Price Optimisation for Insurance
Optimising Price; Destroying Value?

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- The underwriting practice of 'price optimisation' has opened up a debate about insurance pricing, with the insurance sector facing calls for innovation, as well as accusations of unfairness.

- Price optimisation involves the use of non-actuarial pricing factors in setting premiums and in particular, the insight that insurance firms can draw from big data about how much we are prepared to pay for what they have to sell. It's referred to as the price elasticity of demand.

- Some people see price optimisation as innovative and customer centric, and replacing underwriting judgement with evidence based precision. Others see it as alienating, unfair and devaluing insurance with its emphasis on price over cover.

- Many US insurance state regulators have now banned price optimisation in personal lines insurance, and the National Association of Insurance Commissions has recommended that all state regulators ban it as being unfairly discriminatory.

- The Financial Conduct Authority has launched a market study into the use of big data in retail general insurance. Will they follow the US example and introduce a ban on price optimisation here? If so, what steps can UK insurance firms take now to prepare for such an eventuality?

The Chartered Insurance Institute

CII Introduction: Price optimisation is on the rise in UK insurance, driven by the insight that underwriters gain from big data. Yet it is proving a divisive practice, with US regulators increasing banning its use in personal lines markets. In his latest Thinkpiece, Chartered Insurance Practitioner Duncan Minty considers how these events might influence the FCA's current market study on big data, and what steps insurance firms might consider taking now to prepare for the regulator's response.

The way in which insurance premiums are calculated has a history as long and evolving as the policy cover itself. From the very moment that decisions to transfer risks were made, the discussion turned to how premium contributions would then be calculated. And the latest stage in that 'premium calculation' debate is a particularly significant one, with the insurance sector facing calls for innovation, as well as accusations of unfairness.

The practice at the centre of this debate is 'price optimisation' and the way and extent to which it is utilised has the potential to take insurance pricing into completely new realms. It's a step that could also have profound implications for the relationship between insurer and policyholder.

And it is a debate becoming increasingly charged in nature. Some see price optimisation as the type of initiative that shows insurers at last making full use of what they know about their customers, being part of a move to a more personalised relationship with them. Others have cast doubt on the fairness of price optimisation, with a sizable number of US insurance state regulators now banning its use.

It is this confluence of opinion that I want to explore in this Thinkpiece, and to draw from it two things:

- the implications that price optimisation could have for innovation and trust in insurance;

- the steps that insurers could consider taking now in preparation for regulatory scrutiny over its use.

Background

Price optimisation in insurance has not arrived out of nowhere. A series of developments have contributed to its emergence and these developments are worth examining, for they will have influenced a lot of current opinion about the use of price optimisation in insurance.

Insurers have always been interested in new business, for it fuels growth in market share and in profit. Yet that interest has become more intense in recent years, as insurance markets became more competitive, investment income declined and customers more inclined to 'shop around'. These trends were supported by the greater attention insurance firms now paid to marketing their offerings. Marketing people have found it easier to convey, and consumers more able to take in, a price based offer, compared with one based around cover.

This led to the emergence of introductory price offers, yet these had a 'short term' feel to them. To get around this, insurance firms started to 'dual price' their policies: the same cover sold to an existing customer at one premium was sold to a new customer at a lower premium. Once the new customer was on the books, their premium would gradually increase over the next few years to the level paid by existing customers. The opacity of insurance pricing allowed this to become a norm, with consumers now broadly aware that your competitive new quote wouldn't always stay that way. This in turn encouraged consumers to shop around even more.

Just as computers helped insurance firms to manage dual pricing, so the internet allowed this practice to reach new levels of sophistication. The emergence and popularity of price comparison websites reinforced the prominence given to price over cover, and the drive to appear towards the top of the screen put added pressure on lowering quotes for new business.

Price comparison websites have been designed to harvest as much data as possible about the new business customer. Getting as much insight as possible from all that data has led to it being combined with other data bought in from external sources, such as loyalty cards. New analytics programmes allowed underwriters to make predictions not only about which segments of business were likely to be most profitable, but also about the different buying habits of consumers.

why discount more than you need to?

If insight into such buying habits helped an insurance firm pinpoint what caused individual customers to view a premium as competitive, then those firms could offer premiums that were 'competitive enough' to win that piece of business. The case for doing so was simple: 'why discount more than you need to?'

And if you knew what really motivated someone to be happy to pay a certain amount for your product, then why apply it just to new business? Insurance firms could then avoid being 'too competitive'. The argument was again simple: 'why offer someone a premium of X if they would be prepared to pay 'X+10%'. And of course, the surplus you gained from not being too competitive on some policies (new or existing) could then be used to make rates even more competitive on those policies you were particularly keen on.

This approach to pricing has been called dynamic pricing by some, price discrimination by others. It's an approach that has become established in markets such as for hotel rooms and airline seats. Insurance firms have seen it as a 'win, win' method of pricing: not only did it help them gain and retain business, but it followed a path well trodden in other markets.

Just as insurance was enduring a prolonged soft market, this approach to pricing offered a somewhat isolated ray of hope. It's no wonder then that in markets like personal motor insurance, with income from referral fees and 'opt out add ons' being radically reduced, it has become widely adopted, with some saying that upwards of 50% of that market is now price optimised in some way[1].

What is Price Optimisation

This background to the emergence of price optimisation helps us move now to an explanation of what exactly price optimisation is. And the best place to start such an explanation is from the traditional basis upon which insurance firms have set their rates.

The starting point has been the actuarial weighing up of considerations such as the future cost of claims and expenses, and investment income. This was a predominantly portfolio based, quantitative process, to which underwriters then applied their judgement to adjust for the risks and opportunities of competition, for acceptable retention ratios and the like. This latter process was largely subjective, with such judgements being applied on a relatively broad basis: for example, across all homes in a particular region or all vehicles of a certain category.

The advent of vastly increased amounts of data, along with significant advances in statistical modelling, has resulted in a more quantified approach replacing such judgements. Adjustments to the 'actuarial rate' became automated, through the use of big data and predictive algorithms. And it became more personalised, being applied at ever smaller clusters of policies, to the point even of individual policies.

As insurance firms tapped into an ever widening range of data sources, the range of what might be called non-actuarial pricing factors increased. And some of these factors were emotional in nature – data was being analysed for insight into the sentiments we had, particularly in relation to what triggered a decision to buy, or not buy, particular types of product. In essence, insurance firms were obtaining insight into how much we were prepared to pay for what they had to sell; in other words, insight into what economists call the price elasticity of demand.

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Insurance firms had always taken account of the price elasticity of demand for their products, but this had previously been done only on an aggregated basis. Now they were attempting to do so at the level of the individual consumer. By measuring each consumer's price elasticity of demand, the insurance firm could 'optimise' the price for each consumer, to set the premium at the greatest price that each consumer would accept without causing them to take steps to switch to another insurance firm.

This new approach to setting premiums was significant, for it heralded a material shift away from the previous dominance of risk based rating factors. What made the shift 'material' was its automation and personalisation: from the broad judgements of the past, to the digitalised tweaks of the present. As a result, opinions about the use of price optimisation by insurance firms began to divide, and the issue along which that division has emerged is fairness.

Critics of price optimisation in insurance believe it produces premiums that are unfairly discriminatory, while supporters believe it produces outcomes that are actually more fair for consumers. Consider these two definitions from a recent US white paper on price optimisation.

The US Casualty Actuarial Society defines price optimisation as: "the supplementation of traditional actuarial loss cost models to include quantitative customer demand models for

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[1] "Non-Risk Price Discrimination in Insurance: Market Outcomes and Public Policy" by R Guy Thomas, The Geneva Papers, 2012, 37, (27–46).

use in determining customer prices. The end result is a set of proposed adjustments to the cost models by customer segment for actuarial risk classes."

The Ohio Department of Insurance describes price optimisation as "varying premiums based upon factors that are unrelated to risk of loss in order to charge each insured the highest price that the market will bear."

We will now explore these differing opinions in greater depth.

The case for using Price Optimisation in insurance

There are reasons for price optimisation gaining a foothold in the way in which insurance is priced and five of the 'most often referred to' reasons are outlined here. Firstly, there's a view that price optimisation simply replaces the underwriter's previous reliance on subjective judgement with a more quantified, less anecdotal approach to deciding on the premium to be charged for a particular risk. The data and analysis that underpins price optimisation provides a more evidence based approach to rating, and that is seen as a good thing.

Secondly, a great deal of emphasis is put on risk based pricing factors still being the greatest influence on the premium charged for a particular risk. And at the same time, people point to non-risk based factors being something far from new, an underwriter's 'nouse' having always been a factor in premium decisions.

Thirdly, there's a body of evidence to show that insurance markets in which price optimisation is becoming influential, such as personal motor, remain just as fiercely competitive as ever, with the choice of providers, the transparency of premiums and the ease of access still as strong as ever.

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Fourthly, many see price optimisation as just another innovation in how insurance markets engage with consumers. New ways of pricing risk are a benefit to society, allowing insurers to take on new risks, and existing risks of greater scale and complexity. And with insurers often criticised for not being innovative enough, it's seen as unfair to complain when some insurance firms do try something new.

And finally, there's a widely held view that if other markets can adopt price optimisation, why shouldn't insurance? Those other markets have not faced any discernable consumer backlash, so insurance is unlikely to either. Some people make a similar point by asking why price optimisation can't be used in insurance, given that the regulator has not deemed it unfair. In other words, why hold a market back? And it's a view summed up in the notion that this is the digital, data driven direction that markets are taking now: insurance needs to be part of that.

The case against using Price Optimisation in insurance

Just as there are advocates for using price optimisation in insurance, there are those who oppose its use. Here are five of the 'most often referred to' arguments against the use of price optimisation in insurance.

Firstly, it reinforces the focus on the price of the insurance policy, at a time when many in the sector bemoan the lack of attention given to the quality of the cover being provided. This relentless focus on price over cover has contributed to what many insurance people see as a devaluing of their product. Consumers seem to care less about the cover they're buying, which tends to increase the notion of insurance as a 'begrudged' purchase. That's not good for a market seeking to increase engagement with consumers in order to offer them a wider range of services.

Secondly, there are concerns that entering a cycle of discounting new business premiums and inflating renewal premiums will exacerbate even further the low levels of trust in the insurance sector. Many consumers find it an alienating practice, disliking the cheap lure at the outset and the inevitable premium increases that follow. They're taught to be suspicious of quoted premiums and to always expect them to then rise. The price for insurers is an engrained churning of their product.

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Thirdly, price optimisation can have an alienating effect on consumers, who feel exploited by their relative ignorance of how premiums are calculated. Any existing notion amongst consumers of what caused premiums to go up or down is lost, which then has the knock-on effect of teaching consumers that any significant effort to reduce the risk they're presenting is a waste of time. As a result, consumers 'care less' and insurers face a degrading of moral hazard.

Fourthly, there are serious concerns about the impact that price optimisation could have on vulnerable people, many of whom are less likely to shop around for alternative quotes. A number of factors contribute to this: they feel less able to cope with the complications of insurance quotations; they sense that less choice is available to them when they do, and; they sense their circumstances are invariably treated as complications by insurers. The upshot of all this is that vulnerable people are more likely to experience the downsides than the upsides of price optimisation: in other words, they would face unfair discrimination.

And finally, some in the insurance market worry that any development that makes insurance more of a begrudged purchase, that makes it more of an alienating experience, that induces more of a 'care less' attitude, is simply creating, in the words of one insurance chief executive, "an environment in which fraudulent activity is deemed more acceptable than would otherwise be the case".

Developments in the United States insurance market

These contrasting viewpoints have recently come to a head in the United States insurance market, with significance consequences for insurance firms there.

Insurance firms in the United States are regulated at the state, rather than federal, level. In October 2014, the insurance regulator for the state of Maryland announced that price optimisation resulted in rates that were unfairly discriminatory, and as such were against state law. Since then, seventeen states have joined Maryland in banning price optimisation, including California and Pennsylvania.

Their basis for doing so has been that price optimisation appears to be contrary to this near universal condition of US insurance law: "rates shall not be inadequate, excessive, or unfairly discriminatory." And the National Association of Insurance Commissioners (the standard setting and regulatory support organisation for state insurance regulators) defines 'unfairly discriminatory' in this way:

Unfair discrimination exists if, after allowing for practical limitations, price differentials fail to reflect equitably the differences in expect loss ratios and expenses.

In November 2015, the NAIC published a 'white paper' setting out the findings of research into the use of price optimisation in personal lines insurance, carried out by

its Casualty Actuarial and Statistical Task Force[2]. The task force could only issue recommendations to the state insurance regulators, but the resonance of any such recommendations can be significant. The most fundamental of its recommendations was this:

The Task Force recommends that two insurance customers having the same risk profile should be charged the same premium for the same coverage.

And from this flowed their central conclusion, that insurance rating practices should not be allowed where the practice cannot be shown to be cost based. As a result, the task force set out four 'rating practices' that it felt were inconsistent with a statutory requirement for rates not to be unfairly discriminatory:

- price elasticity of demand;
- propensity to shop for insurance;
- retention adjustment at an individual level;
- a policyholder's propensity to ask questions or file complaints.

Should the task force's recommendations be implemented across a great many states (and the expectation is that this will happen), then the use of price optimisation in the US personal insurance market will suffer a significant setback.

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One challenge for US state insurance regulators that ban price optimisation in personal insurance is the enforcement of that ban. Their principal tool, the signing off of each insurer's 'rate filings' is a relatively static and backward looking methodology, hardly suitable for a rating strategy based around a massive, ever fluctuating pool of big data. One insurer's recent rate filing in Pennsylvania detailed 300

[2] "Casualty Actuarial and Statistical (C) Task Force - Price Optimization White Paper", published by the National Association of Insurance Commissioners on 19 November 2015: http://www.naic.org/documents/committees_c_catf_related_price_optimization_white_paper.pdf

micro categories of risk: it would have needed many thousands more pages to detail all the rest.

As a result, the proposals set out in Appendix D of the task force's white paper are significant. This appendix dealt with the use of models in the rate filings they receive. Along with high level descriptions of a model's purpose and workings, the NAIC put forward some questions that a state regulator could ask of an insurer, such as:

- about the nature of input variables, including predictive values and errors statistics;

- about the provenance of input variables, with information about:

- the vendors of external data;

- how the insurer ensures that the external data is complete and accurate;

- any variables that are subject to the Fair Credit Reporting Act (a key piece of consumer rights law enacted at the federal level);

- how the insurer enables consumers to correct errors in the data held about them.

Should a significant number of state insurance regulators adopt these proposals, then the stage would be set for the regulation of 'unfair discrimination' practices to move to the same 'big data' level as that of insurers' ratemaking practices. Underwriting models would start to be opened up, ready for regulatory algorithms to be run through them to identify any rates, at whatever level of granularity, that were unfairly discriminatory.

These are significant developments for the US insurance market. What significance might they have for the UK insurance market?

What this might mean for UK markets

These developments in the United States will certainly have been noticed by insurance regulators in the UK and Europe, both of which have launched studies into the use of big data in general insurance.

Towards the end of 2015, the UK's Financial Conduct Authority (FCA) launched a market study into the use of big

data in general insurance[3]. And the European Insurance and Occupational Pensions Authority has include a big data project in its work plan for 2016. The output from both these studies will undoubtedly have something to say about price optimisation. The key question will be: how decisive will their conclusions be?

Let's stick with the NAIC's twin track approach and consider firstly, the four 'rating practices' set out on the preceding page, and secondly, the question of access to rating models. The FCA's forthcoming proposals around the four 'rating practices' could fall into one of three broad categories:

- propose that these price optimisation practices be banned. This seems a possibility, for to do otherwise would mean that price optimisation becomes even more engrained in market practices and so more difficult to pull back from.

- warn the insurance market that some form of restriction is be introduced. This seems unlikely, for the FCA would have to base this upon some form of clear differential between 'good price elasticity of demand' and 'bad price elasticity of demand', which would be difficult to define and police.

- signal that current price optimisation practices can continue. This also seems unlikely, for if there's any area of 'big data in general insurance' where the public is most likely to voice a strong opinion, it is around price optimisation.

One uncertainty around the possible outcome of the FCA's study is the extent to which the FCA receives strong consumer advocacy against price optimisation in insurance. In the US, the Consumers Federation of America have been vociferous in its opposition to price optimisation and this seems to have had an impact on the NAIC's eventual recommendations. It's unclear whether similar interest, expertise and strength of will exists in UK consumer groups.

2016 could turn out to be a significant year for the use of price optimisation in UK insurance. It seems more likely than not that some form of regulatory intervention will be proposed. If some reports are correct that upwards of 50%

[3] "Call for Inputs: Big Data in retail general insurance", published by the Financial Conduct Authority on 24 November 2015: www.fca.org.uk/news/call-for-inputs-big-data

of UK private motor business is underwritten using some form of price optimisation, then the disruption to pricing strategies could be significant.

Is such disruption warranted? The FCA certainly has to take 'stability of the market' into account, alongside 'confidence in the market'. That said, they haven't stood back from disruptive interventions in the past: think of their review of the pay day loan sector. They will however recognise that any significant change to pricing models will be less disruptive if given time to take effect. This means that any ban could well only come into effect after an period of adaptation.

There is very likely however to be a price to pay for such a period of adaptation. And that price will be very similar to the second of the NAIC's significant recommendations in its recent White Paper: the disclosure of information about the computer models used for rating personal lines business. We are very likely to see the first steps towards what I've previously referred to as 'panoptic regulation': the opening up of underwriting models to regulatory interrogation and the introduction of 'conduct algorithms', designed to identify possible issues around regulatory concerns such as fairness and vulnerability. Indeed, the FCA may well take a closer look at how insurance firms are protecting vulnerable people from the impact of big data developments like price optimisation. It's the type of investigation that can act as a 'statement of intent' signal to the market.

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Wider repercussions from the use of Price Optimisation

Let's assume for a minute that no direct regulator intervention takes place and UK insurance firms continue to use price optimisation. What consequences might flow from this? Three are worth considering in a little detail.

Firstly, insurers might lose some of their current exemptions to equality legislation. These exemptions exist in order for risk based pricing to reflect incurred claims costs. However, following the Test-Achats ruling in 2011, such exemptions are no longer seen as sacrosanct. If price optimisation becomes established as the rating norm, then such exemptions may be called into question, on the basis that

policy pricing is no longer based on the risk presented, but on the price elasticity of that particular customer.

A second consequence could arise around access to accurate risk data. If insurers are gathering data about policyholders under the guise of risk based pricing, but then using that data to price optimise the premium, then consumers may 'call time' on openness with underwriters. Demand for 'internet of things' enabled insurance products might stall in the face of public resistance to their data being used against them.

And a third consequence might emerge around the exemptions that insurers enjoy from competition law, which allow them to share data in order to better identify and address fraud. As those tackling insurance fraud make increasing use of all kinds of soft and hard, structured and unstructured data about consumers, there could arise the temptation amongst some insurers to then use such data (in its raw or processed forms) to price optimise premiums. This could then bring those exemptions into question and cause competition authorities to begin dismantling a much needed asset. This very thing has already happened in the South Korean insurance market.

More fundamental questions raised by price optimisation

One of the reasons for the National Association of Insurance Commissioners (NAIC) recommending that price optimisation be banned in the US personal lines market was because the insurance market there had not built a strong enough case for discriminatory pricing being a thing of the past. Doubts remain, and they are likely to remain for some time, largely because of questions that have been raised about some of the impacts that big data could have on how pricing decisions are made.

To illustrate this, consider a feature of big data that's been behind some of those questions, called correlation clustering. What correlation clustering does is focus on the relationship between objects, rather than the representation of those objects themselves. When a strong set of relationships is found, a new piece of information is then associated with that person's identity.

And that piece of what is called 'manufactured information' is then used in further rounds of decision making, about the products that that person is offered, about the price that person is asked to pay. And there is a growing body of

evidence that correlation clustering can lead to discriminatory outcomes for consumers. Outcomes that have for example been influenced by a person's race.

Now that evidence has not so far come from the insurance market, but with the sector's ever growing adoption of big data, through tools such as price optimisation, then it is a risk that the sector needs to take seriously.

Many insurance executives would adamantly assert that 'this is not a road we would ever go down'. That's great but it's not enough, for the machine learning that is integral to big data means that an insurance firm wouldn't know how that manufactured information is influencing its pricing decisions, until the damage is done and the headlines are made. It's a lesson that VW executives have had to learn the hard way.

So there could well be a debate in the UK about whether price optimisation in insurance should be controlled, perhaps even banned. And it's a debate that could get quite heated, for the issues it brings out relate to social justice, and social justice attracts a more intense political debate than, say, privacy.

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What does this add up to for the insurance market?

Insurance firms are in a difficult position. On the one hand, they're under threat from disruptive outsiders trying to break into their markets with new ways of meeting the needs of consumers. And they're under pressure to be more innovative and adventurous in how they engage with customers. These insurance firms look across to other business sectors and see prices being optimised on a wide range of common products, and they ask themselves: 'why can't we do that as well?'

On the other hand, insurance firms sell a technical product, the scope of which is far from simple, and the price for which is set in quite mysterious ways. That imbalance of understanding is compensated for by a strong professionalism in the form of the Chartered Insurance Institute's huge membership, and by a regulator with far reaching powers.

Yet the insurance sector remains one of the business sectors least trusted by the public. The sector does

recognise the need to become more trusted, to remove sources of friction to the progress being sought by insurance firms. To commit wholeheartedly in such complex circumstances to widespread price optimisation does, on the face of it, raise questions.

If you were to explain the price optimisation of insurance to people on the Clapham omnibus, then it seems pretty likely that they would judge it to be unfair. It's a practice that doesn't score well in any 'smell test'. So if the FCA's market study on the use of big data in general insurance does have something to say about price optimisation, who in the market will be prepared to stand up and defend the practice on, say, BBC Radio 4's Today programme? I can't see the chief executive of any insurance firm being willing to do so. And if that's the case, then can insurance firms be sure that price optimisation is a sensible thing to do while trying to regain the public's trust?

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Some in the insurance sector might protest that this is just the way the business world is evolving, that if insurers didn't do it, then one of those 'disruptive competitors' would do so and gain an advantage. Yet if there's any lesson to be learnt in the UK from the NAIC recommendation that price optimisation in US personal lines insurance be banned, it is that price optimisation is not inevitable.

And even if some form of price optimisation was to become established in insurance markets, insurance firms would still have to implement it in line with the regulations that govern conduct in financial markets. As the UK's Information Commissioner made plain last year, "big data is not a game played by different rules."

Should insurance firms then fall foul of the main exposure presented by price optimisation, that of pricing in ways found to be unfairly discriminatory, then they risk the emergence of a new era of price regulation. It would indeed be ironic if an innovation like big data was ultimately to set insurance pricing back several years, perhaps even decades. To quote the Information Commissioner again: "Data may be the new oil; it could also be the new asbestos."

A key word in all this is "...*found* to be unfairly discriminatory". After all, with so much of the influence of big data being so densely technical that only the designers

of all those predictive algorithms really understand it, some insurance people may be tempted to wonder about the chances of being 'found out'. What they would be wise to bear in mind however are two things.

Firstly, algorithms are not the preserve of business: regulators will be testing out 'conduct algorithms' too, designed to sweep through an insurer's lake of data, looking for patterns of misconduct, with a keen eye for any abnormal pricing outcomes being experienced by certain categories of people. The FCA's recent investigation into the UK pay day loan sector gave some early indicators of their own interest in the intersection of big data with the regulation of pricing fairness. And what is stopping the NAIC from providing its members with access to a 'conduct algorithm' team set up to automatically trawl through the rating models of each states' insurers?

And secondly, the Senior Insurance Managers Regime makes it abundantly clear that while insurance executives can delegate implementation and delivery, they cannot delegate responsibility. And it is a responsibility that now has to be exercised on both a personal and corporate level. Those in a Senior Insurance Management Function would do well to heed the lessons being learn at Volkswagen about the devastating impact of irresponsible algorithms.

How can insurers move forward on Price Optimisation?

There will almost certainly be some form of regulatory development In the UK around price optimisation during 2016, for the reasons outline above. It could of course take the form of a 'carry on as you are' message from the UK regulator, but that, I would suggest, is unlikely.

How might insurers prepare for such an eventuality? It adds up to what is in effect a 'price optimisation stress test'. Here are its components:

A 'price optimisation stress test'

1. Map out the price optimisation being undertaken by your firm and establish the triggers being used to move prices. The four practices set out in the NAIC's price optimisation white paper provide a useful starting point for such a review.

2. Map out the level to which those triggers extend. Do any of them extend down to optimising on a person by person basis?

3. Undertake some data analysis to establish the outcomes being experienced by certain categories of customers. An easy one to start with would be to compare against a control group, the prices being presented to people who complain.

4. Audit the propensity of price optimisation algorithms to create and apply 'manufactured information'. What boundaries have been set for what they can generate?

5. Look at the controls and reporting in use to monitoring how your firm has implemented its price optimisation projects. Do these include substantive consideration of the firm's legal and regulatory obligations in respect of fairness and equality?

6. Take your governance map and identify on it where responsibility for price optimisation lies. Is there an individual with clear responsibility for overseeing all its various elements?

7. Consider the level of expertise at management and executive level for overseeing price optimisation projects and reviews. Do they know enough to recognise issues and have the confidence to question and challenge what they're being told?

8. Look at the terms under which external suppliers of price optimisation services have been engaged and establish whether they acknowledge the legal and regulatory obligations your firm is under.

9. Take a step back and, after bringing together what you've found under the above points, ask yourself these questions:

    a. Have you found enough to give senior executives (for example, those who are personally and collectively accountable under the Senior Insurance Managers Regime) a full picture of the price optimisation being conducted by or for your firm?

    b. Does what you've found fit comfortably with the overall ethos of what you want your firm to stand for? Is there a clear and direct connection between the values and commitments your chief executive talks about in public, and what is happening within its pricing strategy?

c. Is your firm optimising prices in ways that fall within the four NAIC practices and if so, would your chief executive be happy to stand up and justify them on say, BBC Radio 4's Today programme? If not, should you be doing them?

10. In the not unlikely event of the FCA issuing some form of restriction (perhaps even a ban) on price optimisation in personal lines insurance, map out how prepared your firm is to roll back its price optimisation and weigh up the impact this might have on your business plan. It may be worthwhile casting an eye back over recent events in the pay day loan sector, for an example of the impact that pricing controls introduced by the FCA can have on a sector.

The idea here is to identify red flag positions and how to respond to them. There will of course be many opinions circulating around the insurance market about likelihoods and consequences. In deciding which you listen to, remember to weigh up their relative independence and how aligned their interests are with those of your firm. And in formulating your firm's response, remember the Information Commissioner's words from last year: "big data is not a game played by different rules."

If you have any questions or comments about this Thinkpiece, please contact us: thinkpiece@cii.co.uk **+44 (0)20 7417 4783.**

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CPD Reflective Questions

CPD CII Scheme

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Learning Objectives

Having read this Thinkpiece, readers should be able to:

- recognise how price optimisation has developed and how it can influence insurance pricing;

- compare and contrast the different arguments relating to price optimisation in insurance;

- debate, constructively, the implications that price optimisation might have for consumer trust in the sector

Reflective Questions

1. How much weight should insurance firms give to concerns about price optimisation being 'unfairly discriminatory'?

2. To what extent do you think price optimisation fits with current conduct regulation, such as that relating to 'Treating Customers Fairly'?

3. How might insurers prepare for the possibility of the FCA limiting or banning the use of price optimisation in retail general insurance?