UNIVERSITY OF Southampton

Future directions of consumer flood insurance in the UK

15 August 2015

Reflections upon the creation of Flood Re

Editor: Johanna Hjalmarsson

Future directions of consumer flood insurance in the UK

The risk of flooding, which is increasing due to climate change, cannot be eliminated despite engineering controls to manage it. Controversial issues concerning the introduction of a scheme, Flood Re, to ensure that households at risk of flooding can continue to purchase affordable insurance against the risk have been discussed in numerous media reports, comments to public consultations and journal articles.

No reports, comments or articles, however, even begin to compare in quality or depth to this selection of papers and the issues raised in them. The papers examine and analyse critical issues that have not previously been raised. They contain valuable insights into the issues which must be resolved in order for Flood Re to succeed.

The papers should be studied by everyone involved in the residential property sector including insurers, mortgage lenders, and their advisors. The failure to resolve the issues raised in the papers will not only deter the proposed transition to market-priced consumer flood insurance; it may well result in great uncertainty and loss of faith in Flood Re when claims are made following the next period of extensive – and inevitable – flooding in the UK.

Valerie Fogleman
Cardiff University School of Law and Politics

Preface

Social management of disastrous events is a crucial challenge to modern society. Inertia means we will carry on as we always have done, in the face of increased complexity and increased risks from climate change, overpopulation and aging infrastructures. Floods are a particular case – on a warm summer's day such as when this is being written, when the rivers are dwindling in their furrows and floods seem a distant prospect it is much too easy to stick one's head in the sand and pretend that winter is not coming. Notwithstanding, on 25 June 2015, five researchers and a small audience met together in London to discuss flood insurance. The event was cross-disciplinary and between us, we spotted and discussed issues we had not separately thought of. Having the benefit of Professor Donald T Hornstein and Dr Swenja Surminski participating in the event was a privilege.

This volume contains the papers from the event. We asked the researchers to give us papers that were shorter than a regular academic paper, and which would be readable by an intelligent and interested consumer or professional. We hope that this collection points forward to some of the issues that those currently working hard on setting up Flood Re, which is scheduled to 'go live' in April 2016, will have to consider and possibly address in that work, while also providing a wider picture explaining why the provision of catastrophe insurance is such a difficult task, when the need is so obvious and there is insurance available for everything from weddings to oil platforms.

We wish to thank ESRC for the Impact Acceleration funding making this project possible, Caspar Bartington and the Chartered Insurance Institute for their important support to the initial stages of the project and most of all Michael Davey QC and Quadrant Chambers who supported us when at the very last moment we needed to find a new venue.

1 July 2015

Mateusz Bek, James Davey and Johanna Hjalmarsson
Insurance Law Research Group
Southampton Law School
University of Southampton

Contents

The Thames Barrier near Woolwich

The insurance industry on the cusp of COP 21: lessons from flood insurance reform in the US and UK

Donald T. Hornstein[1]

The reference to "COP 21" in the title of my paper is, of course, to the UN's upcoming Conference of the Parties regarding international climate negotiations set to take place in December 2015. And the subtext of my paper's title asks whether the insurance industry is poised to play a meaningful role – either in the formal negotiation process itself or, more importantly, in actual near-term developments on the ground, at the interface of climate change and economic resiliency. If I were to strip away all caveats, I'm sorry to say that my answer is, "no."

What's more, if I am correct in my analysis, then my conclusion may be even more stark than it appears. This is because the year 2015 is not simply a milestone year for the UN's climate negotiation process. It is also a year in which UN member states convened in Sendai, Japan for the Third World Conference on Disaster Risk Reduction, with the aim of adopting a new world framework to reduce worldwide disaster losses of all kinds. And it is a year in which countries are scheduled to agree on a set of worldwide Sustainable Development Goals, measured through metrics such as poverty-reduction, improved education, food security, enhanced biodiversity, and reduced inequality. Because weather-related disasters are the most ubiquitous of all types of disasters, when the insurance industry is absent from providing effective weather-related cover, it simultaneously undermines not just the goals of climate resiliency, but also those of worldwide disaster risk reduction and global economic development.

Despite some recent announcements about innovative, but relatively new, initiatives by which the insurance industry seeks to engage with climate change, my pessimism is anchored in the numbers. In its 2014 report on the competitive position of the London Insurance Market, the London Market Group found not only that, as to worldwide natural disasters, the percentage of insured losses against uninsured losses is small (neighbourhood of 25-30% insured, 65-70% uninsured), the gap is actually widening.[2] This is doubly bad. From the point of view of social tradeoffs, it means that more *public* money will be spent on disaster recovery, especially in developing economies, and therefore will be *less* available for the public expenditures necessary to reach goals in education, public-health, or poverty-reduction.[3]

Even worse, without the risk-reduction incentives that a properly functioning insurance market would bring to areas prone to natural disasters, it is little surprise that the World Economic Forum reports in 2015 that *less progress*, rather than more, has been made against risks from natural disasters over the past 10 years than has been made against risks such as infectious diseases, terrorist

1 Aubrey L. Brooks Distinguished Professor of Law, University of North Carolina School of Law, Member, Board of Directors, NC Insurance Underwriting Association

2 London Matters. Fig.29. 2014 London Market Group & Boston Consulting Group

3 UNISRD (2015) Global Assessment Rpt on Disaster Risk Reduction 7-8

attacks, financial institution failure, or fiscal crises.[4] With insurance on the sidelines, we're likely to lose further ground.

Why look at flood insurance in the US and UK?

Of course, one easy way to explain lack of insurance market penetration in much of the world involves, simply, financial capability – or rather the lack of it in developing economies and would-be policyholders. Yet even here I'm not apt to give the insurance industry an easy out. Although there has been innovation in micro-insurance, including developments in parametric insurance, my sense is that it has not been as robust as have been other developments in developing economies in such areas as telecommunications, energy, health care, and education.

But, that said, it explains why recent developments in flood insurance in the US and UK are especially good places to appraise the likelihood of progressive reform. Amongst all categories of losses from natural-disasters, losses from floods in both countries represent the lionshare of natural-disaster losses. And these are not under-resourced countries. They are both home to mature insurance, real estate, and financial industries. Where better to test the ability of the insurance industry to engage with climate-related catastrophe losses?

Flood insurance in the US

Private insurers ceased writing flood insurance in the US in 1928, two years after the 1926 Mississippi River "Great Flood" that, among other things, almost destroyed New Orleans. Shortly thereafter, there was introduced the practice of the federal government of making post-event disaster assistance payments directly to citizens. Several years later, the federal government also undertook the country's principal role in floodplain management through the Flood Control Act of 1936. Throughout the 1940s and 1950s, federal expenditures grew significantly on both fronts, especially as expensive flood-control measures spawned development in floodplains only to see disaster payments increase when dams and levees failed.[5]

In 1968, Congress created the National Flood Insurance Program (NFIP) – a purely governmental program of insurance in which administrative law, rather than insurance law, tends to be more apropos in resolving disputes. To offset the obvious moral hazard, it was offered only to those in communities that themselves (the communities) agreed to adopt "floodplain management strategies and land-use codes acceptable to the federal government."[4] In 1994, with evidence that the take-up rate of flood insurance was low, Congress made NFIP insurance mandatory for all homeowners financing their properties with federally backed mortgages. To this day, however, take-up rates still can range notoriously low. After Hurricane Katrina in 2005, in poorer areas of Louisiana only 30% of property owners had flood insurance.[6]

There was never a promise that NFIP rates would be truly risk-based. Instead, the original legislation promised "reasonable terms and conditions" – a commitment to affordability that was always, and remains to this day, in tension with the concern over moral hazard. The affordability

4 World Economic Forum. Global Risks 2015. Fig. 3.1

5 Wriggens, The Challenge of US Flood Ins. Reform, 119 Penn. St. L. Rev. 361.

6 Knox, 41 Tort Trial & Ins. Prac. L. J. 901, 911 (2006)

commitment is reflected most famously in two common types of well-publicised, subsidised rates. First, properties built before 1974, when the first Flood Insurance Rate Maps were developed, became known as "pre-FIRM" properties and were given rates only 35-45% of "actuarial" rates. Second, subsidised rates were also given to "grandfathered" properties, those built after 1974 that were, when built, in compliance with then-existing flood maps – even if later maps revealed the property to be (or to have become) located in a flood zone. Approximately 1 million properties, to date, fall into one of these two categories. Of course, all of the 5.5 million NFIP flood policies could be said to receive subsidised rates because what the NFIP considers an "actuarial" rate in fact reflects the artificially lower baseline of skewed historical date ranges (that minimises recent flood events). Not to mention that, at least so far, the NFIP does not consider the projected future effects of climate change in rate calculations, a factor that further distorts downwards the NFIP's "actuarial" calculation of its base "1/100" flood risk. Financially, the NFIP was not designed to save unspent funds from one year to the next, nor does the NFIP purchase reinsurance. No surprise, therefore, that after both Hurricane Katrina and Superstorm Sandy, the NFIP required emergency congressional appropriations and/or debt authorisation to meet its obligations. Frankly, this should not be viewed as unintended. The built-in default to supplemental appropriations after catastrophic outlier events (debt financing) *is* the design of the program.

The 2012/2014 political convulsion over US flood insurance

In 2012, Congress enacted the most sweeping overhaul of the NFIP in a generation when it passed the Biggert-Waters Flood Insurance Reform Act (*Biggert-Waters*). Public policy aside, *Biggert-Waters* was remarkable politically, enacted as a rare instance of bipartisanship in the 112th Congress, perhaps the most partisan Congress in modern US history. The 112th Congress was the Congress that shut down the federal government over budget disagreements AND came within days of sovereign debt default. An unusual coalition of Tea Party Republicans opposed to the NFIP's debt financing and liberal environmentalists opposed to coastal natural-resource destruction fueled by cheap flood insurance for real-estate developments, united to create the bipartisan moment. In terms of public policy, *Biggert-Waters* sought to move the NFIP toward more actuarially fair pricing. It did this by phasing out the NFIP's pre-FIRM and grandfathered subsidies, with rate increases of as much as 25% per annum. Rates for "severe-repetitive-loss" properties could rise even faster. And a "sale trigger" provision instantly applied the full actuarial rate to any existing home upon its sale, thereby eliminating all subsidies instantly for the purchasers even of primary coastal residences. This was a far more ambitious commitment to actuarial pricing than is currently found in the UK's Flood Re program (20-25-year phase-in of "risk reflective" pricing). President Obama signed the legislation.

It soon became evident that *Biggert-Waters* did not represent a political equilibrium. In 2013, as the Federal Emergency Management Agency (FEMA) began phasing in the *Biggert-Waters* rate increases, and began an accelerated program of flood mapping that reclassified many properties into higher-priced NFIP premiums, a grass-roots political movement among coastal residents and real-estate interests arose with the organisational slogan of *Stop FEMA Now*. Looked at one way, it was simply an example of special-interest politics trumping general social welfare. Looked at another way, it highlighted an obvious and recurring feature of climate-change policymaking; what, if anything, to

do in the transition-period to a better climate future for those economic and social interests that are caught in the dislocation. Generally speaking, economic theory rationalises such dislocations as acts of creative destruction and celebrates, to use the modern term, disruption. How law should operate during such transition periods is the subject of a more nuanced jurisprudential literature, often buttressed by legal doctrines and commitments to protect, or at least compensate, the loss of established property rights. However it is described, there arose in 2013 and 2014 a real-life counterattack on *Biggert-Waters* that soon developed political traction. As America entered 2014, a special congressional election in February in Pinellas County, Florida (the St. Petersburg/Tampa area) tipped Republican when the Republican candidate was viewed as marginally more likely to protect property owners' subsidised flood insurance rates. The conventional wisdom was that this early election would showcase whether health insurance was a winning issue for Republicans (running against Obamacare). It turned out that voters cared more about flood insurance than health insurance. The message wasn't lost back in Washington. In March 2014, Congress enacted the Homeowner Flood Insurance Affordability Act (*Affordability Act*) that in many – but not all – respects reversed the *Biggert-Waters* rate increases. Only about 40-50 members of the Tea Party opposed the *Affordability Act* and staked out a consistent position against subsidised flood insurance rates. Virtually everyone else in Congress, Republicans and Democrats alike, simply reversed field. The *Affordability Act* passed with lopsided majorities and President Obama, who could also read the political tea leaves, similarly reversed field and signed the legislation.

The aftermath: where things now stand with US flood insurance

It would be a mistake to write off the 2012/2014 flood insurance convulsion as a simple matter of advance and retreat. Although large rate increases for primary residences were reversed, that was not the case for secondary residences and severe-repetitive-loss properties, for which the first of several sizable annual rate increases went into force in April 2015. The *Affordability Act* also left intact a directive for FEMA to accelerate flood mapping and to investigate the possibility of buying private reinsurance to pre-fund worst-case scenarios. Although it is too early to view these developments as presaging an opening for private flood insurers in the US, the possibility is there – for the first time since Congress created the NFIP in 1968. Indeed, the first private primary flood insurer in the US, the Flood Insurance Agency, underwritten by Lloyds, opened immediately in the aftermath of *Biggert-Waters*. And, although its market opening was narrowed within two years by the *Affordability Act*, it is reportedly on track to write approximately 1% of US flood policies in 2015. A second such private flood insurer, Homeowners Choice Property & Casualty, recently became the first private flood insurer to be regulated by the State of Florida to offer flood insurance as an endorsement. All this said, the private market for US flood insurance is embryonic. Public flood insurance has only just begun to mimic the price signals that would be sent by a "real" insurance regime. Moreover, beneath the surface of national politics, there are subterranean, state-by-state battles over projections of sea-level rise, the use of climate-change models in ratemaking, and the economic need to keep coastal insurance rates down to help local real-estate and tourist markets.

In short, the prospects are possible, but low, for flood insurance in the US to prompt much meaningful climate-related adaptation or resilience in the near future.

A peek at US wind – the conventional story

Although private Homeowners policies in the US have, since 1968, featured an exclusion for "flood," that is not the case for wind damage, including damage from catastrophic wind events such as hurricanes, tornadoes, or severe thunderstorms. Yet this does not mean that the private insurance industry is engaged with these aspects of climate-related damages. Especially in those Southeastern and Gulf states most susceptible to hurricanes and tropical storms, the major story since 1990 has been the abandonment of coastal wind coverage by the private market and its absorption by "residual" state insurance entities, such as the North Carolina Insurance Underwriting Association on which I sit as a member of the Board of Directors. The NCIUA now covers approximately 70% of the $130-billion in insured properties in North Carolina's twenty coastal counties and famous Outer Banks. Nationally, compared to $55 billion in insured assets in such plans in 1990, enrolment in state-run residual risk plans had, by 2012, skyrocketed to over $880 billion in loss exposure, an increase of 1,517 percent.[7] This means that, at least circa 2012, the private, primary insurance market in the US has been leaving CAT wind coverage just as surely as it abandoned flood coverage fifty years before. Most private insurers explain their abandonment of the CAT wind market to rate suppression by politically beholden state insurance commissioners. But, whatever the reason, the overall trend supports my conclusion that major private insurers in the US, especially in the Gulf and Southeastern United States, are not especially engaged economically in climate-related risks. Indeed, they've actively taken measures to reduce that engagement.

A peek at US wind – new developments

There are two often-overlooked aspects of US wind that may portend more meaningful engagement by the insurance industry with climate-related losses. The first involves those state residual-wind pools, such as the NCIUA, that seek to pre-finance worst-case losses through such market mechanisms as reinsurance, cat bonds, and other ILS products. The NCIUA purchases between $80-100 million in reinsurance annually, chiefly from the Bermuda marketplace, to cover losses in excess of approximately $2 billion (which it finances through retained earnings and an ability to levy "assessments" on the state's admitted property insurers). But, in both its reinsurance and alternative financing arrangements, the NCIUA's book of business is subject to private market scrutiny. Recently, the State of Florida decided also to turn to private reinsurance and ILS mechanisms rather than rely solely on the State's own public reinsurance facility, the Florida Hurricane Catastrophe Fund, which had been funded, when necessary, by post-event state debt obligations. This shift to pre-finance through private market mechanisms may portend more by the broader insurance-related economic ecosystem with climate-related risks in the US. That said, there is also reason for concern. The NCIUA has recently been subject to political pressure against its use of reinsurance and ILS mechanisms to pre-fund the Association's 1/100 PML – which some political actors view as a "waste" of money for storms that may not come. In their place, the NC State Legislature is currently considering mechanisms that would make it easier for the NCIUA to use post-event bonding, perhaps portending a shift away from pre-financing through the private insurance industry toward post-event financing through the financial bond market. To the extent this occurs, engagement with the insurance industry weakens.

7 Ins. Information Inst, US Residual Market: Total Policies in Force (1990-2012)

The other new development, only evidenced significantly within the past 18 months, has been a trend AWAY from state residual wind risk pools and toward private insurers through a mechanism know as depopulation. Over the last two years, the State of Florida, in particular, has depopulated its state-run residual risk pool, Florida Citizens Property Insurance Corporation, by almost 50%. As a general matter, the insurance companies taking on this wind risk are not major US property insurers. Instead, newly created companies, often established solely for the purpose of taking on depopulated policies, have been created, with financial structures that lay off much of the new risk to Bermuda-based reinsurers. The Bermuda reinsurance and ILS markets have, in recent years, enjoyed an explosion of available capital. The sustainability of this arrangement, and the long-term solvency of the new insurers, remains to be seen. But, should it prove stable, then an increase in private-market reengagement with climate-related wind losses could emerge.

Observations of an american insurance scholar of the UK's Flood Re scheme

I make only three brief observations. First, I offer congratulations. Compared to the US, the UK is now-- and under Flood Re will continue to be -- an example of how the private insurance market can be enlisted to engage in managing the risks of flooding. One of the central claims in my own scholarly work has been that flood risks, given improved mapping, big data, and access to international financial markets, are now insurable risks – undercutting the central premise underlying the current, government-provided NFIP system in the United States.

As to a positive relationship between Flood Re and climate-change resiliency, we'll see. Insurance always exhibits risk-spreading capabilities and risk-reduction possibilities, and it remains to be seen if the handing off of "flood defenses" to the government in the UK will, or will not, lead to sustainable floodplain management. Certainly I support a recent proposal made earlier this month by the Chartered Insurance Institute to link flood insurance premiums to risk resilience certificates, thereby using rates to directly incentivise risk reduction. Indeed, I have hopes for a renaissance in the US of FEMA's "Community Rating System" which offers to reduce flood insurance rates for all members of a community that adopts extra risk-reduction measures beyond the minimum necessary to qualify for NFIP placement in the first place. With the first, recent wave of flood rate hikes in the US under the *Affordability Act* having only been instituted in April 2015, there may finally be an incentive for communities to take the federal CRS program seriously. All this said, it remains to be seen what shape "resiliency" takes. There is a difference between development behind heavily armoured shorelines and riverbeds and development that is redirected away from such dynamic natural areas. This is a fight that transcends insurance, but in which insurers surely can engage by better estimating, and publicising, the risks and benefits that attend hardscape "solutions" to flooding. For any insurer covering risks that are located behind levees, dams, and barriers, careful attention should be paid to the US experience, where levees are notoriously categorised into those that have failed and those that will. And, of course, although I note that Flood Re purports to protect to a 1/200-year PML (in contrast to the US 1/100 PML standard), it is unclear whether even that standard adequately reflects the worst-case risk projections that factor in the future effects of climate change.

Finally, I offer an observation about Flood Re's financing and political stability. I note that, like US government flood insurance, even Flood Re anticipates the government picking up the tab for truly catastrophic risks (beyond the 1/200 PML level), presumably via debt. In the event of a UK version of Superstorm Sandy , which was purportedly a 1/500 year event, the UK government would have to step up, as did the US government. Below this level, I note that Flood Re can itself purchase reinsurance for those risks ceded to it, via the international reinsurance or ILS markets – much like US wind residual risk organisations do in the US; another bit of convergence across climate-related risk financing between the US and UK. And finally, although I note that UK insurers may have some flexibility to price flood insurance appropriately, the UK is no more immune to political pressure from property owners and the real-estate industry than was the United States' first attempt to reform US flood insurance. You may still have your *Biggert-Waters/Affordability Act* moment of convulsion awaiting you.

Conclusion

Forgive me for allowing a bit of optimism to creep back into my remarks, at least given the point from which I started at the beginning of this paper. In fact, I believe the insurance industry has rightly been recognised for being the largest industry firmly on record in the fight to engage with risk-based and progressive climate change policy. I have never had a problem with the industry talking the talk. My pessimism has, instead, been at the current absence of industry engagement on the ground. Certainly in the US, the insurance industry has largely walked away from CAT weather-related risks, leaving it to government-run entities. It is possible that the British insurance industry, with a financing assist from Flood Re, may begin to show the world how to walk the walk. We'll see.

Bentley near Doncaster, England - 30 June 2007
(Photo by Daniel Berehulak) ©iStock.com/EdStock

The role of flood insurance in reducing direct risk

Swenja Surminski[1]

Every day many individuals, organisations, governments and businesses buy insurance to transfer the risk of facing an uncertain loss in exchange for paying a certain premium. This mechanism has been used for centuries, spreading risks across a large number of insureds. It has become an important cornerstone of economic activity and of social policy: without insurance many activities and processes would be deemed too risky and would not be undertaken, with those affected by a loss left struggling to recover.

Whilst insurance has a primary role in sharing risks and distributing the costs of compensation and recovery, there is a further dimension beyond financial preparedness: purchasing an insurance risk transfer product can influence the behaviour of those at risk. This can either be in a moral hazard[2] context, where insurance can lead to a more risky behaviour, or as an incentive, where insurance can trigger risk reduction investments or the implementation of prevention measures (see for example, Kunreuther, 1996; Kunreuther et al., 2013; Linnerooth- Bayer and Mechler, 2009).

An established example of where insurance functions to minimise loss and disruption is through the provision of flood insurance. Flooding is one of the most commonly occurring natural hazards globally, affecting on average about 70 million people each year (UNISDR 2011). In Europe flood damage resulted in average annual losses of €4.2 billion between 2000 and 2012. This is expected to rise into the future with an estimate of €23.5 billion of loss by the year 2050, as compared to an average of €4 billion in 2010 (Jongman et al. 2014).

This increasing risk of flooding is principally due to a rise in urban settlement, compounded by further socio-economic factors such as unsound planning and construction, as well as the expected impacts of climate change (IPCC, 2014 and IPCC, 2012). These growing losses are putting pressure on affordability and availability of flood insurance – a challenge that is expected to increase into the future with more people and areas expected to be affected.

Insurance approaches

With the rapid increase in global economic losses from flooding, discussion has intensified among private insurers, governments and international organisations regarding the role of insurance in addressing these risks. In 2013 the European Commission launched the Green Paper on the insurance of natural and man-made disasters (EC, 2013), which reflects on the concerns about

1 Senior Research Fellow, Grantham Research Institute, London School of Economics and Political Science. s.surminski@lse.ac.uk This is a shortened version of the following article: Surminski, S. (2014). The role of insurance in reducing direct risk: the case of flood insurance. *International Review of Environmental and Resource Economics*, 7(3-4), pp. 241-278.

2 Moral hazard occurs when a member of the party acts conversely to the principles set out in an agreement between those parties. For example in an insurance contract, the individuals' motives and behaviour to prevent loss may be reduced if financially protected through a policy, thus resulting in an increased probability of loss. For more detail on moral hazard, see Arrow (1968) and Pauly (1968).

rising risk levels and how this can be accommodated through new and existing flood insurance schemes. The consultation document frames insurance in two ways: the question of availability and affordability, and the potential to use insurance as a lever for flood prevention and disaster damage mitigation. The EC specifically asks in the consultation how risk transfer can reduce disaster risks today and into the future.

To shed more light on this question it is important to reflect on if and how flood insurance is currently provided across different countries. The use of insurance against flooding and other natural disaster differs widely across the world (for example, see Paudel et al., 2012). Penetration rates, types of product and operational mechanics of insurance schemes vary from country to country; for examples of flood insurance provision see Table 1. This range of approaches is determined by several factors including risk drivers, cultures, regulatory demands and the economic environment (Brainard 2008; Feyen et al., 2011, Hussels et al., 2005; Swiss Re 2004; USAID 2006). Differences in provision across Europe is highlighted by Table 1 below (see also Penning-Rowsell et al., 2014).

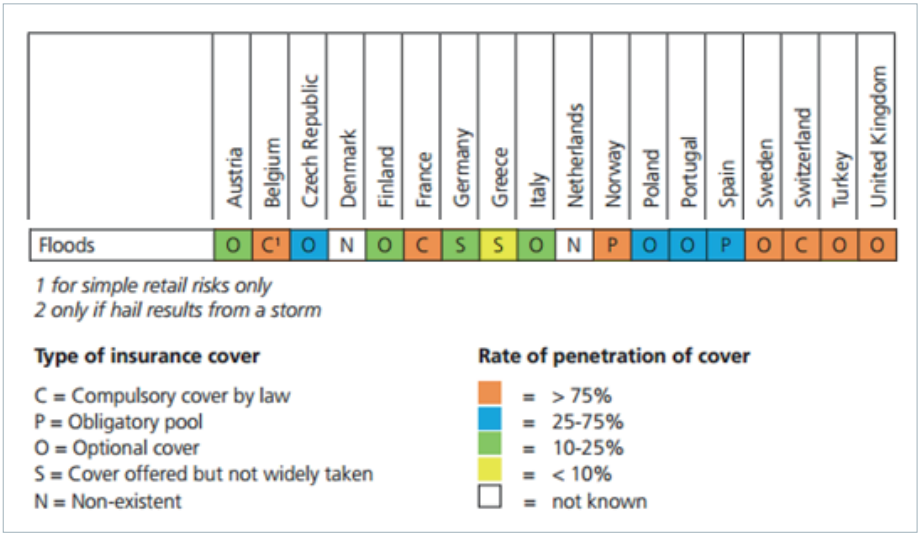


Table 1: Insurance coverage and penetration rate for different natural catastrophes across Europe (Source: CEA, 2009)

Who provides and underwrites insurance is a key question: it remains unclear whether private or public insurance provision is more effective. In the absence of a best practice template, Paudel et al. (2012) propose a greater focus on public-private partnerships, where the government and private insurers share the provision of underwriting. The term partnership is broadly used, but is rooted in efforts to increase the efficiency of public service by engaging the private sector. For low and middle income countries the ClimateWise Compendium on disaster risk transfer (ClimateWise, 2011) differentiates between the risk transfer role and other roles, such as operational support functions. For the provision of the actual risk transfer for flood insurance the following picture emerges: The private sector is providing the actual risk transfer in 41% of schemes, with varying risk levels and volumes of insurance and reinsurance layers included in the different schemes. In the majority of cases where the public sector is involved in risk transfer, it does so in partnership with the private sector (52%), see Figure 1 for the breakdown of risk transfer provision versus scheme type.

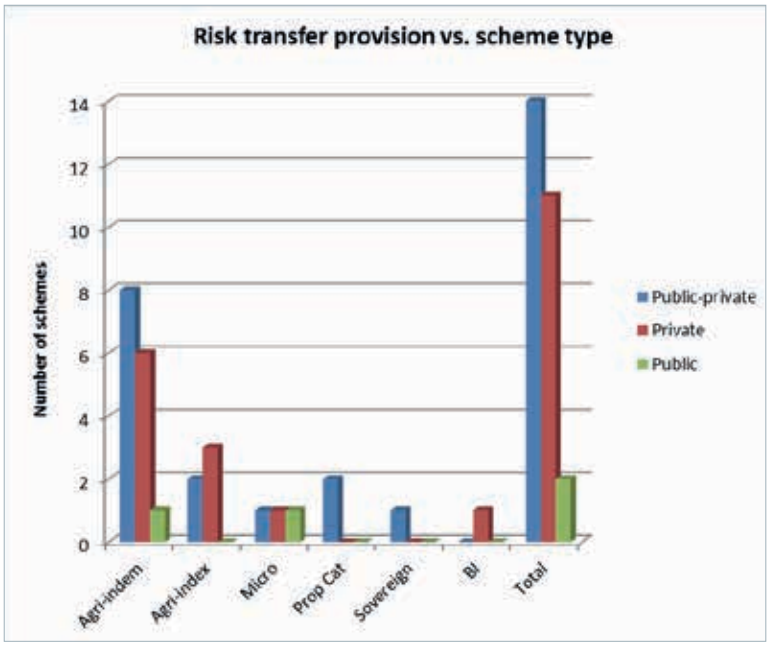


Figure 1: Number of flood insurance schemes by scheme type and public-private involvement) (Source: Surminski and Oramas-Dorta, 2013).

The state often acts as an insurer of last resort, with governments expected to step in should private cover be insufficient or unavailable. If markets are unattractive or the risks cannot be managed effectively then the burden may shift towards government (Mills, 2005). This can lead to the development of new approaches to insurance (Botzen and van den Bergh, 2008) for example, public private partnerships.

Risk reduction and insurance

When considering how to design and deliver an effective insurance system, one aspect of long term delivery would be to respond to the concerns about rising risk levels through a greater linkage between insurance risk transfer and physical risk reduction measures. This is based on the hypothesis that insurance can play a role in driving risk behaviour. The IPCC's special report on managing the risk of extreme events (IPCC, 2012) concludes that 'risk sharing (formal insurance, micro-insurance, crop insurance) can be a tool for risk reduction and for recovering livelihoods' particularly in the face of extreme weather events, but warns that it could also provide disincentives, if not correctly structured. The key message emerging from this literature is that the design and implementation of a risk transfer scheme will determine the promotion of risk reduction and the level of moral hazard (Ranger et al., 2011).

In theory insurance can attach a price tag to risks and send a signal to agents such as policy holders, governments or insurers themselves, incentivising or even forcing them to address the underlying risk (see, for example, Kunreuther 1996, Botzen et al., 2009; Botzen and van den Bergh, 2009; Shilling et al., 1989; Treby et al., 2006).

When the premium is priced in line with the risk, insurance can act in two fundamental ways; for example, it can prevent settlement in an area of increased flood risk with the premium payment (as compared to a lower risk zone) expected to deter people away from such areas - this also has the additional benefit of not impacting on the wider community, such as the tax payer or other policy

holders through ex post aid and subsidised premiums respectively (Filatova, 2013). Secondly, risk reflective pricing can encourage engagement with mitigation measures (Kunreuther and Michel-Kerjan, 2009), for example through insurance discounts once the measures are installed. Examples of such measures are

- Flood proofing of buildings and property,
- Retrofitting of houses (e.g. against windstorm),
- Local flood protection measures
- Flood proofing infrastructure
- Building larger scale flood protection schemes
- Switching to more heat and drought resistance cultivars
- Implementation of more efficient irrigation measures

(from Bräuninger et al., 2011)

Recent studies have explored the link between premium pricing and use of flood risk reduction measures, for example through interviews with the insured, hypothetical modelling and willingness to pay exercises: Thieken et al. (2006) found that in Germany insured households are more likely to undertake risk reduction measures than uninsured, suggesting that flood insurance sets an incentive for policy holders to take action. For the Netherlands, Botzen et al. (2009) suggests that many homeowners would be willing to make investments in risk reduction if this would lead to an insurance premium reduction: 'In particular, approximately two-thirds are willing to invest in water barriers (...) and about a fifth are willing to replace floor types that are vulnerable to flooding with water resistant floor types. Furthermore, about a quarter are willing to move central heating installations to floors safe against flooding' (Botzen et al., 2009).

But practice shows that a range of factors prevents this from happening at a wider scale: The largest barrier is considered to be the absence of adequate risk-based pricing (Kunreuther, 1996) due to its conflict with affordability of cover, while the solidarity principle of insurance also hampers risk reflective pricing. But even if risk-based pricing would be applied Bräuninger et al. (2011) note several issues that would need to be addressed in order to achieve risk reduction: mis-match between required prevention investment by policy holders and the premium savings; the short term nature of insurance contracts; simplified rating structures used by insurers; as well as a prevailing uncertainty about the benefits of risk reduction measures due to lack of standardised assessment methods, and the need for active involvement of policy holders to put in place and operate those mitigation measures (Bräuninger et al., 2011). Other barriers to linking risk reduction and insurance exist and include limited institutional capacity, weak regulatory systems and insufficient understanding of the instruments amongst stakeholders, which are particularly relevant in developing countries (Suarez and Linnerooth–Bayer 2011; Surminski and Oramas-Dorta, 2013).

One particular aspect to consider in this context is the case for long term contracts, which may create incentives for homeowners to implement risk reducing measures. However, these multi-

year contracts come with a range of limitations (Maynard and Ranger, 2011). An assessment of long-term flood insurance contracts in the Netherlands finds that the pricing of such contracts is complicated because of the uncertain future effects of climate change on flood risks, which could result in mark ups of long-term insurance premiums (Aerts and Botzen, 2011). Nevertheless, a study of the demand for long-term insurance products has shown that consumers may have a higher willingness-to-pay for long-term flood insurance, than annual flood insurance because they prefer the price stability offered by long-term contracts (Botzen et al., 2013). Further work is required to determine how pricing and the potential for long term insurance contracts continues into the future, particularly when the understanding of climate change and modelling accuracy is expected to evolve significantly in coming years.

A range of activities and initiatives indicate that there is potential for linking risk reduction and risk transfer: Surminski (2010) provides an illustration of how some insurers are engaged in risk reduction activities in the context of climate adaptation (Table 2). The initiatives identified are all based in established insurance markets. They include raising awareness of disaster risks, promoting action by government, and supporting action by individuals through incentives, information, financial support and terms and conditions for policies.

Number	Title	Country	Adaptation focus
1	The Austrian Insurance Trade Association and HORA – the creation of a natural disaster	Austria	Promoting flood risk awareness through government partnership on flood risk data
2	Aviva's flood simulation exercise in Boroughbridge	UK	Facilitating community based flood resilience
3	RSA's Mayesbrook Park Restoration	UK	Supporting a pilot project to demonstrate community-level flood risk management
4	Insuring and managing flood risk – the Statement of Principles and the Association of British Insurance	UK	Partnering with government to achieve changes to the planning system, increased risk awareness and more investment in flood risk management measures
5	Royal Star Assurance's Digital Aerial Mapping	Bahamas/ Cayman	Changing the approach to assessing and pricing wind storm risk
6	RMS's analysis of the Windstorm Mitigation Credit system in Florida	Florida, USA	Incentivising wind-storm risk reduction measures through a regulator-driven premium discount service
7	Caravan protection from half storm by Allianz	Germany	Reducing hail-losses through a broker-led prevention initiative, funded through climate change mitigation
8	Insurance Research Lab for Better Homes in Canada – The Three Little Pigs Project	Canada	Promoting weather-resilience through industry led research
9	The Insurance Council of Australia's work on community resilience	Australia	Promoting windstorm and bush fire risk management by clarifying roles and responsibilities of different stakeholders
10	Swiss Re's research on the 'Economics of Climate Adaption'	Global	Guidance and assistance to political decision makers on climate resilience

Table 2: Case study examples form Surminski (2010) of risk reduction activities driven by insurers.

Despite these initiatives, it remains unclear to what extent they are effective and how they could be scaled up if deemed a success. For example the terms and conditions of an insurance policy, such as deductibles and exclusions, are widely used to manage risks in commercial insurance and motor insurance, but are facing some limitations in property insurance. These aim to prevent moral hazard, but also seek to maintain the insurability of high risk properties. This is evident in the UK residential

property market, where flood deductibles are being applied to homes that have been flooded several times (Financial Times: http://www.ft.com/cms/s/0/f583bba0-55af-11e2-bdd2-00144feab49a.html#axzz33JiJgRmN). But the effectiveness in reducing moral hazards in relation to residential natural catastrophe risks remains unclear. A survey of 400 homeowners in the UK by Lamond et al. (2009) shows that insurers have been ineffective in encouraging their policyholders to adopt flood mitigation measures. As Ball et al. (2013) state, the adoption of property level measures is difficult to assess so insurers do not necessarily see them as a basis for lowering policy costs. While there is evidence for risk information work conducted by the industry, providing online flood risk information and raising awareness with customers and government (ABI 2012), this is not linked to the insurance policy documentation.

In the United States, the National Flood Insurance Programme (NFIP) includes building code regulations and mitigation grant programmes at part of its requirements for cover (Paudel et al., 2012; Thomas and Leichenko, 2011). This entitles policyholders who have gone beyond minimum requirements for building elevation to be eligible for premium discounts. It also applies to communities with adequate risk management plans, who can receive premiums discounts for all those policyholders in the community by participating in a Community Rating System. In France, deductibles can be increased for policyholders who live in communities that face repeated flooding and do not have adequate risk mitigation plans which include damage mitigation measures, while deductibles are lowered if such plans and risk reducing measures are taken (Poussin et al., 2012). In developing countries there are also a few examples of direct operational link between risk transfer and risk reduction, for example: The Horn of Africa Risk Transfer for Adaptation (HARITA) program in Ethiopia and the Fondo de Mitigacion del Riesgo Agrario (FMRA) in Bolivia. How effective these mechanisms are is difficult to measure, particularly as some of them have only been running for a short time.

Flood insurance in the United Kingdom - a missed opportunity ?

There are a range of political motivations at play when considering introduction or reform of flood insurance schemes, showing that the pendulum of political support can swing in many directions (see for example Schwarze and Wagner (2007) for an analysis of the German natural hazard insurance market). On the one hand there is the aim of reducing current public expenditure for flood losses, while at the same time there are political considerations such as the need to maintain a visible 'helping hand' function after a disaster. This is particularly relevant in the run-up to elections, as an elected official may deliberately not choose to increase spending and hence raise taxes within their elected period, particularly when no clear benefits are visible during this time.

The United Kingdom presents an interesting example of a unique flood insurance approach, through a partnership between government and industry: the underwriting is provided by the private sector, while government maintains a role in terms of flood risk information and flood management. This relationship was formalised through the Statement of Principles, an approach that is now being reviewed. The new system, Flood Re, scheduled to start in 2016 appears to have less emphasis on the role of public risk management (Surminski and Eldridge, 2014), focusing on sharing the financial burden of flooding rather than addressing rising flood risks.

At the start of the negotiations a set of principles were agreed between industry and government (Box 1) outlining a joint vision for flood insurance. This has a clear emphasis towards affordability and availability of insurance provision, but also recognises the role of risk reduction in securing the long-term viability of flood insurance.

Principles

1. Insurance cover for flooding should be widely available.
2. Flood insurance premiums and excesses should reflect the risk of flood damage to the property insured, taking into account any resistance or resilience measures.
3. The Provision of flood insurance should be equitable.
4. The model should not distort competition between insurance firms.
5. Any new model should be practical and deliverable.
6. Any new model should encourage the take up of flood insurance, especially by low-income households.
7. Where economically viable, affordable and technically possible, investment in flood risk management activity, including resilience and other measures to reduce flood risk, should be encouraged. This includes, but is not limited to, direct Government investment.
8. Any new model should be sustainable in the long run, affordable to the public purse and offer value for money to the taxpayer.

Box 1: Principles for flood insurance, source: Defra (2011) p.5.

However, achieving all of these aims is proving extremely difficult and there are even potential trade-offs that appear hard to overcome (Surminski et.al. 2015). The proposed scheme, Flood Re, takes principles 1, 3 and 8 at its core and aims to 'ensure the availability and affordability of flood insurance, without placing unsustainable costs on wider policyholders and the taxpayer' (Defra 2013a). Meanwhile the 'value for money' aspect of this is highly debatable as the scheme does not meet the minimum government standard for cost-benefits (Defra 2013a p.30; Defra 2013b). The lack of risk reduction is clear in the official proposal other than in the Memorandum of Understanding, setting out the government's commitment to flood risk management and joint efforts to improve flood risk data (Surminski and Eldridge, 2013).

Does the insurance system:	Current insurance system (SoP)	Future flood insurance system (Flood Re)
Increase risk awareness and knowledge of risks through flood risk information provision?	✓	Limited
Build capacity for risk reduction through advice on risk reduction measures?	✗ Only advisory guidance	✗ Informal approaches are present
Provide financial incentives for policyholders towards mitigation investment	✗ Risk reflective pricing has emerged	✗ Will transit to risk reflective pricing over duration of scheme
Promote resilient reinstatement techniques after a flood loss	✗ Information is provided by insurers voluntarily.	✗
Incentivise public flood risk management policy	✓	Maybe
Require compulsory risk reduction	✗ for policy holders ✓ for government	✗
Incentivise not developing in flood risk areas	✓	✓

Table 3 shows the very limited use of formal incentive mechanisms in the existing SoP and in the newly proposed Flood Re scheme. (Surminski and Eldridge, 2014)

Depending on design and implementation an insurance scheme can send signals to policy makers in support of flood risk management policies, which would address risk levels and provide political guidance. The clearest link would be a financial liability, which makes government responsible for paying certain losses above a loss threshold with an interest in keeping losses low. This concept is absent from the Statement of Principles (SoP) scheme, and also from the proposed Flood Re. Throughout the negotiations between industry and government this appears to have been a critical aspect and even now there is lack of clarity about how catastrophic losses that might exhaust the pool would be dealt with.

The agreement from insurers to provide cover under the SoP is based on the expectation that government would deliver on their commitment of sufficient investment in flood defences and an improved public planning policy, outlined as clear indicators in the main SoP agreement document: As 'action from Government' it lists 'reducing the probability of flooding in the UK; at least maintaining investment in flood management each year and discuss future funding taking into account climate change, implement reforms to the land use planning system; communicate flood risk effectively and provide more detailed higher quality flood risk information and develop an integrated approach to urban drainage' (ABI 2005). While the fulfilment of these policy demands has been subject to debate – particularly with regards to investment levels, but also about the success of the planning system – it is a clear lever to steer public policy and government spending, particularly in times of public spending constraints.

The debate about flood insurance in the UK illustrates a fundamental challenge: the concern about affordability is usually seen in a short-term perspective, often driven by election cycles, while there is no strategy for the longer-term. The longer term risk concerns are often the easiest to sacrifice, not just because of election cycles and short-termism of policy makers, but also due to the one-year nature of most insurance contracts. Hence insurance is being used to redistribute risk of loss, in order to address social inequities, but not to reduce the underlying risks.

Conclusion

Risk transfer alone, without consideration of risk reduction efforts, is not a sustainable solution going forward, particularly in the context of a changing climate and rising flood losses. Moral hazard is a key challenge for any insurance product, as it can undermine the economic benefits of risk transfer and the wider efforts to reduce risks. While stakeholders have only limited direct control over the occurrence of a flood, their actions determine the extent of losses during and after the event. Therefore moral hazard can occur at government level, where the existence of an insurance scheme may reduce the urgency to prevent and reduce risks, or at the insured level, where the purchase of insurance may lead to a false sense of security. In theory, risk-based pricing should help prevent moral hazard and promote risk reduction behaviours. Evidence of how this works in practice is limited. Due to affordability concerns this may have to be linked to public financial support measures at least on a temporary basis. There is evidence of a range of further activities conducted by the insurance industry to foster disaster prevention efforts, but it remains unclear to what extent they are effective at household level and to what extent they could be scaled up if deemed a success. Other stakeholders may be needed to reflect on the risk reduction potential, such as property developers, home-builders and mortgage providers in the context of property insurance.

One important conclusion is to avoid the situation where risk reduction is seen as a trade-off with affordability and availability. Considering these aspects as mutually reinforcing seems to be a more sensible approach. One could argue that risk reduction efforts are essential in maintaining the insurability of these risks, especially in the context of flooding and other extreme weather events, and that effective adaptation may actually become a condition for granting insurance cover in the future.

However, there are also some clear limitations: While some risks arising from flooding can be reduced through better preparedness, there will always be residual risks that can leave those exposed with significant financial gaps and increase poverty. What can insurance offer for those risks 'beyond risk reduction' – such as land-loss due to sea level rise? This is starting to be addressed as part of the Loss and Damage discourse within the international climate change negotiations (see UNFCCC, 2010, para. 25-29). Progress in this area depends on more clarity on the limitations of insurance as a tool and insurance as a private sector offering.

Acknowledgments

This paper has been produced under the research project ENHANCE (Enhancing risk management partnerships for catastrophic natural disasters in Europe), funded by the European Commission under the Seventh Framework Programme—Grant agreement no. 308438.

References

ABI, 2005. ABI Statement of Principles on the provision of flood insurance. Association of British Insurers: London.

ABI, 2012. A guide to resistant and resilient repair after a flood [online]. Association of British Insurers. Available at: https://www.abi.org.uk/~/media/Files/Documents/Publications/Public/Migrated/Flooding/A%20guide%20to%20resistant%20and%20resilient%20repair%20after%20a%20flood.ashx [Accessed 30 July 2013].

Aerts, J.C.J.H. and Botzen, W.J.W., 2011. Climate change impacts on pricing long-term flood insurance: A comprehensive study for the Netherlands. Global Environmental Change, 21, pp. 1045-1060.

Arrow, K. J., 1968. The economics of moral hazard: further comment. The American Economic Review, 58(3), pp. 537-539.

Ball, T., Werritty, A. and Geddes, A., 2013. Insurance and sustainability in flood-risk management: the UK in a transitional state. Area, 45(3), pp. 266-272.

Botzen, J.W., Aerts, J.C.J.H. and van den Bergh, J.C.J.M. 2009. Willingness of homeowners to mitigate climate risk through insurance. Ecological Economics, 68, pp. 2265–2277.

Botzen, W.J.W., de Boer, J. and Terpstra, T., 2013. Framing of risk and preferences for annual and multi-year flood insurance. Journal of Economic Psychology, (in review).

Botzen, W. J. W. and van den Bergh, J. C. J. M., 2009. Bounded Rationality, Climate Risks, and Insurance: Is There a Market for Natural Disasters? Land Economics, 85(2), pp. 265-278.

Botzen, W., van den Bergh, J. C. J. M., 2008. Insurance against climate change and flooding in The Netherlands: present, future, and comparison with other countries. Risk Analysis, 28(2), pp. 413-426.

Brainard, L. 2008. What is the role of insurance in economic development? Zurich Government and Industry Thought Leadership Series (No. 2) [online]. Available at: http://www.zurich.com/internet/main/sitecollectiondocuments/insight/what_is_the_role_of_economic_developement.pdf [Accessed 10 December 2013].

Bräuninger, M., Butzengeiger-Geyer, S., Dlugolecki, A., Hochrainer, S., Köhler, M., Linnerooth-Bayer, J., Mechler, R., Michaelowa, A. and Schulze, S., 2011. Application of economic instruments for adaptation to climate change Final report [online]. Perspectives GmbH. Available at: http://ec.europa.eu/clima/policies/adaptation/what/docs/economic_instruments_en.pdf [Accessed 17 December 2013].

Camerer, C., F. and Kunreuther, H., 1989.Decision processes for low probability events: Policy implications. Journal of Policy Analysis and Management, 8(4), pp. 565-592.

CEA, 2009. Tackling climate change: the vital contribution of insurers [online].Brussels: CEA. Available at: www.insuranceeurope.eu/uploads/Modules/Publications/tackling-climatechange.pdf [Accessed 9 July 2013].

ClimateWise, 2011. Compendium of disaster risk transfer initiatives in the developing world [online]. Available at: http://www.climatewise.org.uk/climatewise-compendium/ [Accessed on 20th February 2012].

Crichton, D., 2008. Role of insurance in Reducing Flood Risk. The Geneva Papers, 33, pp. 117-132.

Defra, 2013a. Securing the future availability and affordability of home insurance in areas of flood risk [online]. Department for Environment, Food and Rural Affairs : London Available at: https://consult.defra.gov.uk/flooding/floodinsurance/supporting_documents/20130626%20INAL%20Future%20of%20Flood%20Insurance%20%20consultation%20document.pdf [Accessed 10 July 2013].

Defra, 2013b. Managing the future financial risk of flooding Impact Assessment [online]. Department for Environment, Food and Rural Affairs:London. Available at: https://consult.defra.gov.uk/flooding/floodinsurance/supporting_documents/20130627%20FINAL%20Flood%20Ins%20%20consultation%20stage%20IA.pdf [Accessed 21 August 2013].

Defra, 2011. Flood risk and insurance: A roadmap to 2013 and beyond Final report of the flood insurance working groups PB 13684 [online]. Department for Environment, Food and Rural Affairs: London. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69467/pb13684-flood-risk-insurance.pdf [Accessed 16 July 2014].

EC, 2013. Green Paper on the insurance of natural and man-made disasters COM(2013) 213 final [online]. European Commission: Strasbourg. Available at: http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0213:FIN:EN:PDF [Accessed 14 January 2014].

Feyen, L., Dankers, R., Bódis, K., Salamon, P., Barredo, J.I., 2011. Fluvial flood risk in Europe in present and future climates. Climatic Change, 112(1), pp. 47-62.

Filatova, T., 2013. Market-based instruments for flood risk management: A review of theory, practice and perspectives for climate adaptation policy. Environmental Science & Policy, (in press).

Hussels, S., Ward, D. and Zurbruegg, R., 2005. Stimulating the demand for insurance. Risk Management and Insurance Review. 8(2), pp.257-278.

IPCC, 2014. Climate Change 2014: Impacts, Adaptation, and Vulnerability. Working Group II Contribution to the IPCC 5th Assessment Report. IPCC Working Group II: Stanford, USA.

IPCC., 2012. Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change, Field, C.B., V. Barros, T.F. Stocker,D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach,G. K. Plattner, S.K. Allen,M. Tignor, and P.M. Midgley, eds. 2012 . Cambridge University Press, Cambridge, UK, and New York, NY, USA.

Jongman, B., Koks, E.E., Husby, T.G., Ward, P.J., 2014. Increasing flood exposure in the Netherlands: Implications for risk financing. Natural Hazards and Earth System Sciences, 14 (5), pp. 1245-1255.

Kunreuther, H. 1996. Mitigating disaster losses through insurance. Journal of Risk and Uncertainty, 12, pp. 171–18.

Kunreuther, H., Meyer, R. and Michel-Kerjan, E., 2013. Overcoming decision biases to reduce losses from natural catastrophes. Behavioral foundations of policy, Princeton University Press, Princeton, pp. 398-413.

Kunreuther, H.C. and Michel-Kerjan, E.O., 2009. Managing catastrophes through insurance: Challenges and opportunities for reducing future risks, working paper 2009-11-30. The Wharton School, University of Pennsylvania, Philadelphia.

Lamond, J. E., Proverbs, D. G. and Hammond, F. N., 2009. Accessibility of flood risk insurance in the UK: confusion, competition and complacency. Journal of Risk Research, 12(6), pp. 825-841.

Linnerooth- Bayer, J. and Mechler, R., 2009. Insurance against Losses from Natural Disasters in Developing Countries. DESA Working Paper No. 85 ST/ESA/2009/DWP/85 [online]. Department of Economic and Social Affairs, United Nations. Available at: http://www.un.org/esa/desa/papers/2009/wp85_2009.pdf [Accessed 1 July 2014].

Maynard, T. Ranger, N., 2011. What role for 'long-term' insurance in adaptation? An analysis of the prospects for and pricing of multi-year insurance contracts. Working Paper No. 62. Grantham Research Institute on Climate

Change and the Environment: London.

Paudel, Y., Botzen, W.J.W. and Aerts, J.C.J.H., 2012. A comparative study of public-private catastrophe insurance systems: Lessons from current practices. Geneva Papers on Risk and Insurance, 37, pp. 257-285.

Pauly, M. V., 1968. The economics of moral hazard: comment. The American Economic Review, 58(3), pp. 531-537.

Penning-Rowsell, E. C., Priest, S., and Johnson, C., 2014. The evolution of UK flood insurance: incremental change over six decades. International Journal of Water Resources Development, (ahead-of-print), 1-20.

Phelan, L, Henderson-Sellers, A. and Taplin, R. 2011. In Filho, W.L., Ed. The Economic, Social and Political Elements of Climate Change Management, pp. 81-98.

Poussin J.K., Bubeck P., Aerts J.C.J.H., Ward P.J., 2012. Potential of semi-structural and non-structural adaptation strategies to reduce future flood risk: case study for the Meuse. Natural Hazards and Earth System Sciences, 12, pp. 3455-3471.

Ranger, N., Hallegatte, S., Bhattacharya, S., Bachu, M., Priya, S., Dhore, K., and Corfee-Morlot, J., 2011. An assessment of the potential impact of climate change on flood risk in Mumbai. Climatic Change, 104(1), 139-167.Swiss Re 2004. Exploiting the growth potential of emerging insurance markets – China and India in the spotlight Sigma No.5/2004. Swiss Re: Zurich.

Schwarze, R. and Wagner, G.G., 2007. The political economy of natural disaster insurance: Lessons from the failure of a proposed compulsory insurance scheme in Germany. European Environment, 17, pp. 403-415.

Shilling, J.D., Sirmans, C.F. and Benjamin, J.D., 1989. Flood insurance, wealth redistribution, and urban property values. Journal of Urban Economics, 26, pp. 43–53.

Suarez, P. and Linnerooth-Bayer, J., 2011. Insurance-related instruments for disaster risk reduction. [online] The United Nations Office for Disaster Risk Reduction: Geneva. Available at: http://www.preventionweb.net/english/hyogo/gar/2011/en/bgdocs/Suarez_&_Linnerooth-Bayer_2011.pdf [Accessed 15 January 2014].

Surminski, S., 2010. Adapting to the extreme weather impacts of climate change – how can the insurance industry help? Available at: http://www.climatewise.org.uk/storage/_website-2012/collaborations/adaptationrisk-management/ClimateWise%20Adaptation%20Report.pdf [Accessed 31 May 2014].

Surminski, S., and Eldridge, J., 2015. Flood insurance in England–an assessment of the current and newly proposed insurance scheme in the context of rising flood risk. Journal of Flood Risk Management (early view online).

Surminski, S. and Oramas –Dorta, D., 2013. Flood insurance schemes and climate adaptation in developing countries. International Journal of Disaster Risk Reduction, 7, pp. 154-164.

Surminski, S. et.al: 2015: Novel and improved insurance instruments for risk reduction, Technical Report for ENHANCE, available http://www.enhanceproject.eu

Thieken, A. H., Petrow, T., Kreibich H. and Merz, B. 2006. Insurability and Mitigation of Flood Losses in Private Households in Germany, Risk Analysis. 26(2), pp. 383-395.

Thomas, A. and Leichenko, R., 2011. Adaptation through insurance: Lessons from the NFIP. International Journal of Climate Change Strategies and Management, 3(3), pp.250-263.

Treby, E. J., Clark, M. J. and Priest, S. J., 2006. Confronting flood risk: Implications for insurance and risk transfer. Journal of Environmental Management, Volume 81(4), pp. 351-359.

UNFCCC, 2010. The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, 15 March 2011, FCCC/CP/2010/7/Add., available at: http://unfccc.int (accessed on 11 March 2012).

UNISDR, 2011. Global Assessment Report on Disaster Risk Reduction: Revealing Risk, Redefining Development. United Nations International Strategy for Disaster Reduction Secretariat, Geneva, Switzerland, Information Press: Oxford.

USAID, 2006. Assessment of How Strengthening the Insurance Industry in Developing Countries Contributes to Economic Growth [online]. United States Agency for International Development: Washington D.C. Available at: http://pdf.usaid.gov/pdf_docs/PNADF482.pdf [Accessed 14 January 2014].

Flood Re: Risk Classification and 'Distortion of the Market'

James Davey*

[I]. Introduction

Insurance law, at least in the United Kingdom, has the reputation for being simply a sub-set of contract law rules, and of little social significance. This reputation is ill-deserved, because the regulation of insurance pricing plays a fundamental role in the relationship between citizen, markets and the State. Access to insurance is a vital element in functioning as a citizen, although this is often underplayed by insurers. In this paper we examine the role of Flood Re in continuing the long tradition of subsiding the real cost of flood cover for residential properties, and the consequential difficulties this creates for markets, insurers and non-residential markets.

The Water Act 2014 signals the move to a formal system of subsidy of high-risk houses, but on the proviso that this subsidy is temporary- it is to be phased out of the next 20-25 years. This statutory scheme was heavily influenced by the insurance industry, who argued repeatedly for the removal of this 'distortion of the market'. Attempts elsewhere to shift the cost of natural disaster risk away from the State and on to the market have largely been unsuccessful. The question is whether Flood Re can buck this trend.

[II]. The Flood Re scheme: thoughts and criticisms

1. A summary of the Flood Re proposals

The statutory scheme developed under the Water Act 2014 (and referred to in this paper by its colloquial name of Flood Re) is part way through its development. Much of the detail is to be determined under delegated powers, and at present we only have a draft of many of the Statutory Instruments that will flesh out the bare bones. Since these draft Regulations were published, the Government has agreed further changes to the scheme and so it represents something of a moving target.

Other papers in this collection are concerned with the role of Flood Re as a reinsurer. This paper concentrates instead on its related role as a method of controlling prices in the residential flood risk market. S. 64(3) Water Act 2014 empowers the Secretary of State (here, of DEFRA) to make 'provision as to levels of reinsurance premiums payable by relevant insurers under the FR scheme...' The draft Regulations[1] produced under this power provide for two different pricing structures, covering 'England, Wales & Scotland' and 'Northern Ireland'. For the mainland jurisdictions, the Regulations produce a progressive pricing model, with prices rising from a Band A Council Tax

* Professor of Insurance and Commercial Law; Director, Insurance Law Research Group, University of Southampton. This is a revised version of a paper delivered at Quadrant Chambers (26/06/15). Correspondence is welcome to J.A.Davey@soton.ac.uk.

1 The (draft) Flood Reinsurance Scheme Funding and Administration Regulations 2015.

property up to Band G.[2] Under the draft Regulations, Band H (the most expensive houses) was not included, but the Government has let it be known that it is now prepared to include these in the scheme. We do not yet have the details for Band H. Each band provides a cap on the rate that will be charged by the reinsurer for accepting the risk, and this provides an effective price cap, even for the most high risk homes.

Individual insurers will be free to decide for themselves whether to cede the risk to Flood Re, but this decision will be substantially influenced by the availability of reinsurance at capped rates. It is analogous to the retailer of a consumer good ('a widget') having to decide at what price to sell their wares. Imagine that widgets are a social good, purchased annually by 75% of the population.[3] Widgets can be very expensive to transport, and delivery costs mean that for some households the total cost of buying a widget can be ten times that of those in neighbouring communities. The retailer can manufacture and deliver the widgets itself, or source them from a third party supplier, but a State backed supplier will supply them to retailers, and deliver them to consumers, in packaging badged with that of the retailer, for a price that is capped at £X. The level of the cost charged by the State ([X]) is determined by the value of the purchaser's home.

In such circumstances, we would expect a market to operate for purchasers of widgets where delivery costs are low, and for retailers to supply via the State for consumers who would normally be charged [X] or above.[4] Moreover, as the State supplier would be providing goods at less than cost, we might anticipate some potential moral hazard issues (high cost purchasers buy widgets when they would not normally do so) and we would need to find a revenue source for the State entity.

Flood Re faces these same issues. First, it should be noted that it is a body created by statute, and exercising a number of quasi-public functions (collection of mandatory fees) but is not formally a part of the executive branch. It would likely to be classed as a public body for many administrative law processes. Second, the 'delivery cost' issue with the widgets is replaced by the actuarial cost of insuring flood risks, which similarly varies by neighbourhood. Flood Re will have a maximum price it can charge for flood risk coverage, and this will subsidise high-risk properties with below-cost provision of insurance. This will be branded as part of the product supplied by the consumer's normal residential property insurer; indeed in many cases the end consumer will be unaware of the role of Flood Re in this market. The doctrine of privity is in full force here - the contract of insurance remains between the consumer and the property insurer (and not Flood Re). Thirdly, the subsidy to those who would be priced above £X needs to be funded. In the Flood Re example this is by imposing a levy on all purchasers, and separately on all retailers, of domestic property insurance cover. Other papers in this bundle look in more detail at the financial stability of the Flood Re project, and we pass quickly over this concern. Our interest is in the micro-economic consequences of the State requiring a good to be provided below cost, by means of a subsidy imposed on all.

2 Schedule to the draft Regulations, above n 1.

3 ONS *Family Expenditure Survey,* (2012): 76% of 26.4m UK households had contents insurance (with average spend of £174 p.a.) and 64% had buildings insurance (£216 p.a.). 'Weather' claims were second largest source of domestic property loss, after 'escape of water', ABI *UK Insurance Key Facts 2014,* p. 7.

4 The retailer will still wish to make some profit, and will bear some administrative costs, so the line will fall close to X, but not at £X itself.

There are many ways in which insurance might be subsidised, but in Flood Re it is by a largely invisible redistribution from low-risk properties to high-risk properties. The subsidy is 'largely invisible' to those on whom it is levied because it is relatively small (approximately £10 per household per year) and bundled within a broad insurance policy covering many other property risks. Unlike previous non-statutory arrangements, the practice of subsidising those in high risk areas out of the general pool of insureds will be restricted to residential properties only. The current expectation is that the business insurance market for real property, contents and business interruption will operate on a free-market basis.

2. A brief summary of 'risk classification' regulation in the UK, EU and beyond

Private insurance can be provided on a mutual basis, a solidarity basis or a hybrid model.[5] A 'mutual' market allows pricing to float freely on the assumption that insurers will compete through their underwriting processes to price according to risk. A 'solidarity' market would not tie price to risk and could either charge a flat rate ('community pricing') or base it on some other variable (income, asset value etc). A hybrid market (and many in the UK have this approach) allows some risk factors to be priced by the market and controls other factors. Anti-discrimination laws (and codes of conduct) on gender, race, disability, genetic status etc are all examples of controls in markets that otherwise price according to market pressures.

The initial position in Flood Re is a hybrid: a partially subsidised model of property insurance (with many underwriting factors operating at market rates, and a subsidy for flood risk) and is a typical modern insurance market. State intervention in insurance markets is not unusual; it is the norm in many jurisdictions. However, State intervention in insurance markets is a deeply political choice. The role of insurers as a form of 'regulator beyond the State' - pricing risk and influencing behaviour - has been a focus of academic inquiry in the last decade.[6] Insurers are generally keen to deny their social significance and prefer to assert insurance as a purely contractual process. This is largely unconvincing, but insurers cannot be criticised for seeking to minimise the level of government intervention.

3. Council tax bands: removing the subsidy by national pricing structures

The Flood Re administration will cap prices by reference to Council Tax bands. As the level of these caps are to be amended over time - to move towards market pricing, there is a genuine question about how that ought to be done.

The problem is that the level of Band A – H houses varies considerably between regions and is not perfectly correlated with levels of disposable income. It represents instead historic differences in property value.

5 D Wilkie 'Mutuality and solidarity: assessing risks and sharing losses' (1997) 352 Phil. Trans. R. Soc. Lond. B 1039.

6 See here the extensive literature on 'insurance as governance', including J Simon, 'The Ideological Effects of Actuarial Practices' (1988) 22 Law & Soc'y Rev 771 & R Ericson et al 'The moral hazards of neo-liberalism: lessons from the private insurance industry' (2000) 29 Economy and Society 532.

By contrast, the ratio between commercial entities (the number of very small businesses compared to the number of medium sized or large firms) is extraordinarily consistent across England.

The charts below demonstrate this disparity:

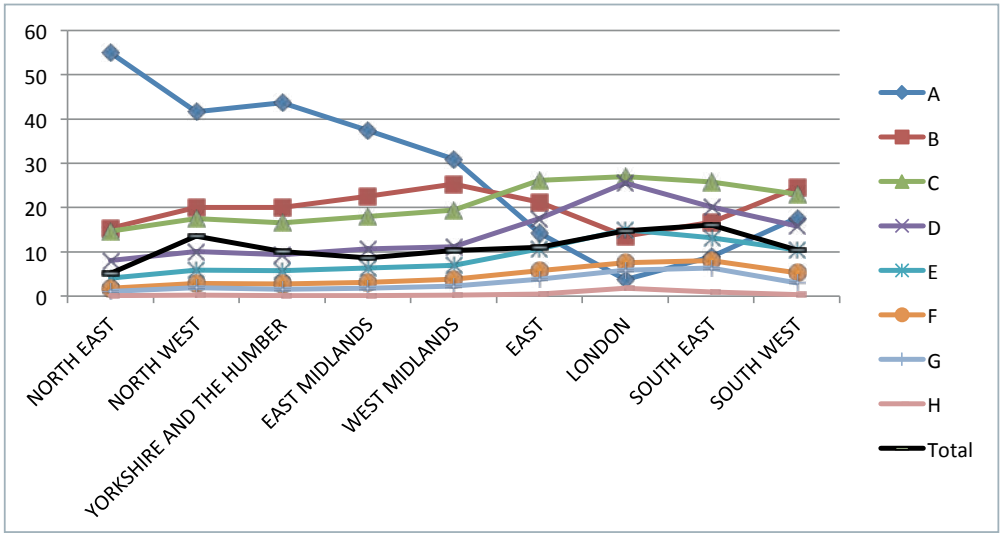


Figure 1: Council tax band by region [ONS, 2014][7]

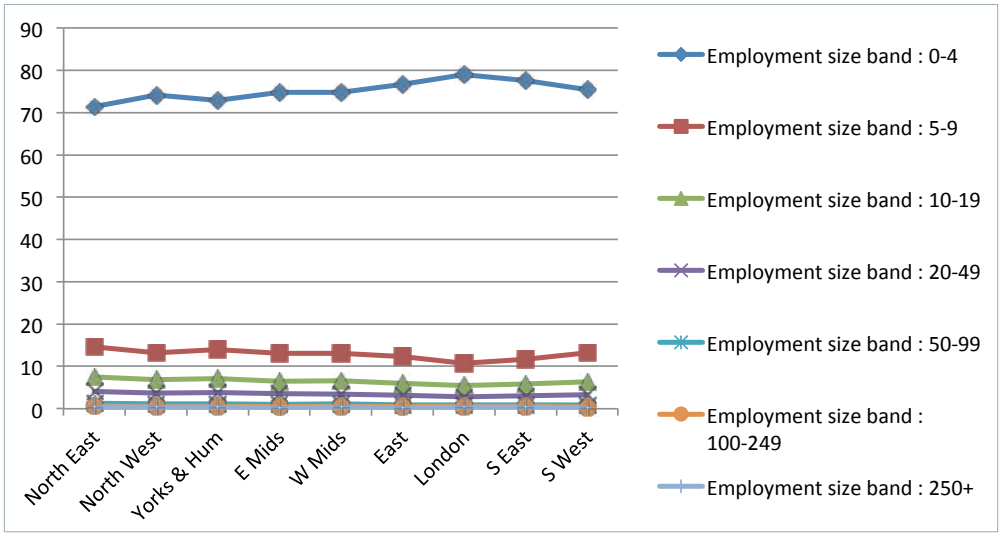


Figure 2: Business Size by region [ONS, 2014][8]

Let us take one example: by how much should the cap on Council Tax Band A be altered to allow gradual adaptation to market-pricing? In London, only the bottom 4% of properties are in Band A. This represents very poor quality housing stock, and it is likely that the residents would be highly sensitive to increases in the cost of insurance without some matching increase in welfare support for the low-waged. By contrast, 55% of the North East falls within this category and this will capture a wide range of personal circumstance, including those with a clear margin of discretionary spending. If national pricing is to be maintained, then either the (relatively) affluent householders in Bands A, B and C of the North East will continue to be subsidised, or the lowest categories of London inhabitants will be at risk of being forced into the uninsured category. There are well-respected

7 Data sourced from ONS dataset 'Council Tax Valuation List: Summary'.

8 Data sourced from ONS dataset 'Enterprise/local units by Employment size band, Legal status and Region' (2014). This chart sums categories: 'Company'; 'Sole Proprietor'; 'Partnerships' and 'NGOs' by region.

insurance commentators (eg Kenneth Abraham[9]) who would advocate leaving the markets to price, and having the welfare state support those who need assistance. What ought not to occur is to require Flood Re to attempt to perform both tasks - it will need to be integrated into Welfare State planning. Ironically, the consistent level of SMEs across England means that a Flood Re based on business size would face much less obvious difficulties across regions.

4. Risk pooling for the affluent insured? Risk pooling for the impecunious uninsured?

One of the difficulties in codifying a market practice is the failure to recognise that a change in form may require a change in substance. It is entirely appropriate that the insurance industry should seek to produce a fund to subsidise high risk insureds by means of crude, equal contribution. The industry is not the State: this does not mean that it is appropriate for that same crude method to be used when formalised into a form of taxation. At present, the level of the levy (£10.50) is not likely to have significant impact on insurance consumption. But there is a real problem in the United Kingdom with the impecunious uninsured. According to ONS data, around one-quarter of the population have no contents insurance, and this is disproportionately typical of low-income groups.[10] At this level, even £10.50 may represent a significant factor affecting purchasing behaviour for some marginal cases. By contrast, the £10.50 levy for eg Group H houses is likely to almost never change purchasing behaviour. Even strict 'transaction cost' economists accept that the more money you have, the less utility each extra £1 brings.[11] Given that it is generally accepted that the levy will represent a form of taxation, it is surprising that it does not follow the normal pattern of taxation, with ability to pay (or asset value) as a factor on a sliding scale.

Losses which have an impact on the uninsured will fall on them, or more likely, the welfare state and charity. Flood Re is only of use to those who are insured, and the level of uninsured losses is only likely to rise as the subsidy is gradually removed from the market. There is therefore a need for future proofing welfare provision in this area, and 'joined up' thinking in this area would involve the Department of Welfare & Pensions in discussions alongside DEFRA.

5. 'Mandated discloure' of subsidy: why?

One of the changes made to the Water Act 2014 as it passed through Parliament was the possibility of mandated disclosure by insurers to customers of the level of subsidy.[12] This is a classic example of modern regulatory intervention: mandated disclosure is a much-used method. Unfortunately, it is also singularly subject to criticism as ineffective.[13] Unless there is a clear demand for the data, it will largely be ignored. Flood data where significant is already likely to be part of the property valuation process. The provision of this information to consumers alone - without eg efforts to tie it into the conveyancing process or the EPC report that vendors provide - is likely to be wasted effort.

9 K Abraham *Distributing Risk: Insurance, Legal Theory, and Public Policy* (Yale Univ Press, 1986).

10 See above, n 3.

11 This distinguishes utility from wealth.

12 S. 67(4) Water Act 2014 permits this to be done by Regulation.

13 O Ben-Shahar 'The Failure of Mandated Disclosure' (2011) 159 U Pa L Rev 647.

[III]. Eligibility: consumers and others

Given the 'framework' nature of the Water Act 2014, much of the crucial legal detail is yet to be determined. Part of the gap is intended to be filled by the (draft) Regulations, but the government has confirmed some changes to these (eg band H inclusion) and other changes may be under discussion in private. The issues discussed below are therefore based on general issues that require attention.

The Water Act 2014 is meant to apply to 'household premises' only, and not to business properties. The Secretary of State is empowered to define, by Regulation, the limits of the scheme, but it is not clear that this will be an easy task. The assertion by the Association of British Insurers that 'Flood Re will establish clear rules for 'borderline' cases such as "Bed and Breakfast" properties'[14] is a triumph of hope over experience. The draft Regulations contain an incomplete version which is somewhat circular: '"household premises" means a dwelling which is covered by a home insurance policy and meets the criteria set out in [BB] of the FR Scheme'. Dwelling is then further defined as: 'any land and building in the United Kingdom that is held by the occupier for private, domestic and residential use (whether or not with others), including a house or other single dwelling; and any property which forms part of, or is enjoyed with, the dwelling'.[15]

Legal definitions of similar boundaries, such as 'consumer' have normally been left deliberately vague. There is a good reason for this- the range of borderline cases is extremely wide, and it is more efficient to resolve these hard cases in an *ad hoc* fashion when required, than to produce a complete taxonomy. However, insurers looking to cede to Flood Re will need to know in advance the limits of reinsurance cover, particularly where the flood risk element is substantial.

Consider the standard definition of 'consumer' in UK and EU legislation. Section 1, Consumer Insurance (Disclosure and Representations) Act 2012 defines an insurance consumer as: '**an individual** who enters into the contract **wholly or mainly for purposes** unrelated to the individual's trade, business or profession'.

Contained within this are two immediate areas of uncertainty: it is (partly) what lawyers would call 'open textured'. First, when is the insured an individual? This is presumably meant to exclude legal persons such as charities, limited companies and partnerships. This is a 'status' question and can be defined away. Second, we have an activity related question: is the insurance wholly or mainly unrelated to business activity? This requires the exercise of judgement. If the definition was 'wholly unrelated' then we could apply a strict approach and find some certainty. But 'mainly unrelated' will lead to numerous boundary disputes, not of all which could be predicted in advance.

Why then is the definition not simple and judgment free? Human society is messy, complex and rapidly changing. Within 30 years the number of people working from home has changed dramatically. It is more efficient for regulatory boundaries to be written with a degree of flexibility, even if they are slightly porous as a result. The reason for this is simple: most cases settle.

14 ABI *The Future of Flood Insurance* (https://www.abi.org.uk/Insurance-and-savings/Topics-and-issues/Flooding/Government-and-insurance-industry-flood-agreement/The-Future-of-Flood-Insurance).

15 Reg 2, above n 1.

This requires a little explanation: imagine a dispute between an insurer and customer over a claim. If the insured is a consumer, regulation X applies. If the insured is a business, regulation X does not apply. In order for the definition of 'consumer' to be relevant to our dispute, the parties have to fail to negotiate away their disagreement. It has to be sufficiently serious - and high value - for lawyers to be engaged. This has - again - to fail to produce a settlement of the dispute. The issue before the court has then to depend on whether regulation X applies or not, and both parties have to wish to expend resources on testing this before a court (rather than just arguing on the substance of the dispute). Non-lawyers (and indeed, some lawyers) imagine that contractual disputes are resolved according to the law, or the written contract. Some are, but it is a tiny minority. Most cases settle. This process of settlement is called 'bargaining in the shadow of the law'. Even when disputes are litigated, parties often concede matters of procedure (such as whether the insured is a consumer). We can find cases where the court is asked to resolve matters of regulatory coverage, but they are interesting and remarkable because they are rare.[16] This is why a 'perfect' all-encompassing definition of consumer is not provided in the legislation, because it is rarely needed, even within contract law disputes.

How does Flood Re differ? Here, the definition of 'household premises' is not a regulatory boundary. It is a statutory pricing mechanism. Every applicant for insurance needs to be sorted into 'household premises' and 'other' before the appropriate pricing strategy can be applied to their quote. If the risk can be ceded to Flood Re then the insurer can pass on that subsidy and sell the same products for less. That is a competitive advantage. We cannot wait and see which ones produce disputes and then only settle those in court. The adage that hard cases make bad law holds true.

To adopt an *ad hoc* approach to defining 'household properties' might put Flood Re at risk of being in breach of statutory duties under the Water Act 2014. It should not reject policies that relate to 'households' nor accept those that do not. It is not hard to imagine the Consumers Association carrying out 'mystery shopper' investigations to see whether the same result for flood risk pricing is applied by MAJOR INSURER A as opposed to MAJOR INSURER B. This runs the risk of becoming a regulatory oversight issue for the Financial Conduct Authority.

One way to overcome this would be for a centralised body to determine the limits of 'household premises' for each and every applicant for insurance. This would appear to be no mean task for a Flood Re executive already challenged with overseeing considerable change. The alternative is to 'piggy back' on an existing model and apply Flood Re to properties to which Council Tax applies, rather than business taxes. This will still not provide for smooth adaptation when the product shifts between categories over time: the occasional Air B'n'B rental. Moreover, it would leave to the market a wide variety of non-commercial properties: eg the local Under 15s Football and Rugby Teams, who rent a changing room on a field; or the small charity that offers advice sessions within the community it serves. The difficulty is that Flood Re promised a more nuanced approach: putting the cost back on to business; and simplistic legal models can also produce a political backlash. This was certainly the

16 See *R. (on the application of Bluefin Insurance Ltd) v Financial Ombudsman Service Ltd* [2014] EWHC 3413 (Admin) [whether Director's insurance within FOS scheme] and *Bate v Aviva Insurance UK Ltd* [2014] Lloyd's Rep. I.R. 527 (CA) [impact of ICOBS on residential property adapted to partial business use].

outcome of attempting to shift to market pricing in the US 'wind risk' market.[17]

[IV]. Tentative conclusions

The task facing the management of Flood Re is considerable, and perhaps impossible, at least to deliver on all of the objectives of the scheme. It should be noted that attempts to shift the US market to risk-based pricing in respect of wind risk were reverted (at least in part) due to contrary public reaction.[18]

My paper can perhaps be reduced to four related points:

- The long history of flood risk subsidy started when market pricing failed to provide the necessary security for households, and the State was not willing to offer a public guarantee. If the cost is to be refocused on citizens, then a clearer model of how to deal with the uninsured ought to have been adopted.
- The division between residential households and other properties is more significant in a pricing control system than in a standard regulatory intervention, because every possible case has to be determined in advance (or at least, as presented) and there needs to be a degree of co-ordination. Flood Re must not wrongfully reject or wrongfully accept 'ceded' risks.
- The formalisation of the previous industry practices fails to take into account the revised nature of the intervention: it is no longer a 'lowest cost' industry practice, but a form of taxation, and ought to be based around fundamental principles such as the ability to pay. The flat fee of £10 may seem inconsequential from the comfort of Westminster, but a quarter of the population are uninsured, presumably because for many the cost is already too high.
- Adjusting the price caps towards risk-based pricing is likely to be extremely difficult. The impact on insurance purchasing patterns is likely to differ considerably across the regions, and a neutral national pricing plan (let alone one that includes Wales etc) will require very careful research by a cross-disciplinary team of geographers, environmental scientists, lawyers and economists.

17 See generally the paper provided by D Hornstein 'The Insurance Industry on the Cusp of COP 21: Lessons from Flood Insurance Reform in the US and UK on Risk Management, Politics, and the Prospects for a Worldwide Climate-Resiliency Strategy'.

18 Idem.

A marina flooded during the 2007 UK floods

Flood Re: together, though not all and not forever

Mateusz Bek, LLB Law, LLM Maritime Law, Member of the Insurance Law Research Group, University of Southampton

"Utopia lies at the horizon.
When I draw nearer by two steps,
it retreats two steps.
If I proceed ten steps forward, it
swiftly slips ten steps ahead.
No matter how far I go, I can never reach it.
What, then, is the purpose of utopia?
It is to cause us to advance."
Eduardo Galeano

On 14 May 2014, the Water Bill gained Royal Assent and became an Act of Parliament. It laid the foundation for the Flood Reinsurance Scheme ('FR Scheme') that the government together with the Association of British Insurers ('ABI') has devised to address concerns arising from consumer dissatisfaction with the flood insurance market. The Scheme Document, signed on 16 March 2015, describes the FR Scheme and provides a framework within which the FR Scheme administrator, ie Flood Re, will administer the FR Scheme. The first draft regulations to establish Flood Re were laid before Parliament on 19 March 2015, yet the necessary approval had not been granted before Parliament was prorogued amid general election. It is now expected that the operation of the scheme will commence in April 2016. The aim of the FR Scheme is to promote the availability and affordability of flood insurance for household premises and to manage, over the period of operation of the scheme, the transition to risk-reflective pricing. Although much of the detail is yet to be determined, it is with these objectives in mind that the few observations below are made within the short time available for this talk.

Solidarity fund

Flood Re's aggregate annual liability collectively to the insurance industry will be capped at a level equivalent to a one in 200 year loss scenario. This is the regulatory capital limit set by the Prudential Regulation Authority. In accordance with current actuarial modelling, this would amount to approximately £2.5 billion. The scheme will be seeking retrocession protection between £250 million and the annual aggregate loss level. It is not yet clear what will be the cost of the reinsurance arrangement, though an independent estimate shows that it might be significant (Diacon, 2013).

FR Scheme will be funded primarily by an annual levy ('Levy 1' or 'Type A payment') on every domestic property insurance provider in the UK totalling £180 million, which would notionally equate to roughly £10.81 in respect of each household. It will thus constitute a formalisation of existing practice whereby around 500,000 properties deemed to be at significant risk of flooding are cross-subsidised by a levy on top of the premium on every household insurance policy.

The second source of funding will be the reinsurance premium that Flood Re will charge relevant insurers in respect of the flood risk element of a combined policy, a buildings only policy or a contents only policy, for household premises. These premiums are specified in the draft regulations, corresponding with the relevant valuation band based on Council Tax bands for England, Wales and Scotland, and rates for Northern Ireland.

Flood Re will also have the power to request a further payment from the insurance industry either in the form of levy or by way of contribution ('Levy 2' or 'Type B payment') if such is required for the prudent management of the scheme or regulatory compliance. In accordance with the Scheme Document, the levy is non-returnable while the contribution may be returned during the period of operation of the FR Scheme or at, or around, the time of winding up of Flood Re. Bearing in mind the level of Levy 1, the fact that Flood Re's aggregate annual liability collectively to insurers will be capped and the capital requirements with which it will have to comply, it is difficult to escape the conclusion that the insurance industry will potentially be subjected to a considerable financial burden in the initial period of the operation of the scheme. It is worth noting that the ABI had initially asked the government to provide a temporary overdraft facility to be triggered in case of insufficiency of funds for the purpose of satisfying legitimate claims in the early years of the scheme. However, the government refused, perhaps based on the financial policy of the day of prioritising the preservation of the UK's credit rating and eschewing voluntarily assumed liabilities.

Ever since flood insurance became widely available in England and Wales, cross-subsidisation has been at the heart of market practice. A recent report argued convincingly that such a solidaristic, risk-insensitive insurance scheme, in which those at lower risk contribute to the support of those at higher risk, is the only model consistent with the notion of fairness as social justice (O'Neill and O'Neill, 2012). By contrast, individualist risk-sensitive insurance, whether based on pure actuarial or choice-sensitive fairness, would simply be unjust in the context of covering flood risk. Societies must eliminate the effects of bad luck and other misfortunes by judging what a more comprehensive and fairer market would have done (Dworkin, 2011). Moreover, minimising insecurity of those threatened by floods by providing a mechanism inspiring confidence reduces the negative effect such events might have upon the wellbeing of citizens and as a result improves the condition of the society as a whole (Lindley *et al,* 2011) The approach taken by the government with respect to provision of flood insurance should therefore be commended. Introduction of the scheme improves the security of the solution. It also promotes the availability and affordability of flood cover for the vast majority of those who otherwise would not be able to afford actuarially sound premiums.

However, imposing a cap on the aggregate annual liability of the scheme raises a number of questions which are relevant both for the consumers and the insurers. First, what would be the manner of distribution of the funds accumulated under the scheme in the unlikely event of the quantum of the relevant claims exceeding Flood Re's liability limit in any given year? The Memorandum of Understanding (MoU), agreed between the government and the ABI in June 2013, contained a somewhat enigmatic statement whereby the government pledged to take 'primary responsibility for deciding how any available resources should be distributed to Flood Re customers' in the event of the cap being exceeded. Following the publication of the Scheme Document, it is now clear that Flood Re will only be proportionally liable to relevant insurers in such circumstances.

This raises the second question: will the consumers whose policies have been reinsured with Flood Re be adequately compensated for their legitimate losses in case the liability limit is triggered? Again, the Scheme Document makes it clear that 'relevant insurers will continue to be liable to policyholders in accordance with the terms of the insurance policy sold'. The relationship between the assured and the insurer is contractual in nature. Therefore the contractual responsibility for paying out to the policyholder, if a valid claim is made, still rests with the relevant insurer. Consequently, if a policyholder's household is flooded, then that policyholder will deal with their insurer in the usual way to get their claim paid. However, the relevant insurer may then recover the claim from Flood Re in accordance with the reinsurance arrangements on the flood risk element of insurance policies ceded to the FR Scheme. Accordingly, should the aggregate annual liability limit of Flood Re be triggered, it will be the insurers, and not the consumers, who will bear the direct burden of such eventuality.

The third question relates to the ability of the insurers to limit their liability to the relevant policyholders by reference to their reinsurance arrangement with Flood Re. Regardless of whether any such term would be caught by the relevant consumer protection legislation, the fact that the government, at the same time as laying the foundations for the FR Scheme, provided the Secretary of State with the power to require a relevant insurer to issue insurance policies covering particular households against the risk of flood, might act as a deterrent from any potentially unfair practice. As ever the devil is in the detail. At the moment, there is still a great deal of uncertainty surrounding the intricacies of the operation of the scheme.

Unnecessary exclusion

Not every property at significant risk of flooding will be able to benefit from the operation of the scheme. It is not my intention to conduct a thorough discussion of the various exclusions. I intend to focus on a single, in my opinion, most important exclusion, namely the exclusion of properties built after 1 January 2009.

This cut-off date was adopted in the Statement of Principles agreed between the government and the ABI in 2008. It is a measure aimed at discouraging development in flood prone areas. It is thought to maintain the signal to planning authorities that property development must be appropriate and resilient to flooding and to be the most appropriate date based on the current understanding of flood risk. In fact, it is arguably arbitrary and reflects the recent failure of government and local authorities to take decisive action against construction on flood plains.

It is true that including additional properties in Flood Re would increase the scheme's liability and require a further subsidy. However, this would be offset to an extent by the additional premium income Flood Re would receive by reason of more policies being reinsured with the scheme and more properties sharing the burden of contribution towards Levy 1. Moreover, the increase in cost could be mitigated by charging as little as an additional £0.13 – £0.21 on top of the £10.81 imposed on each household premium for the purpose of funding Levy 1 (ABI, 2013; Rogerson, 2013). It thus appears that the FR Scheme could be much more inclusive, and thus socially just, than it will be, at an extremely insignificant additional cost to the consumer.

It is worth noting that bringing Council Tax Band H properties within the scope of the scheme resulted in an increase of the amount levied upon each household insurance premium from £10.50 to £10.81 (Pickard, 2014). Although exclusion of Band H properties might at first seem reasonable, a proportion of these households are thought to be 'asset rich and cash poor' and thus otherwise susceptible to social injustice resulting from the exclusion. In light of the decision to include those properties in the new flood insurance arrangement, leaving out new builds appears even more arbitrary.

The justification given for not including properties built after 1 January 2009 also appears to be unsupported by evidence. The reason for excluding those households from the ambit of the Statement of Principles was to discourage development on floodplains. Over the last 15 years roughly 9.3% of new dwellings built in England were constructed in areas of high flood risk, ie flood plains. Evidence suggests that alternative sites for development are usually simply not available (Samuels, 2015). It therefore seems extremely harsh and unjust to exclude those properties from the scheme. Would it not be more appropriate to address concerns related to the location of any new development through changes to the planning permission and building regulations?

Problematic transition

The FR Scheme is designed to operate for up to 25 years from the date of Royal Assent to the Water Act 2014. The framework established by the government and the insurance industry will thus expire on 14 May 2039 at the latest, provided that no amendment to the relevant provision is adopted in the meantime. This reflects the transitional nature of the FR Scheme, established with a parallel aim in mind of achieving risk-reflective pricing of flood insurance for household premises by phasing out the benefits of the scheme over its lifetime. It is not yet clear what will happen to the funds accumulated under the scheme upon the winding up of Flood Re.

It is in my opinion inconceivable that a smooth transition to risk-reflective pricing can be brought about without a radical change in certain policies. The fundamental tools to create an environment for risk reflective pricing lie with the government and not with Flood Re. Even the ABI recognised that in the context of climate change, a major shift in approach and resourcing over time will be required in order to achieve affordable flood cover at the end of the life of the scheme (ABI, 2014). Prohibition of inappropriate development in areas at high risk of flooding as well as a substantial increase in central government funding for flood and coastal erosion risk management would be crucial in making such a transition attainable. In the UK, flood risks are not as enormous and geographically diffused as, for instance, in the US where mitigation through flood protection measures, however expensive and complex, generates limited impact (Lemann, 2015; Verchick and Johnson, 2014). Nonetheless, at the other end of the spectrum, they are neither as manageable as in the case of the Netherlands where state of the art flood protection mechanisms safeguard roughly 64% of the population who are located below the sea level (McVeigh, 2014; Bek *et al*, 2013). With public expenditure under constant scrutiny, it might be extremely difficult to meet the objective set by the government. The recent increase in the expenditure related to flood protection is a positive indication of the government's intention to improve the current state of affairs (Defra, 2015), but in reality it may scarcely be sufficient to maintain the status quo.

Furthermore, the FR Scheme's policy objective might also be seen as overly optimistic. The revised Impact Assessment concerning the future of flood insurance (Defra, 2014) contains the following answer to the question regarding policy objectives and their intended effects:

> "A successful implementation would entail insurance terms adjusting towards risk-reflective pricing at a pace that allows choices to be made by policyholders facing long-term increases in insurance costs unless action is taken, and avoids any risk of instability in insurance, mortgage and local housing markets".

Realistically, consumers with low household income, facing long-term, often substantial, increases in premiums for home insurance due to exposure to significant risk of flooding, have no choice but to sell their properties to those who are able to afford risk-sensitive pricing and relocate to areas which are not similarly exposed. Placing policyholders in such a position seems unfair and thus undesirable, especially if they found themselves in this situation through no fault of their own (Segall, 2007; Rawls, 2001). This is not the type of transition we would like to see, save in exceptional and extreme cases. It is to be hoped that the words "unless action is taken" signify the readiness of the government to intervene when necessary.

A word of caution should also be issued based on the experience of the National Flood Insurance Program (NFIP) in the US, though recognising and respecting all the differences between NFIP and FR Scheme. Coincidentally, the creators of the NFIP also envisaged a cross-subsidy phase-out within 25 years (Scales, 2006-2007). Almost 47 years later, cross-subsidy is still at the heart of the program despite recent efforts to put a sudden end to the practice.

Conclusion

The establishment of the FR Scheme is a welcome development. It is perhaps the second step, after the Statement of Principles, on the journey towards securing availability and affordability of flood insurance in the UK. The solidaristic nature of the scheme in addressing what is ultimately a catastrophic risk is both fair and just. Regrettably, properties built after 1 January 2009 have been unnecessarily excluded from the scope of the new arrangement. It also remains to be seen whether the government will manage the transition to risk-reflective pricing over the lifetime of the FR Scheme, or whether we will be back to square one on 14 May 2039.

Since the title of this event is "Future directions of consumer flood insurance in the UK", I feel bound to mention an important issue which remains unresolved in the wake of the creation of the FR Scheme. It is the case of low-income uninsured households (Pitt, 2008). It is unlikely that relatively poor homeowners living in areas prone to flooding will ever be able to afford market rates for flood cover. Imagine that flood insurance is made compulsory across the country. Imagine that flood cover premiums are cross-subsidised based on household income. Is this an image of flood insurance utopia?

References

ABI, "Flood Re Consultation Response", September 2014

Bek M, Bugra A, Hjalmarsson J and Lista A, "Future Availability of Flood Insurance in the UK", University of Southampton, June 2013

Bek M and Hjalmarsson J, "Flood Re – planning for the future or postponing the inevitable?" (2014) Env L Rev 163

Crichton D, "UK and Global Insurance Responses to Flood Hazard" (2002) 27 Water International 119

Crichton D, *Flood Plain Speaking,* CII, 11 March 2012, available at <http://www.cii.co.uk/knowledge/claims/articles/flood-plain-speaking/16686> [accessed 24 June 2015]

Defra, "Managing the future financial risk of flooding", Impact Assessment, 10 June 2014

Defra, "Flooding and insurance: a roadmap to 2013 and beyond", Final Report of the Flood Insurance Working Groups, December 2011

Defra, "Central Government Funding for Flood and Coastal Erosion Risk Management in England", Official Statistic, February 2015

Diacon J, "Independent Review of Flood Insurance Analysis", June 2013

Dworkin R, *Justice for Hedgehogs* (First Harvard University Press, Cambridge 2011)

Lemann A, "Rolling back the Tide: Toward and Individual Mandate for Flood Insurance" (2014-2015) 26 Fordham Envtl L Rev 166

Lindley S, O'Neill J, Kandeh J, Lawson N, Christian R and O'Neill M, "Climate change, Justice and Vulnerability", Joseph Rowntree Foundation, November 2011

McVeigh T, "The Dutch solution to floods: live with water, don't fight it", The Guardian, 16 February 2014

O'Neill J and O'Neill M, "Social Justice and the Future of Flood Insurance", Joseph Rowntree Foundation, March 2012

Pickard J, "Cameron orders 'Flood Re' U-turn to cover high-value homes", Financial Times, 26 February 2014.

Pitt M, "Learning lessons from the 2007 floods", Cabinet Office, 25 June 2008

Rakowski E, *Equal Justice* (Oxford University Press, New York 1991)

Rawls J, *Justice as Fairness: a Restatement* (Harvard University Press, Cambridge, Massachusetts 2001)

Rogerson D, "Flood Insurance: Impact of Changing Eligibility for Flood Re", Defra, 10 December 2013

Samuels A, "Flooding and the Law" (2015) JPL 133

Scales AF, "A Nation of Policyholders: Governmental and Market Failure in Flood Insurance" (2006-2007) 26 Miss C L Rev 3.

Segall S, "In Solidarity with the Imprudent: A Defence of Luck Egalitarianism" (2007) 33 Social Theory and Practice 177.

Verchick RRM and Johnson LR, "When Retreat is the Best Option: Flood Insurance After Biggert-Waters and Other Climate Change Puzzles" (2014) 47 J Marshall L Rev 695

Adding insolvency to injury - a thought experiment on the rights of consumers, third parties and flood victims

Abstract

Flood Re is designed to be a reinsurer. It is a well-established feature of insurance law that the consumer or other insured cannot ever in theory or practice have any rights against the reinsurer. This is due to the simple fact that the consumer or other insured is not a party to the reinsurance contract, which is concluded between the insurer and the reinsurer. However, lessons from liability insurance teach us that this may lead to undesirable results where the insurer is unwilling or unable to pay the insured. While the integrity of reinsurance is important, it will also be an important public and social policy question for Flood Re to consider what should happen in a similar situation.[1] This paper explains the law to illustrate a potential problem of social policy and perceptions; a problem to which there probably cannot be a legal solution, but which will need to be addressed in the process of setting up Flood Re to help ensure that flood damage payments can be made to those who need it as quickly as possible.

Introduction

The immediate purpose of Flood Re is to help ensure that insurers are willing to continue to provide flood risk insurance to consumers, and to manage the transition to market prices. While it is not a direct purpose, Flood Re is also an important part of overall social policy towards an underlying, wider social aim, namely to help prevent widespread devastation and misery where large numbers of victims from a variety of social strata and geographical areas suddenly become destitute as a result of floods. Such a situation would, as always, result in intensive media and consumer group scrutiny and in more or less well-constructed attempts at apportioning blame. It is probably fair to say that Flood Re would not escape scrutiny. This paper seeks to explain the legal limits of movement of Flood Re, and some limits of the law in helping resolve such issues.

The conundrum can be illustrated by a historic case from liability insurance, which led to the introduction of compulsory motor insurance and the Third Parties (Rights Against Insurers) Act 1930. In *Re Harrington Motor*,[2] a case from 1927, a claim was made by Mr Chaplin, who had been hit by a car sustaining personal injuries. The owner of the car, the Harrington Motor Company, was not uninsured, on the contrary, it was insured with the Universal Automobile Insurance Company for third party damage and injury. Liability was established and the indemnity paid to the liquidators of Harrington – but Mr Chaplin never received any indemnification. Why? Because the owner of the car was in insolvent liquidation. Mr Chaplin was not a preferred creditor and his indemnity was distributed by the liquidators according to the usual rules to preferred creditors, leaving nothing for unsecured, low-preference creditors like Mr Chaplin. Indeed, Mr Chaplin would not even have been

1 The author wishes to thank Professor Rob Merkin QC, Mateusz Bek and Professor James Davey for productive discussions, and takes responsibility for all remaining errors.

2 *Harrington Motor Co Ltd Ex p. Chaplin, Re* (1927-28) 29 Ll. L. Rep. 102

in a position to know whether the driver or owner of the car possessed any insurance, as he had no legal rights to obtain that information. The Court of Appeal with evident regret concluded that Mr Chaplin had no rights in law, nor in equity, to recover from the insurers of the Harrington Motor Co.

The situation of Mr Chaplin, and others like him, caused a member of parliament, Mr Cyril Atkinson, to say the following.

> "Suppose some wholly irresponsible person driving a motor cycle half kills someone and has a judgment against him for £1,000. He has a right to demand payment by the insurance company to himself, but there is nothing to compel him to hand over that money to the injured person. The injured person is only in the position of an ordinary creditor and may never receive a single penny of the money to which he is entitled." [3]

This quote outlines the awkward position of an insured retaining the indemnity for himself and not paying it on to the injured third party – but it was actually worse than that. In the case of insolvency, the insured could benefit from causing insurance losses. The attorney general Sir William Jowitt made the following observation about the *Harrington Motor* case, and others like it:

> "One of the Judges in the case suggested that if this sort of thing went on the best thing that could happen to the creditors of a man of doubtful solvency was that he should run into the most expensive thing he could see in order that when he went into bankruptcy it would be quite certain that the insurance company behind him would have to pay a large sum of money." [4]

In other words, an insolvent driver wishing to repair his finances might drive around looking for expensive things to run into, in order to secure an insurance payment that could then be used to pay off their creditors! The Attorney General was referring to Lord Justice Atkin, whose exact words were:

> "it would appear as though a person who is insured against risks and who has general creditors whom he is unable to satisfy has only to go out in the street and to find the most expensive motor car or the most wealthy man he can to run down, and he will at once be provided with assets which will enable him to pay his general creditors quite a substantial dividend!" [5]

The Third Parties Act

The great debate of the day was the introduction of compulsory motor insurance. Compulsory insurance had been pioneered in the context of workers in the late 19th century and revised in the Workers Compensation Act 1906. A new feature in the context of motor insurance and in particular mass motorism was the unpredictability of the liabilities created in everyday situations which could have an impact on anyone using the streets.

3 http://hansard.millbanksystems.com/commons/1928/apr/17/third-party-indemnity-insurance#S5CV0216P0_19280417_HOC_114

4 The Attorney General Sir William Jowitt http://hansard.millbanksystems.com/commons/1929/oct/29/third-parties-rights-against-insurers#S5CV0231P0_19291029_HOC_252

5 *In Re Harrington Motor Company, Limited. Ex parte Chaplin* [1928] Ch. 105, at page 124.

The immediate solution was the Third Parties (Rights Against Insurers) Act 1930 which created the right for the likes of Mr Chaplin to sue the insurer directly for the indemnity. It was a great innovation at the time to create compulsory insurance coupled with rights for the injured third party who had proven its right to damages to recover them directly from the insurer. However the Third Parties Act 1930 itself was far from perfect and was soon afterwards replaced by the Road Traffic Act 1934 for the purpose of motorism. The original Act has recently been replaced by the Third Parties (Rights Against Insurers) Act 2010, entering into force in October 2015. It addresses problems demonstrated and partially resolved in practice over the years. One such case is worth a little attention here to illustrate an interesting moral problem.

The Fanti and *The Padre Island (No 2)*[6] were two cases with the same set of facts, which were adjudicated separately at first instance but joined in the Court of Appeal and the House of Lords. In both cases, cargo interests sued the liability insurer of the shipowner. The liability insurers sought to defend the claims based on the insurance terms, which provided that all claims must first be paid, a so-called pay-to-be-paid clause. The insurers were successful as the House of Lords recognised the applicability of the clause – meaning that the Third Parties (Rights Against Insurers) Act 1930 was effectively circumvented by the clause. The implications of this result were described by the Court of Appeal as driving a coach and horses through the Act. However, the minority judgment of Lord Goff clarified that this result would not be accepted in any context other than mutual marine liability insurance – the pay-to-be-paid clause was a historically well-established tool designed not to circumvent the Act (which it predated) but to protect against the insolvency of individual shipowners. Under the Act, any clause that purports to change the rights of the insurers in the event of insolvency is effectively null and void.

Lord Goff pointed out that liabilities in the shipping industry are carefully balanced and that it is perfectly appropriate to require cargo interests to maintain their own insurance. The shipowners' liability clubs were essentially mutuals covering each other's liabilities and it was not right that the insolvent shipowner should be covered by other members. Lord Goff also made it abundantly clear that the case under consideration was one of cargo insurance and that if it were to transpire that the shipowners' liability insurers were adopting the practice of not paying personal injury claims, the position should be reconsidered by the legislator. This case, and the difference in philosophy between the majority judgment and the minority speech of Lord Goff is illustrative of a moral dilemma to which we will return later.

Under the Third Parties (Rights Against Insurers) Act 2010, the third party has the right to sue the insurer directly, so that there is now only a need for one set of proceedings, between the third party and the insurers. This litigation can determine all the issues including the insured's liability to the third party. For marine insurance, there is no change except that personal injury claims which were earlier (in pursuance of the minority judgment of Lord Goff in *The Fanti* and *The Padre Island (No 2)*) paid on a voluntary basis must now be paid.[7] The 2010 Act applies to 'voluntarily incurred liabilities'[8] and there is a right to information from any person who might know about the contract of insurance,

6 Firma C-Trade SA v Newcastle Protection and Indemnity Association (The "Fanti ") [1990] 2 Lloyd's Rep 191

7 9(6)

8 s 16

to help the third party gauge whether there is a valid and applicable insurance policy. The third party can thus assess whether there is a contract of insurance, who the insurer is, what the relevant terms are, the claims position etc.

A thought experiment

While the Third Parties Act applies to liability insurance, not reinsurance, there is a way in which the situation under the Third Parties Act can illustrate a potential issue with Flood Re. What if an insurer participating in Flood Re were to become insolvent? Flood Re is effectively a mutual reinsurer, entirely funded and owned by the reinsureds themselves, albeit with backup in the shape of protection under the Water Act 2014 and the possibility of extending a guarantee from the State in case of temporary difficulties.[9] As a result, there may well arise a situation where Flood Re has funds committed and allocated, but they cannot be paid out in such a way that they ultimately benefit the assured. The question is how such a situation would be resolved. *The Fanti* and *The Padre Island* (*No 2*) itself is no direct guidance. Any insurance lawyer would immediately conclude that a case on liability insurance is no direct precedent to a reinsurance case. Would the reasoning from Lord Brandon's majority judgment be more appropriate, protecting Flood Re finances from the insolvency of the participating insurers? Or should one take the position of protecting the insureds, who as consumers are more akin to the personal injury claimants of Lord Goff's reasoning than to the cargo claimants whose claims were in fact at issue?

The common feature of reinsurance and liability insurance is that there is no entitlement at common law for anyone other than the insured under the contract to receive any indemnity. It was possible to create such a channel for third parties with the Third Parties (Rights Against Insurers) Act 1930, but those rights were restricted to cases of insolvency. In other contexts, the right exists when insurance is compulsory: with motor insurance, the injured third party can contact their own insurer if they have one, but can also go directly to the insurer of the driver at fault.[10] Insurance is compulsory also for some marine liabilities, and the third party then has a right to claim directly from the insurer.[11] Direct action in such compulsory insurance situations is generally a common feature in many jurisdictions and is arguably an essential tool to making compulsory insurance work. A clue to why is given by Lord Sumner in the historical debates mentioned earlier.

Insolvency of insurers

Lord Sumner, a judicial member of the House of Lords at the time, said the following in a House of Lords debate about the rights of third parties under a proposed bill introducing compulsory motor insurance:

> "Have your Lordships conceived the case of an owner-driver who has nothing in the world except his clothes and the car that he owns, and the magnificent spirits which he enjoys? He is sued to judgment. The insurance company may take the risk of paying direct to the injured person if it likes to take the risk, but in so doing it runs

9 It appears unlikely at this stage that a terminal funds shortage would be resolved by the State; but that would seem to be a rather remote possibility in any case. See article of Mateusz Bek in this volume.

10 Now the Road Traffic Act 1988.

11 Usually under the Merchant Shipping Act 1995.

> a risk. Of course it must pay the right person. You have to make the debtor bankrupt on your judgment, and then the trustee in bankruptcy is entitled to collect from the insurance company, and if there is only one creditor the trustee will pay the money to the plaintiff. If, however, there is more than one creditor the widow and orphan may only get 6d. in the £. That is the way in which this scheme will work." [12]

In other words, the insured's insolvency would inevitably eat up the indemnity that according to the scheme being debated should have been reserved for the third party.

Lord Sumner was discussing a third party situation, not one where the insured is itself an insurer. Insurers these days do not become insolvent out of the blue. We have prudential rules and Solvency rules, and Solvency II just around the corner.[13] However, Flood Re is designed to deal with the contingency of the catastrophe. It is therefore appropriate to consider where the contingency will take us – What If the insurer becomes insolvent? What if the third party is unable to recover from the insurer? Can the insurer's liquidators still recover from Flood Re and retain the indemnity for distribution to the insurer's creditors? **Should there be a mechanism for the consumer insured to recover directly from Flood Re?**

Flood Re is designed as reinsurance and it is a basic concept of insurance law, that the insured has no contractual relations with the reinsurer, and no rights to claim directly against the reinsurer. The insured is not in the position of a third party, who might be entitled to claim from the insurer under the Third Parties Act - but should they be? Ought the insured to have some form of contingency rights against Flood Re? The unanimous answer of all parts of the insurance industry to this question must be a resounding no – but will a consumer overcome with flood and resulting loss of personal possessions, stress, ill health and facing the loss of their single most valuable asset see it that way?

The need will not be overwhelming in the case of an insolvent insurer, for the simple reason that the Financial Services Compensation Scheme is available to meet any insurance claims where the insurer is insolvent. The FSCS will work with the insurer's liquidators to make sure claims are met, and will have the ambition to assist claimants who are in urgent need as soon as possible. However, Flood Re is already a high profile body, even before it begins operations, and it is not difficult to imagine a situation where flood claimants are desperately looking for help, having been let down by their insurers and the liquidators and FSCS are unable to cope with demand.

Reinsurance

The fact that the "benefits to high flood risk insurance households" that Flood Re is designed to provide are intended to be phased out within 25 years[14] means that the entity must either disappear at the end of that time, or become a profit-making enterprise. If Flood Re is to be phased out, it will be crucial to consider end-of-life issues already at the setting up stage, so that Flood Re does not take on larger liabilities than it can meet. The phasing out of a reinsurer is an infinitely complex

12 Lord Sumner in Hansard, available at http://hansard.millbanksystems.com/lords/1926/jun/30/motor-vehtclks-compulsory-insurance-bill#S5LV0064P0_19260630_HOL_33 at [699].

13 Entering into force at long last on 1 January 2016.

14 MOU para 1: https://consult.defra.gov.uk/flooding/floodinsurance/supporting_documents/20130626%20Flood%20Insurance%20MOU%20June%202013%20unprotected.pdf (accessed on 12 June 2015).

operation. If on the other hand Flood Re is to become a competitive reinsurer, it will by the end of the 25 years need to be capable of operating on market terms and premiums for reinsurance, and will need to submit to prudential regulation (by then surely Solvency II!). The support of the Water Act 2014 will cease to be applicable for competition law reasons.

On the positive side, while insurers will be in charge of assessing which policies have a high risk threshold, it will be Flood Re that decides on what terms these are reinsured. The industry will absorb a stipulated excess.

It seems likely that Flood Re will be writing non-proportional rather than proportional reinsurance. In proportional reinsurance, the reinsurer takes a percentage of the premium and a percentage of the risk. In non-proportional reinsurance, the reinsurer takes a fixed premium and there are excesses and limits applicable to the reinsurance contract. The latter is a closer fit for what is currently known about the terms of Flood Re: the premiums will be fixed according to mathematics that aim to reproduce the current subsidy. This does not matter much to the consumer, because either way they are unable to recover under the reinsurance contract. What matters is the reinsured's (the insurer's) ability to recover from Flood Re. In the event of insolvency, that ability is affected not just by the insurer's ability to pay the consumer their claim, but also by the order in which the claims are decided.

In *Charter Re v Fagan,*[15] the House of Lords went to great lengths to interpret a contract clause stipulating that the reinsured must first pay the insured, before it could collect under the reinsurance. Their Lordships, in an intricately reasoned judgment by Lord Mustill, made very clear that reinsurers would not be entitled to benefit from the privilege afforded to marine liability insurers some half a dozen years earlier in *The Fanti* and *The Padre Island (No 2)*:[16] while marine liability insurers were entitled to rely on their 'pay to be paid' clause to reject direct claims by cargo insureds, reinsurers could not reject claims by reinsureds in reliance upon a 'sums actually paid' clause. Lord Mustill said that at first sight, those words might seem like they meant "sums that had actually been paid by the reinsured to the direct insured", but in fact whether a sum had actually been paid was a matter of looking at the final accounts when they had been settled, whether or not the sums owed had in fact been paid. The reinsurer therefore had to pay.

In *Charter Re,* the issue was purely one of contract interpretation. There is little or no statute applicable to reinsurance and indeed the Third Parties (Rights Against Insurers) Act 1930 has never applied to reinsurance. There is no change to the law on this point under the Third Parties (Rights Against Insurers) Act 2010, section 15 of which reads:

> "This Act does not apply to a case where the liability referred to in section 1(1) is itself a liability incurred by an insurer under a contract of insurance."

As a result, an insurer who is entitled under a reinsurance contract to recover the indemnity from the reinsurer under the terms of the reinsurance will always be entitled to do so, even if they have not in fact first paid the insured and ultimately may never be able to do so due to insolvency. The insurer

15 Charter Reinsurance Co Ltd v Fagan [1997] AC 313.

16 Firma C-Trade SA v Newcastle Protection and Indemnity Association (The Fanti) [1990] 2 Lloyd's Rep. 191.

may therefore be paid by Flood Re but may, just as in Harrington Motor, end up paying out that money according to insolvency rules rather than under the insurance contract.

As mentioned above, it appears that the reinsurance cover offered by Flood Re to insurers will be non-proportional. If so, *Teal v Berkley*,[17] a case of reinsurance of a liability insurance policy, becomes relevant. In that case, a liability insurance policy covered claims from the USA and Canada, and outside those countries. The final layer of the reinsurance policy did not cover US or Canadian claims. As a result it was beneficial for the insured and its liability insurer to pick and choose US and Canadian claims to be met under the first layers of the policy, to maximise the sum that could be recovered from reinsurers. However, the result of that case was that insurers were not permitted to choose how to deal with the various insurance claims, but had to give them priority in the order in which they arose, and in which the liability was confirmed. As a result, the insurer had to retain the claims that happened first, and could only claim under the reinsurance for claims arising later. In the flood context, an early claim might fall under the insurer's deductible, while a later claim might be within the cover, and a further one yet again may fall outside the cap set for Flood Re for claims in individual years. This becomes important if one imagines a scenario such as the Thames overflowing starting at its source in the West and moving eastwards. Different regions would be treated differently, with some being covered only by the insurer under its deductible, and others being covered under the reinsurance.

A thought experiment on the law - without a legal solution

Ultimately, the purpose of Flood Re is not at all to provide direct benefits to flood victims. It is designed to provide indirect benefits, by ensuring that insurers are willing to keep writing flood insurance, and to manage the transition to market prices over 25 years. It is for both legal and organisational reasons not possible to allow consumers to claim directly from Flood Re. However, Flood Re is a highly visible body, even before it officially begins operating. It is likely to receive some unwelcome attention as soon as there is a problem with managing flood claims.

Even on the assumption that the Third Parties Act and the type of situation it is meant to resolve is not an issue because all insurers will always remain solvent, the following thought experiment is worth considering: what will a consumer think, who is in dire straits following a flood event, and who does not receive its indemnification from the insurer because the insurer is overloaded with claims, or because the insurer has some legitimate reason for delaying payment of the claim? A consumer may well take the view that it is entitled to the funds sitting in Flood Re, which are a direct result of the consumer's premium payments.

The Third Parties (Rights Against Insurers) Act 2010 is not applicable to Flood Re – and it is not for a moment suggested that it should be. Flood Re is being set up to provide reinsurance, which is a beast very different from liability insurance. We are considering here a situation where we are enjoying the luxury of a well-funded Flood Re but catastrophic losses resulting in the demise of an insurer, entitled to claim from Flood Re. If that demise were the result of wide-spread flooding, the claims against the original insurer would be unmet while there would be a contingent entitlement for that insurer to claim from Flood Re. Such wide-spread floods should be highly unlikely – but at the very

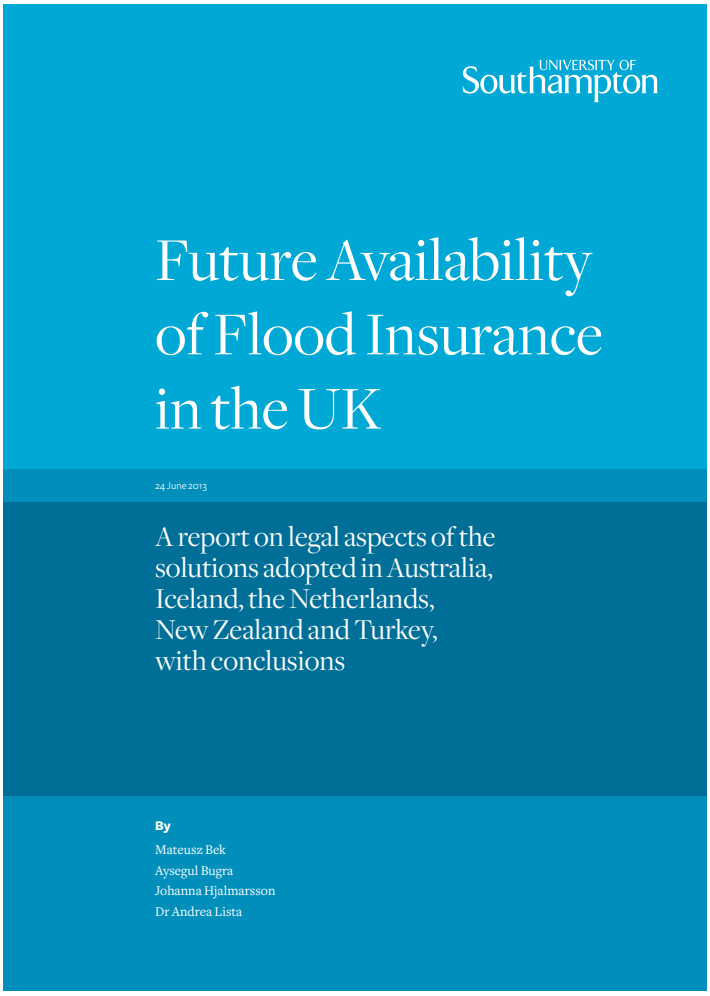
17 [2013] UKSC 57

nature of what we are dealing with here is the catastrophic event, the highly unlikely event or indeed several such events in succession impacting a geographically focused insurer.

Alternatively, an insurer could meet its demise for unrelated reasons, such as poor management of investments. That is again unlikely because of prudential management rules – but unlikely is not impossible in the financial services sector, as demonstrated by the demise of Barings' Bank, Bear Sterns and Lehman Brothers. In such a case the knock-on effects on the confidence in the consumer market with Flood Re possessing the funds but "unwilling" to pay might add to a serious public image problem for the consumer insurance sector.

There are various ways of mitigating the impact of insurer insolvency, not least the FSCS scheme which is the first line of defence in such a situation. Other solutions may look feasible on paper, but are an uneasy fit under the law. While making the Third Parties Act directly applicable to Flood Re might look like a simple solution, this would mean creating an exception from section 15 of the Third Parties Act. This would be a both strange and unjustifiable difference compared to other reinsurance. It would for competition reasons rule out any prospect of creating a reinsurer capable of competing on equal market terms at the end of the 25 year period. Another solution that may look feasible is to permit claims directly against Flood Re in the event of insolvency, on a case by case basis – but that would mean setting up a claims management framework specifically for the insurer's insolvency which would mean double costs for Flood Re – a loss of future premium income from the insolvent insurer, including supplementary calls, combined with extra costs for managing the run-off of claims against it. It seems that this would lead to large costs which could be avoided. In addition, if not all direct insurance claims will be met by Flood Re because of deductibles or caps, the direct claims route presents insurmountable problems. Are there other options capable of achieving socially satisfactory results through financial services regulation? Perhaps, but if there are no other options, those managing Flood Re will need to be on guard against such possible developments and will need to protect Flood Re from potential damage to its consumer reputation. Ultimately, this is a question of reputation management – but as hopefully shown here the issues are complex and it may well prove a challenge to present them in digestible form.

Flood insurance



Further information about the work of the Insurance Law Research Group on flood insurance is available on our web page **www.southampton.ac.uk/ilrg/research/flood_insurance.page**

The report Future availability of flood insurance in the UK can be accessed at **www.eprints.soton.ac.uk/354173**

www.southampton.ac.uk