're smarter together.**

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