Time for a **Re-think?**: Risk in Insurance Markets

WPI ECONOMICS

A WPI Economics report for the IFoA

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About the IFoA and this report

The Institute and Faculty of Actuaries (IFoA) is a royal chartered, not-for-profit, professional body. We represent and regulate over 32,000 actuaries worldwide, and oversee their education at all stages of qualification and development throughout their careers. We strive to act in the public interest by speaking out on issues where actuaries have the expertise to provide analysis and insight on public policy issues.

This paper was commissioned by the IFoA from WPI as part of the IFoA's thought leadership series '**the Great Risk Transfer**'. The Great Risk Transfer is focused around concerns that risk has been individualised considerably over past few years and this raises some public policy challenges and gaps. The campaign and this commissioned paper seeks to find alternative and imaginative solutions to these challenges.

This paper is both an invitation to the profession to develop further innovative ideas for 'Re models' as well as a contribution to an important ongoing public debate. We welcome views on the paper – see below for contact details for views on this paper.

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Contact us If you would like to know more about the IFoA's work or offer views on this paper at: policy@actuaries.org.uk

Executive Summary

Interventions by policymakers in the reinsurance market to improve the availability and affordability of cover have been deployed in various contexts in the UK and internationally, such as Flood Re in the UK (see box below). New 'Re' style schemes have been suggested in a number of new contexts too, such as to address the poverty premium through postcode pricing, protect society from the economic impacts of future pandemics, and improve the availability of cover to those with health problems. These 'Re' schemes involve redistributing premium between policyholders in a certain product market, or removing risk and holding it on the state's balance sheet.

Case Study 1: **Flood Re**

Flood Re is a collaboration between insurers and the government by which most-at-flood-risk properties in the country have their premiums cross subsidised through a levy on all home insurance policies. This cross subsidy is administered by a reinsurer underpinned by the Water Act 2014. The legislation stipulates that Flood Re will exit the market in 2039.

Before Flood Re existed, 9% of households who had made flood claims previously could get quotes from two or more insurers. Flood Re means this is now 100% of households. In addition, four out of five eligible households saw a greater than 50% premium reduction in their home insurance as a result of Flood Re.

This report builds on the work of others – particularly Professor Paula Jarzabkowski - with fresh analysis and discussions with IFoA members to articulate a framework for considering these interventions in future. The framework is set out on the next page:

Box 1: ‘Re’ scheme decision making framework

Criteria	Key question
Public policy Imperative	Is there a well-articulated public policy imperative for this scheme?
Proportionality	Is the operational and opportunity cost proportionate to the intervention?
Feasibility	Is it a feasible and well targeted intervention?
Moral hazard	Does it create a risk of moral hazard?
Adverse selection	Does it create a risk of adverse selection?
Fairness	What are the distributional impacts of the intervention?
Exit approach	Is there a viable exit strategy, and what strategic role can the ‘Re’ scheme play?
Potential alternatives	Can better alternative policies achieve the intervention’s objectives?

After applying the framework to a series of use cases, we offer the following recommendations to industry and policy makers:

- The IFoA should work with stakeholders across the sector to support broader adoption and discussion of the framework set out by this report. It should apply it to further potential use cases.
- The Government should create a working group to explore a Pandemic Re for Business interruption cover, but be mindful of complexities around its interaction with other forms of future pandemic support.
- Alternative means of addressing the poverty premium should be considered such as by addressing the monthly premium penalty, rather than through the establishment of a Postcode Re model due to a lack of feasibility.
- Group and affinity protection schemes should be explored to improve levels of insurance protection against health problems, rather than a 'Health Re' which presents adverse selection risks.

CHAPTER 1 Introduction and context

The provision of insurance plays an essential social role in any modern economy and society. A well-functioning insurance market complements other societal risk management measures to deliver a broad range of benefits, such as improving safety nets, providing reassurance which underpins economic activities, as well as encouraging measures which reduce risk overall.[1]

Two recent reports carried out by the Institute and Faculty of Actuaries have both sought to address the role of insurance in society, and public policy surrounding it. The first considers the matter of the poverty premium in insurance – the widely documented phenomenon of those on lower incomes facing higher premiums on average, particularly in the context of motor and home insurance products. The report - produced in collaboration with Fair By Design - considers the most up to date information on the prevalence of the poverty premium, how this manifests itself in people's lived experience of poverty, as well as some wider social, policy, and regulatory questions that arise from this.[2] The poverty premium is multifaceted in nature, and there is a debate about the extent to which it represents 'cost-reflective' pricing, or something else.[3]

A second report considers the phenomenon of the Great Risk Transfer, whereby those who lack the expertise to understand risk (the public, broadly speaking) are increasingly made to bear it, whereas the role previously fell to the state, employers, or other institutions. The report's ultimate recommendations cover a series of measures to both rebalance these risks back towards larger institutions, as well as to support consumers to manage the risks that remain.

Both of these reports consider the role that schemes in the mould of Flood Re and Pool Re ('Re' style schemes) could play in both addressing the poverty premium and helping society to rebalance risk toward institutions. For example, the Great Risk Transfer states:

> *"The IFoA will promote research into what factors make a model like Flood Re successful, and how a similar approach could work in other areas of insurance where some groups in society are unable to access affordable cover because of factors they cannot realistically control – such as where a policyholder lives, pre-existing medical conditions, or the topical example of pandemics cover. The findings from such research could inform government action to facilitate solutions."* [4]

This new report seeks to address this question by setting out a framework for understanding these policies, building on external research as well as discussions with industry experts complemented by WPI Economics' own thinking and analysis. Before defining these policies and setting out this detailed framework, it is worth considering some additional context for these policies which further underline their importance and their current prominence in policy discourse.

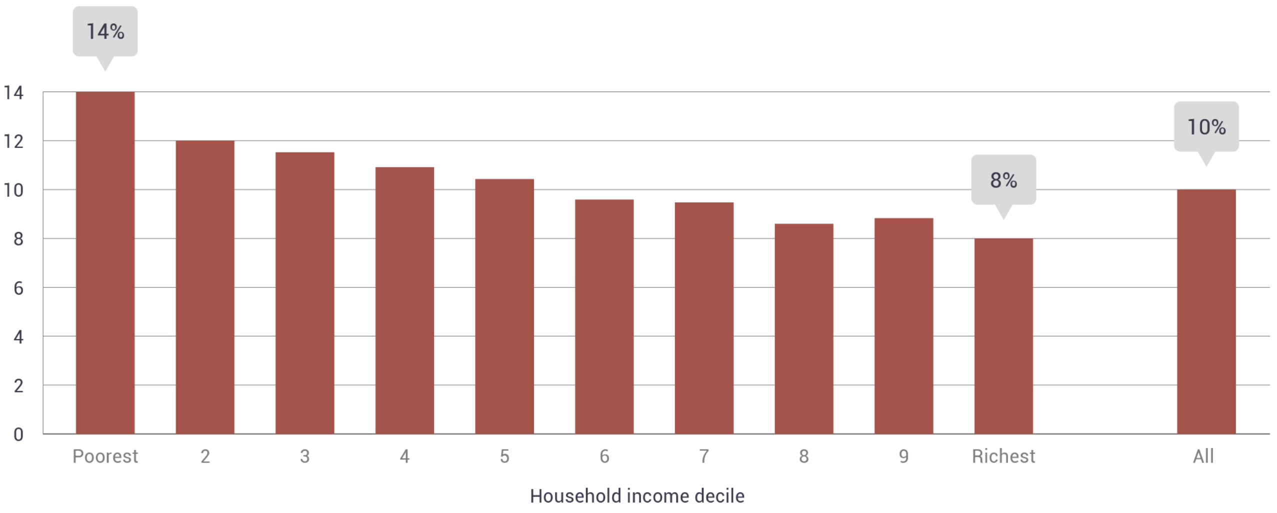
The age of crisis

The management of risk across society is a central function of institutions across the public, private and third sectors. Risk management has become more complex due to real and perceived increases in the level of overall instability faced by modern western societies beginning in the 2010s [5] and then escalating during the Covid pandemic followed by the current cost of living crisis. Many of these crises are systemic in nature, they affect a range of individuals and stakeholders across society at the same time, which makes resilience against these challenges particularly difficult, especially through standard insurance solutions. As a result, public private partnerships - such as through 'Re' style schemes - are often discussed as solutions to spread and manage this risk in an effective way. There is therefore a need to strengthen and systematise our understanding of what is needed for these schemes to be effective, the scenarios in which they may be more appropriate, and alternative solutions which may deliver similar results.

The cost of living

Currently, both in the UK and across the world, there is extreme and increasing pressure on household budgets. This has damaged overall standards of living, particularly for poorer households who have been hit by the combination of (a) higher levels of inflation compared to other groups and (b) lower levels of overall financial resilience.

Figure 1: Predicted CPI inflation for different households Oct 2021-22, UK



Source: IFS.[6]

Much of the pressure on household budgets has come in the form of higher energy and food bills, both of which are essentials for any household, which means that poorer households spend a greater proportion of their budget on them. Given the pressure on these budgets, particularly for a select group of households, it is inevitable that policy discussions will arrive at the ideas of how expenditure on other household outgoings can be reduced, of which insurance (car insurance in particular) is a key example. This could include the use of 'Re' schemes to bring down insurance prices for certain groups. It is therefore important to understand these further so that interventions of this kind are appropriate.

Price optimisation and granularity

With regards to the insurance market and how products are priced, one of the biggest long-term trends in recent years has been the increasingly granular and personalised basis on which these products are priced. As highlighted in the IFoA and Fair by Design's report on the Poverty Premium:

> *"Advances in technology, and a growing sophistication in data science techniques, have enabled insurers to set premiums more reflective of a consumer's individual risk profile. Across insurance, there has been a move away from broad risk pools and towards more granular pricing based on an individual's specific rating factors (ie their risk characteristics). Consumers who represent a higher risk to an insurer will be offered a higher premium, reflecting this risk, than consumers who represent a lower risk."*

This move towards more granular pricing has had a series of positive impacts. Greater understanding of data and risk profiles has meant that some groups have become more insurable, e.g.those who have recovered from cancer looking to get travel insurance. However, more targeted risk reflective understanding of other groups has led to their premiums increasing significantly, or becoming unaffordable altogether.

CHAPTER 2 Understanding 'Re' schemes

To undertake an analysis of these policies, it is first important to consider recent literature looking at how they are defined and characterised, as well as to describe some key existing examples in a UK context.

Defining 'Re' policies

The most straightforward way of thinking about these policies is to see them as a reinsurer (or similar vehicle) that exists because of state intervention, often through statute, which is designed to address a public policy goal. One of the key examples in a UK context, and indeed one of the more prominent examples internationally, is that of Flood Re (Case study 1).

Case Study 1: **Flood Re**

Flood Re is a collaboration between insurers and the government by which most-at-flood-risk properties in the country have their premiums cross subsidised through a levy on all home insurance policies. This cross subsidy is administered by a reinsurer underpinned by the Water Act 2014. The legislation stipulates that Flood Re will exit the market in 2039.

Before Flood Re existed, 9% of households who had made flood claims previously could get quotes from two or more insurers. Flood Re means this is now 100% of households. In addition, four out of five eligible households saw a greater than 50% premium reduction in their home insurance as a result of Flood Re.

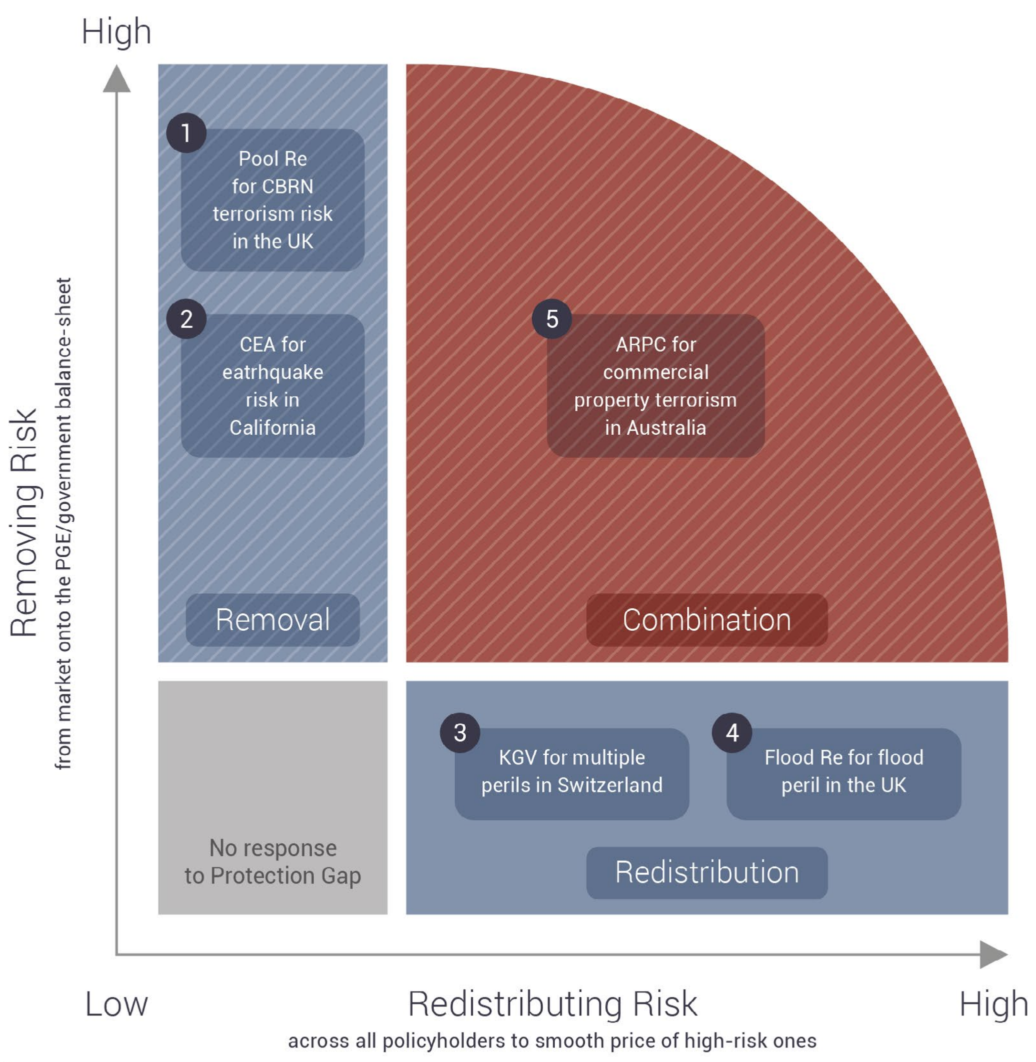
Source: Flood Re briefing [7]

The design and implementation of these policies varies considerably based on a range of factors such as policy intent and the traits of the insurance market or product in which the intervention is targeted. Jarzabkowski et al. considered these policies in the context of a broader paper exploring 'Protection Gap Entities' (PGE), which also includes Government policies that amount to direct insurance and/or market capture.[8] This work suggests two potential objectives of such policies:

1. **Risk removal** – where the overall risk that is held within the market is reduced, usually by state guarantee acting as an ultimate backstop. Pool Re is a key example of this model in the UK,[9] which supports support the continued inclusion of terrorism cover in commercial property insurance. The Government's scheme to support the trade credit insurance market during the pandemic can also be characterised as a risk removal policy. [10]
2. **Risk redistribution** - where the overall risk in the market is redistributed between policyholders in order to improve the affordability and/or availability for high-risk policyholders. Flood Re (above) is a key UK based example of this.[11]

In this same research, it is determined that these policies exist on a continuum, rather than an absolute binary. This is illustrated by the graph below:

Figure 2: Protection gap strategic response framework



1. Remove all risk from the market to the PGE government
2. Remove risk to the PGE and return only some to the market (e.g. through reinsurance or insurers retention)
3. Redistribute all of the risk across all the policy holders
4. Redistribute some of the risk across all the policy holders
5. Remove risk from the market to the PGE/government and redistribute across all policy holders

Source: Adapted from Jarzabkowski et al [12]

Broadly speaking, these policies have a range of effects on how insurance markets function, and the associated outcomes. The first order effect of these interventions is to make insurance more available and/or affordable for certain groups, meaning they may be more likely to have protection in the event of a claim. As a second order effect, access to insurance protection can influence the behaviours of both the insured as well as wider actors in a number of ways. The Pool Re case study exemplifies these effects. By offering terrorism cover as part of commercial property insurance, this reinsurer has helped secure and bolster the activities of businesses in areas like the City of London, whose success is vital to the health of the wider economy.

These questions, and a number of wider effects, need to be considered in approaching any 'Re' style interventions. The proposed framework that is described in the next chapter is designed to enable the assessment of the likely effects of these policies in a systematic way, providing a toolkit for policymakers and interested stakeholders to consider in advance of proposing or implementing them.

CHAPTER 3 Constructing the framework

Drawing on our experience and expertise, discussions with the IFoA and its members, as well as feedback from other stakeholders, we have developed a series of tests below for considering how these types of models operate.

At the outset, it is important to recognise that many of these questions rely on subjective judgements rather than a fully rational or evidence-based assessment of the policy in practice. As such, these tests should be seen and used as a general guideline to support decision making, rather than a framework that can provide objective and definitive answers in any given circumstance.

Public policy imperative

As a first step, and as with any public policy intervention, 'Re' style schemes require a clear policy imperative to justify their implementation. Whether there is a public policy imperative for this particular state intervention is dependent on a few questions, including:

- **What is the wider public policy goal?** There needs to be clarity on who the winners and losers of intervening in this way would be, with the broader public and societal benefits also identified. The ways in which the first or second order effects will deliver on the stated goals of an intervention should be clearly established and articulated.

- **Are we responding to a genuine issue about risk pricing?** These schemes need to be appropriately targeted at issues around pricing. If the root causes of problems facing a market are demand side in nature, then these are not appropriate for addressing though 'Re' policies (unless these are routed in, or closely connected to, a price related issue).

- **Is this a legitimate area for intervention?** Intervening in this way for certain types of policyholders (e.g. firms) compared to others (e.g. households) is more controversial and could be considered less appropriate for state intervention. This is a more subjective question than others, since there are values-based questions that arise as part of such considerations. Policy makers should consider and account for a range of perspectives if they want to achieve a long-term consensus which can help these interventions to succeed.

Ultimately, none of these policies should be considered without a robustly demonstrated public policy imperative, so this initial test is critical.

Proportionality

Introducing these policies is a major undertaking from a policy and commercial perspective. Separate to their distributional outcomes, there will be other significant costs to their introduction, including:

- **Operational cost** – setting up and maintaining a vehicle to administer the policy involves a cost. Flood Re is funded by a levy on participating insurers, which supports the running of the reinsurer in addition to the subsidy to high-risk properties. In a competitive market, a large part of this cost will ultimately be borne by households, a particularly important consideration during increasing pressure on budgets.

- **Opportunity cost** – 'Re' schemes draw resources (financial, political capital, industry and stakeholder focus, etc.) away from other potential areas of action, in insurance and elsewhere. For example, both Flood Re and Pool Re needed to be introduced via primary legislation, which diverts legislative time from other matters that Parliament needs to address, as well as wider Government and stakeholder time and resources.

The likely costs of any policy intervention need to be determined in advance of any intervention, and be based on a reasonable assessment developed in consultation with a range of stakeholders. Furthermore, these need to be balanced alongside the potential benefits of a policy. The policy must therefore target a substantial issue around the removal or redistribution of risk, where it is reasonably certain that such an intervention can make an impact.

Feasibility

Having established the imperative and proportionality of an intervention, it is next crucial to assess overall feasibility. More specifically, how difficult would it be to accurately target the removal or redistribution of a specific risk in a certain insurance market or product. The complexity of achieving this would vary based on a range of factors, several of which are outlined in the table below:

Table 1: Feasibility

Factors influencing feasibility	Description
Clarity of policy design/intent	The targeting of the policy should be clearly focused on a single type of risk, rather than multiple ones. Furthermore, it is better targeted where the risk is easily separated from others within a premium/calculation, such as when that risk is also a specific cause or type of claim. Without this, there is the potential for the winners and losers of the policy to be unclear, or for the intervention to be unviable in practice.
Industry buy-in to the policy	Insurer expertise will be helpful in designing the scheme in a way that is most effective and avoids unintended consequences. Furthermore, schemes such as Flood Re and Pool Re are reliant on insurers choosing to participate. Both outcomes are more likely if industry support has been secured for the policy.
Developed and mature products/ markets	If insurers are pooling risk together into a single entity, this is better done where there is a similar claims trigger and threshold for this type of risk. This is more likely in developed products markets that have standardised over time. Furthermore, availability of claims data will be better in more developed product lines, which can be used to help design a scheme in the first instance. Again, where product markets have existed on a longer time horizon this will result in greater availability of data.

Ultimately, this is a vital test, for without a well-designed and feasible underpinning and implementation, it is highly likely that a policy will not reap the benefits that are envisaged by the policy imperative, plus there is a substantial risk of unpredictable and adverse consequences.

Moral Hazard

Moral hazard arises where an arrangement means that an individual is incentivised to engage in a riskier activity, or disincentivised from managing risk effectively. Risk pricing can help to mitigate moral hazard in certain scenarios, by rewarding the policyholder in the form of premium reductions for reducing their risk, and vice versa. Ultimately, the effectiveness of risk pricing in mitigating moral hazard will to a large extent be dependent on the feasibility for the insured to reduce their risk.

A key example in this respect is that of the use of risk pricing in motor insurance, which can have a positive risk management impact. For example, it:

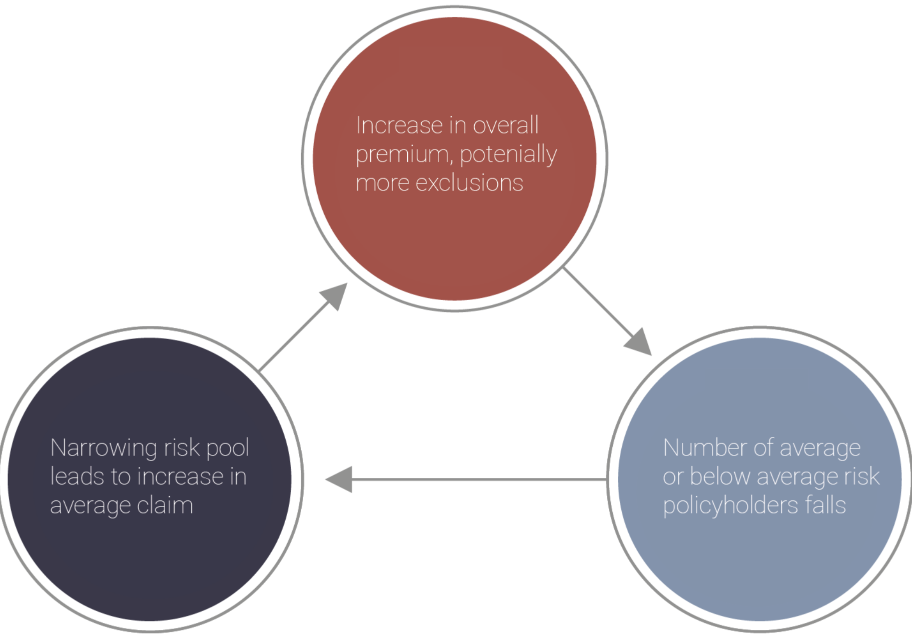
- Makes faster and more dangerous cars less affordable.
- Encourages the use of telematics for high-risk drivers. Some, largely industry commissioned, work has suggested significant potential accident reductions through telematics.[13]
- Encourage the use of technology such as Autonomous Emergency Braking through premium reductions.[14]
- There is some evidence that Canadian provinces with public (risk neutral) insurance have more accidents than market-based ones, as a result of the moral hazard created by a lack of risk pricing.

However, there are other products or types of risk where an individual's capacity to meaningfully engage with and alter their own risk profile is substantially diminished, or effectively zero. Therefore, risk pricing will have little propensity to create moral hazard in these scenarios.

'Re' style interventions dampen, or in some cases eliminate, elements of the signals provided by risk pricing for insurance products. As a result, they are more suitable in markets or types of risk where the propensity for moral hazard is more limited.

Adverse selection

Another vital aspect of risk pricing is the need to mitigate against the impact of adverse selection. Adverse selection occurs where individuals with a high risk of claim are not charged commensurately high premiums, and so will enter a pool of risk in larger numbers. This causes the average price of cover to rise, leading to those of lower risk leaving a risk pool. The overall effect is an ever-narrowing risk pool, and decreasing levels of overall protection from risk:



In extreme cases, adverse selection could theoretically lead to such a small pool of risk that it causes a market to collapse entirely. An example where this could occur would be if there were limits to the use of age as a rating factor for term life insurance. Age is a key determinant of mortality, and consequently life insurance premiums based on age vary greatly. If younger people had to pay similar premiums to older people, they would be unlikely to judge the product to be cost effective and would leave the market and risk pool. Given the scale of difference in cost, it is highly likely that over time we would see the risk pool and market reduce in size to the extent that it could mean the product would stop being viable.

The potential for adverse selection is also significantly impacted by the potential for self-selection into the product overall. Products that are mandatory (or quasi mandatory) are likely to be more limited in their potential for adverse selection as those with lower risk have less potential to leave the risk pool. On the other hand, largely voluntary markets (such as life insurance in the UK) have higher potential for adverse selection.

In certain markets, risk redistribution policies specifically will have the potential to result in adverse selection, by making those at lower risk pay a disproportionately high premium and vice versa. As a result, care should be given before proposing 'Re' interventions in these markets, as they run the risk of resulting in lower overall levels of insurance protection by narrowing the risk pool.

Fairness

Interventions of the kind discussed in this paper imply a degree of distribution of financial risk and potentially premiums between different parties. For risk redistribution interventions, this is redistribution between different groups of policyholders. For risk removal policies, the risk shifts from policyholders to the taxpayer.

Any of these policies, therefore, create groups of winners and losers that can be seen through a series of lenses. For example:

- Does the policy benefit those with assets at the expense of those without?
- What is the intergenerational impact of these policies?
- What is the impact of those with protected characteristics?
- Do firms benefit at the expense of individuals?

The degree of importance of each of these can be seen as a subjective value or political question, but they are necessary impacts to consider when thinking about how to build consensus around an intervention. They may not make or break a policy decision, yet they are an important part of the bigger picture when considering an intervention, dovetailing with a range of other considerations.

Exit approach

While also not a make-or-break matter, it is important to give consideration to the time-bound nature of these policies, and the extent to which there may be an exit strategy. Flood Re is a temporary Government intervention which will exit the market in 2039, and it has a statutory duty to support the affordability and accessibility of flood cover once it exits the market.[15]

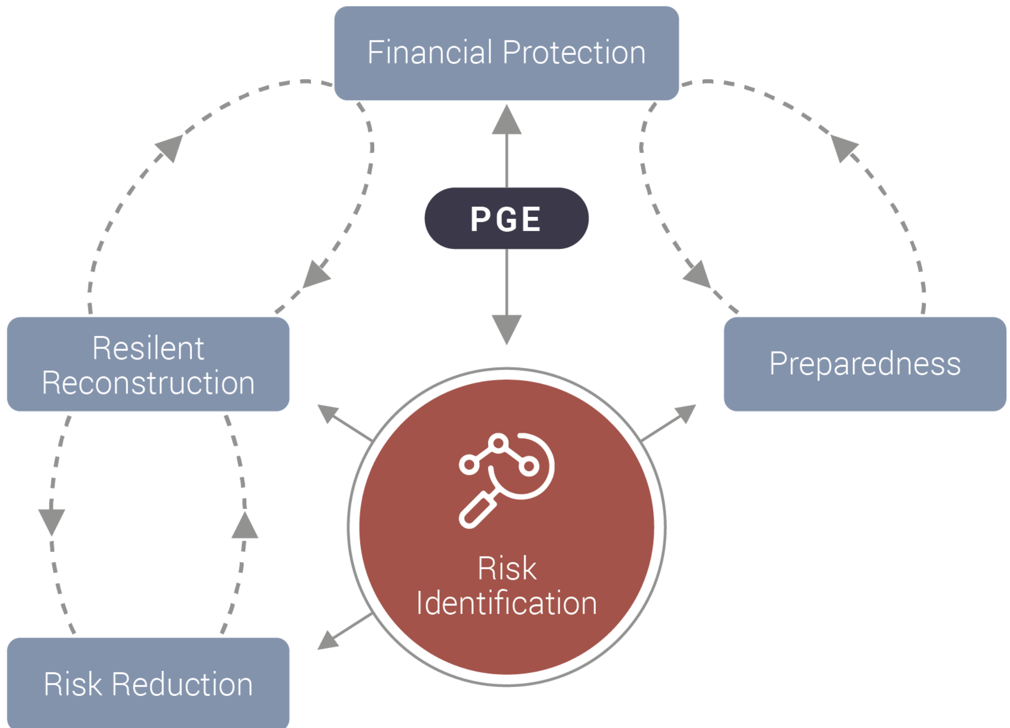
Case Study 2: **Flood Re Transition plan**

It was stipulated by Parliament in the Water Act 2014 that Flood Re will exit the market in 2039. Part of its remit is to manage the transition to "Risk reflective" pricing following its exit. To this end it must publish a transition plan at least every 5 years setting out its vision for this transition, and the actions that Flood Re and others must take to make this a reality. There have been two Transition plans published to date, in 2016 and 2018.

Source: Flood Re Transition plans [19]

'Re' style interventions have the potential to play a strategic role, which can help to address the problem they were created to face, thus creating the space for an exit strategy. The potential additional role played by these policies and other 'protection gap entities' is discussed by Jarzabkowski et al., and is illustrated by the diagram below.

Figure 4: PGE Resilience Framework



Source: Jarzabkowski et al

As a result, where these bodies can play a strategic role that results in an absolute risk reduction for whole markets or groups within a market to the extent that an 'exit' is feasible, this should be considered as part of policy design.

Potential alternatives

This report articulates a systematic approach to looking at 'Re' policies in particular, how these impact markets, and relevant questions that follow. This focus is a result of the general level of interest in these policies, and specifically the IFoA's mandate to consider them further in the Poverty Premium and Great Risk Transfer reports.

However, there is a range of other potential policies that could also be considered in addressing issues around the affordability and availability of insurance. In considering whether to implement a 'Re' style scheme, it is also worth assessing if potential alternatives could address similar issues. Potential alternatives are considered briefly in the table below:

Potential altern	Description	Comparison to 'Re' policies
Bans on rating factors	Barring underwriting based on certain rating factors, often protected characteristics. A key example is the banning of gender as a rating factor in EU countries as of 2012 following the Test-Achats ruling in the European Court of Justice. [16]	Can achieve similar outcomes to risk redistribution policies. However, risk redistribution policies are likely to lead to costs of higher risk individuals being spread more evenly among insurers, which can provide a degree of underwriting certainty and are therefore preferable to insurers in some instances. They may however involve more costs in terms of administration.
Government directly providing insurance	A state guaranteed entity aims to provide insurance on terms which aim to improve its availability and affordability.	According to Professor Jarzabkowski et al., these are preferable for ensuring broad access to cover for a particular peril which is faced by the whole population. An example given is Earthquake Cover in New Zealand. [17]
Cash payment/ address through welfare state	The state looks to compensate people with higher insurance costs (e.g. those on low incomes, disabled people) by reflecting this in benefit entitlements.	Addresses the issues outside the dynamics of the insurance market. More difficult to assess the beneficial impacts on overall levels of insurance protection, as ultimately individuals can choose whether to buy insurance.
Mutualising claims between insurers	A pre-existing route/levy is used with new risks covered. A major recent example of this is the mutualisation of terrorism risk through the Motor Insurers' Bureau.	The impact of these is broadly similar to 'Re' type risk removal schemes. [18]

CHAPTER 4 Applying the framework

Having identified a series of criteria which make up the framework for assessing the appropriateness and likely effectiveness of 'Re' style interventions, this framework can now be 'tested' through an application to a series of proposed such policies. We have worked with the IFoA and its members to identify a series of potential test cases for the framework, several of which are based on ideas floated in the IFoA's reports on the Great Risk Transfer and the Poverty Premium.

The assessment below is meant only as an indication of how this framework could operate as a policymaking tool. Many of these questions are highly complex and/or heavily subjective, and so detailed and careful work bringing together a range of experts and stakeholders must be undertaken before arriving at any decision around implementation.

Postcode for property and motor insurance

In its report on the Poverty Premium, the IFoA and Fair By Design recommend that Government should explore a Postcode Re, stating that:

A Postcode Re could be established to improve the availability and affordability of motor or household insurance for consumers who live in deprived areas with higher crime rates. The reinsurance scheme could subsidise the element of the policy which relates to area-based risk. Insurers could then set the price, excesses and terms for policies based on other relevant factors, such as driving behaviour. Alongside the scheme, the government should tackle the factors that make cover unaffordable and inaccessible to these consumers.

This proposal is scored at a high level, according to the framework we've developed, below:

Criteria	RAG rating	Explanation
Public policy imperative	Green	There is a well-identified problem around the poverty premium for those on lower incomes, and the impact of this on the cost of living and levels of protection. Furthermore, this has been clearly evidenced as an issue that has in large part to do with pricing, as well as certain demand side issues.
Proportionality	Green	There is a substantial issue in terms of the effect that postcode can have on pricing, especially for car insurance, and the corresponding impact for those on low incomes.
Feasibility	Red	Pool Re, Flood Re and other international examples of 'Re' style schemes are closely targeted on a single risk and/or cause of claim. This means that this part of the risk can easily be separated from the policy and reinsured. Postcode is a rating factor rather than a risk per se, as it used to determine the risk of various cause of claim (theft, flooding, storms, traffic collisions, etc.). It is unclear therefore how a Postcode Re could operate in practice, e.g., what would be the trigger for insurers to be able to access a claim through a Postcode Re? A Theft Re is more easily viable, but is an altogether different concept. Furthermore, it is unclear how much theft risk contributes to the Poverty Premium for car insurance (the greatest Poverty Premium for any product), given it is a relatively minor cause of claim.[20] The Poverty Premium for contents insurance on the other hand is very low, at around £2 a year for the average household. [21]

Criteria	RAG rating	Explanation
Moral hazard		Depending on the specific risk targeted by a 'Postcode Re' there is a risk it could result in less incentive for cars or homes to be installed with risk reduction measures (alarms/locks for homes, Autonomous Emergency Braking or Telematics for cars).
Adverse selection		Buildings insurance and car insurance have broad take up due to being fully/quasi mandatory. There may be some potential for adverse selection for contents insurance, but this will be limited by the relatively small difference in risk between types of policyholders.
Fairness		If it were effectively targeted to those who face a 'poverty premium' that is largely as a result of postcode risk, then this would have a largely positive distributional impact.
Exit approach		Given the lack of clarity around how this scheme would work, its exit approach is unclear, too.
Potential alternatives		The FCA's intervention on 'loyalty' pricing is an intervention that could lead to better pricing outcomes for those with characteristics that cross over with poverty, e.g., the digitally excluded, those with low levels of financial capability, those with limited time due to work/care responsibilities.

Pandemics and Business Interruption

The insurer response to the pandemic saw a huge backlash, as a result of the widespread declinature of Business Interruption (BI) claims arising from premises being closed by lockdown restrictions. Irrespective of the legal questions as to the extent to which these claims were covered under the various existing wordings, insurers and their representatives noted that widespread business interruption cover for pandemics is not available anywhere in the world, due to the inherent challenges of insuring these in a private market. [22] This led to calls, including from then Association of British Insurers' (ABI) Director General Huw Evans, for a Government/insurer partnership to ensure the provision of pandemic BI cover for small business on an ongoing basis.

An initial sense of how a risk removal 'Re' scheme for pandemic BI could be scored against the framework is set out below:

Criteria	RAG rating	Explanation
Public policy imperative		There are clear benefits to businesses in having access to pandemic cover, which would also help to protect jobs, safety nets, and the wider economy.
Proportionality		Pandemics result in substantial economic damage which could be mitigated through broad insurance cover. Furthermore, there is little chance of this cover being available widely without Government intervention.
Feasibility		The fact that (a) a Pandemic Re would be the first of its kind and (b) this cover is not yet widely available means there would be significant design issues involved. Furthermore, the interaction between cover through Pandemic Re and other Government pandemic support measures would need to be ironed out, as there could be significant complexities here. It is worth noting that previous attempts achieve government buy in for this idea appear to have stalled or failed. [23]
Moral hazard		Ultimately, it would be difficult for firms to influence the extent to which they are affected by government closures arising from a global pandemic. If such a scheme facilitated cover for localised outbreaks, there would need to design in, e.g., excesses, to maintain risk management incentives.
Adverse selection		The risk of being closed due to a pandemic are fairly homogenised across businesses as this is dependent on central Government decision making, and so there is little potential for adverse selection. There may need to be some underwriting differentiation based on type of venue (supermarket, bar, etc.).
Fairness		As with other public support for firms during the pandemic, it is broadly seen as acceptable for the state balance sheet to support the economy and society in times of crisis. A state backed insurance 're' scheme may be preferable to a full public support as it leaves some risk with firms and the private insurance market.
Exit approach		There is no realistic possibility of this scheme helping to create a scenario in which pandemics are broadly insurable in a risk reflective market.
Potential alternatives		Ultimately, the Government intervened effectively in the previous pandemic through the furlough scheme, the Coronavirus Business Interruption Loan Scheme (CBILS) and its successor loan schemes. As a result, it is worth considering what the added value of a Pandemic Re would be.

Medical history

It is well identified that those with health problems can face difficulties when accessing insurance. For example:

- The Guardian newspaper highlighted the cases of a number of people suffering with mental ill health who have been turned down for insurance. [24]
- Scope found that around a quarter of disabled adults feel they have been either declined insurance cover or charged more because of their health. [25]

The below framework investigates how a risk redistribution scheme could work in practice to improve levels of cover for those with poor medical history, particularly in regard to protection and travel insurance products.

Criteria	RAG rating	Explanation
Public policy imperative		There would be substantial public benefits attached to greater take up of the relevant insurance products among those with health problems. For example, improved income protection insurance take up could help to reduce levels of long-term sickness absence over the long term.
Proportionality		If successful in strengthening take up for those with health problems, the benefits would be substantial enough to warrant a public policy intervention of this scale.
Feasibility		Specific triggers would need to be determined for the scheme depending on the product market, which would create some complexity ((i.e., any long term condition treatment for travel, certain specific illnesses for protection products) or it could be a blanket 'Re' for any high risk individuals.
Moral hazard		At the margins, this could dampen the incentives for people to improve their health, or reduce investment in the 'wearables' market which encourages people to make positive lifestyle changes in order to lower their premiums.
Adverse selection		By reducing the premiums significantly for higher risk groups there is significant potential for adverse selection, where those who are medium to low risk feel that the products are not viable for them. This is likely because (a) in the UK, these are all voluntary product markets and so opting out is pretty straightforward, and (b) risk varies substantially between individuals based on medical history.
Fairness		This intervention has the potential to benefit those in poorer health who tend to correlate with those on lower incomes. [26] However, the adverse selection effect described above could mean a much smaller risk pool, which could end up reducing the potential for any cross subsidy from high-risk to low-risk individuals, by disincentivising high-risk people from joining the pool in the first place.
Exit approach		It is unclear if such a scheme could have an exit strategy and what this could be.

Criteria	RAG rating	Explanation
Potential alternatives		Group protection schemes can offer many of the benefits of risk pooling with much less risk of adverse selection. This is because individual employees do not 'select in' to the employer scheme as individuals, rather they are selected based on a previously defined group. This negates the need for medical underwriting except for the very highest earners. [27] Policies to support take up of these schemes is likely to be a better way of improving social protection for those with a history of poor health. For the self employed or those not covered by group schemes, affinity schemes should be explored that may provide similar risk pool benefits.

It is worth stating that there could be potential for this sort of scheme to function effectively in combination with measures that strengthen overall take up of protection products (e.g, mandation at certain touch points, such as through the workplace or buying a mortgage) as these reduce the potential for self-selection into the risk pool, and adverse selection as a result.

Periodical Payment Orders (PPOs)

Where responsibility for damages has been proven in personal injury cases, awards can take the form of a Periodical Payment Order (PPO) for catastrophic damages. This is effectively an annuity that is used to pay costs to the claimant over an extended period of time, and the investment risk underpinning the award is borne by the insurer or other counter party, i.e., a public body such as the NHS. [28] The alternative to a PPO is a lump sum to the claimant, which is calculated based on assumed investment returns as determined by the Personal Injury Discount (or Ogden) rate. [29]

There have been issues identified by the IFoA members relating to the long-term insurability of PPOs through a private market, given the degree of costs and investment uncertainty involved. As a result, there is a question over whether Government should provide a risk removal backstop to the market, in order to provide greater assurance to current and future claimants.

Criteria	RAG rating	Explanation
Public policy imperative		If the reinsurance market for PPOs did fail or become highly constrained this would have far reaching implications for vulnerable individuals. Experts at the IFoA have identified the sustainability of insuring PPOs as a potential long-term issue effecting the sector. Ultimately, this is not an issue that has been identified as a priority more widely than that.
Proportionality		Reinsurance cover remains available in this market, and so it is unclear how proportionate a PPO 'Re' intervention would be at this point in time.
Feasibility		One could implement a standard trigger for the scheme around whether a court awarded a PPO to a claimant. However, complexity would arise in the need to have the pool available to several products and/or markets, as well as a consideration as to how this scheme should support self-insured entities.
Moral hazard		This intervention would result in the removal of a significant amount of risk from the motor insurance market, which as a result could significantly reduce the premiums of high-risk drivers. This could lead to less investment in tools such as telematics, which can reduce risk and premiums.

Criteria	RAG rating	Explanation
Adverse selection		Broadly, PPOs are relevant to product markets that are fully mandatory (Motor, Employer's Liability) or have very broad take up (public liability insurance) and so the potential for adverse selection is more limited.
Fairness		The fairness of this intervention needs to be explored in detail. In so far as it protects those who have suffered life changing accidents from injuries, it is likely to be broadly favourable from a distributional perspective.
Exit approach		It is unclear if such a scheme could have an exit strategy and what this could be.
Potential alternatives		Arguably, prudential regulation tools should instead be used to solve some of the issues around the long-term stability of insurance against PPOs. However, this could come with its own challenges around the increase in costs filtering through to premium increases. This is something that the IFoA is actively looking to explore.

CHAPTER 5 Conclusions and recommendations

The key take aways for this framework and accompanying analysis are summarised in the box below:

Box 2: **Key recommendations**

- The IFoA and its members should work with stakeholders across the sector to support broader adoption and discussion of the framework set out by this report, including by applying it to further potential use cases. In particular, the IFoA's members should take the lead in carrying out analysis to identify future use cases for the framework. The IFoA are in a strong position to reliably promote this tool to support evidence-based policy in the public interest. This should include:
    - Engaging with their own firms and any trade bodies or professional associations in the sector to ensure this is used in the development of firm level and industry-wide policy decisions with regard to interventions around risk pricing.
    - Providing actuarial expertise on these issues to consumer and civil society organisations in this space, supporting them to strengthen their social impact by helping to build an evidence-based approach to addressing issues for vulnerable groups in insurance.
    - Socialising the findings within Government – particularly HM Treasury – with the ultimate aim of this framework helping to guide evidence-based decision making on insurance policy in the civil service.
- The Government should fully engage with industry discussions to develop a Pandemic Re for Business interruption cover, which could be re-ignited with stated Government interest but be mindful of complexities around its interaction with other forms of future pandemic support.
- Alternative means of tackling the poverty premium should be considered such as addressing the monthly premium penalty, and more detailed work to understand the source of the poverty premium and how this can be tackled. Due to its lack of feasibility, a Postcode Re should avoided as a solution.
- Group and affinity protection schemes should be explored to improve levels of insurance protection against health problems, rather than a 'Health Re' which presents adverse selection risks.

Endnotes

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