

Can Policy Improve our Financial Decision-Making?

Pete Lunn

**RENEWAL SERIES
PAPER 8**

February 2012



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The ESRI acknowledges the financial support of the FBD Trust for the *Renewal Series*. FBD Trust is a philanthropic trust established by FBD Holdings plc.

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Acknowledgements

I would like to thank David Duffy, Seán Lyons, Frances Ruane and two anonymous reviewers for helpful comments in relation to earlier drafts. I am particularly grateful to one of the anonymous reviewers, who greatly improved my understanding of Ireland's Consumer Protection Code. I also thank Yvonne McCarthy for helpful discussions and assistance with data.

Can Policy Improve our Financial Decision-Making?

Abstract

This paper examines international and domestic evidence on consumers' financial reasoning and asks whether policy can improve it. Disadvantageous consumer decision-making was probably instrumental in both the Irish and global financial crises. Evidence suggests that many consumers lack basic financial knowledge and that their choices of financial services are subject to systematic biases. Regulations designed to ensure accurate and intelligible product information appear to be insufficient to solve the problem, while financial education and information campaigns generally have modest impacts at best. Alternative "behaviourally informed" regulations have been proposed, which aim to foster better choices by changing the decision-making environment for consumers, but there is limited evidence thus far about their effectiveness. Some recent changes to Ireland's financial regulations may partly assist consumer decision-making, assuming they are enforced. Overall, the evidence points to the need for a tougher regulatory regime that incentivises providers to assist consumers, failing which more rigid product regulation may ultimately be called for.

1. INTRODUCTION

“People simply went mad borrowing.” Taoiseach Enda Kenny’s response to an invitation to explain Ireland’s woes at the 2012 *World Economic Forum* was not the first time madness had been invoked to describe pre-crisis economic decision-making, in Ireland or elsewhere. Chapter 10 of the official US *Financial Crisis Inquiry Report* is simply entitled “The Madness” (Financial Crisis Inquiry Commission, 2011), though it refers primarily to traders in financial markets rather than to consumers. British consumers have had their mental soundness questioned too. Reporting on the plans of the UK’s new *Financial Conduct Authority*, the front page headline of the *Financial Times* (25 January, 2012) read “Watchdog to Protect ‘Irrational’ Consumers”. Irrationality has been consistently invoked by British financial regulators. *The Turner Review* made over forty references to it in trying to explain pre-crisis behaviour (Turner, 2009).

From the perspective of behavioural economics and economic psychology, these apparent reassessments of how economic agents make decisions, while crude, represent a watershed. Prior to the crisis, financial regulation in Western capitalist societies largely assumed that economic agents behaved like the infinitely capable yet naively selfish calculating machines modelled in orthodox microeconomics textbooks. This assumption endured despite a mounting body of scientific evidence suggesting otherwise. The financial crisis has both concentrated and opened the minds of financial academics and policymakers, as numerous previous scientific papers and books could not.¹ The present time, therefore, offers an important opportunity for renewed thinking. Yet, globally speaking, there remains a large gap between understanding near the scientific frontier and within international policymaking circles. Indeed, the above quotes exemplify this. Arguably the most prolific scientist in the field of behavioural economics, Daniel Kahneman, says that when people describe his work as showing that human beings are irrational, he “cringes” (Kahneman, 2011).²

¹ It is often suggested that the challenges posed to orthodox microeconomic models by behavioural economics and economic psychology arose only very recently, implying that the findings could not realistically have been expected to have significantly influenced pre-crisis applied economics. This implication should not be accepted without question. See, for example, the results reviewed in Rabin (1998), published a decade before the crisis, including the reference to “aggressive uncuriosity” and the concluding plea for a more open-minded scientific approach (p. 41).

² Kahneman’s point here is that findings in behavioural economics do not show that individuals are irrational in the ordinary sense of the word, i.e. ruled by emotion and unable to reason, only that they do not conform to the definition of rationality adopted by neoclassical economics, which prioritises internal consistency and exclusive self-regard. In fact, a good case can be made that behaving according to the orthodox axioms of rationality in a complex market of socially interacting humans would be highly disadvantageous and, therefore, irrational. Since optimal economic decision-making is likely always to be a matter of debate and the subject of normative analysis, adopting a strong distinction between rational and irrational behaviour is probably unhelpful from a scientific perspective.

This paper tries to bridge the gap between that scientific frontier and financial consumer protection policy. The main question addressed is whether regulation can improve the financial decision-making of consumers. Empirical evidence is presented and assessed from laboratory studies, field experiments and econometric analyses of survey, business and official data. This evidence is primarily (though not exclusively) international. The aim is to derive lessons for Irish policy, although almost all the findings are relevant elsewhere.

Because the focus is on consumer decision-making, the analysis ignores a number of other issues that may be important for understanding the crises of recent years and the potential for regulatory responses. The paper does not therefore consider issues relating to risk estimation by firms, corporate governance, remuneration of executives or sales people, or other aspects of decision-making within financial service providers, despite the centrality of poor business decisions for understanding both the international and Irish crises. Nor does it examine related policy failures.³ A brief discussion of the role of financial advice is offered in Section 4, although evidence does not suggest that it plays a major role in consumer decision-making.

Following what was evidently a catastrophic regulatory failure, the international policy climate is changing. There is a move away from the model of consumer protection based on orthodox microeconomics, which assumes that consumers can be relied upon to take beneficial decisions in their own interest provided they have access to sufficient and sufficiently accurate information about available products. Instead, stronger consumer protection measures that are designed to prevent poor decision-making are being proposed and, in some cases, enacted. The latest regulations in Ireland, the *Consumer Protection Code 2012*, are no exception. These policy developments are considered in the analysis below, although it is too early to evaluate the impact of post-crisis consumer protection policies.

The issue is urgent not only because of the crisis. Financial decision-making at the individual level increasingly determines important outcomes. Pension provision has moved towards the defined contribution model. Homeownership based on credit is now the norm, as is borrowing via credit cards and one-off loans for larger purchases. Consumers now routinely purchase multiple forms of insurance.

³ In the Irish context, the three official reports into the banking crisis (Honohan, 2010; Regling and Watson, 2010; Nyberg, 2011) do a thorough job of analysing the contribution of business and policy decisions to the crisis. Lunn (2011) aims to supplement this analysis with a behavioural economic account of the potential role of known decision-making biases.

Savers have become investors, extending their ambitions beyond deposit accounts to riskier investments in shares, bonds and property. More generally, increased income and wealth together with an expanded array of financial products means that the fortunes of citizens probably depend more than ever before on making good financial decisions.

The paper is structured as follows. Section 2 establishes the context for the subsequent analysis. It considers consumer decision-making in the lead up to Ireland's economic crisis and the related policy response. Section 3 examines how retail markets in financial services operate currently, finding much evidence that consumers routinely make disadvantageous decisions. Section 4 describes potential policy responses and evidence relating specifically to them. Section 5 concludes that a policy based on evidence would aim to increase consumer protection substantially.

2. CONSUMERS AND IRELAND'S CRISIS

The extent to which Ireland's crisis involved disadvantageous financial decision-making by consumers provides the context for the present analysis, together with relevant regulations. This section therefore quantifies some aspects of consumer decision-making and describes the regulatory environment.

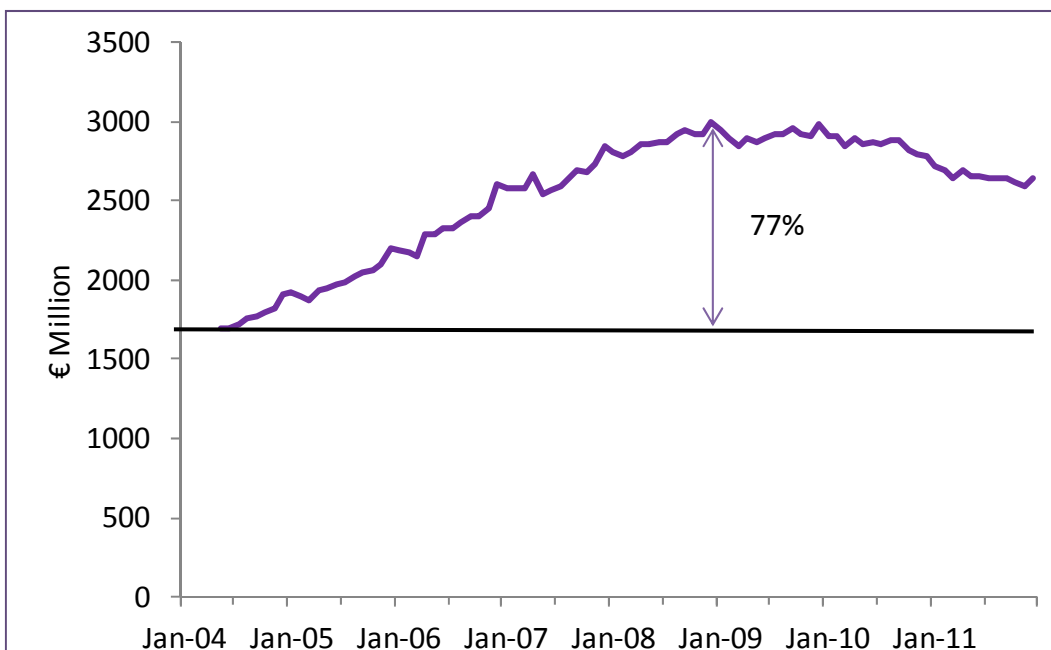
2.1 Evidence for Disadvantageous Consumer Decision-Making

At one level, it is obvious that in the years prior to 2008 very many consumers in Ireland made decisions that, knowing what they know now, they would not have made. By September 2011, Central Bank of Ireland data show that more than half (51%) the homeowners who took out mortgages with the four main lending institutions between 2005 and 2008 (one third of outstanding mortgage loans) were in negative equity, averaging approximately €70,000. Additionally, 51% of buy-to-let mortgages were in negative equity, averaging over €100,000. Given that house prices have continued to fall, both the extent and average level of negative equity will have risen further since. The Central Bank also estimates that, as of December 2011, over 71,000 of residential mortgages (9.2% of total) were in arrears of more than three months, with a further 37,000 having been restructured.

The housing market was not the only market where consumers lacked prudence. Figure 1 shows how outstanding credit card debt rose by 77% in less than 5 years, peaking at more than €2,000 per household following the 2008 Christmas shopping period. This was due to consumers with credit cards increasing their

debt, rather than more consumers acquiring cards, since the increase in debt was almost four times the increase in the number of personal cards in issue. Central Bank data also reveal that this pattern of dramatic growth followed by slower unwinding applied to other forms of consumer credit and household loans unrelated to house purchase. In short, consumers in Ireland spent like never before. Figure 2 shows the progress of the savings ratio from 1970 up to the present time, which twice fell to historic lows of less than 4% during the pre-crisis period.⁴

Figure 1: Personal Credit Card Debt, 2004-2011

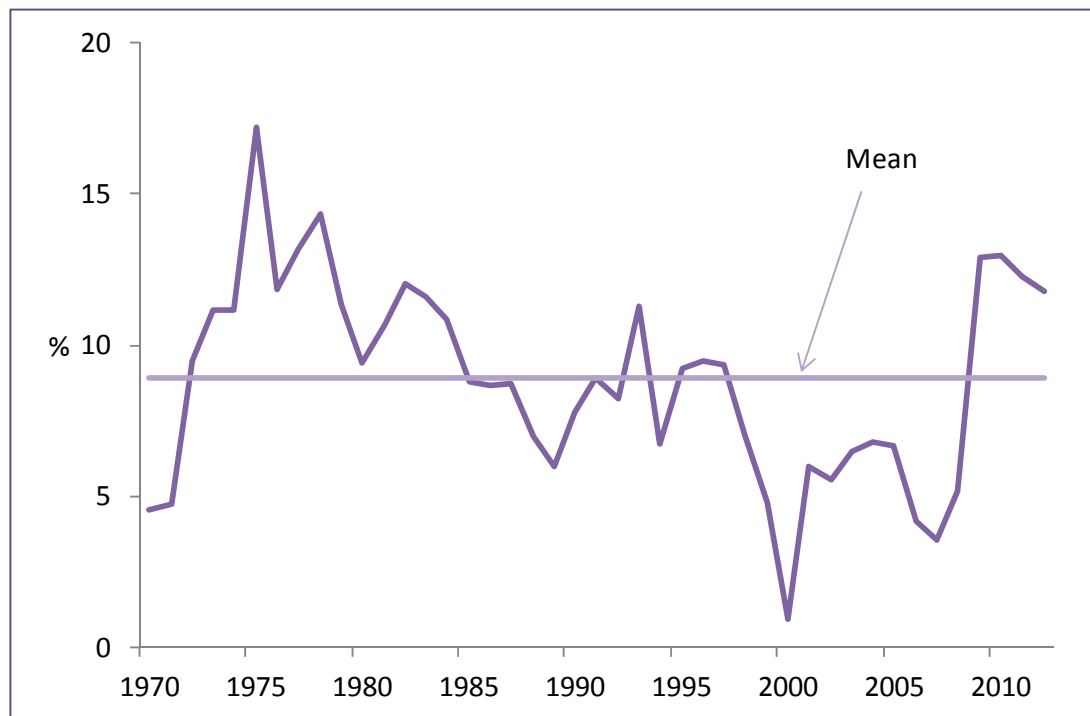


Source: Central Bank of Ireland.

Assuming that Irish consumers had not suddenly and fundamentally altered their appetite for risk, their behaviour could only have made sense had they formed a reasonable expectation that their likely financial future departed radically from that faced by previous generations and, indeed, the historic fortunes of consumers in other developed nations. Was this a reasonable expectation or a widespread delusion?

⁴ Ireland was not alone in this, as saving was at historic lows elsewhere too. According to the Office for National Statistics, the savings ratio in the UK in 2007 had also fallen to 2.9% – the lowest since the statistic was first compiled in 1960. Some potential reasons why Ireland’s housing and credit bubble was ultimately so much larger are considered in Honohan (2009), Regling and Watson (2009), Nyberg (2011) and Lunn (2011).

Figure 2: The Savings Ratio, 1970-2011



Source: Estimations from ESRI Databank.

Any reasoned expectation ought to be based on an assessment of future income, inflation and interest rates. By coincidence, it is possible to test this proposition at what transpired to be the turning point in economic fortunes, because Ireland's first nationally representative financial capability survey was conducted in late 2007 and early 2008. The data reveal that, given the risks they were taking, a strikingly high proportion of consumers were completely unaware of basic details of their own finances. According to O'Donnell and Keeney (2009), the "vast majority" of homeowners with an outstanding mortgage at that time could not say what interest rate applied to it – one third could not even guess. Similarly, 50% of credit card holders did not know what interest rate applied to their card, while the very wide range of interest rates supplied by those respondents who claimed to know it suggests a significant proportion were mistaken.⁵ The survey found that 45% of card holders admitted to not paying their balance in full every month, although international comparisons of such self-reported figures don't match card issuer numbers and may need to be increased by around half again (Willis, 2008). Data also exist on consumer perceptions of inflation prior to the crisis. Using the EU Consumer Survey (2002-2007), Duffy and Lunn (2009) record that when asked what the percentage increase in prices was over the past 12

⁵ Holders of credit cards could be expected to be somewhat better informed about the interest rate applied to their borrowing than mortgage holders, because credit card holders are generally more likely to come from higher socio-economic groups, and financial literacy is correlated with educational attainment and income.

months, 34% of consumers could not give any figure and less than 15% managed to provide a value within two percentage points of the true rate.

Thus, the financial decisions of Irish households during the boom, which for many families were about to have a dramatic impact upon their wealth, were not well informed. During an unprecedented expansion of credit, the majority of consumers did not know what rate they were borrowing at nor the rate of inflation. Furthermore, though it is harder to examine quantitatively, it seems likely that of the Irish consumers who did save (or were otherwise wealthy) many had poorly diversified investments. Despite holding much of their wealth in property already, a significant number invested in other properties, including a sizeable proportion of those who remortgaged (O'Donnell and Keeney, 2009). Moreover, investment portfolios appear to have had an excessive reliance on domestic shares, especially bank shares, which were erroneously perceived to be low risk investments.

Overall, the evidence suggests that poor financial reasoning among consumers prior to Ireland's economic crisis was widespread. Because household decisions were not based on accurate information, it appears that many took on far too much risk unwittingly. Better financial decision-making by consumers might have at least reduced the scale of the bubble. What occurred therefore underlines the potential for gains from policies that improve consumer decision-making.

Since the remainder of the paper considers the implications of international evidence for Irish policy, it is worth noting that while Ireland's crisis shared some aspects in common with the international financial crisis, other causes were fundamentally different. Both involved a property bubble, bad loans, a long period of relative prosperity, and intense competition in deregulated and internationally integrated financial services. But the Irish banking crisis did not centre on loans that could be classified as "subprime", nor was the associated risk hidden by complex securitisation. Rather, the Irish crisis centred on what might be considered a classic property bubble, involving both commercial and residential property, which was extremely large by historical standards.

2.2 The Post-Crisis Policy Context

Policymakers responsible for financial regulation in Ireland cannot be accused of inaction following the crisis – a non-trivial point given that new regulatory

structures in the US and UK were not fully operational by January 2012.⁶ Amongst other things, the Central Bank Reform Act of 2010 abolished the Irish Financial Services Regulatory Authority, set up a unitary Central Bank, and transferred responsibility for consumer information and education to the National Consumer Agency. With respect to consumers, this reorganisation was rapidly followed by two rounds of consultation on an updated Consumer Protection Code, which covers Irish regulated providers and came into force in January 2012. The measures are additional to relevant EU directives and largely strengthen or add to provisions contained in the original 2006 Code.⁷

The Central Bank has a range of sanctions available to deal with firms that break the Code. Potential contraventions include failing to live up to 12 principles of business conduct in financial services, including being fair to consumers, acting in consumers' best interests, dealing with consumers honestly, and not placing consumers under undue pressure. These principles and many more specific regulations aim to make providers take increased responsibility for their influence on decisions made by their customers.

A number of the Code's rules are in line with behavioural evidence. One example is the provision in the original 2006 Code that bans pre-approved credit and automatic increases in credit limits on credit cards, which was partly motivated by evidence on time inconsistent decision-making and behavioural convergence (see Section 3.2). Another example is the requirement for informative and balanced advertising, which is prescriptive to the point of mandating warning text and equivalence of font sizes, and the ban on unsolicited contact with consumers, including existing customers. These measures should be seen in the context of a large volume of behavioural research on the persuasive power of marketing and selling techniques, including in financial services: Bertrand *et al.* (2010) show surprisingly large impacts of marketing material on consumers' willingness to take out loans, although the attributes promoted were unrelated to any potential product benefits; de Meza, Irlenbusch and Reyniers (2007) demonstrate the direct persuasive influence of individual salespeople in the insurance market; and the Office of Fair Trading (2004) found that many consumers made inappropriate

⁶ The UK is still in the process of establishing the new Financial Conduct Authority and awaits a Steering Committee Report on the introduction of "simplified" financial products. In America, the Dodd-Frank Act on financial regulatory reform was passed in 2010, but its implementation, especially the establishment of the new Consumer Financial Protection Bureau, is still hampered by ongoing arguments in the US Congress about the new agency's legitimacy and powers. Regulation of credit cards was however greatly strengthened by the 2009 Credit CARD Act, which primarily prohibits various hidden costs that had become ubiquitous among providers.

⁷ The Consumer Protection Code was first introduced in August 2006, albeit that some measures were not enforced until 2007. In the context of the formation of Ireland's property bubble, this is obviously late in the day. Though an interesting question, it is not possible to say whether the code would have reduced the scale of the bubble had it been in place from an earlier date.

choices when approached by doorstep sellers. In some markets, such tight regulation of marketing and selling might be thought excessive, but greater precautions may be sensible in financial services. Consumers in these markets make once-off decisions of large consequence with much more limited opportunities for learning through feedback. Indeed, feedback on products such as pension investments may only confirm that a key mistake was made decades after the fact when it is too late to correct it. This arguably justifies a less permissive approach.

In keeping with providers' increased responsibilities for consumer decisions, other provisions in the Code require them to obtain reliable information on consumer circumstances, to ensure the suitability of products for the specific consumer, and to undertake rigorous assessment of the ability to repay loans. Credit products cannot be provided where consumers refuse to supply the necessary personal information. Providers must assess ability to repay a flexible rate mortgage in the event of a 2% (minimum) rise in the interest rate. Meanwhile, the Code strongly mandates the nature and timing of information provided to consumers, such as "suitability statements" and a range of compulsory written consumer warnings, most of which aim for clear and simplified descriptions of financial products.

Many of the measures are designed to prevent excessive indebtedness or risk-taking. To that end, they are consistent with evidence regarding the nature of some identifiable problems. The aim of improving consumer decision-making by forcing providers to act in consumers' interests aligns with evidence that consumers have a surprising, perhaps even naive, level of trust in advice from financial service companies and financial advisors, whose incentives may not match their own (see European Commission, 2010). Mandated disclosures of simplified information are consistent with evidence that the complexity of information can disrupt decision-making (e.g. Iyengar, Huberman and Jiang, 2004). Yet evidence supporting the specific policy solutions adopted, as opposed to the nature of the problems, is less apparent. For instance, the effectiveness of mandated disclosures will depend on whether the specific measures adopted do, in fact, improve consumer decisions.

Perhaps most importantly, the ultimate impact of the Code is likely to depend on the extent of enforcement. Honohan (2010) points out that, in the lead up to Ireland's banking crisis, the Financial Regulator had available both information and sanctions that could have been used to tackle the build-up of risk within the financial sector, yet did not take the necessary action. No measures are likely to be effective if they are not enforced.

In addition to the consumer protection regime, there may be potential for policy to improve consumer decision-making through financial education and better provision of helpful consumer information. The National Steering Group on Financial Capability (2009) recently published its vision for improving financial capability, which includes a “financial competency framework”. The National Consumer Agency runs financial education courses and provides extensive web-based information about financial products. This route to better decision-making is an appealing one for policymakers: national strategies to develop financial education and improve financial literacy have been adopted in many countries (OECD, 2011).

Given this policy context, an up-to-date analysis of international evidence may be helpful in a number of ways. Most obviously, the rapidly increasing volume of research may directly assist our understanding of how modern retail financial services markets work, with respect to the extent of disadvantageous consumer decision-making and the likely responses of providers to consumer behaviour. International evidence also relates to some specific aspects of Irish policy, such as mandatory disclosure and financial education programmes. Meanwhile, a combination of this growing body of evidence and the need for post-crisis reform has generated several innovative proposals aimed at improving consumers’ financial decision-making, some of which are being considered or implemented elsewhere and may be relevant to Irish policy too.

3. COMPETITION, INFORMATION AND BEHAVIOURAL BIASES

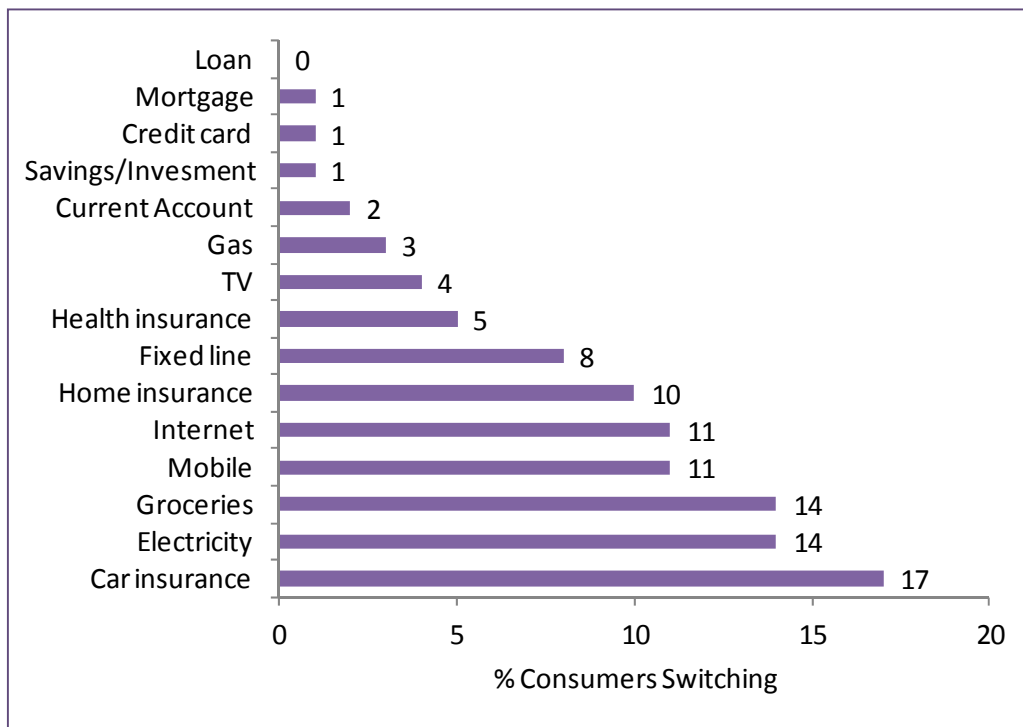
Recent events have indicated that orthodox models of competitive markets were inadequate for understanding financial services. The models assumed that competition between firms would incentivise them to offer high quality and low prices, provided consumers had access to the necessary information to choose products best suited to their preferences. Good consumer decision-making was assumed to follow from complete (or near complete) information. Reality turns out to be quite different. This section outlines empirical evidence relating to how consumers, actually, make financial decisions.

3.1 Basic Patterns of Consumer Decision-Making

One immediately striking pattern of consumer behaviour in financial services is the low level of switching between products. Figure 3 presents data from Ireland, gathered in 2011 for the National Consumer Agency. With the exception of insurance, rates of switching in financial services are lower than for all other types of product surveyed, with no more than 2% of consumers changing providers for current accounts, saving/investment products, credit cards,

mortgages or other loans over a 12-month period. This pattern has been relatively stable in recent years and is replicated in consumers' intentions to switch over the coming year. These low rates of switching in Ireland are not dissimilar to those recorded in other countries; they are a characteristic of retail financial services.

Figure 3: Proportion of Consumers who Switched Provider in the Previous 12 Months



Source: National Consumer Survey, 2011.

Because these data are from a survey conducted post-crisis, it might be thought that they reflect unusually low levels of switching, e.g. because households on advantageous tracker mortgages have little incentive to switch. But evidence from the Irish financial capability survey, which was conducted just prior to the crisis, does not support this interpretation and perhaps also offers some insight into possible causes of low switching. The data reveal that just 13% of mortgage holders had remortgaged in the five years before the survey, and that of those that did the large majority did not do so in order to get a better deal, but because they wanted to fund home improvements or to buy another property (O'Donnell and Keeney, 2009). These authors expressed surprise at the infrequency of switching to obtain better terms and attributed it to "inertia". Yet we must be careful what we mean here. Inertia might be taken to imply not "getting around to it". But such an explanation would be at odds with the greater willingness of consumers to switch providers for other types of consumer contract and to remortgage to obtain what they perceived at the time to be other benefits. Meanwhile, Figure 3 shows that the one area of financial services in which

switching is more frequent is insurance, where consumers have actively to renew policies on an annual basis. One potential explanation that is consistent with these observations is that consumers may switch if prompted to do so, but will not actively seek to switch unless they perceive clear benefit, which requires not only that better deals are in the market but also that the consumer feels able to identify them. Consumer inertia in this case may result more from misperception and indecision than procrastination.

Turning to international evidence, researchers are frequently surprised by the failure of consumers to comparison shop, especially for financial services (e.g. European Commission, 2010). The pattern of consumer behaviour is one of making decisions on entry to the market and perhaps when forced actively to renew contracts, but rarely switching in pursuit of better value. This pattern of behaviour would make sense if competition or other factors affecting retail financial services meant that little was to be gained from comparison shopping. However, international studies also record substantial dispersion in the prices consumers pay across a range of financial services products under different types of regulatory regime, where differences in the nature of the product do not seem sufficient to explain variation. Examples include Hassink and van Leuvensteijn (2007), for similar products in the Dutch mortgage market; Woodward (2007) for American mortgages; and Martín-Oliver, Salas-Fumás and Saurina (2007) for deposit and loan products at Spanish banks.

Understanding of why consumers fail to switch to more advantageous deals in retail financial services is improving. The specific market that has received most attention, given ease of data access and analysis, is the US market for mutual funds. By 2010, according to the *Investment Company Institute*, 44% of US households had money invested in a mutual fund.⁸ Since the products are disproportionately bought by wealthier households, these consumers can be expected to have above average financial capability. Yet the fees associated with the funds can differ by more than ten-fold, despite evidence suggesting that more expensive funds do not outperform less expensive ones (e.g. Carhart, 1997). Even more striking is that such price dispersion arises even for index funds that aim to track stock market indices and hence have virtually no variation in returns between providers (Hortaçsu and Syverson, 2004).⁹ Choi, Laibson and Madrian, (2010) estimate that American consumers effectively leave in excess of

⁸ These are the most popular form of consumer financial investment in the US. Consumers can invest relatively small sums in a diversified portfolio of shares, bonds and other securities, by pooling their resources with those of other consumers into a larger fund that is managed on their behalf by the provider.

⁹ Very small variations in returns can arise due to precise tracking methods, but these are negligible compared to the differences paid in fees to the providers.

€200 million dollars on the table by not selecting deals with lower fees. Both experimental evidence (Choi *et al.*, 2010) and evidence from field data (e.g. Barber, Odean and Zheng, 2005) suggest that disadvantageous consumer decisions are not the result of inertia or failing to search for the best deal. Rather, consumers are influenced more by information that has little or no impact on the quality of the deal, such as advertising and claims of past performance, than by fees paid to the provider that more substantially affect their return. The findings therefore strengthen the case that advertising should be more tightly regulated in financial services than elsewhere.

The upshot of this research is that price dispersion survives not because consumers are insufficiently active, but because they fail to take good enough decisions to incentivise providers to offer better value. The extent to which this pattern applies to other financial services is not altogether clear, but it is ominous that it occurs in a market where consumers are of above average financial capability, product quality is fairly uniform, and it is more straightforward to calculate the overall price than it is in, say, the mortgage or credit card market. It is again consistent with the possibility that low switching reflects consumers' inability to select advantageous deals.

Failure to comparison shop, while potentially damaging to consumers, was not a major cause of the recent economic crises, where the bigger issue with respect to consumers was taking on too much risk. Empirically, it is easier to show that consumers do not select the best deals, by comparing decisions with available prices and product attributes, or by conducting experiments in which product attributes are manipulated, than to show that they choose unsuitable products. The desired amount of risk is subjective and requires anticipation of uncertain future events. In itself, this illustrates that judgements involving risk are also more complicated. If consumers struggle to make the easier financial decisions, the implications for more difficult ones involving risk are worrying. Some simple evidence is particularly troubling: in a large survey in eight EU countries, 40% of investors in stocks and shares wrongly believed that their initial investment was protected (European Commission (2010)).

3.2 Behavioural Biases in Retail Financial Services

The example of work on US mutual funds shows that while trying to explain market-level phenomena, researchers have discovered consumers who fail to act in their own best interests. Much relevant work on consumer decision-making, however, has attacked the issue from the opposite direction. Empirical studies in behavioural economics and economic psychology have documented a long list of

systematic influences on economic decision-making, commonly referred to as “behavioural biases”.¹⁰ Most of these behaviours were initially documented in laboratory experiments, before researchers hypothesised and tested for their presence among consumers and traders in the field, including in financial services. They are also particularly likely to emerge where individuals must make decisions in the face of risk and uncertainty.

Table 1 presents a list of established biases, a brief description of each phenomenon, and a selection of empirical studies that have found evidence for the effect among consumers in experimental or, mostly, field settings. The list is non-exhaustive, as is the evidence cited. All but a few papers referenced are peer reviewed studies published in leading international economics and finance journals. Space does not permit a more thorough review of the extensive research surrounding each phenomenon, since all have now generated a hefty academic literature in their own right. Comprehensive overviews exist of evidence for behavioural biases in the laboratory (Kahneman, 2011) and in the field (DellaVigna, 2009), and of the influence of behavioural biases in financial reasoning (de Meza, Irlenbusch and Reyniers, 2008), financial markets (Barberis and Thaler, 2005) and retail financial services (European Commission, 2010). There are overlaps between some biases listed. For instance, framing effects can be caused by contextual changes in the salience of certain information, whether income is sourced from different mental accounts, and so on. It is also possible that some phenomena have common causes, e.g. one reason why people are drawn to default options is because defaults signal the choices usually made by others, so the power of defaults may partly reflect behavioural convergence.

¹⁰ Due to its prevalence, this terminology has become unavoidable, but it is arguably unfortunate given the connotations of the word “bias”. Similarly to the excessive narrowness that surrounds the definition of “rationality”, these phenomena are often assumed to be disadvantageous because they violate one or more of the standard rationality axioms defined in neoclassical microeconomics. In some contexts the biases probably are disadvantageous, but in others they may not be.

Table 1: Behavioural Biases in Judgement and Decision-Making of Potential Relevance to Consumers of Financial Services

Bias (Closely related phenomena)	Description	Evidence for the bias among consumers (* = decision involved financial services product)
Choice overload	Being less inclined to make decisions when having to choose among large numbers of options	Iyengar & Lepper (2000); Iyengar, Huberman & Jiang (2004)*; Agnew & Szykman (2005)*; Bertrand et al. (2010)*
Behavioural convergence (Bandwagon effects, Herding, Information cascades)	Being drawn towards or copying similar decisions made by others.	Duflo & Saez (2003)*; Hong, Kubik & Stein (2004)*; Huang & Chen (2006); Brown et al. (2008a)*
Time inconsistency (Present bias, Hyperbolic discounting)	Systematic changing preferences over time, such that more immediate rewards become disproportionately more attractive.	Ausubel (1999)*; DellaVigna & Malmendier (2004); Huffman and Barenstein (2004)
Reference dependence (Loss aversion, Endowment effect)	Giving greater weight to losses than to equivalent gains, relative to the present position or to expectations, including greater willingness to take risks when facing losses.	Thaler et al., (1997)*; Odean (1998)*; Genesove & Mayer (2001); Thaler & Benartzi (2004)*
Status quo bias (Preference for defaults)	Preferring to maintain the present situation or sticking with the default option.	Samuelson & Zeckhauser (1988)*; Hartman, Doane & Woo (1991); Madrian & Shea (2001)*; Agnew & Szykman (2005)*
Overconfidence bias (Overoptimism, Miscalibration)	Predicting outcomes too positively and overestimating the accuracy of predictions.	Barber & Odean (2001)*; Barber & Odean (2002a)*; Grubb (2009)
Extrapolation bias (Overinference)	When predicting future outcomes based on the past, placing more weight on the most recent events.	Muellbauer and Murphy (1997); Benartzi (2001)*; Piazzesi and Schneider (2009)*
Framing effects	Taking a different decision when the same problem is presented in a different way	Thaler & Benartzi (2004)*; Brown et al. (2008b)*; European Commission (2010)*
Salience (Inattention)	Placing excessive emphasis on information that is more salient (prominent), or ignoring important information that is less salient	Barber & Odean (2002b)*; Barber, Odean & Zheng, (2005)*; Lacko and Pappalardo (2007)*
Ambiguity aversion	Being more willing to take equivalent risks that the individual feels able to quantify, or feels relatively competent in to assess.	Huberman (2001)*; Grinblatt & Keloharju (2001)*; Benartzi (2001)*; European Commission (2010)*
Mental accounting (Narrow framing)	Taking different decisions according to the history or source of the specific money at stake, i.e. treating wealth in a non-fungible manner	Hastopoulos, Krugman & Poterba (1989)*; Kooreman (2000); Gross & Souleles (2002)*

In the Irish context, Lunn (2011) considers whether these phenomena played roles in the development of the Irish banking crisis. Evidence suggests that some of these behavioural biases, and some other similar behavioural phenomena, affected the financial and economic reasoning not only of consumers but of bankers, businesspeople, experts and policymakers as well, helping to inflate what became the mighty Irish bubble. While the focus of the present paper is consumers, it is worth noting that professionals and experts are also prone to the biases listed in Table 1, which are not the preserve of a minority of less well educated people. While there is a correlation between the quality of decision-making and educational attainment, the estimated correlations tend to be modest and behavioural biases are widespread at all levels of education (De Bruin, Parker and Fischhoff, 2007; Stanovich and West, 2008).

There is an additional factor not listed in Table 1 that may be important and merits brief discussion. Even where the biases listed do not affect a given decision, there is always a chance that the consumer makes a straightforward error of calculation. Little is known of the probability of arithmetic or mathematical errors when making financial decisions, or of its variability among consumers, although Gerardi, Goette and Meier (2010) found low numerical ability to be a strong predictor of delinquency and default in the US subprime mortgage market. Some calculation mistakes may be systematic, for instance the widespread failure to account for the nonlinear nature and consequent impact of compound interest. However, the likelihood of spotting and correcting a calculation error may often be related to whether or not the calculation chimes with intuition (e.g. Traut-Mattausch *et al.*, 2007), so the direction of arithmetic or mathematical mistakes is likely to be influenced by the listed biases.¹¹

3.3 The Impact of Biases at Market Level

Although a comprehensive assessment of the likely impact of all biases listed in Table 1 is beyond the scope of the present analysis, it is possible to identify themes that offer possible lessons for consumer protection policy.

First, consumer decision-making is not only influenced by information and prices, but also by timing, form and context, i.e. how and when monies are paid and information is presented. For example, Barber *et al.* (2005) show that the

¹¹ For instance, the psychological mechanisms underlying extrapolation bias may also underpin the failure to comprehend compound interest. A linear extrapolation of recent trends in, say, additional interest paid on outstanding credit, would lead to underestimation of the cost and thus a greater likelihood of making an error of calculation that errs on the low side, since the calculated outcome would not be perceived as out of line with intuition and hence in need of double-checking.

purchase choices of consumers who invest in mutual funds are more sensitive to early fees paid up front than to ongoing fees paid as a percentage of the investment – one explanation for consumers’ failure to choose the best deals in the US mutual fund market. Another example is a framing effect revealed by Brown *et al.* (2008). A sample of consumers stated their preferences for securing retirement income from a lump sum, choosing between a life annuity and other options (savings account, consol bond, period annuity). The offers described the same life annuity product with two different forms of language: in one condition it was described as an investment, where a lump sum invested would deliver earnings as a return; in another it was outlined in terms of consumption, as a purchase of a stream of payments for ongoing spending. Although the monetary transaction was identical, pair-wise preferences for the life annuity over the other products approximately doubled from 21-48% in the investment condition, to over 70% in the consumption condition.

A more celebrated example, which has already had a direct impact on policy, surrounds pension provision. Simply by changing the default position from one where workers have to opt in to a company pension scheme to one where they have to opt out can more than double participation (Madrian and Shea, 2001). Similarly, when Thaler and Benartzi (2004) designed and tested their “Save More Tomorrow” (SMT) scheme, which offers workers the possibility to commit in advance to participate in a scheme and to increase contributions at the time of future pay increases, they increased average employee savings at one firm from 3.5% of salary to 13.6% in under four years. These are very large impacts relative to policy goals for increasing pension provision. Automatic enrolment and SMT schemes are becoming common across the US. The new UK pension policy is in the process of introducing auto-enrolment. Ireland’s National Pension Framework has stated the intention to do likewise (Department of Social Protection, 2010).

Thus, a key lesson for policymakers is that contextual differences that tap into at least some of the biases listed in Table 1, which seem irrelevant from the perspective of orthodox models of consumer choice, can have very large effects on consumer behaviour.

The second theme to consider is how providers are likely to respond to consumer biases. To take a simple example, consumers who do not comprehend the non-linear acceleration inherent in compound interest are likely to under-save. Providers of savings products have every incentive to try to overcome this problem, and so may help to correct it, by informing consumers and encouraging them to save. By the same token, however, such consumers are likely to over-borrow. In this case, providers of credit products stand to make additional

revenue from consumers' ignorance and, therefore, have no incentive to tackle it.¹² Lusardi and Tufano (2009) find that the clear majority of a representative national US sample of consumers do not understand compound interest. They estimate that one third of the fees this group hand over to credit card companies are attributable to this failing.

A particular concern here relates to time inconsistency or, in ordinary language, temptation and self-control (see Frederick, Loewenstein and O'Donoghue, 2002, for review). Many consumers find it hard to resist offers of immediate benefits for which they will pay later, even in circumstances where affordability is a concern. McCarthy (2011) has shown that, controlling for a large range of background characteristics, including socio-economic status and measures of financial literacy, consumers in Ireland and the UK who score poorly on measures of self-control are significantly more likely to experience financial distress. Firms can potentially exploit self-control problems by frontloading benefits and collecting payments later. Ausubel (1999) found that many credit card users who opted for a card with a lower initial "teaser" rate ended up paying more for credit than had they taken an alternative standard offer. Reviewing evidence for the UK *Financial Services Authority*, de Meza *et al.* (2008) note that many shoppers who arrange credit do not intend to do so when setting out and that consumers feel pressurised to take up credit. They conclude, given these circumstances, that an offer of credit without upfront cost amounts to a "psychological trap". Behavioural evidence contributed to the decision to ban pre-approved credit and automatic increases in credit limits on credit cards in Ireland's Consumer Protection Code (see Subsection 2.2).

In addition to time inconsistent preferences, offers of free credit or teaser rates may prey on overconfidence and extrapolation biases, where consumers overestimate their ability to control spending and extrapolate income increases. In Ireland, more than one-in-six mortgages taken out in recent times discounted repayments for an initial period.¹³ It is possible that these products are suitable for some consumers, who for instance may face credit constraints yet want a period of outlay after purchasing a new home. However, analysis of mortgage choice in the UK (Miles, 2004) suggests that this is unlikely to explain why so many mortgage holders opt for initially discounted rates. The more likely explanation is that initial discounts appeal to consumers who combine a straightforward comparison of initial repayments with overly optimistic

¹² This observation only applies up to a point, of course. For the creditor, the ideal is that the consumer borrows as much as possible without failing to repay, thereby maximising interest payments (and potentially penalties also). Generally, this level is likely to exceed the ideal for the borrower.

¹³ ESRI calculation based on CSO data for mortgages from 2005 to present.

extrapolations about the future of personal income and house prices. A study that examined the contribution of discounts to current mortgage repayment difficulties in Ireland could be valuable.

More generally, for most of the phenomena in Table 1, there are possibilities for the enlightened provider to exploit the biased consumer. Status quo bias may make it more profitable for well-established banks to risk losing a few customers by lowering interest rates on the savings accounts of existing customers than to compete for customers by offering higher rates. Ambiguity aversion might mean that it is easier to sell investment products for a basket of shares in household name companies than for a diversified mix of shares, bonds and property more appropriate to most consumers' need to balance risk and return. Each of these hypotheses (and others that could be generated based on Table 1) would require specific empirical research to uphold. Yet the general lesson is clear: there are circumstances where profit-maximising providers face incentives not to correct but to exploit consumers' systematically disadvantageous reasoning.

A final theme to consider is whether the market might itself find solutions to these problems. If it is in the interest of at least some providers to compete by educating consumers or marketing products so as to overcome disadvantageous biases, then the market may compete away the problem. However, the studies cited in Table 1 show that biases exist in many financial services markets and, therefore, have not yet been competed away, including in markets such as US mutual funds where consumers tend to be more financially literate and experienced. In the 1990s, the entry of new firms into that market was associated with increases in prices (Hortaçsu and Syverson, 2004), perhaps because it increased the complexity of offerings and made it even harder for consumers to compare offerings. Furthermore, theoretical work has established several results showing that biases and associated consumer detriment may be sustained in a competitive market equilibrium where consumers observe prices only approximately (Gabaix, Laibson, and Li, 2005; Carlin, 2009), or fail to take account of a portion of the price that is not initially apparent (Gabaix and Laibson, 2006). In principle, this logic could also apply to consumers failing to appreciate the risks they undertake, such that competition for their business may exploit biases and contribute to consumers unwittingly taking on excessive risk. All three of the official inquiries into Ireland's banking crisis conclude that intensified competition in Irish banking precisely contributed to increased risk-taking in the Irish property market (Honohan, 2010; Regling and Watson, 2010; Nyberg, 2011).

The research on behavioural biases in financial services hence provides three important themes. First, because of behavioural biases, contextual factors that

are irrelevant according to orthodox models of consumer behaviour can nevertheless have large effects on consumers' decisions. Second, providers may face incentives to exploit disadvantageous reasoning. Third, there are circumstances where competition is unlikely to drive out products or marketing techniques that do indeed exploit these biases. In a market where consumers struggle to comprehend products, competition may make disadvantageous decision-making worse.

4. POSSIBLE POLICIES FOR BETTER DECISION-MAKING

The above review of evidence suggests that consumer protection policies based on orthodox microeconomic models are unlikely to be effective in financial services. If not proof, there is at least a persuasive accumulation of evidence that disadvantageous financial reasoning is widespread. Thus, while the ongoing strengthening of consumer protection measures in many countries may owe more to the financial crisis than to papers in scientific journals, there is much evidence to support policies premised on the need to intervene in consumers' decision-making.

But which policies? This section considers a range of possibilities in light of the evidence on consumer decision-making already outlined, and evidence specific to the type of intervention.

4.1 Financial Education

It is a natural reaction, especially among educated and financially literate people, to think that the solution to a problem caused by bad decision-making is more education, especially financial education. Many countries now have strategies to improve financial literacy or financial capability (OECD, 2011), including Ireland.¹⁴ This section offers a brief overview of evidence relating to the potential impact of more and better financial education on market outcomes. More complete literature reviews dedicated solely to this issue are de Meza *et al.* (2008), Atkinson (2008), Willis (2008), Mandell (2009), Lusardi (2010) and Yoong (2011). These six reviews have two notable similarities and one difference, which are instructive for what one might infer for policy. The similarities are, first, a finding of generally low financial literacy by the standards required for sound financial

¹⁴ There is potentially an important distinction here. The concept of financial 'literacy' is suggestive of the extent of understanding. But understanding may be only part of the issue. For instance, making good financial decisions is also partly about organisation, diligence, self-control and a range of social and personal factors potentially independent of understanding. Thus, just as being literate doesn't mean you will produce good writing, being financially literate doesn't mean you will make good decisions. Financial 'capability' is a broader concept that encompasses aspects of psychology and behaviour in addition to understanding.

decision-making and, second, relatively disappointing results for interventions designed to change that picture. The difference relates to the level of optimism regarding whether it is possible to improve interventions and hence raise financial capability sufficiently to alter market outcomes, or whether public money would be better spent on other ways to protect consumers.

Regarding the general level of financial literacy, results are pretty clear. Consider the following two questions from the 2009 US National Financial Capability Survey:

- Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

More than \$102; Exactly \$102; Less than \$102; Don't know; Refuse

- Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

More than today; Exactly the same; Less than today; Don't know; Refuse

Considering the questions separately, less than two thirds of Americans answered correctly in each case. Considering them together, less than 46% answered both correctly (Lusardi, 2010). In the UK, results may be marginally better, in that correct responses to a question very similar to the second one above were somewhat higher, but still more than one-in-five got it wrong (Atkinson *et al.*, 2006). Analysing Ireland's financial capability survey, O'Donnell and Keeney (2009) also report a sizeable minority with very low knowledge, concluding that "the substantial proportion who performed weakly in all areas gives cause for concern" (p. 3).

Without a rudimentary grasp of concepts such as inflation and interest, sound financial decision-making is not possible, even before considering susceptibility to potentially disadvantageous biases.¹⁵ The US survey also produced the rather worrying finding that despite the frequency of incorrect answers to the elementary questions about basic financial concepts, when earlier questions had asked respondents to rate their own financial knowledge on a scale from 1 ("very low") to 7 ("very high"), 70% had rated themselves at 5, 6 or 7. This example of

¹⁵ Note that neither of the questions reproduced here requires any arithmetic computation beyond understanding that some numbers are larger than others. Instead, they probe understanding of the basic concepts of interest and inflation.

overconfidence bias (see Table 1) implies that a substantial minority of consumers may possess the potentially disturbing combination of low financial literacy and insufficient self-awareness to seek ways to compensate for it.

Turning to financial education interventions, the majority of research has been undertaken in the US, where programmes have been running for some time and it is possible to compare outcomes across states with different policies. Some initially optimistic and widely cited findings by Bernheim, Garrett and Maki (2000) showed that Americans living in states with mandated financial education at high school saved and accumulated wealth more rapidly. Yet few of many studies since have recorded such positive effects. Tennyson and Nguyen (2001) found little evidence for differences in financial literacy between states with and without a mandate. Mandell (2009) shows that five consecutive waves of the “Jump\$tart” survey, a 31-item multiple-choice financial literacy questionnaire administered to young adults, record no benefit of having received financial education. One possibility is that financial education may influence behaviour without improving financial literacy, perhaps by increasing trust or familiarity with financial transactions. Still, other empirical studies that have looked at behavioural measures have found impacts to be non-existent, small or short-lived (e.g. Clarke *et al.*, 2006; Mandell and Klein, 2009).

The latter authors went as far as to conclude that: “Until more evidence can be presented to demonstrate that high school courses in personal financial management positively influence subsequent financial behavior, further allocation of scarce educational resources toward mandatory classes of this type should be reconsidered.” (Mandell and Klein, 2009, p. 23) Yet this pessimistic conclusion is not shared by other authors, notably Lusardi (2010), who argues for greater policy effort to increase financial capability.

Discouragingly from a policy perspective, however, the literature cited addresses whether education of consumers can be sufficiently effective to allow a large proportion to acquire knowledge of basic financial concepts. To this difficult long-term aim must be added the challenge presented by behavioural biases, which continue to affect decision-making even once individuals have a grasp of financial concepts, including among experts (de Meza *et al.*, 2008; Lunn, 2011). The implication is that meaningful improvements in financial decision-making through financial education must be considered policies that will act, at best, over a period of decades. Are there potentially quicker policy fixes?

One possibility is that different types of financial education may be more effective. For instance, there is some evidence that face-to-face counselling can work. An experiment in Illinois found that referring high-risk mortgage applicants to a third-party review by a state-certified counsellor reduced the likelihood that they opted for the risky mortgage (Agarwal *et al.*, 2009). Furthermore, once mortgage providers knew that an external review would occur there was also a marked reduction in the riskiness of offers. Note that the financial advice in this case had heavy state involvement, making this an effective but probably expensive policy. The counselling sessions lasted one to two hours and focussed not on advice regarding optimal choice but on educating applicants about common pitfalls. Furthermore, the positive findings were gathered in a context where borrowers were routinely taking on very high-risk loans by historical standards.

The findings of Agarwal *et al.* contrast with those relating to financial advice generally. Evidence does not suggest that financial advice does much for consumer decision-making. In some contexts obtaining financial advice is correlated with less advantageous decisions (e.g. Hackethal, Inderst and Meyer, 2010). Disclosures of potential conflicts of interest of advisors are often ignored or, if they are responded to, the distrust of the advice becomes too dominant in the decision (Lacko and Pappalardo, 2007; European Commission, 2010). The offer of free unbiased advice to retail investors has a minimal effect, because the advice is taken up by those who least need it and is largely ignored (Bhattacharya *et al.*, 2012).

The experiment of Agarwal *et al.* raises the intriguing possibility that interventions aiming to highlight common mistakes for consumers might be more effective than efforts to educate consumers about financial matters. A few researchers (e.g. Kahneman and Riepe, 1998; Larrick, 2004) have begun to examine methods of “de-biasing”: interventions in decision-making intended to reduce the incidence of specific disadvantageous behaviours. Kahneman and Riepe have developed a ten-point checklist for investment advisors intended to help them teach their clients to avoid pitfalls illuminated by behavioural economics. To some extent, the mandated warnings on contracts, advertisements and information disclosures, contained within Ireland’s Consumer Protection Code, are an attempt to alert consumers to some known pitfalls, although the salience of these warnings for consumers is mediated by attitude taken towards them by providers. However, it may be possible to exploit the de-biasing approach and to pilot or test schemes that target the prevention of common mistakes more generally and comprehensively. This possibility, which is

in line with the broad definition of financial capability adopted by the National Steering Group on Financial Capability (2009), is revisited in the final section.

4.2 Soft Paternalism – “Nudges”

Thaler and Sunstein’s (2008) book *Nudge* has had a profound impact on policymakers in the US and UK, not least with the appointment of Cass Sunstein in 2009 to head the Office of Information and Regulatory Affairs at the White House. The central thesis of the book is that behavioural science can be employed to design policies that make beneficial decisions more likely, without having to impose bans or limits on choice. In the jargon, this kind of regulation is called “soft paternalism”, with policymakers designing “choice architecture” to “nudge” people towards better choices.

In financial services, some mandatory disclosures fit this description. The requirement in Ireland’s Consumer Protection Code that providers give consumers a “Statement of Suitability” outlining why the offered product is suitable for their needs is arguably an example of a “nudge”; the hope being that this statement makes both parties to the transaction consider its merits more carefully. Mandated disclosure has been used at different times by regulators, mostly in an attempt to simplify or standardise the information available to consumers, in pursuit of greater transparency with respect to price, quality and the risks associated with products. Unfortunately, evidence for its effectiveness is not very positive, at least with respect to consumers’ ability to choose better deals.¹⁶ For instance, concerns about the complexity of the UK mortgage market led to the introduction of the MCOB (Mortgage Conduct of Business) regulation, which aimed to provide consumers with intelligible information in a highly prescribed format, to assist comparison of mortgage offerings. Following its introduction in 2004, evidence suggests that MCOB increased business costs, leading to higher prices, with no discernible decrease in price dispersion (Monteiro and Zaidi, 2007). Similar, attempts to mandate simplified and standardised information have been undertaken with respect to investment products through the EU’s KIID (Key Investor Information Document) and the US Securities and Exchange Commission’s “Summary Prospectus” to help consumers compare mutual funds. Beshears *et al.* (2010) conducted an experiment with a sample of white collar staff at Harvard University – a group with relatively high financial literacy. Subjects chose between real mutual funds based on available literature and were rewarded by the performance of the fund over a subsequent

¹⁶ One possibility not considered here is that mandatory disclosure might also improve decisions by providers. It is possible that the requirement for certain disclosures could act as a disciplining device by, for example, focussing salespeople on the ability of consumers to repay loans.

period, standing to earn roughly \$100 each depending on the success of their choices. Beshears *et al.* found that choices paid too much heed to irrelevant aspects of the different funds and insufficient attention to the fees charged, leading to decisions that were far from optimal. The Summary Prospectus made no difference to the quality of decision-making. In a similar experiment with mutual funds, also conducted with Harvard staff, Choi, Laibson and Madrian (2009) designed and tested three forms of information provision, including a cheat sheet and an FAQ sheet designed to be as clear and straightforward as the experimenters could make it. They managed a measurable if modest improvement in decision-making, but the majority of subjects still made costly mistakes. Lastly, similarly modest improvements in investment decisions following simplification of information were recorded in experiments conducted by the European Commission (2010), but these involved a choice between only two products with an unrealistically small total volume of information compared to any real market decision.

An alternative but related approach to mandatory disclosure, which could also be characterised as a “nudge”, is to seek to simplify financial products themselves. This strategy has been most vigorously adopted by the UK (see HM Treasury, 2010), which recently formed a steering group of government, industry and consumer bodies to devise simplified products. The research that informs the design of the products explicitly recognises the role of behavioural biases in consumer decision-making. But providers’ involvement with the scheme will be wholly voluntary and not mandated. The UK government’s own international literature review of such voluntary simplified product schemes concluded that “consumers do not have the knowledge, confidence or enthusiasm to seek out ‘simple products’ on their own initiative, meaning that potential levels of business are insufficient to encourage providers to offer such products” (Devlin, 2010, p. 4). It is possible that a new generation of voluntarily offered simplified products may alter that conclusion, but the evidence suggests that the task is challenging.

Combining these results with the evidence of the previous section relating to the provision of unbiased advice suggests limitations to what can be achieved through simplification and information provision, whether mandated or provided directly by unbiased agencies. Thus, while state-funded financial information and advice schemes, such as those operated by the National Consumer Agency in Ireland and the new Money Advice Service in UK, will probably have positive effects for some consumers who engage successfully with them, the overall market impact of such interventions is likely to be small.

Although there is little evidence for mandatory disclosure or simplified product schemes that improve decision-making, at least with the kinds of interventions designed to date, more personalised and specific feedback to consumers might be more effective. In a paper entitled *Behaviorally Informed Financial Regulation*, Barr, Mullainathan and Shafir (2008) proposed a range of such measures. Lenders would have to reveal their estimated probability of default to borrowers. Investment products would have to include the total fees paid with worked examples of possible returns. Credit card companies would have to detail on the main page of bills how long it would take to pay off the debt at the minimum monthly rate and the total interest that would then be paid, and to give worked examples of how much late payment would cost. (A version of these ideas was taken up in America's 2009 Credit CARD Act, though it is probably too early to evaluate the impact). Another possibility would be to require providers of savings accounts to send a clear annual statement showing growth in real (not just nominal) terms. The potential for consumer learning through explicit and personalised feedback of this sort is based on psychological studies of effective learning generally and ought, in theory, to be fairly easily measurable through experimental studies and pilots similar to those above.

Sunstein and Thaler (2008) argue for a more interventionist regulation to assist comparison of products, including mortgages and credit cards. The idea of RECAP (Record, Evaluate and Compare Alternative Prices) is to mandate providers to produce key information on their products in a machine-readable standardised form that can be inputted to price comparison software. Consumer choice could then be assisted by other firms, which would profit via online advertising or charging for the service. For credit cards, mandatory disclosure could include the specific consumer's usage pattern over the previous year, allowing them to research whether they were getting the best deal for their pattern of spending. In effect, it assumes that consumers' decision-making capabilities are sufficiently limited that the technical part of the decision-making process needs to be outsourced. As of now, there is little evidence against which the idea can be evaluated, though again it could be piloted. It should be noted though that RECAP is more aimed at improving comparison shopping than the arguably greater issue of appropriate risk exposure.

A final potential "nudge" style policy is also more interventionist. Barr, Mullainathan and Shafir (2008) argue that regulators should go beyond mandating information and mandate default products. Mortgage and other credit providers would be compelled to provide a standard "plain vanilla" product, the terms and conditions of which, with the exception of the interest rate, would be dictated by regulation. The default products could include prudent limits on

borrowings relative to income. Room would remain for innovation, because providers could offer any alternative product they wished in addition to the plain vanilla flavour. But the idea is that the consumer's choice would always be whether or not to opt out of a default product that the state had deemed to be safe and sound based on historical experience. The behavioural evidence on defaults, mentioned above, suggests that this would be likely to establish good norms in the market and thus effectively to limit how far products could depart from those norms yet remain popular. Proposals for plain vanilla products were originally in the Obama administration's plans for financial regulatory reform, but they failed to get past the US Congress.

In summary, behavioural evidence has spawned some creative ideas for how financial regulation might plausibly improve decision-making without becoming what some would see as excessively prohibitive. Pilot schemes and experiments are needed before many of these policy proposals can be judged.

4.3 Safety Tests for Financial Products

If there is "soft paternalism", there must presumably also be "hard paternalism". Though the authors would doubtless not describe it as such, the case for harder paternalism following the financial crisis is probably most forcefully put by two leading US lawyers in *Making Credit Safer* (Bar-Gill and Warren, 2008). This paper is evidence-based and sufficiently thought-provoking that it should perhaps be required reading for financial regulators the world over. This subsection therefore gives it specific attention.

The argument centres on a rhetorical question: why is safety regulation applied to all manner of physical products, from toasters to toys, and meat to medicines, yet policing the safety of credit products is left largely to consumer choice? In essence, Bar-Gill and Warren argue that consumers can no more be expected to understand the potential dangers of complex financial products designed to make the lender maximum profit than the potential dangers of unsafe electrical appliances. Their conclusion is, straightforwardly, that there should be parity of treatment between financial products and physical products, such that financial products are also safety-checked by a powerful regulator before being let loose on the market.

How does this proposal relate to the evidence presented in preceding sections? Bar-Gill and Warren's interpretation of the empirical evidence can be summarised by the following statements: (1) financial products can cause great harm, including to third parties; (2) consumers are not able to assess the price, quality

and risk associated with financial products; (3) providers have little incentive to provide safe financial products, but instead to offer products that exploit consumers, hide important features and hence expose them to unperceived risks; and (4) the combination of competition and consumer education and learning is unable to overcome these problems. Given all of these conclusions and the fact that unperceived risks associated with physical products are disallowed through safety regulation, Bar-Gill and Warren draw their ultimate conclusion that financial products should also be rigorously safety tested before being marketed.

Based on the evidence cited, two statements might be inferred with respect to Bar-Gill and Warren's analysis. First, the conclusions they draw are more definite than is implied by the empirics, perhaps especially with respect to outstanding avenues of consumer learning and potential de-biasing. Second, it is nevertheless the case that statement (1) is evident and, given current evidence, each of the remaining three statements holds on the balance of probabilities. There are strong reasons to be sceptical about the possibilities for combining improved consumer education and learning with smarter regulation to fix the problem. Consequently, Bar-Gill and Warren's more radical approach to consumer protection should be taken seriously.¹⁷

5. CONCLUSIONS

There is now overwhelming evidence that orthodox microeconomic models fail to describe markets for retail financial services accurately, because they assume that consumers will make optimal decisions in their own interest. The proportion of consumers lacking the basic financial knowledge necessary to do this is substantial. Furthermore, even those who have higher financial capability appear to be subject to a range of behavioural biases in their judgement and decision-making, which are also likely to lead to some disadvantageous decisions. There may be cases where the incentives faced by financial service providers are to educate and to inform consumers, but there is evidence to suggest that providers benefit from some biases and that competition is unlikely to drive out the problem. Consumer detriment caused by paying over the odds for financial services may be considerable, while damage due to consumers taking on too much risk has been painfully apparent in recent years, both in Ireland and globally.

¹⁷ Indeed, Elizabeth Warren was one of the driving forces behind the creation of America's new Consumer Financial Protection Bureau (CFPB), arguing consistently for it to be given the powers that her previous analysis suggested it should have. At the time of writing it is unclear how far reaching the new agency will be, since the passage of the 2010 Dodd-Frank Act through the US Congress introduced some ambiguity into the CFPB's role. Legal actions against it exercising certain powers are presently threatened.

Can policy improve our financial decision-making? There is less conclusive evidence relating to the wisdom or otherwise of policy responses, but nevertheless some implications can be drawn.

Better financial education and information for consumers is probably of marginal benefit, unless new creative ideas emerge that improve its effectiveness. There is scant evidence that financial education programmes produce meaningful shifts in consumer behaviour and even consumers of above average financial literacy do not seem to make appreciably better financial decisions after receiving simplified descriptions of available products. Nevertheless, further attempts to improve policy in this area, perhaps concentrating on the broader notion of financial “capability” rather than “literacy”, could potentially produce better methods with larger impacts, most likely over the longer term. Consumer education and information targeted at known pitfalls in financial reasoning may prove more effective, as may face-to-face counselling, though widespread use of the latter is an expensive policy option. Laboratory and field experiments to test these alternative approaches could be devised and executed.

Restrictions on marketing and selling practices contained in Ireland’s 2012 Consumer Protection Code effectively ban provider behaviour that has been shown empirically to disrupt consumers’ decision-making. Restrictions on pre-arranged credit also have empirical support. However, the evidence that simplified product information has little influence on consumer choices suggests that the many mandatory information disclosures may have limited impact, as has proved to be the case in other countries. Much of the remainder of the Code’s effectiveness will depend on how it is enforced, particularly with respect to whether providers can genuinely be expected to act in the best interests of consumers, notwithstanding regulations stipulating that they must. The evidence reviewed here suggests that providers frequently face incentives to capitalise on consumer biases and to hide portions of the full price. Competition does not sufficiently favour more honourable providers, so behaviours that disadvantage consumers are hard to drive out of the market. Thus, provider behaviour is only likely to change if enforcement of the Code is strong enough to outweigh these market incentives.

Evidence, therefore, supports much tougher financial regulation than was the pre-crisis norm, such that providers have genuine incentives to help consumers to take better decisions, with respect to both the price they pay and the suitability of products. Thorough inspections of practice, mystery shopping and monitoring of advertising can be combined with effective punishment, which might include publicising violations given the limited threat of fines. Investment of the

resources necessary to police the Consumer Protection Code in this manner might well repay. That said, such tough regulation requires resolve and the return on the investment is hard to observe. It may prove unpopular among providers and those who find it harder to get credit; meanwhile the biggest successes, which consist of the avoidance of very negative outcomes, will go unseen. Yet the evidence implies that without much greater protection, many consumers will continue to select poor deals and take on too much risk.

Based primarily on the behavioural evidence described here, a number of more creative approaches to regulation have been suggested in recent times, most notably in the US. These include proposals for more explicit mandated feedback (which tailors information to specific consumers and estimates the full price they will pay over the product lifetime); for mandated machine readable product information; and for state regulated plain vanilla products. There is little evidence to date regarding the effectiveness of such policies, so it will be important to scrutinise the outcome if and when they are adopted elsewhere. In particular, the US Consumer Financial Protection Bureau has begun to conduct some relevant experiments and pilots. This highlights an important development in international research in this area, which is the increased use of empirical approaches to policy development. Ireland could also benefit from adopting this strategy to road test its regulations.

Lastly, a perfectly reasonable if not definitive interpretation of the available evidence is that consumer detriment in retail financial services cannot be tackled through present regulatory practices, but instead requires much stronger product regulation, involving the testing and licensing of financial products. Should post-crisis regulatory reform fail to generate evidence of consumer benefit, this case may become too compelling to ignore. Given the available evidence and the ability to improve our understanding of how these markets operate further, it ought not to take the dawning of another crisis to persuade us to take much stronger action.

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The ESRI acknowledges the
financial support of FBD Trust
for the *Renewal Series*

