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Inclusive insurance bulletin



Drivers of change

The Future
of Insurance

Informing the debate

June 2020

Bulletin 1

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Introduction

David Heath, Chair of the IFoA Policy and Public Affairs Board



Insurance offers protection to individuals and businesses in our society, playing an important role in economic development and supporting wider societal needs.

The risks that society faces, and will face in the future, are changing rapidly, not least through the evolving COVID-19 crisis. It is crucial that the insurance sector evolves in such a way to meet these changing needs so that everyone in society, including the most vulnerable, is able to access the necessary protection.

Changes in demographics, advances in technology and data collection, and the increased frequency and severity of extreme weather events are just some of the factors that insurers are grappling with, and that threaten existing institutionalised structures within the insurance sector and wider economy.

The response of the insurance sector to these risks provides both challenges and opportunities and we are already seeing governments, regulators and the industry adapting to growing and emerging risks. In considering these responses, we should ask whether they promote ‘fairness’ and whether sufficient protections are in place to ensure insurance remains fit for purpose and does not penalise or exclude the most vulnerable.

We will be exploring these issues in our inclusive insurance bulletin series. Through the series we will highlight the role of actuaries in ensuring the sector is able to meet the needs of society and to protect it from the new and emerging risks it faces. We will also present a broad perspective on this issue, and have invited contributions from a range of important voices in the debate.

This bulletin, the first in the series, explores the societal, technological and macroeconomic drivers that are creating the need for change, and the impact they are having. The second and third bulletin in the series will be released later this year. The second bulletin will explore the response from the industry, including interventions that have been implemented or proposed. The third will take an in-depth look at the important role that insurance plays in society, ensuring all can be empowered through the protection it affords.

We hope you enjoy the first bulletin from our inclusive insurance series.

The risks that society faces, and will face in the future, are rapidly changing. It is crucial that the insurance sector evolves to meet these changing needs.

Being loyal to insurance providers is costing consumers

Hannah Poll, Policy Researcher, Citizens Advice

Home insurance is the most common insurance product among UK households. It's vital in helping people to cope with accidents, theft, and unplanned expenses. More than 20 million UK households have a home insurance policy.

But too many of these households are paying over the odds when renewing their policy. In September 2018 Citizens Advice submitted a super-complaint to the Competition and Markets Authority (CMA) about the £4.1bn loyalty penalty people pay across five essential markets every year.¹ Loyal home insurance consumers, alone, are paying £750m of this penalty.

We submitted this super-complaint to force the CMA to take action against systemic price discrimination by identifying interventions and protections for consumers. But loyal consumers are still being overcharged. We are yet to see the systematic steps from regulators required to solve the widespread market problems that are leaving consumers out of pocket by millions of pounds every year.

The cost of loyalty

There is evidence that for some consumers the longer they stay with their insurance provider, the more they end up paying at renewal. On average, a new home insurance customer can expect to pay £172 for an annual premium, whereas one on

their fifth renewal will likely pay £325 – nearly double their original premium.

For vulnerable and low income groups, the relative cost of the loyalty penalty is significant. People in the lowest income decile can spend four times as much of their household expenditure on loyalty penalties, across all essential markets, compared to higher earners.²

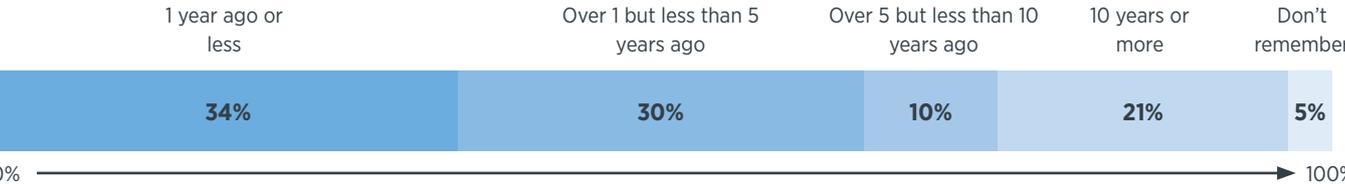
The scale of the loyalty penalty in home insurance is enormous:

- 1 in 3 home policyholders had been loyal for five years or more
- 1 in 5 policyholders had been loyal for 10 years or moreⁱ
- We estimate that 3.75 million home insurance policies have been held for 11 years or more.

According to the FCA definition of vulnerable consumers³, our research suggests that 7 out of 10 policyholders who have held a policy for 11 years or more are potentially vulnerable.ⁱⁱ More than half of consumers paying a loyalty penalty are over 65 and 1 in 3 have a mental health problem.^{iii, iv}

It's clear from just how many people are paying a loyalty penalty, and how much it's costing them, that the insurance market isn't working as it should for consumers.

Figure 1: 1 in 3 customers first purchased their policy over five years ago



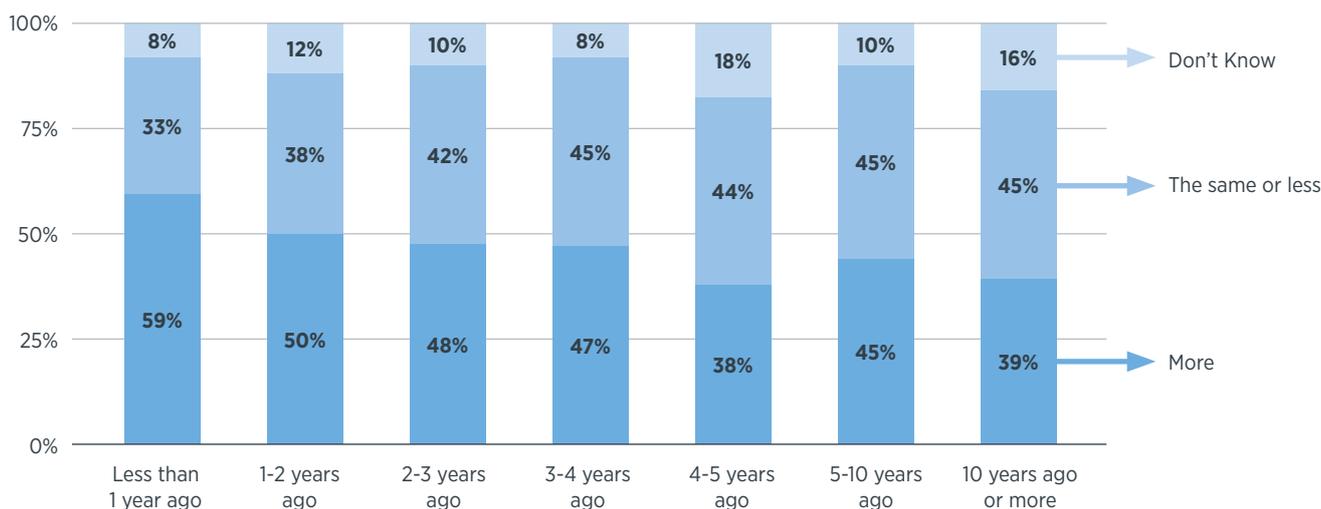
1 | The five essential markets are mobile, broadband, cash savings, home insurance and mortgages.
 2 | For those in the lowest income decile, paying the loyalty penalty across all five essential markets mentioned above would cost them almost 8% of their household expenditure annually, in comparison to less than 2% for those in the highest 10%. Source: Office for National Statistics, Family spending in the UK: financial year ending 2017, January 2018.
 3 | The FCA define a vulnerable consumer as: 'Someone who, due to their personal circumstances, is especially susceptible to detriment, particularly when a firm is not acting with appropriate levels of care'.

What drives the loyalty penalty?

We've calculated that 100% of home insurance companies' profits are coming from loyal customers – and over half (51%) of profits come from vulnerable groups.^v

Despite year-on-year increases to premiums, most people don't realise they're paying a loyalty penalty. We found that 2 in 5 customers who have had their policy for a year or more think loyal customers are charged the same, or less, for their insurance than new customers.

Figure 2: People who purchased their policy recently are more likely to be aware of the loyalty penalty



Our research found that nearly 3 in 4 home insurance customers have remained loyal to their provider at renewal, without searching around for other quotations.⁴ But this loyalty isn't a conscious choice.

The insurance market puts the onus on consumers to switch providers. The FCA's recent market study found that insurance firms engage in practices that create barriers to consumer choice and make it harder for consumers to make informed decisions. Examples of these practices include a lack of available information about switching and opaque pricing structures.

In practice, this means that to navigate the insurance market successfully, consumers need to be able to access, understand and compare the quotes they're presented with, and comprehend what this means for them. This requires a combination of literacy, digital skills, financial capability, and market knowledge.

A person lacking in any of these skills will be at an inherent disadvantage when it comes to getting the best deal. This especially impacts vulnerable and low-income consumers. For example, 1 in 4 people who have experienced a mental health problem in the last 12 months have avoided switching because they found the idea of it overwhelming.^{vi} They are also three times more likely to think it's too difficult to switch contracts and twice as likely not to know when their home insurance policy started.⁵ People with an annual income of £7,000 or less were nearly four times more likely to say they couldn't remember renewing their insurance policy.



Case study

June is 90 and has had the same home insurance policy for eight years. Her latest renewal quote was £646.25. This was an increase from £613.76 last year and £572 the year before. June's family looked online and found a quote from her provider for the same cover for £238.56. They contacted her provider to find out why there was a nearly £400 difference, but weren't able to get a satisfactory answer.

4 | Citizens Advice analysis of ComRes data on "When did you begin your current contract for each of the following services?: Home Insurance". Base: 2,952

5 | 15% of those who have experienced a mental health problem in the last 12 months think it's too difficult to switch contracts in essential service markets, compared to just 5% of those who have not.

These barriers mean that consumers are required to exert an unreasonable amount of time and effort to avoid the loyalty penalty. Given this, it is unsurprising that the FCA study also found that people paying high premiums are less likely to understand insurance or the relationship between renewal and premium pricing.

When avoiding overpaying is so difficult, it's clear that the insurance market needs fundamental changes to make it work for consumers.

What needs to be done?

While the insurance market might appear superficially competitive, it isn't delivering any of the benefits of competition to loyal consumers.

Consumers cannot be expected to shoulder the burden of market remedies to fix the loyalty penalty. In particular, it should not be the consumer's responsibility to make sure they're on the best deal for them with their current provider. In addition to providing consumers with renewal quotes for their existing policies, the insurance sector could learn from the energy sector by, for instance, including a quote on the best policy for them offered by their current provider.

The loyalty penalty also makes it harder to understand and anticipate what drives any future price changes. Because of this, demand-side remedies to superficially and artificially improve decision-making, such as price comparison tools and awareness campaigns, won't work as a solution by themselves.

It's unreasonable to expect consumers to understand the nuances of a complex market and shoulder market remedies – vulnerable consumers even more so. Without a package of remedies that address the structural causes of the loyalty penalty, some consumers will carry on being exploited. The FCA must focus on supply-side interventions that increase pricing fairness and transparency. This should include setting out specific protections for low-income and vulnerable consumers.

It's unreasonable to expect consumers to understand the nuances of a complex market and shoulder market remedies – vulnerable consumers even more so.

Understanding the impact of the economy on insurance

Colin Dutkiewicz, Chair of the IFoA's Life Insurance Board

Economic conditions can have a significant bearing on the demand for insurance and insurers' returns on investments and assets, as well as the prevalence of claims. These in turn impact premiums and, ultimately, whether people can afford insurance, or whether they believe it offers value for money.

Both life and non-life insurers are exposed to economic conditions such as recessions and fluctuations in inflation, interest rates and investment returns.

- **For non-life insurers**, changes in economic conditions can increase or decrease the value, and volume, of policies purchased, and increase or decrease the value, and frequency, of claims.
- **For life insurers**, changes in economic conditions can affect returns on investments and assets and the value of liabilities. The current low interest-rate environment is also having a material impact on life insurers' risk margin and capital requirements held under Solvency II, making it more expensive for insurers to provide long-term guarantees and therefore, ultimately, for consumers to insure themselves against long-term risks – such as outliving their retirement savings.

Non-life insurance

During adverse economic conditions, both individuals and businesses are less likely to buy insurance. After the 2008 financial crisis this was seen across transport, travel, home and income protection insurance products and, at the time of writing, we are seeing daily news coverage of the impact of the COVID-19 pandemic on the insurance sector and consumers of insurance.^{vii} These economic shocks can increase the degree of insurance exclusion because individuals and companies with less to spend may under-insure themselves or their property to get lower premiums, or forego insurance altogether – either

because they cannot afford the necessary level of cover, or because they do not value a higher level of coverage when weighed up against other outgoings. This is difficult to resolve without reducing costs. One option that insurers offer is monthly rather than annual payments, but GoCompare found that this was further penalising customers and, in particular, customers on low incomes.



Case study: GoCompare's study of motor insurance

Customers from low-income households are 36% more likely to pay for their motor insurance on a monthly rather than annual basis. On the face of it this improves inclusivity as it reduces the amount that needs to be paid at any one time, making it more accessible. However, the study found that customers who pay for their cover on a monthly basis were less likely to shop around and insurers typically impose both fees and interest on these products, making paying insurance monthly more expensive. Therefore, it is often those who can least afford it, who end up paying more.

In addition, there is evidence that periods of economic downturn can lead to increases in the cost of claims among non-life business. Milliman found that between 2007 and 2008, individuals made 17% more fraudulent claims than in the previous year. These claims were worth £730m, equating to 4% of the total general insurance claims made that year. Around half were false or exaggerated claims on household insurance and about half were fraudulent motor insurance claims.^{viii} This impacts inclusivity because it drives up the cost of insurance for everyone.

Between 2007 and 2008, individuals made 17% more fraudulent claims than in the previous year. These claims were worth £730m, equating to 4% of the total general insurance claims made that year.

“Many consider insurance fraud to be a victimless crime, and assume that their insurer will not miss the extra pounds that they claim. That insurers recoup the costs of fraud through their higher premiums to all policy holders is not widely understood. And this feeling escalates when policyholders feel hard up.”^{ix}

Interestingly the FCA’s ongoing market study into the general insurance market has identified that competition in the home and motor markets, in particular, is not working. It has concluded that there are barriers to switching and penalties for loyalty.^x Combined, these examples suggest that there has been a breakdown on both sides (ie insurers and consumers) about the role and purpose of insurance and this can lead to higher premiums, which can price people out of the market.

Finally, in response to COVID-19 we are seeing some insurers altering the risks that their policies cover. We are yet to see whether this will have an impact on trust in the insurance sector, or on individuals and businesses propensity to buy insurance.

Life insurance

A primary concern for life insurers is a decrease in both the supply of, and demand for, products with long-term guarantees. Recent economic and political events have made certain product lines untenable, or certainly less tenable than they were in the past. This is leaving individuals with responsibility for managing complex financial risks without insurance protection. This could have significant consequences for individuals, potentially at a time in their life when they are more likely to be vulnerable, for example over age 85, as well as wider societal consequences if a more substantial safety net is needed to keep people out of poverty in later life.

The persistent low interest-rate environment has reduced the rate at which life companies can discount liabilities, ie it has become more expensive to provide products with a long-term guarantee. On top of this, the regulatory regime has been strengthened following the financial crisis. The implementation of Solvency II means that many insurers now have to hold greater capital and reserves. This is to ensure that they can still pay out in the event of a 1 in 200 year event, including another financial crash. This sounds positive, and it is for global financial stability. However, it makes these products even more expensive and, by extension, even less attractive. In response to these compounding pressures, life companies have reviewed their product mix and reduced their overall exposure to products with guarantees. This can mean that individuals are taking on greater responsibility for long-term financial risks.

One example of this is the UK annuity market. As of January 2020 £33bn had been taken from pension savings flexibly and the number of people making use of the freedoms is increasing year-on-year.^{xi} We do not yet know the long-term impact this will have on people’s ability to make their retirement income last for their lifetime. But the IFoA is concerned that without widespread access to products that offer an element of guarantee, retirees are at risk of running out of money and not having enough to live on in retirement.

Another economic consideration for life insurers, which gets less air time than interest rates, capital and reserves, is inflation. Inflation, especially if unexpected, can have a destabilising economic effect and impact on the insurance sector. According to a paper sponsored by a number of actuarial associations, *“In an economy with high inflation, the value of money makes it difficult to justify current expenditures on future fixed payments that are rapidly decreasing in value. In addition, the guaranteed rate of return offered under older policies will be inadequate during sustained inflationary environments.”* In addition, returns on assets and investments are negatively impacted by unexpected inflation.^{xii}

The effects of fluctuations in the economy are compounded by ‘procyclicality’. This phenomenon describes the perverse incentives in the financial system which mean that when inflation is high, and therefore the value of stocks is also high, people have more confidence in the economy and so invest more – even though the cost of doing so is high. But then when the market has a downturn they lose confidence in their investments (or cannot afford to make repayments against them) and so sell their investments for a lower value than at the time of purchase. This has obvious impacts on investment returns and is at opposition with what is perhaps more logical investment behaviour ie buy stocks when their value is low (though the risk would have to be calculated) in order to make a return if/when the stocks increase in value.

In recent years, the economy has had a significant impact on the availability and affordability of both non-life and life insurance products. Decisions made by the government, prudential and conduct regulators, and actions taken by the industry, mean that the impact has manifested differently across the insurance sector, and therefore commands a range of solutions. Some solutions will be sector-specific eg alternative vehicles for offering long-term guarantees, addressing loyalty penalties; others will be relevant sector-wide, for example removing barriers to shopping around and building financial capability. These will be explored in detail throughout this series.

“That’s the beautiful thing about being human: things change.” *Stephenie Meyer*

Rebecca Deegan, Head of Policy, Institute and Faculty of Actuaries

Society has different needs and priorities when it comes to insurance. Many facets of daily life, as well as certain life events, mean that different segments of the population have different insurance needs – and these needs evolve, in some instances rapidly.

Examples of daily life that are changing but as yet have not been fully reflected by the insurance industry (notwithstanding of course those insurers that have responded) include:

- Homeownership vs rental accommodation, and the wider sharing economy
- The proportion of the population that marry, co-habit or live alone
- The rise of the gig economy, self-employment and the demise of ‘a job for life’
- Longer lives and ensuring those extra years are healthy and fulfilling

- Increasing reliance on technology, changing how people engage with businesses and consume.

In regards to ‘life events’, the IFoA commissioned Nielson to conduct a survey of life insurance policyholders across three markets in Asia (Mainland China, Hong Kong SAR, and Singapore). Nine out of ten respondents were satisfied with the decision they made when they purchased their policy, but six out of ten stated that their circumstances have subsequently changed, leading them to question whether their policy covers their current needs, and a third said that if given the opportunity they would now purchase a different policy.

As insurers, governments and regulators respond (or fail to respond) to these evolving needs it can lead to some segments of the population potentially being under-insured, or excluded from insurance altogether.



Case study: The ageing population

The United Nations Department of Economic and Social Affairs Population Division’s projects that:

- By 2050, 1 in 6 people in the world will be over the age of 65 (it was 1 in 11 in 2019)
- In 2100, 22.6% of the world’s population will be over 65.^{xiii}

Societies across the world are experiencing sustained increases in longevity, albeit some countries are at the early stages of this shift and some are at more advanced stages. In developed countries the proportion of adult life spent over age 65 has already increased to a quarter or more. This means that government spending on age-related state benefits is increasing.



“Public spending on cash old-age pensions and survivors’ benefits in the OECD increased from an average of 6.6% of GDP to 8.0% between 2000 and 2015. Public pensions are often the largest single item of social expenditure, accounting for 18.4% of total government spending on average in 2015.” (OECD, 2019)^{xiv}

This has led to debates about the sustainability of these benefits and whether individuals should take greater responsibility for their financial wellbeing in later life. This presents opportunities for insurers to help individuals secure an income in later life, but also challenges, as the over 65s are far from a homogenous group – some over 65s are in good health, others are not; some have financial security, others do not; some will remain in the workforce for years to come, others will not; some have social and support networks, others are lonely. This means that those aged 65 and over have many and divergent insurance needs. For example:

- Access to equity release mortgages for those who want to use the equity in their homes to generate an income, as well as income protection for people renting in retirement
- The need to embrace technology, as AI can play an important role in keeping people healthy and independent for longer, alongside the need to maintain access to cash for those excluded from online financial services
- Access to travel and car insurance for those over 65s who want and are able to travel, as well as insurance for those with care needs who need to pay for adaptations to their homes, at-home care support, or to move into a care home.

The common thread throughout all of these is the role of insurance products in providing quality of life and peace of mind, ie insurers can provide protection, so that no matter how long someone lives they are able to meet their income needs, which are likely to vary over their lifetime.

However, there can be barriers that prevent insurers from meeting the needs of ageing populations:

- Legislation eg pension freedoms, tax incentives
- Regulation eg capital requirements and the definition of, and payment for, regulated-financial advice
- The role of employers eg group protection products
- Behavioural biases eg present bias, misjudgement of probabilities and inertia
- Financial literacy eg ability to assess complex products and review policy regularly.

These barriers can result in insurers reducing their risk appetite towards products with long-term guarantees. As a result the IFoA is concerned that, increasingly, consumers will not have access to arrangements with long-term guarantees. This concern is particularly acute for the oldest segments of society, as those aged 85 and over are more likely to have multiple morbidities and cognitive decline than the general population.^{xv} They may therefore find it harder to make complex financial decisions at a time in their lives when they are most at risk of running out of money, or having to make plans to draw upon their assets to provide them with an income, as well as potentially navigating the complexities of paying for care.

The IFoA has a number of member-led groups that are exploring potential industry innovations to service these consumers and tackle this particular form of insurance exclusion. We will draw upon their work throughout the remainder of this series.



Case study: Socio-economic status

Income, educational attainment, and occupation are all generally agreed indicators of a person's socio-economic status:

- Income – individuals are unable to afford insurance, or may not have sufficient disposable income to prioritise it over more immediate needs
- Educational attainment – many insurance products are complex and require a certain degree of financial literacy to be able to shop around and purchase a product that best meets an individual's needs
- Occupation – unstable or self-employment often precludes people from some types of insurance.

This combination of factors can make it particularly difficult for those from lower socio-economic groups to access insurance as they exacerbate the challenges that exist in providing insurance to any segments of society. Namely *“understanding and connecting with customers; providing relevant products; and carrying out the administrative work of collecting premiums and paying claims”* and achieving this in the most cost-effective manner possible.^{xvi}

Yet insurance can be a vital tool, almost a life-saver, for people in lower socio-economic groups. Those with very little disposable income and savings could stand to benefit from insurance to manage financial risks caused by periods of unemployment, unforeseen costs due to natural

disasters or costly items breaking down, or income loss due to the death of a wage earner within a household. For this population, insurance can help avoid drastic coping strategies that could have longer-term negative impacts, including taking out high-interest 'pay-day' loans, selling productive assets, or even in some parts of the world needing to take children out of education earlier so that they can start earning an income to cover immediate needs, thereby limiting their potential lifetime earnings.

There are a number of global and local initiatives currently addressing the insurance needs of individuals in lower socio-economic groups, for example:

- The 'Access to Insurance Initiative'. This is a global partnership that supports insurance supervisors and regulators to create the conditions necessary for an inclusive insurance market to grow^{xvii}

- Work by think tanks such as the Social Market Foundation and Joseph Rowntree Foundation to better understand and call out the poverty premium in the UK. The poverty premium is the extra cost that households on low incomes incur when purchasing the same essential goods and services, like (but not limited to) insurance, as households on higher incomes.^{xviii, xix}

Despite these initiatives, barriers to inclusion of those from lower socio-economic households remain.

The gig economy: in need of protection

Steven Graham, Technical Policy Manager, Institute and Faculty of Actuaries

There has been much commentary on our ageing population, advances in digital and medical technology and the increasing prevalence of extreme weather events, and the response from the insurance world to meet the corresponding and evolving protection needs. However, one increasingly apparent and day-to-day societal change has seen less commentary from an insurance perspective: the rise of the gig economy. With ever-more flexible working patterns becoming commonplace, what are the protection needs of gig workers, and is the insurance industry well-placed to meet them? Or is the gig economy suffering from insurance exclusion?

Gig economy characteristics

Although a job for life largely belongs to a distant era, more recent changes in the labour market have seen an increasingly flexible approach to employment. This includes the rise of zero-hours contracts, short-term employment, freelancing and fluid working patterns; namely the gig economy. The rise of the gig economy is being seen across the globe, and is also apparent in the UK. In 2019 *The Guardian* reported that the UK's gig economy had more than doubled in size, from 2.3 million workers in 2016 to 4.7 million in 2019, leading to relatively low unemployment levels (at least pre COVID-19).

One core feature of the gig economy is its inherent flexibility, and it certainly encompasses a broad mix of employment. Gig working is generally short-term and fluid in nature, which contrasts with traditional self-employment which tends to be longer term. To many, gig working may be synonymous with roles at Deliveroo, Uber or other courier or manual labouring work. However, the gig economy is also attracting workers in IT, journalism and the creative/technology sectors, for example. The parallel rise of Air BnB is a further example of the gig economy, one where participants are putting their assets rather

than their labour to use. For many within the gig economy, while the flexibility is an attraction, the short-term nature can be precarious.

Motivations for entering the gig economy differ. Some participants make a deliberate choice to work flexibly, so they can fit work opportunities around their lifestyle. For professionals contracting and making the most of an in-demand skillset this can be lucrative. Many others though enter the gig economy out of necessity, either as a sole income, or to top up other incomes to make ends meet. For this segment, which often enjoys lower levels of financial resilience, the term 'poverty in employment' can be used to describe their economic circumstances.

Does insurance work for the gig economy?

Although an area of recent controversy and debate, those working in the gig economy are generally regarded as self-employed. This means they do not normally enjoy the wider benefits of an employer's remuneration package. Benefits and protections missed out typically include paid sick leave, paid holidays, pension plan contributions, and life and health insurance. In addition, any professional indemnity or public liability insurance would typically fall to the gig worker to secure – whereas for employees this would be their employer's responsibility.

This lack of employer provision does not mean that the benefits and protections are not needed. In some cases there may even be greater risk exposures for gig workers compared to those in traditional employment: for example, those undertaking gig work through financial necessity may be particularly exposed if they become ill and face losing their livelihood.

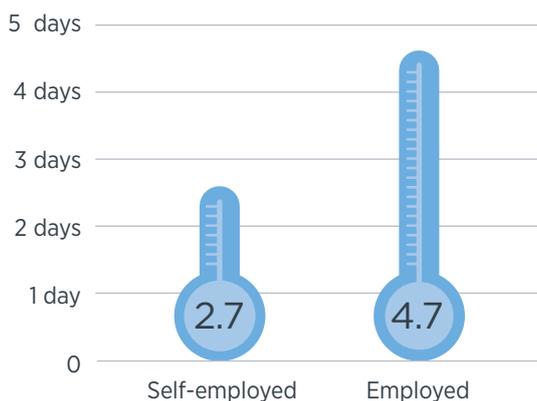
In 2019 *The Guardian* reported that the UK's gig economy had more than doubled in size, from 2.3m workers in 2016 to 4.7m in 2019, leading to relatively low unemployment levels.

In lieu of insurance provision from their employer, gig workers can secure insurance cover themselves, but this is not necessarily straightforward. Gig work is often periodic and uncertain: work assignments could last for a few months, followed by a period of unemployment before the next work opportunity materialises. What is therefore required is frictionless, flexible and short-term insurance cover. From a gig worker's perspective, traditional insurance contracts can seem inflexible and ill-suited to their needs. As a result, they may be unwilling, or unable, to pay for a mainstream insurance contract offering fixed annual cover, including periods where they may not be working. For those with limited financial resilience, this is a particular concern.

Income protection insurance: ill-suited to the gig worker?

Gig working can feel particularly precarious in the event of sickness or injury, where the worker is unable to work, or at least should not be working. As noted above, full sick pay courtesy of any employer is unlikely. To compound this, if they are deemed to be self-employed, gig workers would not normally qualify for the alternative of statutory sick pay. When a gig worker falls sick, one option is to apply for state benefits such as Universal Credit or Employment and Support Allowance. However, given the likelihood of delay before such benefits become payable, and faced with the prospect of no income for a period, many self-employed workers instead choose to continue working. While no less likely to fall ill, according to the Office for National Statistics (ONS), the average number of sickness absence dates for the self-employed as a whole was 2.7, compared with 4.7 for the employed in 2018; other years were broadly similar.^{xx}

Average sick days 2018



At the onset of the COVID-19 crisis in the UK, fears were raised that some gig workers with Coronavirus symptoms might choose to continue working rather than self-isolating, given the delays in securing state benefits. Such action, taken through financial desperation, would have obvious consequences for the spread of COVID-19.

It might be thought that income protection insurance would be an attractive solution. However, all else being equal, self-employed gig workers are at a disadvantage compared with employees in relation to income protection. Employees are eligible for Statutory Sick Pay, and any income protection benefit they receive has no impact on this sick pay. Self-employed gig workers are ineligible and instead risk a complex means-tested reduction to any relevant state benefits for any income protection insurance payments received. This means-tested cut to state benefits reduces the appeal of income protection insurance to the self-employed gig worker.

Mainstream income protection insurance may also be ill-suited to the flexible nature of the gig economy. Income protection benefit levels are relatively straightforward for those in paid employment with a steady income. For gig workers with a variable and uncertain income, setting an appropriate benefit level is more complex, and can require associated validation by the insurer. Where an income protection claim is made, comparison of actual hours worked to those being claimed may also be required, with a reduction in claim payment possible where hours fell short of the chosen benefit. Again, this can also reduce the appeal of income protection insurance to the gig worker.

Insurance protection gap

Although the gig economy is a desirable way of working for some participants, many others have little choice, and work without a range of employer protections through necessity. For the latter group in particular, financial security and resilience may be challenging. The gig economy gives rise to a two-fold gig economy insurance protection gap.

For those who are self-employed, they will likely be excluded from employer protections/benefits.

The second gap arises from the difficulties gig workers face in accessing insurance that is appropriate to their needs. The rise of the gig economy with its fluid and uncertain characteristics has not necessarily been matched by corresponding evolution in the insurance market. Insurance can seem expensive, in part due to the difficulty in tailoring to gig requirements, and affordability issues are particularly concerning for those workers with limited financial resilience. Lack of product agility and complexity (such as interaction with state benefits) are further concerns. In addition, lack of awareness of the risks the gig economy brings, and the desirability/necessity for appropriate insurance, contribute to any protection gap. However, when having to accept precarious employment to make ends meet, it is natural for gig workers to focus on their immediate priorities.

A flexible tech approach to insurance: reducing exclusion in the gig economy

A further aspect of the gig economy's DNA is its reliance on digital technology, such as the use of apps to notify workers of their next job and to pay their wages. This digital foundation is also being used to help address insurance exclusion in the gig economy, by increasing the relevance, affordability and efficiency of insurance to gig workers. Innovative insurtech start-ups are developing digital 'on demand' policies, with cover tailored to the specific insurance needs of an individual gig worker; for example, in the UK Zego offers digital 'pay as you go' scooter and motor insurance for delivery drivers. Generally, monthly or daily insurance is becoming more common.

Other insurers have developed the concept of policy hibernation in public liability/professional indemnity insurance. Here, while the gig worker has employment, their policy is live, but during gaps between employment, the policy 'hibernates' without being cancelled. This comes with the benefit of being cheaper than a policy that remains fully live over a year. This hibernation rather than cancellation approach is helpful when claims arise after the corresponding gig work has terminated. In addition, hibernation could also help address any protection gaps arising when a new contract commences, if workers otherwise forgot to take out new insurance cover.

The gig economy is likely to continue to grow in importance, and the marrying of technology with a fresh and flexible approach to insurance product design will be key to increasing the insurance footprint here. Greater insurance inclusion will help mitigate some of the downside and precarious nature of gig employment, contribute to the 'normalisation' of the gig economy, and support gig workers' financial resilience.

Smart device?

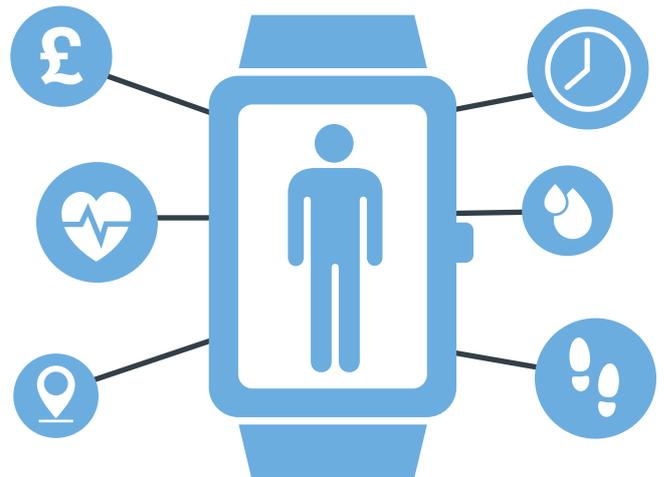
Based on the IFoA's Wearables and the Internet of Things Working Party report ^{xxi}

Technology is changing our lives and the pace of change is daunting.

The range of wearables, devices and apps that measure, track and aggregate an increasing number of health and lifestyle measures and behaviours is ever expanding. The use and application of these technologies, and the corresponding richness of data that they can provide, brings consumers and the insurance sector both opportunities and challenges.

The use of wrist-borne wearables and smartphones, in particular, mean that measures that were previously only available in laboratory or clinical settings are now readily accessible to anyone prepared and, importantly, able to spend money on these devices, associated platforms and apps. This is important because the cost of wearables in and of itself creates barriers to inclusivity, as only those able to afford them will be able to reap the benefits of integrating data from these devices with their insurance provision. Information from these devices can be used by insurers in multiple ways, some of which could enhance inclusivity and some of which may result in exclusion. The data can be used by insurers to better identify consumers' risk profiles. This can undermine the principles of risk pooling and cross-subsidy, but it can also open up the market to previously excluded groups, reducing their level of risk by giving feedback and behavioural nudges. In instances where wearables are found to have a positive impact for consumers, either by reducing their premiums or encouraging positive behaviours, it may be determined that insurers and/or health services should facilitate access to those with little disposable income to purchase wearable devices.

The IFoA's Wearables Working Party's research identified many examples where technology is being used in this way to support the health and safety of people with care needs, and in particular for those with dementia; examples include technologies that measure hydration levels and heart rate. These are being used alongside other technologies, such as smart wallets that track how many pills have been removed from a pack, bottles that dispense the right amount of medication at the right time, and avatars that guide people through care routines. These technologies not only enable people to live with more independence for longer by reducing their in-person care support needs, but also reduce the risk of unplanned admissions to hospitals and escalating care costs. This has benefits for the individual, their family and support network, and health and care service provision, and



can also make insurance more affordable to higher risk groups who would be facing the highest premiums. Again, given the positive societal benefits of these technologies, there could be a role for insurers and health services in ensuring that access to these technologies is not exclusive to those with greater wealth.

This is more commonplace outside the UK, for example in South Africa and the US, where it is more usual for health and life insurers to use wearables in conjunction with:

- External motivators such as rewards vouchers, monetary discounts and digital badges to incentivise customers to lead a healthier lifestyle
- Broader 'healthy lifestyle' propositions which, among other things, educate customers about the underlying virtues of improving their lifestyle.

From an actuarial perspective, the examples above describe how these technologies enable continual underwriting to improve risk selection and pricing, and several products now exist where customers' ongoing premiums depend on their medically measurable health status. This has the additional benefit of offering continuous rather than spot measurements and there is scope to both increase and substitute existing market share with continuous underwriting products. One example where this is proving particularly useful is for measuring blood sugar among those with, or at a higher risk

of developing, diabetes. This is because the speed with which glucose is processed by the body is at least as important as the absolute figures at a single point in time. Diabetes insurance products increase total market share by enabling acceptance of customers who would otherwise be declined.

In addition to risk profiling, insurers are already engaging with this type of technology in their proposition designs in areas such as customer engagement and marketing. Insurers are incentivising customers to use wearables and lifestyle apps in order to increase engagement in a traditionally passive space. There are already several health and life insurers partnering with wearable tech companies to offer discounted physical activity trackers to their customers.

One concern with consumers becoming more engaged and having more information about their risk profile, and the ability to change it, is the risk of anti-selection. This is present particularly when users can exercise choice over what and when data is collected, and this should be borne in mind when insurers choose a data source. Wearable technology attracts a particular risk, namely that if the users know the purpose of the device and how data is likely to be used, they are then able to 'game' the system. Tales abound of users who need to raise their step counts handing the device to an active friend or even attaching it to their dog! Where device data is used, insurers will need to be comfortable that the data is objective and relating to the insured. For this reason, data collected in a 'frictionless' way may be regarded as more reliable – you would typically expect to collect more data, and more representative data, if people do not need to make a special effort to capture it and do not accidentally (or otherwise) forget to wear the device.

Another risk is that what begin as nudges to adopt behaviours that reduce risk, and thereby insurance premiums, start to be seen as, or indeed become, threats. For example, if you do not manage your blood sugar, your premiums will hike and essentially make you uninsurable. This could add stress and concern to already vulnerable consumers.

What does the future hold?

The insurance industry is unlikely, on its own, to drive the widespread adoption of these technologies, but is increasingly likely to be the user of wearable data metrics and insights. Insurers are likely to eventually find themselves in a position where sufficiently accurate and reliable wearable data is available for analysis as part of writing insurance policies; the unknown is whether the insurer will be able to make use of this information. The insurers best able to realise full potential of wearables for their businesses and customers will have:

- Access to substantial volumes of sensor-level data, with long follow-up periods
- Rich phenotypic information on their customers (ie relating to the observable characteristics of an individual resulting from the interaction of their genotype with the environment)
- Detailed data on health outcomes.

They will also have access to the skills and expertise required to analyse this data and convert it to actionable insights, as well as behavioural science expertise. Each of these is a non-trivial requirement that may require substantial investment to achieve.

To build trust and accommodate the rapidly changing environment, insurers should build products that meet both the letter and spirit of the regulatory environment. In addition to data protection, insurers must consider the requirement to Treat Customers Fairly and comply with the Equality Act. This regulatory environment is only likely to tighten as the data available becomes more prevalent and accessible, which could lead to more instances of misuse.

We are on a steep learning curve to finding the optimal practical applications given the pace of advances in these technologies and there are many market disruptors looking to innovate and create new markets for insurance. If properly regulated to avoid misuse of data and the barrier of cost to the uptake of wearables it could have a positive impact on inclusion in insurance.

Challenge and opportunities abound – these are indeed exciting times.

To build trust and accommodate the rapidly changing environment, insurers should build products that meet both the letter and spirit of the regulatory environment.

It's genetic...

Based on the work of the IFoA's Genetics Working Party ^{xxii}

Ever wondered why your friends love coriander but you can't stand it? Or why your partner is an early riser while you're more of a night owl? According to services such as 23andMe, a 'Direct to Consumer' (DTC) at home genetic testing and analysis service, the answer lies in your genetics.^{xxiii} And it doesn't stop at your preferences. DTC tests identify genetic risk for a range of common diseases including certain forms of dementia, lung and liver disease, and for breast, ovarian and other cancers. Due to their affordable and accessible nature, DTC tests have recently boomed in popularity. An MIT Technology Review found that in 2018 as many people purchased consumer DNA tests as in all previous years combined. Further, according to MIT estimates, more than 26m consumers had added their DNA to four of the leading genetic databases.^{xxiv}

DTC tests have been found to be a gateway to more comprehensive medical testing.^{xxv} This refers to medically prescribed testing with clinical validity and utility to diagnose and predict disease.⁶ Examples of these tests include:

- Predictive genetic testing to determine the chances that a healthy individual with or without a family history of a certain disease might develop that disease
- Diagnostic testing to identify or confirm the diagnosis of a disease or condition in a person or a family
- Pharmacogenetic testing to understand the ability of an individual to metabolise specific drugs in order to inform dosage.^{xxvi}

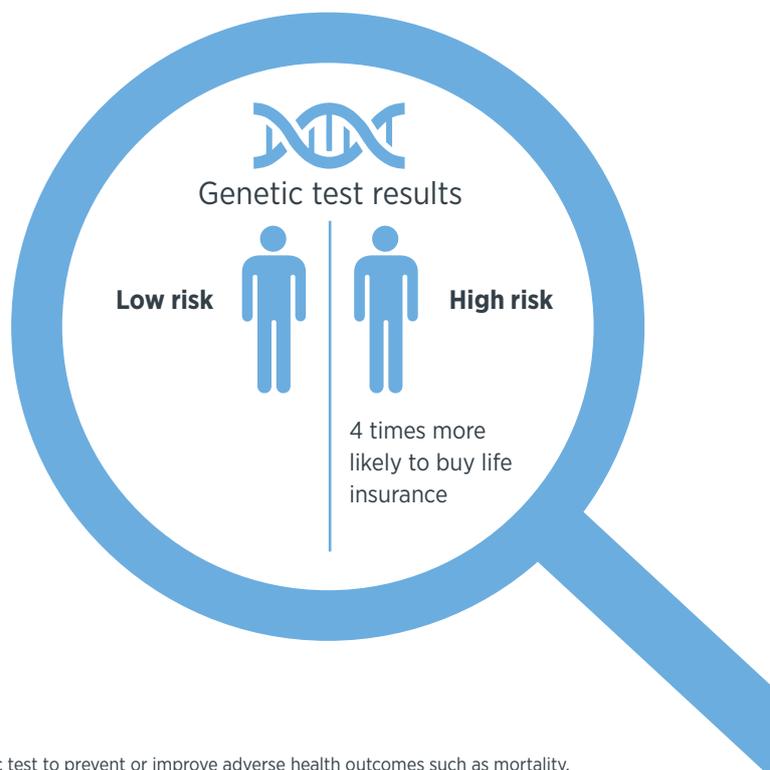
As with DTC tests, the proportion of individuals who have undergone medically prescribed tests is increasing. In addition to offering improved prevention, diagnosis and treatment of critical diseases, genetic testing, including DTC tests, were found to encourage individuals to live more healthily.^{xxvii} Examples of healthier choices included starting to take vitamins and supplements, improved diet, increasing exercise and changing medication.

Due to the numerous benefits, we are seeing the healthcare sector embrace the use of genetic testing. Numerous public healthcare agencies around the world have launched genome sequencing projects which will aid research and lead to medical breakthroughs in the field of genomics (see textbox for examples). Genomics refers to the study of the whole

genome and how it works, and has also come to have a broader meaning to include the way that the genome is interpreted and the technologies that have been developed to support this for the purposes of understanding how disease develops and which treatments will be most effective.^{xxviii} Many predict that genetic testing will transform healthcare, from the early detection of disease and enhanced treatments, to prevention through personalised precision medicine and, eventually, to an increase in healthy life expectancy.^{xxix} The rapid increase in genetic testing creates both risks and opportunities for the life insurance market.

Adverse selection

Following a genetic test, individuals found to be high risk for common disorders such as cancer, heart disease, diabetes or nervous system diseases, such as Alzheimer's or Parkinson's, were four times more likely to purchase life insurance than individuals found to have average or low disease risk.^{xxx} However, due to regulations that restrict access to this information, or limit how it is used, genetic testing results are often not shared with insurers.



6 | In its narrowest sense, clinical utility refers to the ability of a screening or diagnostic test to prevent or improve adverse health outcomes such as mortality, morbidity, or disability through the adoption of successful intervention, informed by the test results. Grosse, S., Khoury, M. 'What is the clinical utility of genetic testing?' *Genet Med* 8, 448-450 (2006). <https://doi.org/10.1097/01.gim.0000227935.26763.c6>

In the UK, an agreement (The Code on Genetic Testing and Insurance) exists between the government and the Association of British Insurers (ABI) that restricts insurers from asking for genetic testing results and from using results in the underwriting process. All members of the ABI automatically sign-up to the Code. Insurance companies that are not members of the ABI can also sign up.⁷ The Code outlines what an insurance company does and does not need to know about the genetic testing an individual may have had when that individual is applying for insurance.^{xxxix} Insurance companies that are signed up to the Code have committed to not require or pressure an individual to take a predictive or diagnostic test under any circumstances, and to not ask for, or take into account, the result of a predictive genetic test when an individual applies for insurance.⁸

In July 2019 similar restrictions were introduced in Australia by the Financial Services Council, the leading body for the financial services sector which sets mandatory standards and develops policy for members, including life insurers.^{xxxii, xxxiii} Despite the benefits of genetic testing, evidence presented in an Australian parliamentary inquiry in 2017 demonstrated that Australians were declining genetic tests recommended by their doctors over fears they would be denied life cover or have to pay much higher premiums.^{xxxiv} 'FSC Standard No. 11: Moratorium on Genetic Tests in Life Insurance', which is binding on FSC Members who provide life insurance, was introduced to provide patients with the reassurance they need to confidently receive the benefits genetic testing can provide.^{xxxv}

Due to these restrictions, there is an increasing asymmetry of genetic health information between insurers and consumers, in favour of consumers. Studies have shown that individuals who have received genetic testing results only occasionally share this information with their insurer.^{xxxvi} Concerns have been raised by insurers about the impact this will have on the life insurance market. In their report on genetic testing, Swiss RE argued that relevant information about an applicant's health must always be accessible and the sharing of that information equitable. Without access to this data, Swiss RE suggests insurers will not be able to accurately assess and price for risk and ensure sustainable protection for all consumers at an affordable cost.^{xxxvii} Should this occur, the increased premiums may act as a barrier to accessing life insurance, for many within our society.

While inconsistency exists in regulatory approaches around the world, there is a trend toward increased regulation. For example, there is ongoing debate in China, which is currently unregulated in this space, about whether a complete restriction should be placed on the use of all genetic test results in insurance. Some life insurers predict that the effects of adverse selection will be amplified as regulations increasingly restrict the use and disclosure of genetic test results in underwriting.^{xxxviii} A study from the Canadian Institute of Actuaries has concluded that the financial impact would be more than insurance companies could be expected to absorb without an increase in premium rates, potentially having strong implications for the future of the market.^{xxxix, xl}

A new role for life insurers

Other voices in the sector think that rather than adverse selection and regulatory oversight, the focus should be on how life insurers can embrace genetic testing and partner with consumers to improve health and life expectancy. Christoph Nabholz, Managing Director and Head of Life Behaviour Research and Development at Swiss RE, asks, "Where are the improvements coming from if not from genomic medicine?"

To fulfil this customer-centric role, life insurers will need to develop capability and know-how around genomics. According to the Geneva Association, an international think tank within the insurance industry, many life insurers are adopting a wait-and-see approach and are not considering the advances in technology as seriously as they should.^{xli} However, some insurers have already taken steps to apply breakthroughs in the clinical world to the insurance world. For example, RGA RE has been collaborating with King's College London to research recent genomics developments and how that research could be applied to life insurance.^{xlii}

Embracing genetics may help to improve more than just consumer health and life expectancy. It may also help to improve the health of the life insurance market. A recent survey in the UK found that 12% had cancelled their life insurance in the past three years, with 7% planning on cancelling within the next 12 months.^{xliii} Genomics has the potential to improve the way insurers engage and interact with their policyholders, making them a partner in consumers' health.^{xliii} This new way of engaging may bring new value to life insurance products, making them more attractive to consumers.

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7 | A full list of insurance companies that have signed up to the Code is available here: <https://www.abi.org.uk/data-and-resources/tools-and-resources/genetics/code-on-genetic-testing-and-insurance/>

8 | An exception exists where an individual is applying for life insurance over £500,000 and they have had a predictive genetic test for Huntington's disease. In this circumstance, the individual will need to disclose this information to the insurance company, if asked.

Genome projects worldwide



UK

The 100,000 Genomes Project is launched in 2012 and reached its goal of sequencing 100,000 whole genomes from NHS patients by the end of 2018.



Saudi Arabia

The Saudi Human Genome Program launched in 2013 with the aim of addressing the country's high prevalence of genetic disease. In 2016 it reported that Saudi-specific mutations alone cost the Kingdom SR 6.4bn (USD 1.7bn) in health care annually.



US

The All of US Research Project launched in 2015 to compile health and genetic data from over one million people. All of Us aims to become the US's largest and most diverse research cohort, with plans to oversample communities under-represented in past research.



France

France Genomique was launched in 2016 with plans to develop 12 genomic sequencing centres and two centres specialising in genomic know-how and data analysis. Cancer, rare diseases and diabetes are the initiative's initial disease areas of focus; other common diseases will be added to the mix in 2020.



Estonia

The Personalised Medicine Programme was launched in 2016, with the Estonian Biobank launched in April 2018 to boost the development of personalised medicine in Estonia and contribute to the advancement of preventative healthcare.



China

The 100,000 Genomes Project (China) launched in 2017 as the nation's first major national human genome research effort. Researchers plan to sequence the genomes of 100,000 people from across different ethnic backgrounds and regions across China, including the Han ethnic majority and nine minorities with a combined population of five million.



Australia

The Australian Genomics Health Futures Mission launched in May 2018. The Mission's first project, Mackenzie's Mission, is a pre-pregnancy screening program designed to detect rare and debilitating genetic birth disorders and is currently recruiting couples for participation.



Dubai, United Arab Emirates

Dubai Genomics was launched in 2018. The three-phase project will see the establishment of a genetic database for future research, for the purpose of lending support to decision-makers as they set plans and strategies for the future of the healthcare sector. Collaboration with pharmaceutical companies and academia to develop new precision medicine treatments will also be a focus of the project.

Feeling hot, hot, hot

Faye Alessandrello, Policy Manager, Institute and Faculty of Actuaries

Our world is getting warmer. Despite signing the Paris Agreement, we are not seeing the urgent and necessary action required from world leaders to limit global warming this century to well below 2 degrees Celsius. As a result, temperatures have risen by a little more than one degree since 1880.^{xlv, xlvii} The consequences of this are already being experienced through more extreme weather events, rising sea levels and diminishing Arctic sea ice, among other changes.^{xlvii}

Climate change means we may face more frequent or severe weather events. Recent research found that human-driven climate change made Australia's recent bushfires at least 30% more likely to occur than they would have in 1900.^{xlviii} However, due to deficiencies in the model, the researchers estimated the probability is much higher than this. In addition to the devastating human consequences, these weather events create physical risks to assets and infrastructure which directly impact our society. This will make individuals more reliant than ever on insurance to protect their homes and their livelihoods against these risks.

The cost of insuring against losses incurred from extreme weather events is huge, with the cost increasing significantly over the last 30 years. The Insurance Council of Australia reported that combined bushfire catastrophe losses from the recent Australian bushfires stood at AUD\$939m (£496m).^{xlix}



Continued increase in the frequency and severity of weather events is likely to see a rise in the cost of insuring against these risks. We may find ourselves in a situation where insurance is unaffordable and, in effect, becomes unavailable to those poorer within our society. This presents a particular challenge to those who, based on a number of factors, will experience greater hardship in response to climate-related events. These factors include:

- Geographic locations eg individuals living in flood-prone areas in the UK
- Financial wealth eg poorer individuals may not have reliable access to food, water, housing or energy after experiencing the impacts of climate change
- Occupation eg occupations impacted by the risks arising directly from climate change and from measures taken to avoid or mitigate it, such as measures to reduce operations in the most polluting industries
- Health eg some individuals, particularly the elderly and children from poorer backgrounds, are more vulnerable to heat-related illnesses.

In 2017 Thomas Buberl, CEO of AXA, one of the world's largest insurers, stated, 'a +4 degree world is not insurable.'ⁱ With climate models predicting we are on track for a warming of between 3- 4 degrees by the end of the century,ⁱⁱ it is likely that the resultant increased physical risk will become unaffordable to insure. If this were to occur, the most vulnerable in our society would not be able to access insurance for the purposes of:

- Securing against the loss of assets and livelihoods
- Ensuring reliable post-event relief
- Setting incentives for prevention.

It is clear that environmental degradation and global warming create financial risks for insurers and insureds alike. Strong interventions are needed from industry and government to prevent a +4 degree world from becoming a reality.

The insurance industry has the power to play a transformative role in addressing climate change. Already we are seeing a number of positive initiatives and trends from within the sector aimed at this purpose. For example:

- The UNEP Finance Initiative Principles for Sustainable Insurance (UN PSI), launched at the 2012 UN Conference on Sustainable Development, which serves as the global framework for the insurance industry to address environmental, social and governance risks and opportunities. The Principles have led to the PSI Initiative, the largest collaborative initiative between the UN and the insurance industry to date.⁹ Over 140 supporting organisations have now joined the UN PSI as supporting companies and institutions, including the Institute and Faculty of Actuaries
- There is an increasing trend within the industry of withdrawing support for coal. Unfriend Coal is an active campaign with the main goal of making coal uninsurable. Without the protection afforded by insurance, plans for new coal plants will be unlikely to go ahead and existing operations will need to be phased out.^{lii} In 2019, the number of insurers withdrawing cover for coal more than doubled. For some insurers, including major US general insurer Chubb, this has meant ceasing to insure companies that generate more than 30% of their revenue from coal mining or from the supply of coal-fired electricity, and phasing out investments in such companies over the next three years.^{liii}

- In 2017 the Insurance Society of China and the China Society for Finance and Banking came together to address the pollution caused by China's extraordinary economic growth. With support from the appointed actuary of China Re, Mr. Xiaoxuan (Sherwin) Li, FIA, and his actuarial team, these organisations performed a quantitative analysis of environmental risk for China's finance and insurance industry. The project found that the industries causing the pollution are not internalising costs; instead the Chinese government is having to raise revenue to clean up the environment. In May 2018 the Chinese government passed the Compulsory Environmental Pollution Liability Insurance Regulation. With this mechanism, China hopes that its society and economy will play a role in addressing climate change, rather than contributing to it.^{liv}

It is likely that the impacts of climate change will be felt disproportionately within our society, with greater challenges being experienced by the poor and the vulnerable. These individuals have more to lose still if they are unable to access or afford the protection that insurance provides. Through their actions to address global warming and ensure that the planet remains insurable, insurers are helping to ensure all in our society are able to secure their livelihoods and financial freedom.

It is likely that the impacts of climate change will be felt disproportionately within our society, with greater challenges being experienced by the poor and the vulnerable.

9 | As of July 2015, 83 organisations have adopted the Principles, including insurers representing approximately 20% of world premium volume and USD 14 trillion in assets under management. The Principles are part of the insurance industry criteria of the Dow Jones Sustainability Indices and FTSE4Good.

Insurance Premium Tax - stealth tax of choice?

Scott Corfe, Research Director, Social Market Foundation

Insurance Premium Tax (IPT) – covering most general insurance – has increased substantially since its inception in 1994. In particular, since 2011 IPT has climbed rapidly as policymakers have sought additional revenue to plug holes in the public finances. At present, the standard rate of IPT stands at 12%, about five times its initial 1994 rate of 2.5%.

IPT now raises more revenue than beer and cider duty, wine or spirits duty, or betting and gaming duties. Since 1994 the standard rate of IPT has increased more rapidly than tobacco duty.

Such large hikes in IPT have taken place despite a lack of published evidence from government around its impact on consumer behaviour and household finances, including with respect to the distributional consequences of changes in IPT.

Increases in IPT also come despite economists warning that the current rate of tax is likely to be too high, and far removed from the original motivations for introducing IPT in the 1990s.

IPT was introduced to compensate for the VAT exemption of insurance. Insurance has historically been exempt from VAT due to the nature of the product; it only pays out under certain circumstances. Without IPT, households would be paying too little for insurance and firms too much.

Broadly, the 'correct' tax on insurance for households – making it equivalent to VAT – would be 20% of the difference between premiums and payouts. As the Institute for Fiscal Studies has pointed out, since IPT is levied on premiums alone, that would roughly equate to a low single-digit tax rate. So a 12% tax on premiums is much higher than the appropriate rate on

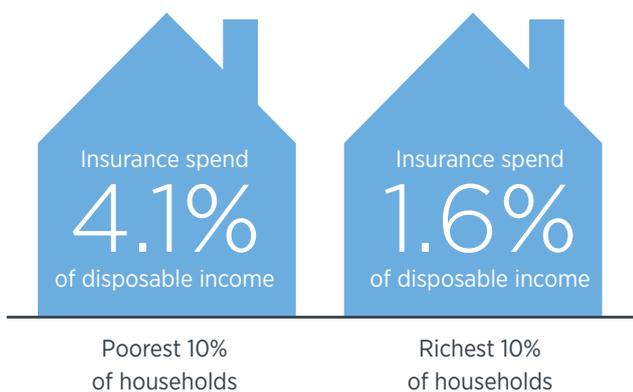
households, let alone on businesses that were being overtaxed on their use of insurance even before IPT was introduced. Unlike VAT, businesses cannot claim back IPT-related costs.

Given that the standard rate of IPT is now far above its VAT-equivalent rate, why has government used it as a tax hike of choice since the global financial crisis? Social Market Foundation research suggests an answer – lack of awareness of the existence of IPT. A survey of 2,000 adults we commissioned in 2017 found that just under half (48%) of individuals were unaware of the existence of IPT – significantly higher than lack of awareness of other taxes, such as alcohol duty and road fuel duty. In this sense, IPT can be regarded as a stealth tax – something the government can increase without consumers necessarily noticing that it has gone up. Small wonder, then, that politicians have turned to it so frequently in recent years.

Despite the stealth nature of IPT, the cost to households is not negligible. The amount of revenue raised from IPT in the 2019/20 financial year is estimated to stand at £223 per UK household. About half (48%) of this is paid directly by households on insurance products, with the remainder paid by businesses. Business costs associated with IPT are likely, at least in part, to feed through into the finances of UK households – through higher consumer prices, lower dividends and reduced profits for business owners.

Given that some insurance products are essential – such as vehicle insurance for motorists and building insurance for mortgage-holders – IPT is a difficult tax to limit one's exposure to.

The amount of revenue raised from IPT in the 2019/20 financial year is estimated to stand at £223 per UK household. About half (48%) of this is paid directly by households on insurance products, with the remainder paid by businesses.



And IPT appears to be a regressive form of taxation. Our research has shown that the lowest income 10% of households, in terms of post-tax income, spent 4.1% of their disposable income directly on insurance, compared with 1.6% for the highest income 10% of households.

If the standard rate of IPT had remained at 5%, its rate prior to 2011, then the savings per UK household would be significant. For the 2019/20 tax year, we estimated that households are directly spending about £58 more per year as a result of higher IPT, compared with a scenario where the standard rate had remained at 5%.

So where should government go from here? Firstly, we would urge an assessment of the distributional impact of future changes to IPT. Our analysis suggests that those on lower incomes spend relatively more on insurance as a share of their incomes, and this should be borne in mind when considering the fairness of future tax changes.

Government also needs to go back to first principles around why IPT exists – as a reasonable alternative to VAT for a product where VAT is difficult to apply. This should be the key determinant of the prevailing rate of IPT, rather than the stealth nature of the tax which makes it easier for politicians to hike the cost of living without too much awareness, or complaint, from the public.

Steven Graham, Technical Policy Manager, Institute and Faculty of Actuaries adds:

“As the SMF article mentions, IPT is applied on most forms of general insurance, including cover that is effectively compulsory; this includes motor and home (buildings) insurance. IPT impacts consumer and business premiums, and can be considered regressive in nature in that it has a greater proportionate impact on lower income households. This raises the question of insurance exclusion, where households (and businesses) with competing and pressing financial demands may forego or reduce their insurance cover if they have the choice, or reduce their disposable income further where insurance is compulsory.”

References

- i. Citizens Advice (2017) The insurance loyalty penalty: unfair pricing in the home insurance market. Available online: <https://www.citizensadvice.org.uk/about-us/policy/policy-research-topics/consumer-policy-research/consumer-policy-research/the-insurance-loyalty-penalty-unfair-pricing-in-the-home-insurance-market/>
- ii. Citizens Advice (2019) <https://www.citizensadvice.org.uk/about-us/how-citizens-advice-works/media/press-releases/home-insurance-companies-make-100-of-their-profits-from-the-loyalty-penalty-reveals-citizens-advice/>
- iii. Ibid note (i)
- iv. Citizens Advice (2019) The Mental Health Premium. Available online: <https://www.citizensadvice.org.uk/about-us/policy/policy-research-topics/consumer-policy-research/consumer-policy-research/the-mental-health-premium/>
- v. Ibid note (ii)
- vi. Ibid note (iv)
- vii. Kumer, M. (2009) Impact of Recession on Insurance Industry. Online article www.einsuranceprofessional.com/artrecession.html
- viii. Wells, G., Newton, D. and Saunders, D. (2009) Non-life insurance claims in a recession. Milliman, 2009. Available online: <http://de.milliman.com/insight/Research/perspective/research/pdfs/Non-life-insurance-claims-in-a-recession/>
- ix. Ibid note (viii)
- x. FCA (2019) Interim report of General Insurance Market Study. Available online: <https://www.fca.org.uk/news/press-releases/fca-sets-out-potential-remedies-tackle-concerns-about-general-insurance-pricing>
- xi. HMRC (2020) Pension Flexibility Statistics January 2020. Available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/861650/Pension_Flexibility_Statistics_January_2020.pdf
- xii. Ahlgrim, K. D., and D'Arcy, S.P. (2012) The Effect of Deflation or High Inflation on the Insurance Industry. Sponsored by the Casualty Actuarial Society, Canadian Institute of Actuaries and Society of Actuaries. Available online: <https://www.soa.org/globalassets/assets/Files/Research/Projects/research-2012-02-effect-deflation-report.pdf>
- xiii. United Nations (2019). World Population Prospects 2019: Highlights (ST/ESA/SER.A/423). Available online: https://population.un.org/wpp/Publications/Files/WPP2019_Highlights.pdf
- xiv. OECD (2019) Pensions at a Glance 2019: OECD and G20 indicators. Available Online <https://www.oecd-ilibrary.org/sites/d6831cac-en/index.html?itemId=/content/component/d6831cac-en>
- xv. Age UK (2019) Briefing: Health and Care of Older People in England 2019. Available online: https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/reports-and-briefings/health--wellbeing/age_uk_briefing_state_of_health_and_care_of_older_people_july2019.pdf
- xvi. Centre for Financial Inclusion & Institute of International Finance (2017) Insights on Inclusive Insurance, October 2017. Available online: https://www.iif.com/portals/0/Files/private/32370132_iif-cfi_insights_on_inclusive_insurance_-_10.12.17_-_vf.pdf
- xvii. Access to Insurance Initiative website: <https://a2ii.org/en>
- xviii. Social Market Foundation (2018) Measuring the Poverty Premium. Available online: <http://www.smf.co.uk/wp-content/uploads/2018/03/Measuring-the-Poverty-Premium.pdf>
- xix. Joseph Rowntree Foundation (2017) Acting on unfair poverty premiums must be a 2017 priority. Available online: <https://www.jrf.org.uk/blog/acting-unfair-poverty-premiums-must-be-2017-priority>
- xx. ONS Labour Force Survey person datasets: Sickness absence rates. Available online: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/sicknessabsenceinthelabourmarket>

- xxi. Institute and Faculty of Actuaries Wearables and the Internet of Things Working Party (2018) Wearables and the Internet of Things: Consideration for the life and health insurance industry. Available online: <https://www.actuaries.org.uk/system/files/field/document/Wearables%20Sessional%20Paper%20%2020180615%20-%20Final%20Draft%20v3.pdf>
- xxii. Ibid.
- xxiii. 23 and me website: <http://www.23andme.com/>
- xxiv. MIT Technology review (2019) More than 26 million people have taken an at-home ancestry test. Available online: <https://www.technologyreview.com/2019/02/11/103446/more-than-26-million-people-have-taken-an-at-home-ancestry-test/>
- xxv. Swiss RE (2019) DNA testing: the gene genie's out of the bottle. Available online: <https://www.swissre.com/institute/research/topics-and-risk-dialogues/health-and-medicine/dna-testing-questions-answers.html>
- xxvi. Institute and Faculty of Actuaries Genetics Working Party (2018) What next for the Concordat and Moratorium? Available online: https://www.actuaries.org.uk/system/files/field/document/E1%20Life%20Conference%20session_Genetics%20Working%20Party%20update.pdf
- xxvii. Swiss Re (2019) Can life insurance pass the genetic test? Available online: <https://www.swissre.com/institute/research/topics-and-risk-dialogues/health-and-medicine/genetic-test-life-insurance.html>
- xxviii. Genomics England infographic. Available online: https://www.genomicsengland.co.uk/wp-content/uploads/2015/02/46-17_Genome-infographic_AW_A401-01.jpg
- xxix. RGA Re (2019) The Time is Now. Available online: <https://www.rgare.com/knowledge-center/media/articles/the-time-is-now>
- xxx. Swiss Re (2019) DNA testing: the gene genie's out of the bottle. Available online: <https://www.swissre.com/institute/research/topics-and-risk-dialogues/health-and-medicine/dna-testing-questions-answers.html>
- xxxi. Association of British Insurers (2018) Code on Genetic Testing and Insurance. Available online: <https://www.abi.org.uk/data-and-resources/tools-and-resources/genetics/code-on-genetic-testing-and-insurance/>
- xxxii. Financial Services Council (2019) Genetic tests and applying for life insurance- Key Facts. Available online: <https://www.fsc.org.au/resources/1785-moratorium-key-facts>
- xxxiii. Financial Services Council website: <https://fsc.org.au/about>
- xxxiv. BioNews (2019) Australia launches genetic testing moratorium for life insurance. Available online: https://www.bionews.org.uk/page_143682
- xxxv. Australian Genomics (2019) Financial Services Council introduces a Moratorium on genetic tests in life insurance. Available online: <https://www.australiangenomics.org.au/financial-services-council-introduces-a-moratorium-on-genetic-tests-in-life-insurance/>
- xxxvi. Swiss Re (2017) Seeing the future? How genetic testing will impact life insurance. Available online: https://www.swissre.com/dam/jcr:2bccf1e2-eea5-4ca2-a416-f6dedcebe9dc/Genetics_Seeing_the_future.pdf
- xxxvii. Swiss Re (2019) Can life insurance pass the genetic test? Available online: <https://www.swissre.com/institute/research/topics-and-risk-dialogues/health-and-medicine/genetic-test-life-insurance.html>
- xxxviii. Ibid.
- xxxix. Genetic Testing Model: If Underwriters Had No Access to Known Results, Report to Canadian Insurance Actuaries Research Committee, Robert C.W. Howard (FCIA, FSA), July 2014. Available online: <https://www.cia-ica.ca/docs/default-source/2014/214082e.pdf>
- xl. Genetic Testing Model for CI: If Underwriters of Individual Critical Illness Insurance Had No Access to Known Results of Genetic Tests, Report to Canadian Insurance Actuaries Research Committee, Robert C.W. Howard (FCIA, FSA), January 2016. Available online: <https://www.cia-ica.ca/docs/default-source/2016/216002e.pdf>
- xli. Geneva Association (2017) Genetics and Life Insurance – A View Into the Microscope of Regulation. Available online: <https://www.genevaassociation.org/research-topics/global-ageing/genetics-and-life-insurance-view-microscope-regulation>
- xlii. IRGA Re (2019) The Time is Now. Available online: <https://www.rgare.com/knowledge-center/media/articles/the-time-is-now>
- xliii. Finder (2020) Life insurance statistics. Available online: <https://www.finder.com/uk/life-insurance-statistics>
- xliv. Ibid.

- xlvi. United Nations Framework Convention on Climate Change. The Paris Agreement. Available online: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
- xlvi. Earth Observatory. World of Change: Global Temperatures. Available online: [https://earthobservatory.nasa.gov/world-of-change/global-temperatures#:~:text=According%20to%20an%20ongoing%20temperature,2%C2%B0%20Fahrenheit\)%20since%201880](https://earthobservatory.nasa.gov/world-of-change/global-temperatures#:~:text=According%20to%20an%20ongoing%20temperature,2%C2%B0%20Fahrenheit)%20since%201880)
- xlvii. IPCC (2018). Global Warming of 1.5°C. Available online: <https://www.ipcc.ch/sr15/>
- xlviii. van Oldenborgh, G. J., Krikken, F., Lewis, S., Leach, N. J., Lehner, F., Saunders, K. R., van Weele, M., Haustein, K., Li, S., Wallom, D., Sparrow, S., Arrighi, J., Singh, R. P., van Aalst, M. K., Philip, S. Y., Vautard, R., and Otto, F. E. L.: Attribution of the Australian bushfire risk to anthropogenic climate change, Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2020-69>, in review, 2020.
- xlvi. Insurance Journal (2020) Australia's Bushfires Could Surpass 2009's Costly Season: Analysts, Insurers Comment. Available online: <https://www.insurancejournal.com/news/international/2020/01/10/554271.htm>
- I. AXA (2017). AXA accelerates its commitment to fight climate change. Available online: <https://www.axa.com/en/newsroom/press-releases/axa-accelerates-its-commitment-to-fight-climate-change>
- ii. IPCC (2014) Climate Change 2014 Synthesis Report. Summary for Policymakers. Available online: https://www.ipcc.ch/site/assets/uploads/2018/02/AR5_SYR_FINAL_SPM.pdf
- iii. Unfriend Coal website. <https://unfriendcoal.com/>
- liii. Chubb (2019) Chubb Announces New Policy on Coal Underwriting and Investment. Available online: <https://news.chubb.com/2019-07-01-Chubb-Announces-New-Policy-on-Coal-Underwriting-and-Investment>
- liv. Institute and Faculty of Actuaries (2017) Environmental risk solutions in China. Available online: <https://www.actuaries.org.uk/news-and-insights/public-affairs-and-policy/sustainable-development-goals/environmental-risk-solutions-china>



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