RESEARCH BRIEF

Understanding and Addressing Global Insurance Protection Gaps

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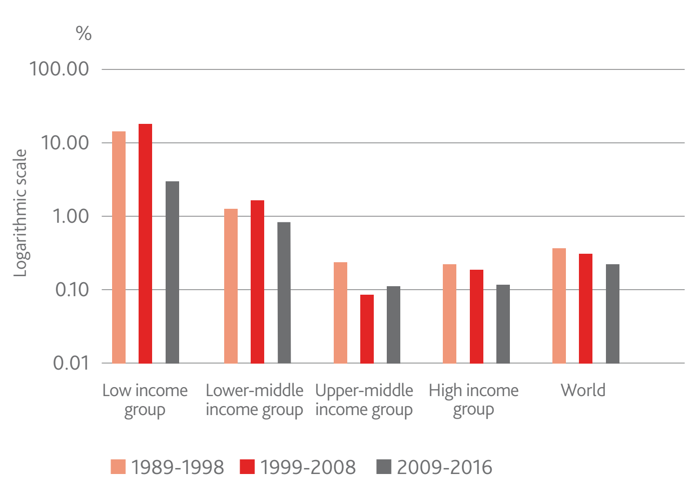
The Geneva Association offers an updated quantification of protection gaps in the areas of natural catastrophe, cyber, healthcare and pension risk. Risk exposures, driven by digitisation, urbanisation and climate change as well as value accumulation and concentration, tend to outgrow insurance premiums, leaving individuals, households, firms and the public sector alike underinsured.

The most appropriate definition of *insurance protection gaps* is the difference between the amount of insurance that is economically beneficial and the amount of coverage actually purchased. This gap is smaller than the broader *risk protection gap* which describes the difference between total losses and insured losses. Defined as above, the insurance protection gap is hard to measure and subjective. Therefore it is replaced by an indicator comparing covered loss to total economic loss. This figure, however, needs to be put into perspective as a certain level of risk retention makes economic sense.

No progress in shrinking the natural catastrophe protection gap in lower income countries

According to Munich Re, the natural catastrophe protection gap (uninsured losses as a share of total losses) has narrowed steadily over the past 30 years, from 78 per cent to 70 per cent, and from 0.3 per cent to 0.2 per cent of the world's GDP. Despite this gratifying global trend, the protection gap remains massive, with only about 30 per cent of catastrophe losses insured. In addition, this global trend masks huge differences between the various country income groups. Progress in terms of shrinking the gap has basically been limited to high- and upper middle-income countries. Alarmingly, there was hardly any progress in lower middle- and lower-income countries, with protection gaps persisting in excess of 95 per cent. Those countries remain extremely vulnerable (see Figure 1). Using a Monte Carlo simulation tool for a sample of 30 countries and extrapolating the results, Swiss Re projects the future protection gap at more than USD 150 billion p.a. or about 0.25 per cent of global GDP.

Figure 1: Uninsured natural catastrophe losses as a share of GDP for different country income groups, 10-year moving averages, 1989-2016



Source: Munich Re NatCatSERVICE

The cyber protection gap is estimated at about 90 per cent—in the face of major hurricane-like economic loss scenarios

The least researched protection gap is cyber risk. Estimating the cost of cyber incidents is challenging. Reported figures are likely to understate the extent of damage caused as affected institutions often have neither an incentive nor an obligation to disclose incidents. Some studies put the annual global economic cost of cyber incidents at around USD 400 billion, almost 0.5 per cent of global GDP and almost twice the average annual amount of natural disaster losses.

Current annual gross premiums for global cyber insurance are estimated at USD 3 to 3.5 billion, about 1.5 per mille of global non-life insurance premiums, according to Lloyd's. Swiss Re expects the global cyber insurance market to grow briskly to USD 18 billion by 2025; however, this would still be less than one per cent of the global non-life insurance market. A comparison of the current cumulative global damage from cyber incidents with today's cyber premiums generated by the insurance industry suggests that virtually all cyber losses remain uninsured and, from a macro perspective, insurance-based transfer of cyber risk still lacks any real relevance. Lloyd's recently attempted to quantify the cyber risk protection gap, based on modelled economic loss scenarios of up to USD 53 billion (i.e. equivalent to losses from a major hurricane) and protection gaps of about 90 per cent.

Healthcare—out-of-pocket expenses amount to about 2 per cent of global GDP

It is even more challenging to quantify the healthcare protection gap, primarily on account of the institutional and legal complexity of healthcare systems, as well as the huge differences in the quality and availability of healthcare services. Out-of-pocket expenses (OOP), i.e. the share of the expenses that the insured must pay directly to the healthcare provider, without reimbursement by a third party such as an insurer or the government, can serve as a very rough indicator of healthcare protection gaps. When people incur copayments or fees for healthcare services, the amount of such OOP expenses in relation to income can reach financially catastrophic proportions for the individual or the household. World Health Organization research shows that catastrophic expenditure can occur in all countries at all stages of development.

The macroeconomic proportions of OOP are sizeable. Across the various country income groups defined by the World Bank the GDP share of total national OOP ranges from 1.8 to 2.4 per cent. This ratio is just an illustration of the healthcare protection gap and could even be compared with the natural catastrophe protection gap's long-term annual average GDP share of 0.3 per cent globally. In light of rising levels of income per capita and unabated medical inflation, the healthcare protection gap is set to grow further.

Some estimates put the global pension savings gap at more than USD 100 trillion, about 1.5 times the world's GDP

As funding shortfalls are accumulated over time, the headline proportions of the 'pension savings gap' are even more staggering. It is defined as the difference between the present value of the yearly lifetime income needed to sustain a reasonable standard of living, and the actual amount that is saved for retirement plus the present value of pay-as-you-go (PAYG) benefits. Based on a target replacement rate of 70 per cent, defined as the percentage of a worker's pre-retirement income that is paid out by pension programmes on retirement, The Geneva Association estimates the global pension gap to be USD 41 trillion, after taking into account Pillar I (PAYG) entitlements. Excluding any Pillar I benefits, the gap amounts to more than USD 100 trillion.

Why individuals and businesses buy less insurance than is economically beneficial

On the demand-side, *affordability* remains a relevant obstacle primarily in developing and emerging insurance markets. In addition, numerous empirical studies suggest that a lack of awareness, as a result of poor financial literacy or general education, plays an important role in explaining underinsurance, even in countries with higher levels of per-capita income.

Product appeal and service quality are of great importance, especially in advanced insurance markets, and they include the ease of buying insurance cover and the rising customer expectations in the wake of digitisation.

Policyholder trust in the context of insurance protection gaps is particularly relevant for developing and emerging markets, which are frequently characterised by relatively weak legal and regulatory systems for enforcing payment of valid claims.

Cultural and social factors can also help to understand insurance protection gaps, ranging from differences in risk aversion to factors attributed to religion, as shown by various empirical analyses focusing on low-income countries.

Behavioural biases are of more general relevance. One example is loss aversion, i.e. individuals being more sensitive to small losses than large gains. In insurance, the premium is a certain and near-term expense, whereas the claim benefit is uncertain and distant and is therefore perceived as a potential loss.

However, insurance protection gaps do not only reflect demand-side issues. Equally important are insurance market imperfections that hold back insurance supply. *Transaction costs* are one of the most prominent examples.

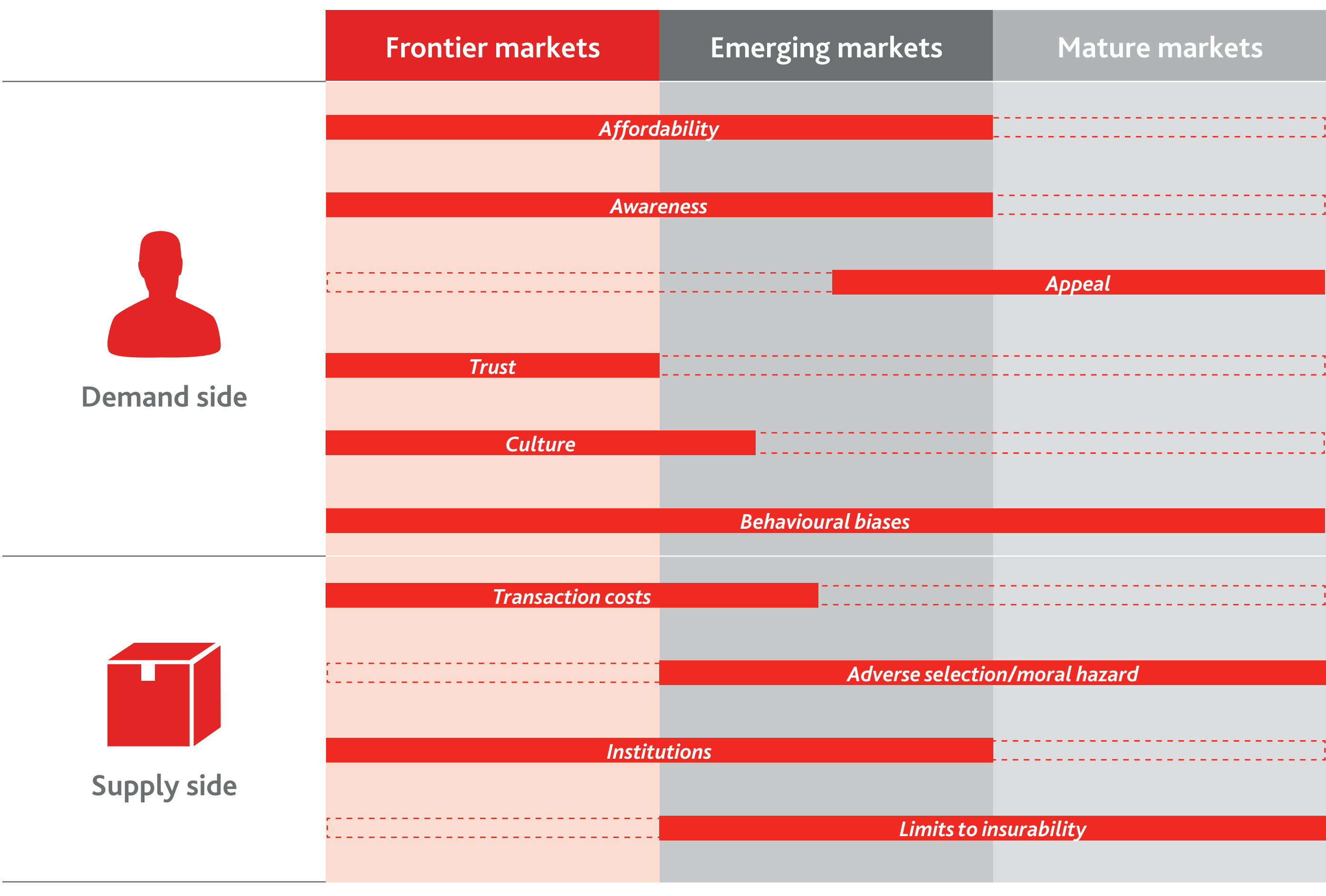
In addition, imperfect and asymmetric information is a long-standing feature of today's insurance markets. It can explain insurance protection gaps as it is set to lead to *adverse selection*, i.e. 'poor' risks being more likely to purchase cover. Another structural reason for inefficient insurance markets is *moral hazard*, i.e. the probability of a person assuming more risks because someone else is carrying the cost of those risks. Also, daunting accumulation scenarios such as in cyber insurance present so far unresolved challenges (see Figure 2).

Effective remedies require a concerted effort

Any comprehensive and promising approach to narrowing insurance protection gaps requires a multi-stakeholder effort. The collaboration of private-sector insurers and local governments is of particular importance.

The optimal configuration of this multi-stakeholder mix depends on the maturity of insurance markets and the specific nature of protection gaps. In advanced economies, there is a limited need but significant capacity for heavy government involvement, for example in the full absorption of natural catastrophe risks. In developing markets, the trend is one of low risk transfer and management capabilities in combination with massive protection gaps. In this case, governments may need to play a strong enabling and guiding role, albeit against the backdrop of limited fiscal leeway (see Figure 3).

Figure 2: The root causes of insurance protection gaps—main areas of relevance



Source: The Geneva Association

In general, governments can help improve the availability of retail and wholesale insurance by introducing compulsory schemes which create sufficiently large risk communities and risk pools. In addition, many public sector entities are increasingly utilising new forms of sovereign risk transfer in order to relieve their balance sheets, especially from natural disaster losses.

Protection gaps also need to be addressed through the prevention and reduction of losses, e.g. government-sponsored building codes. Also, in many advanced insurance markets, governments step in as insurers or reinsurers of last resort for certain risks which defy the most fundamental criteria of insurability.

In addition, insurers have to step up their game. For example, irrespective of an economy's stage of development, digital and mobile technologies can go a long way in addressing protection gaps by simultaneously promoting affordability, awareness and product appeal.

Figure 3: Remedies to insurance protection gaps—main areas of relevance

Frontier markets
Emerging markets
Mature markets
Insurers
Technology
Product innovation
Microinsurance
Takaful insurance
Governments
Risk mitigation
Public insurance
Mandatory schemes
Backstop provider
PPP
Subsidised programmes

Source: The Geneva Association