1. Introduction

Behavioural economics (BE) has become a buzzword in UK policy circles. BE is about how individuals often make choices that are apparently not entirely rational in the sense that they do not maximise their utility. The positive implications of BE have been developed in academic research over many decades, but its potential to improve regulation was popularised by Thaler and Sunstein in their 2008 book called ‘Nudge’. They argue that much could be achieved by changing the way choices are presented to individuals (‘choice architecture’) and that this is an attractive form of ‘soft paternalism’ that does not impede the liberty of individuals to make the choices they want. While this is a controversial view to some, it proved attractive to politicians especially in the heat of the financial crisis and the shadow that recession has cast over the market system. BE reached UK public attention in 2010 with the creation of the ‘10 Downing Street Behavioural Insights Team’, widely known as the Nudge Unit, which aimed to use the insights of BE and psychology to improve government policy and services. This paper focuses on the relevance of BE to competition and competition policy enforcement.

Many of the academic insights of BE had long been noticed less formally by marketing executives, and business strategies have developed to exploit the cracks in rational choice. For some years, consumer protection work and market investigations by the UK Office of Fair Trading (OFT) and Competition Commission (CC) recognised this, but not in the explicit context of BE. However, the UK Competition and Markets Authority (CMA) and Financial Conduct Authority (FCA) have recently become much more focused on the explicit use of BE, particularly in relation to financial product markets. Indeed, the UK regulators lead the world in new applications of BE to regulation and competition policy. This is substantially related to the UK’s distinctive markets regime which encourages intervention in markets which are not working well because of features that have an ‘adverse effect on competition’. Certain aspects of consumer behaviour, and possibly also of the behaviour of firms, can constitute such a ‘feature’. It is possible that other aspects of competition policy, in particular the abuse of dominance, could also be subjected to the lens of BE (eg the presentation of results by a dominant search engine), but the explicit application of BE to Art 102 TFEU/Chapter II CA98 has not yet arisen.

The rest of this article is organised as follows. In the next section, we summarise the current views of the CMA and FCA. The third section provides more detail on what distinguishes BE from standard economics and the fourth section explains why it is often thought to be...
particularly important for financial markets.\textsuperscript{3} Examples of the analytical approach recently used by the UK authorities are given in the fifth section, and the sixth section concludes.

2. \textit{Behavioural economics as seen by the FCA and CMA}

The FCA has a new operational objective to promote competition and an important vehicle for achieving this will be through market studies.\textsuperscript{4} Aligned with this, the FCA has been explicit about its intention to apply BE to its economic analysis. Its first published occasional paper was specifically on this topic and Martin Wheatley (Chief Executive of the FCA) has been strong in his advocacy. In April 2013, he wrote:\textsuperscript{5}

‘A rapidly growing literature on behavioural economics shows that some errors made by consumers are persistent and predictable. This raises the prospect of firms designing business models that do not focus on competing on price and quality. Behavioural economics enables regulators to intervene in markets more effectively, and in new ways, to counter such business models and secure better outcomes for consumers.’

His enthusiasm for BE has only increased. He recently wrote\textsuperscript{6} that ‘behavioural economics is quickly becoming a game changer. Not just for firms, not just for consumers, but potentially for the shape of regulation for many years to come’ and\textsuperscript{7} that ‘behavioural economics … offer[s] policy makers the possibility that, in future, far more regulatory action can have a meaningful and positive societal contribution’. Indeed, he envisages the FCA’s scope to include applications to large and sophisticated financial firms.\textsuperscript{8} ‘[The FCA is investigating] whether behavioural economics can offer … insights into how individuals within organisations behave and respond to regulation.’

The CMA has also become more explicit about how it will consider consumers’ behavioural biases and firms’ potential to exploit these. Its general approach is similar to the FCA.\textsuperscript{9} It observes that ‘consumers may exhibit behavioural biases’ and ‘consumer decision-making is not always fully rational’. Decisions may be limited by, for example: ‘the time consumers have available to make decisions’; ‘consumers’ ability to process and compute the information’; and ‘how things are presented’. The CMA considers that ‘concerns may arise where firms exploit such biases to create or worsen blockages in accessing, assessing and acting on information’ (emphasis added). This is a useful bit of alliteration because it highlights the decision-making stages of searching, coming to a decision as to the best choice, and actually buying or switching provider. Behavioural economists have looked closely at

\begin{itemize}
\item[3] We use the term ‘financial markets’ as a shorthand for retail and wholesale product markets including banking, insurance and annuities.
\item[4] The competition objective replaced an earlier objective: to promote efficiency and choice in the market for financial services. The new objective is supported by concurrent competition powers since 1 April 2015 in relation to the provision of financial services. The FCA continues to have two further objectives: to secure an appropriate degree of protection for consumers; and to protect and enhance the integrity of the UK financial system.
\item[8] Wheatley, ‘Making competition king’, n 6, above.
\item[9] CMA, \textit{Strategic Assessment} (November 2014), at para 4.4; see also Dr Mike Walker (Chief Economic Advisor, CMA) speech, ‘The use of behavioural economics at the CMA’ (11 November 2014).
\end{itemize}
each stage.\textsuperscript{10}

While the CMA’s use of BE may span a broader range of industries (for example, the energy sector in its current market investigation), there is already a major track record of cases in which BE has been applied to financial markets in varying degrees. The CMA is currently undertaking (or has recently completed) market inquiries into a range of retail financial markets: retail banking; payday lending; and private motor insurance. Earlier market studies / investigations into financial markets implemented remedies addressing behavioural biases, even if not always identified explicitly as such, for example: extended warranties on domestic electrical goods;\textsuperscript{11} Northern Ireland personal current account (PCA) banking;\textsuperscript{12} and payment protection insurance (PPI).\textsuperscript{13} The FCA has undertaken / launched six market studies: investment and corporate banking; credit cards; retirement income; cash savings; general insurance add-ons; SME (small and medium sized enterprises) banking (joint CMA/ FCA market study leading to CMA retail banking market inquiry). Figure 1 provides a visualisation of how the trend is increasing.

\textbf{Figure 1: Recent milestones in financial product market studies/ investigations by the CMA and FCA}

![Figure 1: Recent milestones in financial product market studies/ investigations by the CMA and FCA](image)

The application of BE will undoubtedly feature heavily in the competition analysis of financial markets in the coming years. Firstly, the post financial crisis reappraisal of the efficiency of deregulated financial markets means that an increasing number of market studies / investigations are being undertaken in financial markets. Secondly, as developed in

\textsuperscript{10} On 21 April 2015 CMA Chairman, David Currie, gave a public lecture at the New Zealand Commerce Commission on ‘Homo economicus and Homo sapiens: the CMA experience of behavioural economics’. His lecture further emphasises the growing importance of BE to the CMA’s work, particularly in market inquiries.

\textsuperscript{11} CC, \textit{Extended warranties on domestic electrical goods, A report on the supply of extended warranties on domestic electrical goods within the UK} (December 2003); OFT, \textit{Extended warranties on domestic electrical goods, an OFT market study and notice of the oft’s intention to accept undertakings in lieu of a market investigation reference} (February 2012); and OFT, \textit{Extended warranties on domestic electrical goods, final decision on a market investigation reference} (June 2012).


the fourth section of this article, BE is particularly relevant for the analysis of financial markets. Thirdly, the FCA’s new operational objective and new concurrent competition powers open up new ways to apply BE. Fourthly, the leadership of the key regulators is committed to enforcement using the insights of BE. We expect this to be a controversial journey because there is only limited consensus over the robustness of certain behavioural quirks and great care is required to design appropriate remedies, and in particular remedies that aim to modify consumer choices.

3. What is behavioural economics?

In order to understand what additional insights to the analysis of markets are derived from BE, it is important to understand the alternative, which is rational choice theory. Rational choice sits at the core of mainstream economics and is the foundation of our traditional understanding of how competition works to the benefit of consumers. In the current context, we can focus on two axioms of rationality which underpin rational choice theory.

- Rational individuals have coherent preferences. This means that they know what they like and there is a degree of stability (eg over a given time period) in their preferences. Given these preferences, alternative consumption bundles can be ranked in order of their utility (ie the value they generate to consumers).
- Rational individuals have the ability to make choices so as best to satisfy their preferences. This means that they have the ability to maximise their utility subject to product prices and their budget constraint.

These axioms underpin the main formalisation of how competition directs resources to where they maximise welfare – rational consumers know what they like and they use price information to make the best of their limited budgets. Competition results in prices that reflect costs so resources are allocated efficiently.

Both axioms have been challenged by behavioural economists. Individuals who act ‘behaviourally’ do not use price information optimally (eg they may be influenced by the way essentially the same choices are presented to them) and they may not even have coherent preferences (eg they may persistently ‘give in to temptation’ even when their preferences are quite different at any time other than when they actually make their choice). Non-rational behaviour can be due to, for example, cognitive limitations in processing information, bias in appraising risk, or inconsistent preferences. There is no simple dichotomy between rational and behavioural individuals. Each of us is likely to act ‘rationally’ in one situation and ‘behaviourally’ in another.\(^4\)

Rational choice theory can embrace some randomness in consumer choices, so BE is not about random mistakes. Instead, it identifies systematic biases in decision-making by ‘behavioural’ choosers. These biases are predictable and can, in principle, be manipulated by firms. This potential for manipulation sharpens the case for intervention, but does not make it necessary because it remains possible that the market is self-correcting or that intervention may make things worse.

There is often a confusion about what is ‘rational’ and what is ‘behavioural’. For example, some consumers do not actively search for the best deal or do not switch despite identifying a cheaper product. This should not automatically be taken to mean that such consumers are irrational because they may simply expect search or switching to be too costly (eg they consider they have better things to do with their time). However, if such costs are small

\(^4\) On this point, see also the book by Nobel Prize winner Daniel Kahneman, *Thinking, Fast and Slow* (Farrar, Straus and Giroux, 2011).
compared to the gains to the consumer, there may be a systematic behavioural bias at work. In practical policy enforcement, there is probably little to be gained by dwelling on an academic debate identifying the boundaries between rational and behavioural.

Small firms may also be subject to behavioural biases, particularly in their purchasing decisions. This is because they can face severe time constraints, fluctuating and uncertain requirements, and have other priorities on the production and sales side of their businesses. This is fairly uncontroversial. However, the FCA is now considering the application of BE to much larger firms (eg corporate clients purchasing investment and corporate banking services). The context is that financial institutions have complex banking needs and the FCA is concerned that they may be prone to biases in their choice of provider. However, behavioural biases in large, sophisticated firms cannot simply be implied from the existing literature on individual biases. Such hypotheses will require a thorough assessment.

In a particular market, there may be a mix of consumers with some choosing rationally and others behaviourally. In such cases, we can ask ‘what is the likely market outcome’? Do behavioural consumers free ride on rational choosers who have engaged fully with the market (eg a sufficient number of rational switchers can make a firm’s demand sufficiently elastic to keep prices low for all consumers)? Or do ‘exploited’ behavioural choosers cross-subsidise rational consumers who switch frequently between the best deals (eg teaser rates in some retail financial products)? Identifying the balance is a serious challenge for regulators and academic research is still in the early days of analysing this problem. As with other justifications for regulation, exploitation of behavioural choices by a firm’s customers need not be by object (ie the result of the deliberate design of a business practice). It could be by effect (ie a side-effect of some other purpose or the evolution of business practices which have proved successful over time). Either way, there may be justification for an intervention that helps individuals better to satisfy their (coherent) preferences. It is much more controversial to intervene on the basis that consumers do not know their own preferences. Most of the emphasis of BE research relevant to regulation and competition policy relates to the difficulties individuals have in making the ‘right choice’, accepting that the individual is ultimately the best judge of her own preferences. This is also the focus of this article.

4. Why is behavioural economics considered important for financial markets?

Some systematic biases identified by BE have been identified by regulators as particularly important for financial services. The following is not intended to be a fully comprehensive list, nor should it be considered that these behavioural traits are applicable in all circumstances, but it is intended to help explain the current focus on BE in regulation and competition policy enforcement in financial markets.

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15 Some recent work suggests that behavioural biases may also apply to small firms. See, for example: Amelia Fletcher, Antony Karatzas and Antje Kreutzmann-Gallasch, Small Businesses As Consumers: Are They Sufficiently Well Protected?, A Report for The Federation of Small Businesses, ESRC Centre for Competition Policy, University of East Anglia, January 2014.


17 See Mark Armstrong, Search and rip-off externalities, Oxford University Department of Economics discussion paper No 715, July 2014.

18 For a review of some of the literature on behavioural biases (including some of the systematic biases set out in this section), see Charles R Plott and Vernon L Smith (eds), Handbook of Experimental Economics Results (2008), Vol 1, at pp 1–1098, 11–132.
Cognitive limitations

First, individuals’ cognitive limitations mean that it is difficult to analyse complex products, and infrequent purchases make it difficult to learn from experience. Furthermore, individuals have a limited attention span for detail and sometimes use simple heuristics to make decisions. This can make choices dependent on the way they are framed. Choices can be anchored to a particular outcome by making a particular choice prominent (eg buy the first product that comes up on a search engine). Many financial products are inherently complex for many individuals and they are difficult or tedious to analyse. In part this is because they are only a means to an end, and the pleasure of choice bears little comparison with purchasing clothes, music or cars. Some financial products (eg purchase of annuities) also permit little learning from past mistakes.

Financial markets where the FCA and CMA are considering whether these issues arise include the following:

- **Credit cards**: The FCA is considering whether consumers may have limited attention, which may make them less likely to assess all the product features when making a decision and more likely to focus on those features that are prominent in marketing material. 19
- **Retirement income**: The FCA undertook a behavioural experiment 20 which found that presenting annuities and alternative income drawdown strategies in different frames can significantly alter an individual’s relative preference for these retirement income products. It found that, when faced with the same underlying choice between an annuity and drawdown alternatives, consumers, on average, preferred the annuity under a consumption frame (ie budget available to spend each year), but preferred drawdown alternatives under an investment frame. 21
- **Payday lending**: The CMA found that variation in product features and pricing structures makes it difficult for customers to identify the best loan for them, with the headline APR being of limited use and existing price-comparison websites being inadequate. 22
- **Wholesale sector competition review**: The FCA considers that limited clarity over price and quality of services may make it difficult for corporate clients to assess whether they are getting value for money. 23

Bias in appraising risk

Secondly, individuals often exhibit systematic biases in appraising risk. A greater weight than is objectively justifiable may be placed on very low probability events (eg likelihood of product breakdown). Individuals can also exhibit an overconfidence in their ability to make the right predictions, despite objective evidence otherwise. They may be prone to over-extrapolation and herding (ie following what they observe others doing). Most financial products are fundamentally related to risk (eg insurance, choice of savings products) which may make them susceptible to these biases.

Financial markets where the FCA and CMA are considering whether these issues arise include the following:

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19 FCA, Credit card market study: terms of reference (November 2014), at para 4.36.
20 FCA, Does the framing of retirement income options matter? A Behavioural experiment (December 2014).
21 FCA, Retirement income market study: Final report – confirmed findings and remedies (March 2015).
22 CMA, Payday lending market investigation, Final report (24 February 2015).
23 FCA, Wholesale sector competition review, n 15 above; FCA, Investment and corporate banking market study: terms of reference, n 15 above.
include the following:

- **Retail banking:** The CMA is considering whether consumers may underestimate the probability of going into overdraft when choosing their bank/ account type and thus may not focus on overdraft charges. The CMA is also examining whether consumers may underestimate the likelihood of keeping large credit balances on their current account and thus may forgo interest on such credit balances by retaining their funds in a non- or low-interest account.\(^{24}\)

- **Credit cards:** The FCA is considering whether consumers may be overconfident, which may lead them to underestimate the likelihood of incurring interest charges and fees.\(^ {25} \)

- **Payday lending:** The CMA found that customers prioritise speed of access to credit but are very uncertain as to who may be willing to lend to them, which biases them towards borrowing from the first lender to accept them.\(^ {26} \)

**Non-standard preferences**

Thirdly, individuals may have non-standard preferences. They may have a bias towards having something ‘now’ (compared to, say, tomorrow) and are willing to pay disproportionately for it (compared to a one-day delay in consumption at any point in the future). This is sometimes known as present bias (or hyperbolic discounting). Another standard behavioural bias is status quo bias, in which individuals tend to stick with the status quo (eg if I have an apple and am offered a swap for an orange, I will reject it, but if I start with the orange I will reject a swap for the apple). This may inhibit rational switching. These potential biases have been considered in the context of financial markets, since many financial products involve trade-offs between the present and the future, or an on-going default provider.

Financial markets where the FCA is considering whether these issues arise include the following:

- **Credit cards:** The FCA is considering whether, when choosing a credit card, consumers may focus disproportionately on features that bring immediate benefits (eg an introductory rate) and not consider the overall cost of credit.\(^ {27}\)

- **Cash savings:** The FCA found that consumers’ savings accounts opened long ago pay lower interest rates than those opened more recently.\(^ {28}\)

**5. Possible concerns about firms exploiting behavioural biases**

This range of behavioural biases potentially affecting consumers of financial products has raised concerns that they might be exploited in financial business practices, either by object or effect. These concerns can take different forms. For example, cognitive limitations could, in principle, be exploited by the provision of either too much (irrelevant) or too little (relevant) information. This could potentially muddy the choice between complex or infrequently purchased products, and so may weaken the incentive for firms to compete. Opaque prices and drip pricing (ie where a headline price is subject to necessary add-on prices as the consumer progresses through the purchase) similarly could in principle make


\(^{25}\) FCA, *Credit card market study*, n 17, above, at para 4.37.

\(^{26}\) CMA, *Payday lending market investigation*, n 20, above.

\(^{27}\) FCA, *Credit card market study*, n 17, above, at para 4.35.

accurate comparisons difficult. In its wholesale sector competition review 2014/15, the FCA considered that the bundling of a range of wholesale banking services might make comparisons difficult even for large firms.29

A biased focus on very low probability events could, in principle, drive higher prices for insurance products designed specifically to cover such events, especially when sold at the same time as the associated product (eg PPI, extended warranties). As the FCA found in its general insurance add-ons market study, add-on purchases could be ‘anchored’ by the use of pre-ticked boxes to establish a default (eg ‘optional’ insurance).30 In its credit cards market study, the FCA is considering whether some consumers may use the minimum repayment as a reference point when deciding how much of their credit card balance to pay off.31

In relation to non-standard preferences, ‘introductory’ or ‘teaser’ interest rates could be disproportionately attractive to savers or borrowers subject to present bias, and status quo bias could potentially then leave them with an unattractive financial product once the time-limited rate expires. Even this partial list provides a large agenda of potential concerns that may be investigated.

Finally, we add the important proviso that regulators should not jump to conclusions about adverse effects just because a behavioural bias has been found in immediate consumer responses. There is evidence that consumers can and do learn when they have sufficient incentive, and interventions that remove such incentives can be harmful over time.32

In conclusion, the BE literature indicates that consumers do not always act rationally and some may exhibit systematic biases in their decision-making. The nature of financial products means that consumers may in principle be particularly prone to such behavioural biases in financial services markets, which raises a concern from regulators that these biases may be exploited by financial services providers. Regulators have not limited their concerns to final consumers, but also to SMEs and, despite limited support in the literature, possibly even to larger firms. As a result, BE is increasingly being used by competition authorities in their analysis across all financial services markets. In implementing their analysis, regulators need to be aware of consumer learning and supply responses that can control any short-term problems. They should also be wary of extrapolating academic BE findings for individuals beyond SMEs to much larger firms. Their current approach is developed in the next section.

6. The UK authorities’ analytical approach to the application of behavioural economics

BE is relevant to several areas of a competition authority’s work. First, as we mentioned earlier, BE is relevant to the identification of features that may harm competition in a market. This may relate to consumer behaviour and/or to any practices or strategies adopted by firms which may be seen to exploit such behaviour. For this reason BE is relevant and already being used in relation to the definition of some Theories of Harm (ToH) in market studies and investigations. Secondly, and relatedly, BE is naturally relevant to the assessment of a ToH based on BE. Thirdly, BE may be needed in the design and evaluation of remedies. While these issues are clearly interrelated and to some degree overlapping, it is helpful to consider

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29 FCA, Wholesale sector competition review; n 16, above.
30 FCA, General insurance add-ons: Final report – confirmed findings of the market study (July 2014).
31 FCA, Credit card market study, n 17, above, at para 4.61.
them separately.

The use of behavioural economics in identifying features that may harm competition

The FCA and the CMA have both set out the high level methodology that they would adopt in applying BE. The FCA has set out three steps:\textsuperscript{33}

- **Step 1: Identify and prioritise risks to consumers.** The FCA has suggested a set of early warning indicators to highlight potentially problematic consumer and firm behaviours and product features. Warning indicators that the FCA has identified include: firms cross-subsidising groups of consumers; products with ‘too good to be true’ headline prices; consumers who purchase infrequently so have little opportunity to learn. The FCA has said that in prioritising risks, it needs to consider the size of the problem and distributional effects.

- **Step 2: Understand root causes of problems.** When analysing problems, the FCA has stated that it needs to develop alternative explanations on the underlying cause and then build evidence to discriminate between the alternatives (eg how consumers choose in different settings, their awareness of essential product information and their self-reported needs and objectives). It has said that it must investigate whether consumers are making mistakes, and if so which biases may be the cause.

- **Step 3: Design effective interventions.** There are four ways in which the FCA could solve behavioural problems, ordered from least to most interventionist: provide better information, change the choice environment (ie how product choices are framed), control product distribution (eg the channels through which products can be sold), or control products (eg ban products that appear to be designed to exploit consumers). When choosing between different interventions, the FCA needs to assess their costs and benefits.

The CMA has adopted a similar approach to the assessment of consumers’ behavioural biases and their potential exploitation by firms.\textsuperscript{34} As mentioned above the approach focuses on ensuring that consumers are able to access, assess and act on information relevant to their choices. However the CMA has also flagged that the understanding of the root causes of any biases needs to be grounded in ‘a very granular understanding of how individual markets work and how consumers behave in the particular market context that they face’.\textsuperscript{35} The CMA also acknowledges that a range of tools have emerged (especially on the internet) to assist consumers’ decision-making process (eg search engine results, price-comparison websites).\textsuperscript{36} However the CMA is keen to explore any behavioural issues that might adversely affect consumers online and has two ongoing calls for information on the use of consumer data\textsuperscript{37} and on online reviews and endorsements.\textsuperscript{38} Overall, the CMA states that it ‘will focus on areas where there is evidence of widespread or endemic practices that negatively impact on consumer decision-making or choice’\textsuperscript{39}

\textsuperscript{33} FCA, Occasional Paper No 1, n 5, above, at pp 7–9 and 28–31.

\textsuperscript{34} CMA, Strategic Assessment, n 9, above, at paras 4.3–4.5 and 5.7–5.15; see also Dr Mike Walker (Chief Economic Advisor, CMA) speech, ‘The use of behavioural economics at the CMA’, 11 November 2014.

\textsuperscript{35} David Currie speech, ‘Homo economicus and Homo sapiens’, n 10, above.

\textsuperscript{36} CMA, Strategic Assessment, n 9, above, at para 5.12.

\textsuperscript{37} CMA, Call for information, The commercial use of consumer data (January 2015).

\textsuperscript{38} CMA, Call for information, Online reviews and endorsements (February 2015).

\textsuperscript{39} CMA, Strategic Assessment, n 9, above, at para 5.15.
The use of behavioural economics in assessing market outcomes

Faced with the problem of consumer behavioural biases, regulators need to focus on understanding consumer behaviour in assessing market outcomes and testing/designing effective interventions in the market. BE is increasingly influencing the tools used by regulators in market studies/inquiries. In particular, this influence is particularly evident in relation to the use of behavioural experiments and consumer surveys:

● Regulators (including the OFT, FCA and Ofcom) have started to use behavioural experiments in the assessment of consumers’ behaviour and market outcomes, and, ultimately, in testing whether potential remedies are likely to be effective. For example, in its retirement income market study the FCA used a behavioural experiment to explore how information on potential retirement income options is presented/framed to consumers and the impact of framing on consumer choice. On the basis of this experiment, the FCA concluded that consumers are highly sensitive to how the options are presented/framed. It recommended that both firms and the new pension guidance service (Pension Wise) take into account framing effects when designing tools to support consumer decision-making.

● Consumer surveys undertaken by regulators now include more questions on behavioural aspects of consumer choice. This is in addition to longer standing practices of applying BE to the design of surveys themselves, to ensure that answers are not biased.

These examples are important in highlighting areas where the FCA and CMA are already drawing from BE in terms both of their findings (eg the existence of framing effects in the design of surveys) and their toolkit (eg experiments). Both these areas are clearly important in determining the solidity of the evidence base and the conclusions drawn from it. One challenge facing both regulators and the parties to their investigations is to ensure that these insights and tools are applied correctly. This is not always straightforward, as for example, the design of experiments can be important in driving results and needs to be carefully considered ahead of their interpretation.

These issues are likely to become even more prominent in case the use of such tools expands. Experimental economics (on which much of BE is founded) has been used in economics to study a variety of issues beyond the existence of behavioural biases in consumer choice, for example the drivers of coordinated behaviour. While this is an area where the regulators have not yet ventured (and perhaps never will) it will be important to consider in each individual case the scope and robustness of the methodologies employed.

Examples of remedies applied by UK authorities to address behavioural problems

As mentioned earlier, BE is relevant to identification of specific features that may reduce competition. This implies that it should also play a role in the design of appropriate remedies and specifically on the assessment of a remedy’s effectiveness.

Examples of the types of remedies introduced by the FCA and CMA to address behavioural problems include measures aimed at improving the presentation of information (in the

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40 FCA, Retirement income market study, n 19, above.
41 FCA, Does the framing of retirement income options matter?, n 18, above.
43 See Charles R Plott and Vernon L Smith (eds), Handbook of Experimental Economics Results (2008), Vol 1, at pp 1–1098, 11–132. **SAQ Is this reference OK as shown here?**
CMA’s payday lending market inquiry\textsuperscript{44} as well as in the market studies on cash savings\textsuperscript{45} and retirement income\textsuperscript{46} by the FCA. They also include measures to improve switching (in the FCA’s cash savings market study\textsuperscript{47}). Furthermore, they have included measures to change the context in which products are sold, for example by banning the sale of complementary products (in the CC’s PPI market inquiry\textsuperscript{48}) or by introducing a deferred opt-in period (in the FCA’s general insurance add-ons market study\textsuperscript{49}).

Measures to improve the provision of information and to facilitate switching may appear to be relatively uncontroversial. However it is important that the regulator understands the way in which individuals access, assess and act on information so their choices provide the right incentives to make markets work better in satisfying consumer preferences.

The risks are greater when it comes to more intrusive remedies (eg on how products are sold). Poorly designed remedies may exacerbate problems or lead to other sources of consumer harm. For example, a restriction on cross-selling products may help smaller specialist firms at the expense of some consumers who rationally prefer to source multiple products from the same company. Point of sale restrictions on insurance at the time of purchasing the insured item may leave some individuals uninsured because they will not get round to comparing alternative insurance providers and buying once they get home. A free overdraft facility designed as a remedy to overcome fears of payments problems when switching banks, may backfire if behavioural consumers use their free overdraft and are drawn into debt.\textsuperscript{50} The response of firms must also be considered as small changes in the implementation of a remedy may have negative side effects.\textsuperscript{51}

Overall, behavioural remedies need careful analysis to ‘get right’. Remedies which restrict the range of strategies available to firms carry a particular danger that they may do more harm than good, and it is highly unlikely that ‘structural’ remedies could be appropriate.

7. Conclusions

In conclusion, BE is becoming an increasingly important part of standard competition assessment by the FCA and CMA. BE is being used to frame and test theories of harm and is influencing the tools used by the FCA and CMA to understand consumer behaviour and market outcomes and test the likely effectiveness of possible remedies.

The appeal of BE is understandable as it provides insights that can help facilitate the choices of consumers that drive good outcomes in markets. This suggests the application of some aspects of BE may broaden in the future as the use of BE tools in surveys (which are used in a number of mergers and anti-trust cases) or experiments becomes more widespread. The

\textsuperscript{44} CMA, Payday lending market investigation, n 20, above.
\textsuperscript{45} FCA, Cash savings market study report, n 26, above.
\textsuperscript{46} FCA, Retirement income market study: Final report – confirmed findings and remedies (March 2015).
\textsuperscript{47} FCA, Cash savings market study report, n 26, above.
\textsuperscript{48} CC, Market investigation into payment protection insurance, n 13, above.
\textsuperscript{49} FCA, General insurance add-ons: Final report – confirmed findings of the market study, n 28, above.
\textsuperscript{50} This was a remedy used in the Northern Ireland PCA Banking Market Investigation.
\textsuperscript{51} For example, the CMA has observed that ‘if firms have an incentive to create complex price structures (confusopoly) in order to generate consumer inertia – rabbits in headlight come to mind – then regulators may impose simplified pricing to cater for consumers’ bounded rationality. However, care is needed: reducing complexity may harm consumers because if consumers have different preferences, relatively complex offers might be optimal. Simplified pricing may also facilitate tacit collusion.’ See David Currie speech, ‘Homo economicus and Homo sapiens’, n 10, above.
influence of BE in identifying and formulating theories of harm may also broaden beyond the scope of market inquiries, for example in abuse of dominance cases and more generally in understanding how market outcomes are influenced by limitations in the rationality of consumers’ and firms’ decision-making.

This new environment presents challenges to regulators and parties to ensure the tools and insights from BE are applied correctly, particularly as they can be sensitive to detailed economic context. There are risks of over-intervention and unintended harm in markets where BE is applied incorrectly.