

**DRAFT WORKING PAPER FOR SEADRIF WEBINAR**

**SEADRIF Knowledge Series:  
Financial Protection of Public Assets  
Fact Sheet 5: Developing and Leveraging Domestic and  
International Markets**



**Disaster Risk Financing  
& Insurance Program**



## The SEADRIF Knowledge Series: Financial Protection of Public Assets

This fifth fact sheet<sup>1</sup> is part of a Knowledge Series that supports government officials as they develop their understanding of the steps needed to design, develop, deliver, and operate effective financial protection of public assets, particularly through risk transfer and insurance. The Knowledge Series encompasses an end-to-end development of public asset financial protection and insurance, as shown in figure 1. See previous fact sheets in this series for a more detailed introduction.

Each fact sheet will cover a major element of the process and will highlight considerations to assist government officials and other stakeholders who are tasked with developing solutions.

**Figure 1. Overview of the Knowledge Series**



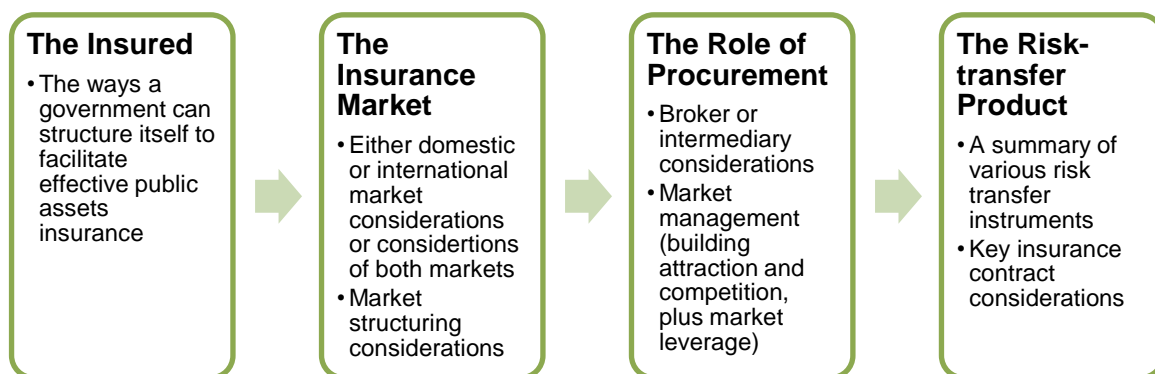
<sup>1</sup> Drafted by David Middleton and Greg Fowler with inputs from Lit Ping Low, Nicola Ranger, Rob Antich, and Benedikt Signer. The draft will be refined and finalized after the series of SEADRIF webinars about public asset financial protection, and it will build on feedback from the SEADRIF members and other webinar participants. The findings, interpretations, and conclusions expressed in this fact sheet do not necessarily reflect the views of the World Bank, its board of executive directors, or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work.

## Introduction

Establishing and maintaining an effective public asset insurance program requires a series of well-considered strategies, decisions, and actions. Fact Sheet 5 is designed to assist government officials with those steps in relation to the following (see figure 2 for contents of Fact Sheet 5):

- Positioning effective and efficient public assets insurance by choosing the most appropriate internal structural and institutional settings
- Aligning the domestic or international markets or both with strategic intentions
- Using procurement processes to achieve tailored insurance solutions
- Developing strategies to improve insurance market leverage, which will result in insurance market attraction and price competitiveness
- Examining technical considerations to ensure that coverage meets your expectations

**Figure 2. Contents of Fact Sheet 5**



## Part 1. The Insured: Positioning Government as an Effective and Efficient Facilitator of Public Assets Insurance

To maximize the opportunities and to minimize the risks associated with an all-of-government approach to disaster risk financing and insurance, government departments should coordinate themselves as an insurance customer.

This approach means setting up internal structures and institutions that accomplish the following:

- Align with any underpinning disaster risk-financing and insurance strategies.
- Present an administratively efficient interface with the insurance market.
- Reflect the intended economies of scale.

As was noted in Fact Sheet 1 and Fact Sheet 2, governments can create structures and institutions that reflect broader strategic objectives.

Tables 1–4 walk through some commonly used structures, but these are not exhaustive and that structural variations exist outside those explained here. Risk pools will be explored in more detail in Fact Sheet 6.

Note that within this fact sheet the term (re)insurance refers to both insurance and reinsurance markets, whereas the term reinsurance refers only to the reinsurance market. See Annex 2 for a detailed explanation of the reinsurance market.

**Table 1. Self-insurance**

Type	Self-insurance
What is it?	Self-insurance is a risk-management technique in which a government or an agency sets aside a pool of money to be used to remedy an unexpected loss.
How does it work?	A government or agency establishes a contingency budget to pay for unexpected losses associated with events that could be insurable. The budgets can be actual cash (a funded reserve) or a nominal or accounting fund (an unfunded reserve).
Best suited for	The management of smaller, more frequent losses (i.e., regular minor repairs). Moreover, the more predictable and smaller the loss is, the more likely it is that self-insurance is an effective solution.
Benefits	Self-insuring against certain losses may be more economical than buying insurance from the commercial insurance market.
Disadvantages	It is unlikely to be a cost-effective approach to managing mid- to large-loss events. Relying solely on self-insurance can often result in budgetary shortfalls.

**Table 2. Procurement Collective**

Type	Procurement Collective
What is it?	It is a collective procurement arrangement whereby insurance availability and pricing are agreed in advance with selected (re)insurers, and where government agencies tap into it on the basis of individual agency need or appetite.
How does it work?	<p>The procurement collective can be arranged and administered by a responsible government entity or an intermediary. Preferential insurance coverage and pricing terms are agreed to within the market. Government agencies can then sign onto the arrangement for their individual insurance needs.</p> <p>Such arrangements are usually nonformal in the sense that they do not require supporting legislation or regulation. The binding contract is the</p>

Type	Procurement Collective
	contract for services with the broker or insurer(s) and the pre-agreed insurance policy.
<b>Best suited for</b>	Circumstances where central government does not want to or is not ready to formally pool agency risk, but it does want to use the government's economies of scale to leverage good procurement outcomes as a ready-made option for agencies.
<b>Benefits</b>	<p>It requires only a procurement function and monitoring agency to ensure that obligations are being met and that contract renewals are administered (often this is a procurement function).</p> <p>It also allows for centralized collection of some agency insurance information for future solution maturity considerations.</p>
<b>Disadvantages</b>	<p>Uncertain agency uptake means the solution may not act as a reliable balance sheet protection mechanism.</p> <p>It does not position government to take a fully coordinated approach to all of government risk financing (i.e., maximizing the opportunities associated with a consolidated risk-retention and risk-transfer strategy).</p>

**Table 3. Risk Pool**

Type	Risk Pool
<b>What is it?</b>	Risk pools are a cooperative group of government entities joining together through a written agreement to finance an exposure, liability, or risk.
<b>How does it work?</b>	<p>Government establishes the internal legislative and policy framework for the risk-pooling vehicle.</p> <p>Member agencies typically pay a contribution into the risk pool to fund retained claims, administration expenses, and risk-transfer premiums (if risk transfer is required).</p> <p>Although they are not considered insurance, such pools extend nearly identical coverage through similar underwriting and claim activities, as well as provide other risk-management services. If risk transfer is required, a pool can act as a vehicle through which to access risk-transfer markets as a singular customer.</p>
<b>Best suited for</b>	Governments with a qualified and quantified understanding of cross-agency risk exposures. It suits governments with diverse member agency risk profiles (operationally and geographically).

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Type	Risk Pool
<b>Benefits</b>	<p>Pools tend to protect their members from insurance rate volatility, to offer loss prevention services, and to offer cost savings (because they are nonprofit organizations).</p> <p>Pools are usually less legislatively bound than are captives (see next table).</p>
<b>Disadvantages</b>	<p>Potential lack of diversification either because of geography or of the nature of risks can result in significant exposure to catastrophic losses (although an excess layer of risk transfer can mitigate this lack).</p> <p>Pools can involve a complex, time-consuming set-up.</p>

**Table 4. Captive**

Type	Captive
<b>What is it?</b>	A captive is an alternative to self-insurance in which government (as a parent to an agency) creates a licensed insurance company to provide coverage for itself.
<b>How does it work?</b>	A captive insurance company operates in a similar way to a traditional commercial insurance company. A captive issues policies, processes claims, follows all applicable regulations, files an insurance company income tax return, and has profits—if profitable—that are available to the insurance company owners. The difference is, with an insured-owned captive insurance company, the captive owner(s) decide whether or not to retain or distribute the company's profits (e.g., retaining surplus to manage future losses or to reduce member agency premium costs or both).
<b>Best suited for</b>	<p>Governments that have actual or potential large premium costs, that pursue a strategic approach to managing their risk exposures, and that have a cost of risk and a willingness to increase their share in their risk and capture underwriting profits (as opposed to simply buying insurance at the lowest price).</p> <p>Conditions where a solid claims history and an extensive formal risk-management process exist that will ensure a loss experience that is better than the market, thus allowing the government to benefit from reduction in cost of risk.</p>
<b>Benefits</b>	Captive can assist in avoiding or mitigating volatile commercial (re)insurance market pricing and appetites. By creating its own insurance company, a government can reduce its long-term costs, can

Type	Captive
	insure difficult risks, and can have a direct access to reinsurance markets.
<b>Disadvantages</b>	<p>It requires the raising of initial capital (to meet both jurisdictional insurer solvency regulations and retained losses).</p> <p>A captive arrangement requires additional time and resources for a government to manage, which contributes to its cost. The entity may need to bring on additional expertise to manage the day-to-day operations.</p> <p>Captive insurance arrangements can be more difficult for government agencies regarding entrance and exit than is purchasing insurance on the open market or through a risk pool.</p>

Each government will be at different stages of its public asset financial protection journey, will be subject to different legislative and policy constraints, and will have unique priorities driving its appetites and requirements. For those reasons, government structures should be reviewed carefully to ensure that they suit the overarching strategies.



## Part 2. The Insurance Market: Aligning the Domestic or International Markets or Both with Strategic Intentions

This section outlines considerations regarding the domestic versus international (re)insurance markets, the market interface structures through which government can leverage its relationships with (re)insurers, and the role of state insurers.

### Domestic and International (Re)insurance Market Considerations

The choice of which (re)insurance markets to engage is often driven by a combination of the following considerations:

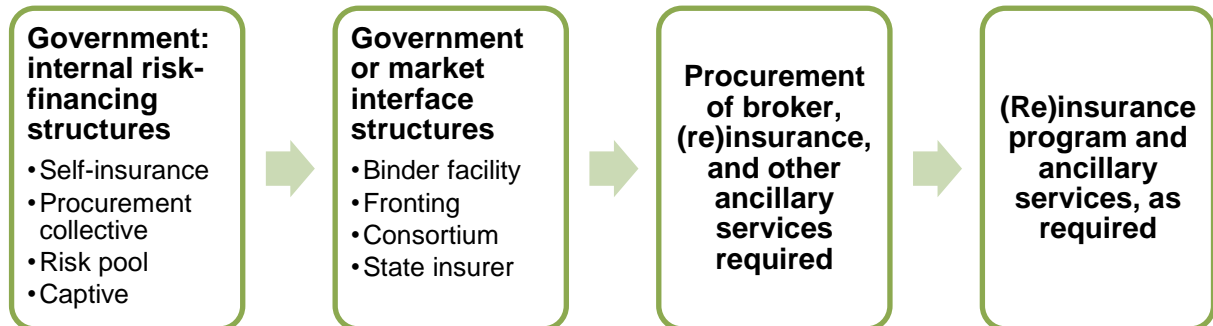
- *Pricing:* Cost is almost always a motivator. Governments or their brokers will often seek terms from a wide range of markets (domestic and international) to test market pricing options. This approach can result in a combination of both local and international (re)insurers being used on the same program and can be based on the price offered for certain proportions of the insurance risk-transfer arrangement.
- *Available capacity and expertise:* (Re)insurers often have limits on how much risk of a certain kind they can accept. In many emerging domestic insurance markets, this capacity to accept risk is relatively low compared to international markets. The capacity results in a tendency toward international markets while domestic markets develop their capacity over time.
- *Domestic market development aspirations:* As part of a broader strategic direction, some governments aspire to support and mature the domestic insurance market. A strong local market, which supports domestic business and private customers, can reduce social impacts post-loss event, thus reducing government's contingent liabilities. For this reason, some governments may lean toward favoring domestic markets.
- *Legislation or regulation compliance:* Different jurisdictions may be compelled by legislation or regulation to use or avoid using certain markets.
- *Risk-transfer diversification:* Governments may elect to use a combination of local and international markets to diversify their (re)insurer portfolio. A diversified portfolio allows government to hedge pricing over time as different geographic markets shift through different pricing cycles.
- *(Re)insurer solvency:* Governments can (and should) set financial security minimum standards on the (re)insurers with which they are prepared to do business. A (re)insurer with a strong financial position is more likely to honor claims. For that reason, a government may choose markets that can evidence necessary financial standards, irrespective of domicile.

### Government and Market Interface Structures

Public asset financial protection programs are generally large and complex enough to warrant specialized structures for interfacing with the (re)insurance market. Those structures are purposefully designed to complement the internal structures created by government (as defined in Part 1 of this fact sheet), as well as to effectively and efficiently position the insurance market. Figure 3, which follows, illustrates where those structures fit in the context of the program supply chain.



**Figure 3. Public Asset Financial Protection Program Supply Chain**



The types of interface structures are explained next.

### ***Binder Facility***

A binder facility is where government and one or more (re)insurers agree to preferential insurance coverage terms and conditions (often through a broker). The conditions are held available for a specific customer type (in this case, defined government agencies) for a specified period. If and when a defined agency decides to use the facility within the specified period, the preferential conditions will be automatically applied. This interface structure tends to dovetail well with the government structure arrangement of procurement collective but can also apply to other options such as the consortium and state insurer approaches.

### ***Fronting***

A government self-insured vehicle (e.g., a risk pool or a captive) contracts with a (re)insurer to issue an insurance policy on its behalf that satisfies regulatory requirements. The risk of loss remains with the captive or self-insured by way of an indemnity agreement with the (re)insurer.

If the captive or self-insured fails to provide indemnity (e.g., goes insolvent because of a massive loss), however, then the fronting company must fulfill the policy. As a result, the fronting company takes on the credit risk and charges a fee for this service.

### ***Consortium***

An insurance consortium is a group of (re)insurers that join together to provide insurance coverage. This approach allows for economies of scale and increased efficiencies, because the (re)insurers that are part of the consortium can spread the risk and the cost of administration. A consortium can help ensure that capacity remains available for a government as a customer.

### ***State Insurers***

The availability of insurance is often recognized as a keystone for the normal conduct of commercial activity and extends to include the public service obligations of government. The state steps in when a perceived failure of the commercial insurance industry to deliver

affordable insurance (and its benefits) is seen as having a detrimental effect on the nation's well-being and economy and when prudential supervision is not a sufficient solution.

The role of state insurers varies. Some are set up as insurance companies competing in the commercial market (e.g., the Romanian company PAID). Some have a monopoly on the coverage of certain potentially catastrophic perils (e.g., New Zealand's Earthquake Commission and Iceland Catastrophe Insurance). Table 5 describes the key considerations attached to effective use of state Insurers.

**Table 5. State-owned Entities, Captives, and Mutuals**

Type	State-owned Entities	Captives	Mutuals
<b>What are they?</b>	Insurance providers are owned by the government to insure their own assets or those of other designated policyholders (e.g., vulnerable population assets).		
<b>How the market works</b>	A government legislates into existence an insurance or reinsurance company to compete in the market and to influence pricing and coverage.	A commercial firm, a group of firms, or a government establishes an insurance subsidiary (a "captive") to insure the assets.	A mutual insurance company is owned by its policyholders. There is no capital, and a mutual raises funds external to its own surpluses by its issuing debt instruments.
<b>Best suited for</b>	They are best used when direct access to the <b>reinsurance</b> market is desired:		
	State-owned entities when they exercise controls in the local insurance industry, ensure affordable insurance is available, and—through a state-owned reinsurance company—limit the overseas payment of premiums.	<i>Captives</i> when the traditional insurance market does not have the capacity to take on the risks or when the asset owner considers that the market is not sufficiently recognizing (pricing) a better-than-average claims experience or the good risk-management practices.	<i>Mutuals</i> when a co-operative structure can serve the similar interests of a definable group, such as medical professionals.
<b>Benefits</b>	<ul style="list-style-type: none"> <li>• The reinsurance market offers additional insurance capacity and different products than will direct insurance, along with pricing advantages and specialist expertise in many areas of insurance</li> <li>• The insurance coverage can be specially tailored (subject to reinsurance requirements) and can be extended to other hazards as premiums accumulate over time.</li> <li>• The entities control premiums and profit margins, as well as pricing stability (subject to reinsurance market volatility).</li> <li>• Potential costs savings are generated through reduced overheads (for example, distribution costs such as commissions).</li> </ul>		



Type	State-owned Entities	Captives	Mutuals
<b>Disadvantages</b>	State-owned entities expose the government to losses unless legislation limits liabilities to the entity's ability to meet them (e.g., by capping claims).	With respect to captives, capital must be provided for actuarial and economic reasons and to comply with solvency requirements.  Funds and management time are tied up in the formation of the captive and on insurance operations and hence are withdrawn from core services.	Mutuals are unable to raise capital so they must resort to borrowing if retained surpluses are insufficient.
<b>Examples</b>	State-owned entities have been set up in France, Iceland, New Zealand, Norway, Spain, Taiwan, and Turkey.  Local Government New Zealand has set up civic insurance to insure local authorities' property (including infrastructure) and liability.	The Australian Capital Territory Insurance Authority is a government agency established in 2005 as the ACT government's captive insurer. See Fact Sheet 2 for further details.	Oil Insurance Limited is a mutual insurance company that insures more than US\$3 trillion dollars of global assets for its 50+ members who are engaged in energy operations. It is registered in Bermuda.

## Part 3: The Role of Procurement

Procurement plays a key role in enabling governments to transfer risk to the market in a way that attracts market participation and encourages competition (see box 1).

### Box 1. Key concepts

**Market Attraction.** When a (re)insurer, having analyzed the government’s data and information, views the government’s risk profile as providing enough underwriting certainty and organizational risk-management maturity to warrant committing insurance capacity (i.e., agrees to accept some of the government’s risk).

**Market Competition.** When multiple (re)insurers are attracted to the government’s risk profile to the point they may discount premium rates to receive a desired proportion of the risk-transfer opportunity being offered.

## Insurance Broker or Intermediary Considerations

A common initial step to enable risk transfer is to engage an insurance broker. A broker (often referred to as an intermediary) is necessary because (re)insurers will often deal with customers only through an intermediary. The intermediary’s roles are as follows:

- Provide advice to customers on the optimal design and development of their risk-financing program, and
- Provide services to support that program and sell the customer’s risk-transfer requirements into the market, with the intention of driving market attraction and competition.

In choosing an intermediary, the three key considerations relevant to an evaluation process are set out in figure 4.

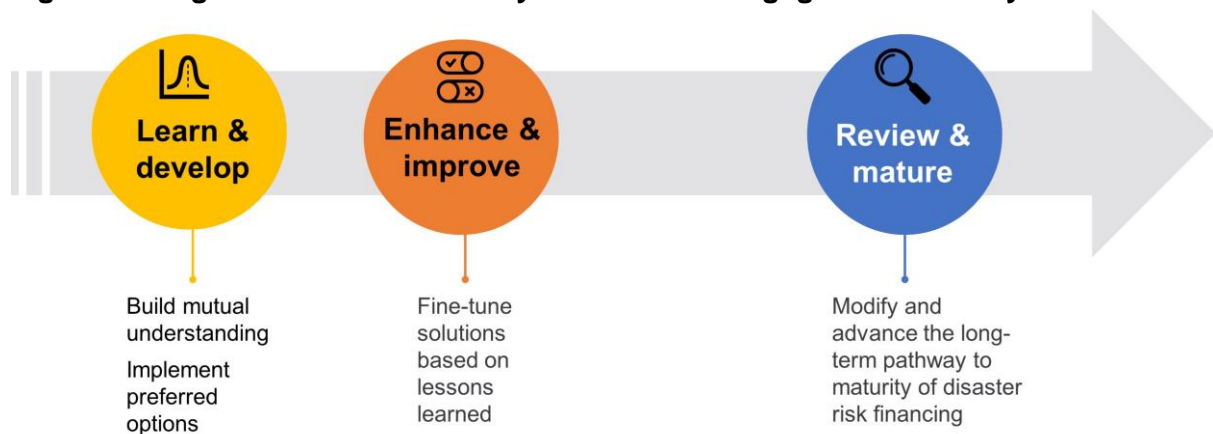
**Figure 4. Intermediary Procurement Considerations**



The intermediary's fee or commission price is often a fraction of the risk-transfer premium cost. A quality intermediary, with program design inputs backed by experience, and an effective market management strategy can positively influence the much larger premium cost outcomes. It is therefore advisable not to over-weight the intermediary fee price criteria for the sake of saving smaller-scale intermediary fees.

A three- to five-year contract term arrangement is advised, possibly with an interim right of extension such as three years plus a right to extend without tender for another two years. Any arrangement will be subject to the procurement laws and regulations within each country. A three- to five-year arrangement allows progression of engagement maturity to occur (see figure 5).

**Figure 5. Progression of Intermediary or Customer Engagement Maturity**



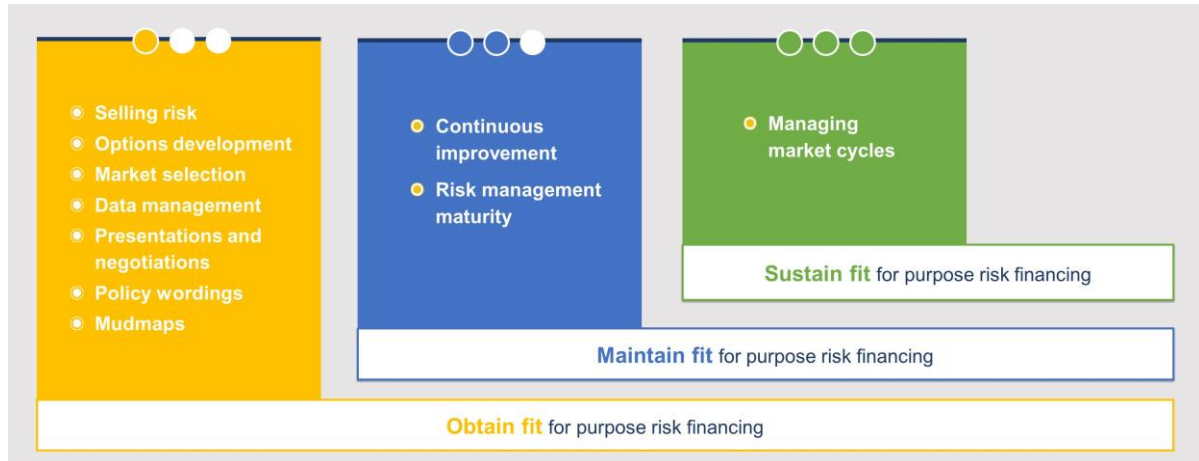
## Risk-Transfer Market Management Considerations

Market management strategies are the techniques used by governments and intermediaries to accomplish the following:

- Obtain a fit for purpose risk-transfer financing.
- Maintain a fit for purpose risk-transfer financing through time.
- Sustain a fit for purpose risk-transfer financing in the face of large losses and adverse financial conditions

Figure 6 illustrates the key market management components. Each component is briefly explored next.

**Figure 6. Market Management Strategies**



### ***Selling Risk***

A customer, often with a good intermediary, must approach the risk-transfer market with the intention of attracting (re)insurers. Selling a risk profile underpins the other market management strategies. It involves a considered and coordinated means to differentiate yourself in the eyes of the market through approaching the right markets, in other words, the right way with the right information.

### ***Options Development***

Governments need to have a clear understanding of the options they want the risk-transfer markets to consider. Those options consist of various combinations of the following:

- What hazards are included?
- What agencies are participating?
- What assets are included?
- What is the sum insured or the policy limit (what is the (re)insurer's liability in the event of a loss)?
- What is the level of risk retention that applies before risk-transfer contributes to a loss?
- What are the policy coverage terms and conditions?

### ***Market Selection***

Governments should also consider the characteristics of (re)insurers that it would prefer to have on its risk-transfer program. The types of criteria that a customer should consider are technical (such as price, capacity, and coverage terms and conditions), some are behavioral (such as claims management and payment practices or relationship and loyalty practices), and others are security based (such as financial condition and solvency).

Most importantly, governments need a certainty that their (re)insurance providers have the financial resources to pay claims. An intermediary can often assist with setting a standard for acceptable mandatory financial security.



The two primary means to achieve the necessary degree of certainty are as follows:

1. As part of a country's regulatory environment for the financial sector, a government will often set, regulate, and monitor minimum solvency standards for local (re)insurers and, in some cases, for offshore (re)insurers who are "admitted" to underwrite risks in the country.
2. Internationally recognized standards and credit ratings agencies (such as Standard & Poor's, A. M. Best, and Moody) regularly monitor and rate individual (re)insurers and place them on a scale of creditworthiness. Each rating agency has its own rating scale, but generally the agencies work in derivatives of A (e.g., A+ +) when denoting high creditworthiness through to C (e.g., C- -) when denoting substantial creditworthiness concerns.

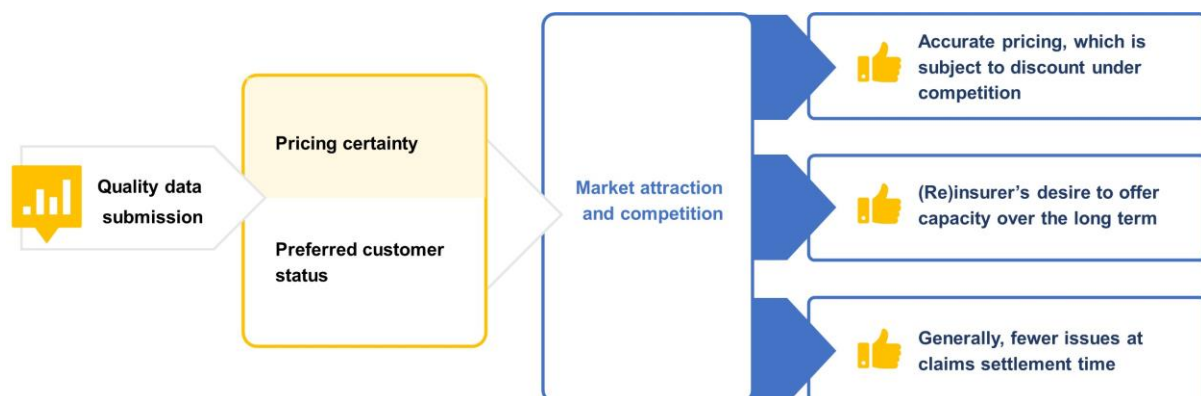
### **Data Management**

(Re)insurers require a necessary degree of confidence about the risk being presented. Quality data promote market attraction and competition because they provide a basis of risk-pricing certainty and are a positive indicator of the customer's organizational risk maturity.

Data are typically delivered to the risk-transfer market as part of the underwriting submission (which also includes preferred coverage terms and conditions (see Policy Wordings) and options for pricing consideration (see Options Assessment)).

Further details regarding data needs and characteristics are provided in Fact Sheet 3 and Fact Sheet 4. (See also figure 7.)

**Figure 7. The Importance of Quality Data**



### **Presentations and Negotiations**

Presentations and negotiations are where the actual selling of the risk profile occurs. Presentations are an opportunity to meet (re)insurers (either individually or collectively) and to deliver key messages that identify the organization as a preferred customer by highlighting issues such as these:

- Organizational priorities and objectives
- Risk-management objectives and intentions
- Risk-management practices (focusing on risk reduction, preparedness, governance, and continuous improvement projects)
- High-level hazard, asset, and risk insights
- High-level insights into the coverage options being sought
- Insights into the type of relationship envisaged with (re)insurers (potentially based on relationship and loyalty principles)

The customer should, if possible, lead the presentations, because each customer is best positioned to describe and demonstrate its organizational settings and risk profile. Doing so can also help create a more direct, face-to-face relationship.

Negotiations generally occur after the initial presentations. For large and complex insurance placements, the negotiations will encompass multiple, even dozens of, potential (re)insurers. Where there is competition between (re)insurers, individual (re)insurers may compete for a slice of the risk through improved pricing, greater capacity, and broader policy coverage terms and conditions.

Common practice is for a lead (re)insurer to be identified and confirmed as soon as possible. That lead is often an industry cornerstone insurer with a longstanding record of prudent underwriting and financial security practices. The lead usually takes a notable proportion of the risk and acts as an anchor for a consortium of following (re)insurers to fill the balance of the insurance placement requirements. A reputable lead can be an effective means of attracting reliable following markets.

### ***Policy Wordings***

The policy wordings approach will be dictated by customer size, complexity, and negotiation leverage. In the case of a public asset financial protection program, it is reasonable to assume that all of the earlier-mentioned customer characteristics exist to varying degrees.

Policy wording negotiations usually focus on lead market(s) first. Subject to lead market acceptance, this wording is presented to potential following markets as the basis of cover.

Key (re)insurer markets are increasingly recognizing and approving intermediary wordings as a basis of customer coverage. A key advantage of this approach is that policy terms and conditions have already been drafted with the customer and therefore should be a customized reflection of customer requirements and expectations (subject to market realities).

### ***Continuous Improvement and Risk Management Maturity***

The risk exposures that an organization faces are not static, and the risk-financing program mitigating those risks must learn and evolve with the changing environment. More detail about the components of continuous improvement will be covered in Fact Sheet 7.

(Re)insurers appreciate customers who continually monitor their risk profiles through regular stakeholder engagement and updated data or information insights. Delivering evidence of

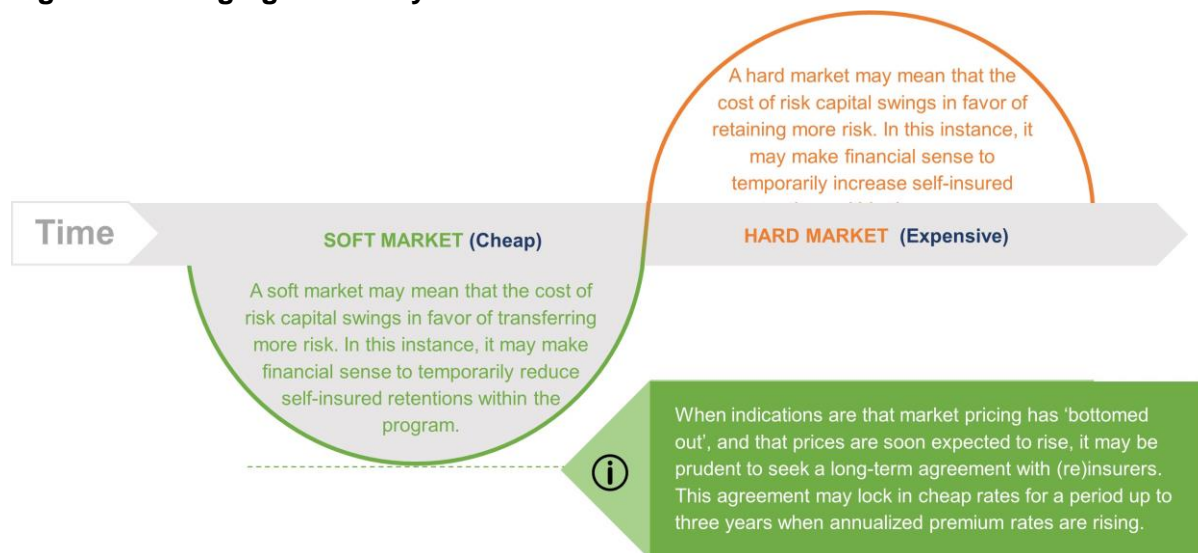
well-considered and justifiable program adjustments will assist not only in convincing (re)insurers to accept the changes, but also in supporting pricing certainty.

Growing risk management maturity can have the effect of attracting new markets that may not have considered your organization at the outset.

### ***Managing Market Cycles***

The risk-transfer market is subject to cyclical pricing patterns as well as to sudden hardening swings when globally significant natural disasters or sudden global financial crises occur. When the pricing cycles near each end of the spectrum (high price vs. low price), a customer can take some practical steps to maximize the opportunities and to mitigate the risks. The steps are highlighted in figure 8.

**Figure 8. Managing Market Cycles**



## Part 4, The Risk-Transfer Product—An Introduction to Insurable Risk Transfer

This part of the fact sheet focuses on the fundamentals involved in constructing a financial protection program and the specific risk-financing options that can be bought into consideration.

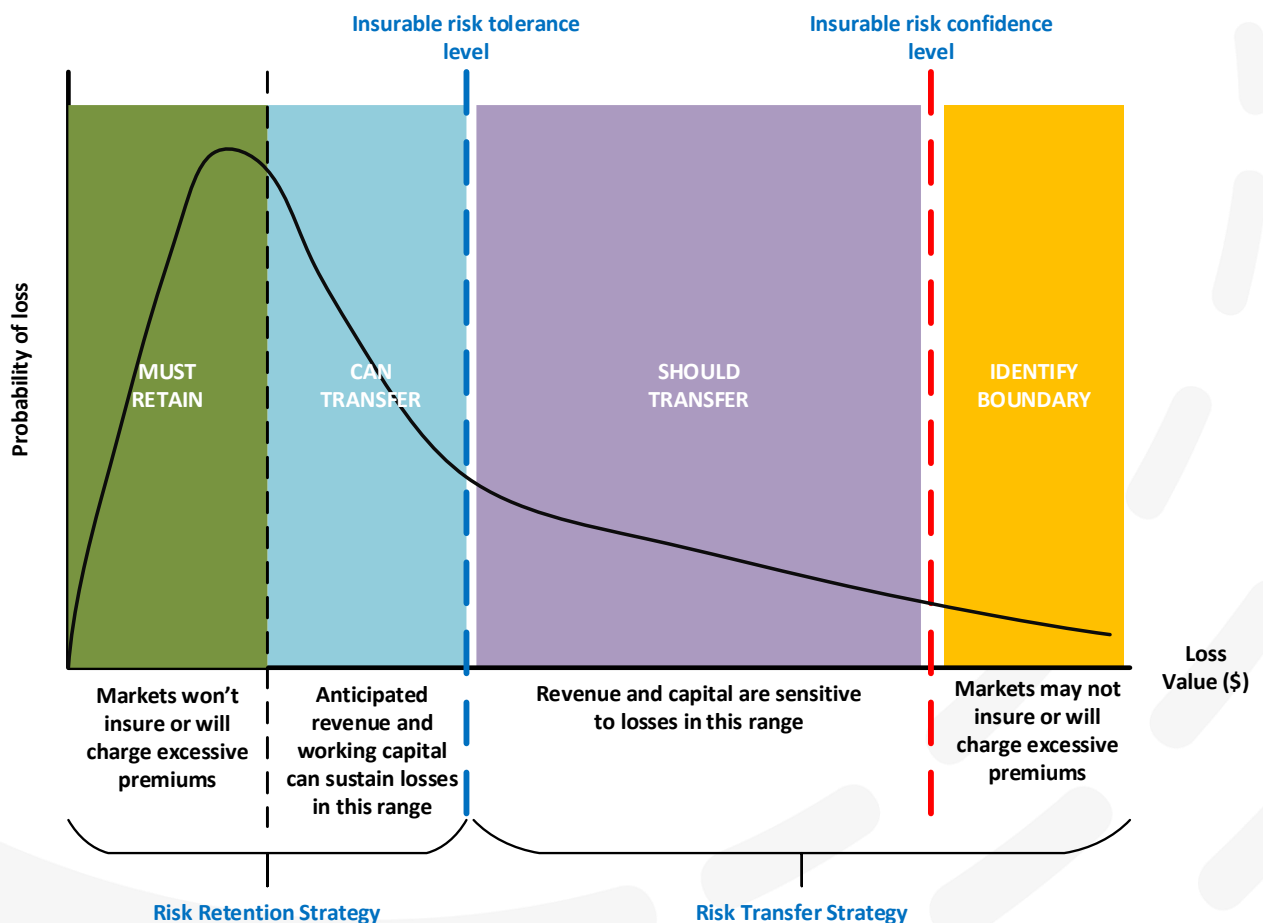
### Construction of a Program

Constructing an insurance program, including catastrophe losses, requires the following:

- Valuation for insurance purposes of the assets to be insured
- Enumeration of risk tolerance (e.g., that the financial loss from an unplanned event must not exceed a stated percentage of operating expenses of a department)
- An estimate of the probable maximum loss that a natural disaster could inflict

A curve derived from the value of risk costs that could be transferred on the X axis against the frequency of such events on the Y axis can be segmented as in figure 9.

**Figure 9. Insurance Program Construction Considerations**



The first segment is multiple small losses. Those losses are under the risk-tolerance limit, and insuring them would cost more than budgeting for and meeting the direct costs (the insurance company will charge the cost of expected claims plus the overheads of the administrative and claims departments, plus a desired profit margin). An annual aggregate of the excess loss insurance could relieve concern about variability in those costs. For example, this form of insurance could cover graffiti and petty vandalism (i.e., non-arson) that cause damage to schools.

The second segment could be covered by indemnity insurance to smooth out damage expenses, even though those are sustainable within revenues. Alternatively, the risk could be retained and managed within the overall risk-management program.

The third segment covers events that are infrequent and that would exceed the risk-tolerance limit. Indemnity insurance could be used, but excess loss insurance will be more economic. Having to pay only the excess and not the full amount of the damage could reduce the loss value to within the second segment of the curve. Asset owners with property spread over different locations (and possibly insured by separate policies) could purchase catastrophe insurance up to the probable maximum loss for all their properties.

Insuring highly improbable events that would attract insurance company minimum premiums is not an economic approach. If protection against the possible financial impact of a particular rare event is desired (such as a violent typhoon making landfall), a catastrophe bond could be investigated. Risk swaps are an option if there are two parties with risks that can be equated (such as a 1-in-200-year event) and if they wish to protect themselves against such a financial impact.

## Types of Risk-Transfer Instruments

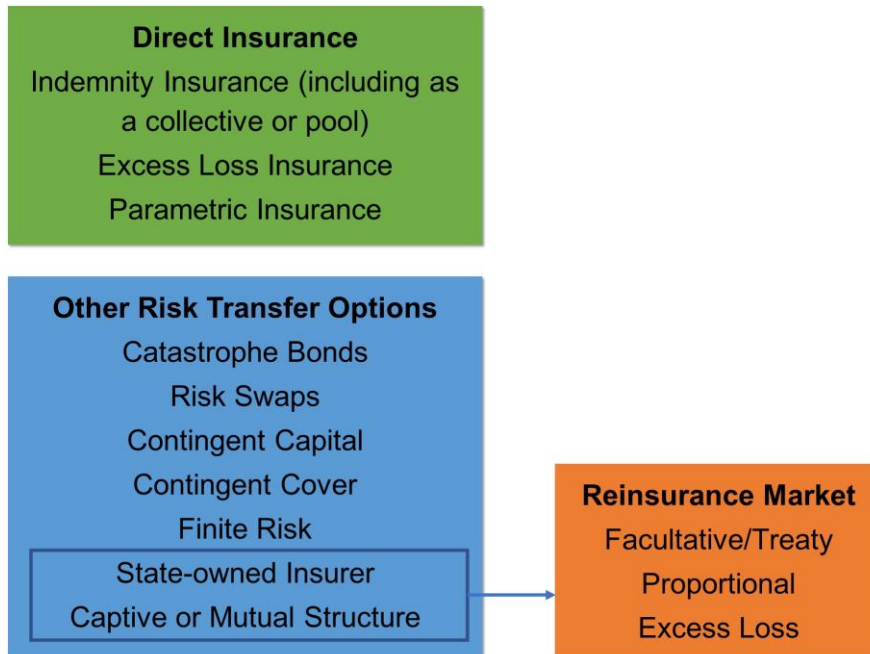
Risk can be transferred to the insurance or capital markets. Such transfer is spreading risk over time (i.e., exchanging a known annual expense to avoid a larger cost being incurred at an unknown time in the future). In this regard, obtaining insurance should be viewed as a long-term risk-transfer strategy because the known annual expense (the premium) is typically a small fraction of the cost of a significant loss. Insurance companies pool the risks of a large customer's base and use the premiums collected to pay for the individual claims when they occur. However, the insurance market is not the only way to transfer risks; such risks can also be transferred by using the global capital market, which gives access to different and greater capital providers than does the insurance market.

Annex 1 briefly describes risk transfer options, commencing with direct insurance. Options can be combined in a hybrid arrangement (for example, an indemnity insurance that includes a parametric element [as the proposed Philippines Catastrophe Insurance Facility does] or a catastrophe excess loss section). By setting up its own insurance structure, such as a captive, an entity or government can transfer some of the risk of the captive to the reinsurance market, just as insurance companies do. This arrangement gives access to more financial capacity, forms of risk transfer, and specialist expertise. (See figure 10.)

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**Figure 10. Types of Risk-Transfer Instruments**



## (Re)insurance Contract Considerations

(Re)insurance contracts (policies) can be complex documents to understand. The first part of this Fact Sheet and of Fact Sheet 6 describe the general characteristics of different insurance structures and uses. This section summarizes what some of the common negotiable components are within insurance policies and why they may be used in negotiations.

### ***Risk Retention Options***

(Re)insurers will often require customers to carry a degree of self-retention in the risk-financing program before (re)insurer liability for a loss kicks in. This approach serves to accomplish the following goals:

- Reduce administration attached to low-value, high-frequency claims (that are best managed at customer level).
- Incentivize customers to apply prudent risk-management practices.
- Reduce the risk-transfer cost (the premium), especially at times of high market pricing.

A brief description of each of the more common retention mechanisms follows:

- ***Formal self-retention:*** a layer of financial risk retained by government irrespective of any overlying (re)insurance arrangement.



- **(Re)insurance policy deductible, excess, or franchise:** a condition within an insurance policy whereby the customer accepts an initial layer of financial risk before the (re)insurer becomes liable for a claim. Each retention type is subtly different:
  - **Deductible** (the portion the insured pays regardless of scale of the loss): For example, a policy has a sum insured of \$1,000 and a deductible of \$100.
    - If a loss to the insured is \$500, the insurer will pay out \$400.
    - If a loss to the insured is \$1,500, the insurer will pay out \$900 (i.e., the sum insured less the deductible).
  - **Excess** (the first portion that the insured pays): For example, a policy has a sum insured of \$1,000 and an excess of \$100.
    - If a loss to the insured is \$500, the insurer will pay out \$400.
    - If a loss to the insured is \$1,500, the insurer will pay out \$1,000 (i.e., the sum insured).
  - **Franchise** (the threshold above which the insurer pays): For example, a policy has a sum insured of \$1,000 and a franchise of \$100.
    - If a loss to the insured is \$90, the insurer will pay out \$0.
    - If a loss to the insured is \$150, the insurer will pay out \$150 (i.e., if the loss is above the franchise value, the insurer pays out the entire loss, subject to the policy limit).

Depending on market and customer appetites, a retention arrangement can be negotiated that reflects situational preferences and offers management of premium costs during different stages of market cycles.

### **Asset Valuation Provisions**

Underinsurance is usually a consequence of one or more of the following:

- Inaccurate asset descriptions or valuations in advance of a loss,
- Inaccurate loss-modeling assessments in advance of a loss, and
- Unforeseen costs after a loss event.

To manage the risks of undervaluation of assets, (re)insurers often include an average clause in their policies.

### **Box 2. What Is Averaging in an Insurance Context?**

Scenario: A property is underinsured by 30 percent, which is calculated by dividing the difference between the sum insured and the replacement value. Because of the underestimation of the insured value, the insurer will apply the average clause and reduce its claims payout by the same percentage. This approach will apply to partial losses too. So if the property incurs a relatively minor loss (for instance \$5,000), the insurer will still be entitled to reduce the payout for this loss by 30 percent.

The impact of average can be mitigated using margin clauses and, in soft markets, can be negotiated to a manageable level. Brokers can assist and advise with such arrangements.

### ***Policy Limit Reinstatement Provisions***

(Re)insurance policy limits are often set as aggregate limits. This arrangement means the policy limit (e.g., \$500 million) is the total (re)insurer liability for the entire period of the contract. This limit can cause issues if a significant loss occurs early in the insurance contract period. The result is that the policy limit is eroded, leaving a much-diminished, or even non-existent, limit available for new claims.

A means to manage this risk is to include or negotiate an automatic reinstatement of limit provision into the insurance policy. This approach reinstates the policy limit after a claim has been paid out. In very soft market conditions, an automatic reinstatement provision may be negotiated into policy coverage at minimal cost. In hard market conditions, (re)insurers may decline the option to include automatic reinstatement of limit provisions.

### Glossary of Selected Terms

<i>Averaging</i>	If the sum insured at the time of a loss is less than the insurable value of the insured asset, the amount claimed under the policy will be reduced in proportion to the under-insurance
<i>Catastrophe Bond</i>	A high-yield debt instrument that is designed to raise money for insurance companies in the event of a natural disaster.
<i>Co-insurance</i>	Generally expressed as a fixed percentage, it is the amount an insured must pay against a claim after the deductible.
<i>Contingent Capital</i>	Funds that would be available under a pre-negotiated agreement if a specific contingency (such as a natural disaster) occurs or a threshold is crossed.
<i>Excess of Loss</i>	A type of reinsurance, which, subject to a specified limit, indemnifies the reinsured company against all or a portion of the amount of loss in excess of the reinsured's specified loss amount.
<i>Facultative reinsurance</i>	Coverage purchased by a primary insurer to cover a single risk or a block of risks held in the primary insurer's book of business
<i>Finite Risk Insurance</i>	A transaction between an insurer and insured in which the insured pays a premium that constitutes a pool of funds for the insurer to use to pay losses. If losses are lower than the premium, the insurer returns most or all of the premium to the insured. If the losses exceed the premium, the insured pays additional premium to the insurer.
<i>Hard Market</i>	The upswing in a market cycle, when premiums increase and capacity for most types of insurance decreases.
<i>Indemnity Insurance</i>	A contractual agreement in which one party guarantees compensation for actual or potential losses or damages sustained by another party.
<i>Insurance Capacity</i>	The largest amount of insurance that a company or the market is able to write.
<i>Insurance captive</i>	An insurance company that is wholly owned and controlled by its insureds.
<i>Margin Clause</i>	This applies a pre-set margin over the declared valuation (e.g. 20%). This means that the actual sum insured is the declared values plus an additional allowance of 20% (either per location or on the portfolio value) to cover any unintended variation in value at the time of loss.
<i>Parametric Insurance</i>	A type of insurance that agrees to make a payment upon the occurrence of a triggering event.

<i>Perils</i>	A specific risk or cause of loss covered by an insurance policy, such as fire, windstorm, flood, or theft.
<i>Proportional Treaty</i>	A reinsurance agreement in which a percentage of the insurer's original policies is reinsured, up to a limit.
<i>Quota Share</i>	A pro-rata reinsurance contract in which the insurer and reinsurer share premiums and losses according to a fixed percentage.
<i>Reinstatement provision</i>	If an insurance policy is terminated, then the insurance coverage can be renewed. The process of putting the insurance policy back after a lapse is known as reinstatement.
<i>Reinsurance</i>	A practice whereby insurers transfer portions of their risk portfolios to other parties by some form of agreement to reduce the likelihood of paying a large obligation resulting from an insurance claim.
<i>Securitization</i>	The process by which an issuer designs a marketable financial instrument by pooling various financial assets into one group.
<i>Soft Market</i>	The side of the market cycle characterized by low rates, high limits, flexible contracts, and high availability of coverage.
<i>Special Purpose Vehicle (SPV)</i>	A subsidiary of a company to isolate risk.
<i>Stop Loss</i>	Insurance that protects insurers against large claims. The policies take effect after a certain threshold has been exceeded in claims.
<i>Surplus Treaty</i>	A type of proportional reinsurance treaty in which the ceding company determines the maximum loss that it can retain for each risk in the portfolio
<i>Underinsurance</i>	Insurance purchased that covers an amount that is less than its true value
<i>Underwriting</i>	Establishing pricing for accepted insurable risks

## Annex 1. Types of Insurance Instruments

Having analyzed their downside risks in the context of their risk appetite (the governance aspect of risk) and tolerance (the operational side), asset owners need to decide whether to avoid, reduce, retain, or transfer each risk—either fully or partially. Risk transfer is normally by way of insurance, of which there are several types, briefly described next. Asset owners must select the appropriate type of insurance and may use the expertise of an insurance broker to assist with this selection.

Type	Indemnity Insurance
What is it?	A traditional insurance policy is designed to reimburse or reinstate a loss that has occurred. Modern policies compensate to the full value required to repair or rebuild (replacement value), not deducting value to recognize the age and condition of what was damaged (indemnity value).
How does the market work?	Insurance companies issue policies that identify the Insured, the property covered by the insurance, the <i>perils</i> (causes of damage) insured, and the terms and conditions of the insurance contract.  Policies are in the name of the asset owner and anyone else with a financial interest (such as a mortgagee). Several asset owners may combine to insure under one policy as a pool or collective (such as the Universities Collective in New Zealand).
Best suited for	<ul style="list-style-type: none"> <li>• Most suited for assets susceptible to the perils insured by standard insurance policies.</li> <li>• Specialist policies, such as engineering insurance; policies covering nontangible subjects, such as liability; and insurance policies against accident or death of individuals are also available.</li> </ul>
Benefits	<ul style="list-style-type: none"> <li>• Products are readily available and are from the local insurance industry.</li> <li>• Contracts can be executed quickly.</li> <li>• There is widespread understanding among insurance markets, and they share common practices.</li> <li>• Expertise to deal with the insurance market is typically available locally.</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• Transferring unusual risks that are not well understood by the insurance industry or that are regarded as particularly hazardous can be expensive.</li> <li>• Insurers rely on a large sample of homogenous risk to enable them to assess premiums and will charge higher premiums in the absence of reliable data and statistics.</li> <li>• The pricing of insurance is based on factors not relevant to every policyholder (for example, a large natural disaster in another region or country). Pricing can be volatile from year to year.</li> </ul>
Examples	Property (asset) insurance, motor vehicle insurance, increased cost of working (following a fire or disaster) insurance, and personal accident insurance.



Type	Excess Loss Insurance
What is it?	<p>This insurance pays only for severe damage or loss because it carries a high deductible or excess. There are different forms:</p> <ul style="list-style-type: none"> <li>• Working Excess Loss: applied to individual assets</li> <li>• Aggregate Excess Loss or Stop Loss: applied to total claims paid out in a given period (usually a year)</li> <li>• Catastrophe Excess Loss: applied to total damage costs at all insured sites when attributable to the same natural disaster</li> </ul>
How does the market work?	<p>The high excess on the policies is a material factor in their pricing because it significantly affects the risk to the insurance company. Therefore the actual amount of the excess is a critical negotiating factor.</p>
Best suited for	<ul style="list-style-type: none"> <li>• Working Excess Loss: high-value assets that would be expensive to insure with a normal indemnity policy</li> <li>• Aggregate Excess Loss: assets that are subject to many small claims</li> <li>• Catastrophe Excess Loss: portfolios of properties where several could be affected by the same disaster</li> </ul>
Benefits	<ul style="list-style-type: none"> <li>• Working Excess Loss: premium savings</li> <li>• Aggregate Excess Loss: protection from unusual runs of small damage events in the period (such as more motor vehicle accidents than normal)</li> <li>• Catastrophe Excess Loss: more suitable than indemnity insurance for multiple-asset owners when more than one asset is damaged by the same event. Damage can be aggregated in a single claim for all assets involved, including at different sites. The excess and value insured on each asset will be replaced by a single excess and value that is the reasonably foreseeable amount of damage that could be incurred at all sites (the probable maximum loss, which could be, say, a 1-in-200-year event). (Catastrophe perils such as natural disasters are included in indemnity policies, and single-asset owners do not need additional catastrophe excess loss protection.)</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• Pricing volatility is greater than traditional insurance especially for catastrophe excess loss insurance.</li> <li>• The availability of catastrophe excess loss insurance may also be volatile. For example, for a few years after the Canterbury earthquakes in New Zealand, private sector insurance companies declined to offer earthquake insurance in the affected area, reflecting their own ability to obtain affordable reinsurance protection.</li> <li>• Interpretation of catastrophe excess loss policies can be contentious, including which damage can be included in the same “event,” whether the catastrophe peril or some other had caused the damage, what was pre-existing damage, and what repair costs were covered when additional building safety standards were applied.</li> </ul>
Examples	<ul style="list-style-type: none"> <li>• Working Excess Loss: a ministry’s headquarters building</li> <li>• Aggregate Excess Loss: a ministry’s motor vehicle fleet</li> <li>• Catastrophe Excess Loss: the Ministry of Education’s schools</li> </ul>





Type	Parametric Insurance
What is it?	A contract providing for the full amount to be paid out on the occurrence of a certain triggering (for example, an earthquake of a certain magnitude in a pre-agreed area), whether or not an actual loss occurs. This is a contrast to indemnity insurance policies that reimburse loss or damage to the particular assets named in the policy schedule.
How does the market work?	Pricing is based on the probability of the triggering event's occurring; therefore, science and modeling are critical. Conversely, asset valuations and locations, which are features of normal insurance underwriting, are not relevant.
Best suited for	<ul style="list-style-type: none"> <li>• When speed of claim settlement is more important than precise evaluation of damage</li> <li>• Where greater freedom in directing funding is needed (as compared to normal insurance under which funds are tied to particular damage and repair costs)</li> <li>• Perils with outcomes that are difficult to define or impacts that are difficult to measure</li> </ul>
Benefits	Solution for the situations in the "best suited for" section (speed of settlement, discretion over deployment of the proceeds, and unclear financial consequences).
Disadvantages	"Basis Risk"—the payout is not calibrated to any actual financial loss but to the occurrence of the triggering event. There are the prospects of a windfall gain (payout exceeds actual costs) or a retained loss (payout is insufficient to meet costs).
Examples	<ul style="list-style-type: none"> <li>• The proposed Philippines Catastrophe Insurance Facility includes an immediate payout to claimants of a set amount without proof of loss as part of its coverage of damage to homes by earthquake, typhoon, or flood.</li> <li>• The SEADRIF Catastrophe Insurance Pool provides rapid and predictable relief funding to its members on the occurrence of flooding.</li> </ul>

Type	Risk- or Insurance-Linked Securities (Catastrophe Bonds)
What are they?	These are investment bonds issued to the capital market. They default on the occurrence of a defined catastrophe event (the "trigger") so the issuer (i.e., the insured owner of assets) is not required to repay the bond. This insurance is similar to parametric insurance.
How does the market work?	<p>The asset owner takes out parametric insurance with an entity set up for the purpose of issuing the bonds (a "special purpose vehicle") to the value of the parametric insurance. Under the terms of the bonds, the principle would not be repaid by the special purpose vehicle following a trigger event. Instead, payment would be made under a claim on the parametric insurance.</p> <p>Like other financial bonds, catastrophe bonds can be traded among investors.</p>
Best suited for	<ul style="list-style-type: none"> <li>• When speed of claim settlement is more important than precise evaluation of damage</li> </ul>

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	<ul style="list-style-type: none"> <li>• Where greater freedom in directing funding is needed (as compared to normal insurance under which funds are tied to particular damage and repair costs).</li> <li>• When perils with outcomes are difficult to define or when impacts are difficult to measure.</li> <li>• When the terms of the bond are more attractive than those in the (re)insurance market</li> <li>• When the amount of cover required is larger than the (re)insurance market can provide through providers of acceptable financial strength</li> </ul>
<b>Benefits</b>	Solution for the situations in the “best suited for” section (speed of settlement, discretion over deployment of the proceeds, unclear financial consequences, and inability of the (re)insurance market to compete)
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>• Basis risk is when the payout is not calibrated to any actual financial loss but to the occurrence of the triggering event. There are the prospects of a windfall gain (payout exceeds actual costs) or a retained loss (payout is insufficient to meet costs).</li> <li>• Catastrophe bonds can take months longer than insurance policies to arrange and their set-up costs are far higher.</li> <li>• Because catastrophe bonds are individual issues, investors require a set of comprehensive risk assessments, a precise definition of the triggering event, a set of actuarial reports, legal and accounting advice, and other capital market requirements, including full disclosure of relevant interests.</li> </ul>
<b>Examples</b>	<ul style="list-style-type: none"> <li>• Several governments have issued catastrophe bonds, including Mexico and Taiwan.</li> <li>• The California Earthquake Authority has issued a series of catastrophe bonds to protect its liability to home-owner policyholders.</li> <li>• Several of the US State FAIR (Fair Access to Insurance Requirements) Plans have also protected their liabilities with catastrophe bonds.</li> </ul>

Type	Risk Swaps
<b>What are they?</b>	They are the exchange between owners of two or more of their risks, thus diversifying the risk of each.
<b>How does the market work?</b>	<p>The risks are clearly defined and quantified (through extensive scientific input and hazard modeling) to achieve parity. The science and modeling standards must be of comparable quality so that each side can have a similar level of confidence in the other’s ability to assess its risk.</p> <p>Loss probabilities are equalized so that, for example, the probability of a force X typhoon in Japan was equated with that of a magnitude Y earthquake on the New Madrid fault, with X and Y being adjusted until they had an equal probability of occurrence according to the hazard models.</p>
<b>Best suited for</b>	Risk swaps connect regionally concentrated but diversified partners. Risk swaps work best when two partners exchange extreme risks, such as those for which coverage is expensive because of the charging of minimum premiums (when the risk plus uncertainty factor plus overheads is exceeded by the insurer’s cost of capital).

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<b>Benefits</b>	<ul style="list-style-type: none"> <li>It provides a solution to non-availability of insurance at reasonable prices.</li> <li>It promotes a relationship between the parties that could be the foundation for other joint ventures</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>There is susceptibility to post-event controversy over whether the risks were correctly equalized.</li> <li>There is a risk of negative public and political perception. For example, the New Zealand Earthquake Commission was wary of swaps because of the possibly negative reaction to the export of some of its reserves to pay for a foreign disaster.</li> </ul>
<b>Examples</b>	Swaps that have been negotiated are Japanese earthquake for Californian earthquake, Japanese typhoon for Florida hurricane, and French storm and an earthquake on the New Madrid fault in central USA (Missouri).

Type	Contingent Capital
<b>What is it?</b>	A contract or structure that gives an organization the right but not the obligation to issue debt instruments after a disaster event, such as investment bonds, at previously agreed terms. It is like a financial market “put” option.
<b>How does the market work?</b>	Contingent capital options involve complex financial market engineering and pricing. There are some common features with catastrophe bonds and risk swaps. For example, there will be the equivalent of a parametric trigger that puts the option “in the money”. This trigger may be the impairment of an organization’s capital to a predefined extent.
<b>Best suited for</b>	A situation in which the risk is that an organization will have to borrow to finance its obligations arising from a disaster event.
<b>Benefits</b>	<ul style="list-style-type: none"> <li>There is certainty about the terms and conditions under which the capital markets may be accessed to finance post-disaster liabilities.</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>Complexity and costs are additional to other risk-transfer expenses, such as insurance premiums.</li> </ul>
<b>Examples</b>	Contingent capital options have been used to secure the capital bases of insurance companies and of some US State FAIR (Fair Access to Insurance Requirements) Plans that provide last-resort insurance to property owners unable to obtain private sector insurance coverage.

Type	Contingent Cover
<b>What is it?</b>	Insurance for a range of possibilities that are outside the scope of existing insurance arrangements (see examples).
<b>How does the market work?</b>	Specialist insurance and finance industry organizations provide insurance for particular contingencies, often tailored to a client’s needs.



<b>Best suited for</b>	It provides protection against risks inherent in an insurance program (e.g., that many claims arise in one year or that large premium increases are demanded).
<b>Benefits</b>	<ul style="list-style-type: none"> <li>• It counters some of the limitations of traditional insurance contracts.</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>• Complexity and costs are additional to other risk-transfer expenses, such as insurance premiums.</li> </ul>
<b>Examples</b>	<ul style="list-style-type: none"> <li>• Aggregate retention protection—in case several insurance deductibles (excesses) are incurred in one year because of the number of claims</li> <li>• Premium caps—insuring against an increase in premiums above a certain figure</li> <li>• Additional reinstatements—in case the insurance policy is fully expended before its next renewal date</li> <li>• Double trigger covers—parametric insurance that has two triggers that have to be met (e.g., a natural disaster plus related uninsured losses).</li> </ul>

Type	Finite Risk Insurance
<b>What is it?</b>	A structure under which the <i>insured</i> pays the entire policy limit during the period of the insurance, usually three to five years. Should a total loss occur, the insured is still liable to continue paying the installments amounting to the sum insured over the agreed period.
<b>How does the market work?</b>	Specialist insurance and finance industry organizations provide insurance, often specifically tailored to a client's needs.
<b>Best suited for</b>	<ul style="list-style-type: none"> <li>• <i>Insureds</i> with good risk-management controls, adequate funding, and sophisticated accounting.</li> <li>• Protection against volatile insurance pricing.</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>• It has a greater certainty of costs than does traditional insurance.</li> <li>• Profit-sharing agreements enable a return of premium in years when claims expenses have been low.</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>• It has initial higher costs than does traditional insurance.</li> <li>• It needs detailed multiyear accounting arrangements.</li> <li>• Time value of money—premiums are paid in advance, profit-sharing is returned after some years.</li> <li>• It includes possible taxation and auditing issues.</li> <li>• Liability for payment of premium continues even if the policy is expended and provides no further insurance protection.</li> </ul>
<b>Examples</b>	A catastrophe insurance protection under which an amount equal to the probable maximum loss is paid over five years to the insurer and a set percentage of any positive balance is returned on expiry of the period.

## Annex 2. Reinsurance market

Insurance companies must have the capital and financial reserves to meet the liabilities they incur for claims under the policies they issue. In many countries, prudential supervision legislation aims to protect policyholders by ensuring their insurance companies do have the necessary financial backing. Insurance companies, including state-owned entities, captives and mutuals, can pass some of this liability on to the reinsurance market, thus enabling that market to issue more policies or to provide insurance for greater values.

Reinsurers accept the terms and conditions of the original policy and pay their share of whatever claims are settled by the insurance company. This approach is enforced by a reinsurance clause obliging the reinsurer to “follow the fortunes” of the insurance company.

By using a state-owned insurance company, a captive, or a mutual to engage with the reinsurance market, governments or asset owners can cut insurance costs because they do not have to pay an insurance company’s overheads such as acquisition costs and profit margin.

Reinsurance can be categorized as follows:

- **Facultative or Treaty**
  - **Facultative**—Individual insurance policies are reinsured.
  - **Treaty**—The reinsurer accepts automatically an agreed portion of all policies falling within the scope of the treaty (such as all policies issued in the property insurance department of an insurance company).
- **Proportional or Excess Loss**
  - **Proportional**—The reinsurer accepts a set proportion of each policy for the same proportion of the premium, as either
    - A quota share—an agreed percentage (such as 30 percent of every policy)
    - A surplus line—the amount above the agreed line (monetary limit) retained by the insurance company. For example, if a line were \$100,000 on a policy for \$500,000, the reinsurer would accept four lines surplus to one (i.e., 80 percent); on a \$2 million policy, the reinsurer would accept 19 lines surplus to one (i.e., 95 percent)
  - **Excess Loss**—The reinsurer is liable for the amount by which a claim exceeds the agreed threshold (variously called the “excess”, “deductible,” or “attachment point”). The three types of excess loss reinsurance mirror those in table 1:
    - **Working**—The reinsurance applies to a single asset.
    - **Aggregate (Stop Loss)**—It covers the amount by which all the claims during a set period on policies covered by the treaty exceed the agreed attachment point.
    - **Catastrophe**—It covers all claims from policies issued in the insurance company’s property department arising from the same event, such as an earthquake or hurricane.

### **Annex 3. Case Study—New Zealand Ministry of Education**

The Ministry of Education manages a portfolio of more than 2,000 schools throughout New Zealand, with a replacement value for the 17,000 buildings of NZ\$15 billion (about US\$10 billion).

The ministry insures its buildings against all damage, with special provisions for natural disaster damage and for damage to buildings in the course of construction or renovation.

For all risks of loss or damage, there is annual aggregate excess loss insurance.

- Any damage that exceeds \$2,500 cost of repair is reported to Ministry Head Office.
- The ministry pays schools directly for such damage. If it is estimated to exceed \$10,000, a professional insurance claim loss adjustor is appointed to manage the claim.
- Damage costs reported to the ministry are aggregated over one year.
- If this aggregate exceeds \$12.5 million for the year, future damage can be claimed by the ministry under the annual aggregate excess loss insurance, but there is an excess of \$25,000 for each claim.
- There is an upper limit for claims on the insurance of \$260 million.
- This cover excludes damage caused by earthquake, tsunami, volcanic eruption, hydrothermal activity, flood, or cyclone (i.e., the catastrophe perils).
- This cover also excludes damage to buildings under construction or substantial renovation.

For natural disaster damage, there is catastrophe excess loss insurance.

- Insurance is against the catastrophe perils excluded by the annual aggregate excess loss insurance.
- All damage caused by a single event is covered, with an excess of \$12.5 million. For example, more than 200 schools were damaged by the Canterbury earthquakes in 2010–2012, only one of which caused damage of more than \$12.5 million. For that event, the ministry was paid \$200 million after deduction of the excess for damage to all the schools affected.
- The limit for claims is \$260 million for any one event, but this amount can be paid out twice in one year (if there are two events). The limit was set after a scientific calculation of the ministry's probable maximum loss from an earthquake on the Wellington fault, with a return period of 840 years.

For buildings under construction or substantial renovation, there is construction material damage insurance.

- Recording of building projects and management of claims is subcontracted to an insurance broker.
- Building projects to be covered by the insurance are registered by the school on the special website administered by the broker.
- Insurance covers the ministry and the plant, machinery, and materials owned by building contractors working on the site.



- The insurance covers projects commenced during the policy year, even though they may extend beyond that year.
- There is a limit of \$10 million of insurance on any project registered on the website, but larger projects can be insured after special application to the broker.
- There is an excess of \$5,000 on any one claim, but there are much higher excesses for natural disaster damages.
- The ministry pays a deposit premium at the beginning of each year on the basis of the value of projects it expects will be undertaken during the year. At the end of the year, the value of all projects registered on the website is computed, and the deposit premium is adjusted by a further payment or refund.

**Fact sheet 5: Developing and leveraging domestic and international markets**

**Test your knowledge and record your insights through this easy, DIY worksheet!**

**Activity 1: Match the public assets financial protection structures to who they are suited for.**

Match the commonly used public assets financial protection structures to who these structures are best suited for.

STRUCTURE		BEST SUITED FOR...
Self-Insurance	•	Governments with actual or potential large premium costs, pursuing a strategic approach to managing their risk exposures and cost of risk with a willingness to increase their share in their risk and capture underwriting profits.
Procurement Collective	•	The governments (1) with a qualified and quantified understanding of cross-agency risk exposures and (2) with diverse member agency risk profiles (operationally and geographically).
Risk Pool	•	The management of smaller, more frequent, more predictable losses (i.e. regular minor repairs).
Captive	•	The central government does not want to, or is ready to formally pool agency risk, but does want to use government's economies of scale to leverage good procurement outcomes as a ready-made option for agencies.

**Activity 2: Identify the insurance market cycle based on the trends.**

Identify the market cycle and whether pricing patterns indicate a soft or hard market.

Trends	Soft Market	Hard Market
1. The cost of risk capital may make financial sense to retain more risk.		
2. Market prices have "bottomed out" and there are indications of price rise.		
3. The cost of risk capital may make financial sense to transfer more risk.		
4. Insured looks to lock-in cheap rates and seeks a long-term agreement of up to three years at a time.		

**Activity 3: Identify if the statements are true or false**

Based on your understanding of the content in this fact sheet, select if the following statements are true or false.

STATEMENT	TRUE	FALSE
1. In choosing which (re)insurance markets to engage, price and cost is almost always a motivator.		
2. An insurance Consortium is a group of (re)insurers that join together to provide insurance coverage.		
3. In procurement, a quality intermediary, with program design experience, and an effective market management strategy can positively influence the much larger premium cost outcomes.		
4. Key (re)insurer markets do not recognize, consider or approve intermediary policy wordings as a basis of customer coverage.		
5. (Re)insurers will often require customers to carry a degree of self-retention in the risk financing program to incentivize customers to apply prudent risk management practices.		
6. To maximize the opportunities and minimize the risks of losses due to disasters, governments themselves need to be an insurance customer.		
7. Risk pool strategy provides a diversification in terms of geography or nature of risks reducing significant exposure to catastrophic losses.		

**Activity 4: Reflections**

[1] My Top 3 Takeaways from this Factsheet are:

1.

2.

[2] Three concepts/ideas I would like more information on are:

1.

2.