

**CFPB Symposium**  
**BEHAVIORAL LAW & ECONOMICS AND CONSUMER FINANCIAL PROTECTION**

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### **Introduction**

The CFPB has convened a Symposium on Behavioral Law and Economics and its use in the CFPB efforts to protect consumers. In this statement, I will make a case for the use of the practical application of insights and frameworks from behavioral science to help consumers make better decisions. First, I will explain the importance of viewing behavioral law and economics as part of the large field of behavioral science. Then, for background I will provide a framework for and evidence on human decision-making and its strengths and fallibilities. Next, I will take a short detour to explain the limited value of debating neo-classical vs. behavioral economics in practical policy-making. This will be followed by empirical evidence from field studies to demonstrate the applicability of evidence from behavioral science to real-world consumer financial decision-making. Lastly, I delve into how to measure outcomes, and I will share one approach for shaping policy using evidence from behavioral as well as neo-classical economics as well as a way to develop further evidence moving forward.

### **The Behavioral Science Field**

Behavioral law and economics is an important subfield within the larger field of behavioral science. Behavioral science does include behavioral economics, but it also includes the disciplines of social, cognitive, and organizational psychology, as well as neuroscience. It is important to realize that behavioral economics has been influenced by these other disciplines, and they have evidence and insights of their own to contribute to the making of public policy.

### **Human Decision Making**

There is ample and substantial evidence that humans sometimes deviate from the imagined rational actor model that is portrayed by neo-classical economics. Richard Thaler frames this well when he encourages us to think about the people we design government policies and programs for as *Homo sapiens*, not *Homo economicus* (or Economic Man)<sup>i</sup>. That does not mean that there is something ‘wrong’ with *Homo sapiens*. *Homo sapiens* (and the three-pound computer that resides between their ears known as the brain) are amazing. For example, *Homo sapiens* are phenomenal at language processing and understanding. By age six, a human is better than the most advanced computer at real language processing.<sup>ii</sup> Furthermore, *Homo sapiens* make thousands of decisions each day to successfully navigate the complexities of modern life, and they often do this very well. However, *Homo sapiens* are also fallible, prone to bias, and have limited cognition and levels of attention that cause them to make imperfect decisions. Policy-makers may wonder whether these decisions are always in the human’s own best interest.

### One Mind, Two Systems

To further understand the function of *Homo sapiens*’ decision-making prowess and fallibility, Daniel Kahneman’s explanation of our brains’ two systems is helpful.

In this work, Daniel Kahneman explained that part of the reason humans are able to make so many decisions so effectively is that the human mind consists of not one, but two processing mechanisms. He describes these as *System 1* and *System 2*. System 1 is our fast-acting, intuitive decision-making self, which often operates without our conscious engagement. System 2 is our slow-thinking, contemplative decision-making self, which often requires our conscious engagement. It's important to note that even this conscious engagement within System 2 is heavily influenced by our System 1 processor.<sup>iii</sup>

These systems in the brain have evolved over thousands of years. Imagine being an early human on the savannahs of central Africa millions of years ago. When a predator appeared, you wouldn't stop to think, '*What should I do now?*' You would have immediately fled. Otherwise, you were more likely to become the predator's lunch. Our System 1 processor was born out of such situations early in our history and evolved as a way to quickly deal with immediate threats and to make decisions efficiently.

Now, think about your life today. How many decisions would you estimate you have made, just this morning? When you thought of your own estimate, did you include: What time will I wake up? Should I hit the snooze button? How long should I take in the shower? What route should I take to get to work? What should I wear? What should I eat for breakfast? The average person makes 200 decisions a day just about food.<sup>iv</sup> While there is not a precise well-documented statistic on the total number of decisions a person makes in a day, it is easily in the thousands, if not tens of thousands. That estimate might sound high, but it includes decisions you make unconsciously. If we had to consciously contemplate every decision we made, we would probably never make it out of the house. This is where System 1 comes in, because the vast majority of your decisions are made without conscious contemplation. System 1 uses automaticity (think of this like autopilot) and heuristics<sup>v</sup> to make most of these decisions.

Many daily decisions are inconsequential in the grand scheme of things (what route to take to work). Some are inconsequential in the short-term, but have longer term outcomes on, for example, health or financial security (whether to eat a poached egg on whole-grain bread vs. sugary processed cereal for breakfast, or whether to save for retirement). Others are immediately consequential (whether to stop at a red light while driving). It is amazing how well the brain has adapted its algorithmic power to making the myriad of decisions required to be made each and every day. It gets the vast majority of them 'right' or 'close to right.'

### Right vs. Wrong Decisions

However, there are times when we get these decisions 'wrong' for ourselves often in **systematic ways**. The research on human fallibility in decision-making is well-established and documented in multiple studies as well as many mainstream popular texts. The evidence from both lab and field studies is overwhelming. It confirms the insights contributed from the field of applied behavioral sciences, which shows that human decision-making is imperfect, fallible, and influenced by biases, bounded rationality, and individual context.

The definition of 'wrong' is not without complexity. Here, we use the same definition an average person might use for 'wrong,' meaning any decision the average person would say was one they wished they made differently, one that they make inconsistently, or one where the evidence

overwhelmingly demonstrates that they would have been better off choosing differently. It's important to stress that we would not classify decisions as 'wrong' based on a prescriptive value judgment about how people *should* behave.

This raises the question: What causes people to make 'wrong' decisions? Decisions that are not in a person's best interest are usually a result of some combination of the following three factors:

- 1.) *Humans employ the wrong system at the wrong time.* Often this means that System 1 engages to make a decision that System 2 should make, or that aspects of System 1 influence System 2. System 1 is built on the use of quick heuristics and influenced by biases. This includes heuristics and biases such as recency bias,<sup>vi</sup> availability bias,<sup>vii</sup> frequency bias,<sup>viii</sup> anchoring,<sup>ix</sup> reference points,<sup>x</sup> social norms,<sup>xi</sup> identity,<sup>xii</sup> and halo effect.<sup>xiii</sup> These are just a few of the hundreds of psychological phenomenon proven to exist by psychologists. Sometimes, people use these heuristics when a more contemplative System 2 should be engaged. For example, when a person is faced with the following series of decisions: Should I apply for a credit card? What credit card should I apply for? It should be a very contemplative decision undertaken after significant research and considering many offers, but often the availability bias wins out. They apply for whichever credit card offer has recently arrived in their mailbox. This is why credit card companies still send direct mail pieces so frequently—they work.
- 2.) *Humans have bounded rationality.*<sup>xiv</sup> The rationality of individuals is limited by the information they have, the cognitive limitations of their minds in a given moment, and the finite amount of time they have to make a decision.
- 3.) *Humans make decisions within a context.* The context or situation in which people are operating has a significant impact on the decisions they make.<sup>xv</sup> People without a background in psychology often underestimate the impact of the context on decision-making and attribute 'wrong' decisions to characteristics of the person. This is called fundamental attribution error.<sup>xvi</sup> Contexts can refer to small differences within the decision-making environment, such as how information is presented on a document or form, or larger situational differences such as living within the context of chronic poverty.<sup>xvii</sup> The context also contributes to the effects of the biases and the heuristics mentioned in number one.

### **Neo-Classical vs. Behavioral Economics Debate: A Red Herring in Practical Application**

This behavioral economics perspective is already well-acknowledged in the field of economics, and I would argue it is not even worth debating whether it is valid or not. There is a substantial amount of high-quality literature on the topic, and five people have won the Nobel Prize in Economics for their significant work in the field of behavioral economics: economists Herbert A. Simon, George Akerloff, Robert Schiller, and Richard Thaler, and the psychologist Daniel Kahneman.

Furthermore, as it relates to practical applications, pitting neo-classical economics and behavioral economics against each other in a debate as a dichotomy is a red herring, and an unnecessary distraction from problem-solving. Both neo-classical economics and behavioral economics (and their various frameworks and models) provide helpful ways for us to think about

and dissect problems in human decision-making. None of their insights are perfectly true all of the time in all circumstances, and neither of the models explain all behaviors all of the time.

Therefore, to debate whether the neo-classical model captures or can account for some concept that has been identified through a behavioral economics model or psychology research is irrelevant. For example, we can examine hassle factors,<sup>xviii</sup> seemingly small barriers that can have an outsized effect on whether someone takes an important action with substantial benefits (e.g. going through all the administrative steps needed to apply for federal student financial aid,<sup>xix</sup> applying for the EITC, refinancing a mortgage, or sorting through all the credit card offers on the market to find the optimal one). Whether the impact of hassle factors can be fully explained in the neo-classical model as a ‘cost’ or if it can’t and is in reality only explained by a psychology concept is irrelevant. Regardless of which model it fits neatly into, this phenomenon exists, and removing such hassles if they’re unnecessary (or designing solutions to get people to overcome the hassles if they are necessary) can have significant social benefit. An example is the FAFSA form for federal financial aid. If students receive assistance in filling out the long, complex form, or are given a pre-populated form with information from their respective current tax return, they are not only 40% more likely to fill out the FAFSA, but are also 29% more likely to go to college. This assistance also increases the average amount of financial aid received.<sup>xx</sup>

This is a perfectly reasonable debate to have within academia, where there is both a desire for greater clarity on theories and finding unifying theories. As such, the debate between the two models of decision-making is one that economics professors and law professors alike should continue in academia. However, when it comes to practical applications and their impact on product or policy design and implementation, the world is more nuanced. There is not one unifying theory that explains everything. Instead, these two models should be used as tools and approaches by which to examine problems. Focusing on a debate between theories tends to lead to the creation of ideological thinking and the requisite ‘true believer’ thinking, instead of leading people to examine the evidence, identify gaps where additional field research is needed, and develop practical solutions that work.

### **Real World Evidence from Field Studies**

Some criticism has been leveled against the body of research that supports some of the theories in behavioral economics and psychology, and the subsequent weight given to the conclusions reached in this research. The criticism is largely directed toward the use of non-market laboratory studies, small sample sizes, and convenience samples (e.g. heterogeneous college student participants). It is reasonable and should be required when examining evidence to consider the rigor of the studies themselves, how many studies have been conducted on a topic, and the applicability of the evidence to the specific policy, product, or practice being considered. All of these factors should be considered when assessing behavioral economics evidence as well as neo-classical economics evidence. In addition, as with all other scientific research, it is important to be conscious of who is funding a study and any potential conflict of interest. For example, the Payment System Panel Study by Brown and Plache, which tests some of the hypotheses of the behavioral economics model, is funded by Visa USA. This creates not only a perception of conflict, but an actual conflict of interest with the findings and conclusions drawn from the study.

### What the studies tell us

One of the most common criticisms of the behavioral economics model is that all of the behavioral studies are lab-based. This is simply not true. While many studies are lab-based, there is also significant evidence drawn from studies done in the field in real markets. I am going to share six of them here. This is by no means an exhaustive list, but instead a small sample that is particularly relevant to consumer credit and financial decision-making.

#### Consumer Loan Study<sup>xxi</sup>:

This study looked at the effect of variations in advertising of consumer credit loan offers. It shows that we can't assume customers will be 'rational' in considering only options such as price, interest rate, and loan duration that traditional economic models would posit. The study had a large sample size of more than 53,000. It was a randomized controlled trial, which found that "the marketing had significant effects on loan take-up, but not on loan amount or default rates. Clients demonstrated the strongest responses to the non-price components of loan offers." Researchers concluded that "even in a competitive market setting with high rates and experienced customers, subtle psychological features appear to be powerful drivers of behavior."

There were a number of different treatments:

- (1) a person's photograph on the offer,
- (2) a suggestion of how to use the loan,
- (3) a table featuring either a small or large number of example loans,
- (4) information about interest rate and payments,
- (5) a comparison to competitors' rates,
- 6) mention of a promotional raffle,
- (7) a reference to the "special" or "low" rate, and
- (8) a mention of the lender offering services in the local language.

Additional randomization included variation of the time before the offer's deadline, which varied from two to six weeks.

A couple of these findings support concepts that have also been found in lab studies, specifically:

- The uptake of the loan and level of interest rates consumers were willing to pay both increased as the number of loan options fell. Offering a single loan option compared to four options increased loan demand the same amount as a 25% reduction in the monthly interest rate. This supports other evidence that people can struggle with choice overload (either too many choices, or complexity of the choice) is in line with the research and findings of Barry Schwartz.<sup>xxii</sup>
- The uptake of the loan and the level of interest rates consumers were willing to pay increased based on the offer having a picture of attractive women.<sup>xxiii</sup> This supports the research of Paul Slovic and Mandel and Johnson that affective and often subconscious responses to stimuli drive decisions in many contexts.<sup>xxiv</sup>

#### Do Credit Card Companies Screen for Behavioral Biases?<sup>xxv</sup>:

This study looked at almost 1 million actual credit card offers sent to a representative sample of U.S. households between 1999-2011. The study showed that credit card companies screen for people based on income and education levels and make different offers based on a person's situation. People with fewer resources are more likely to be affected by behavioral biases (e.g. overconfidence, present bias) because of constant trade-offs and taxing decisions they must

make. Specifically, the study found that “card issuers target less-educated customers with more steeply back-loaded fees (e.g., lower introductory APRs but higher late and over-limit fees) compared with offers made to customers with higher levels of education. It also found that issuers use rewards programs to screen for unobservable borrower types. Conditional on the same borrower type, cards with rewards, such as low introductory APR programs, also have more steeply back-loaded fees. In contrast, cards with mileage programs, which are offered mainly to the most-educated consumers, rely much less on back-loaded fees. Finally, using shocks to the credit risk of customers via increases in state-level unemployment insurance, we show that card issuers rely more heavily on back-loaded and hidden fees when customers are less exposed to negative cash flow shocks.”

This study suggest that a segment of people exhibit overconfidence and present bias, and that credit card companies both know this and take advantage of it.

#### The Market for Financial Advice: An Audit Study<sup>xxvi</sup>:

There is a fair bit of evidence that households do not do a good job of choosing investment portfolios on their own.<sup>xxvii</sup> People suffer from recency bias, overconfidence, and loss aversion, among other biases, leading to less than optimal investment decisions. All this evidence is supported by an examination of actual behavior in the market place, not lab studies. Given this evidence, there might be some hope that financial advisors would be able to help people overcome these biases and make better investing decisions. However, this study shows that advisors do not help correct these biases, instead pushing people toward higher fee, actively managed portfolios.

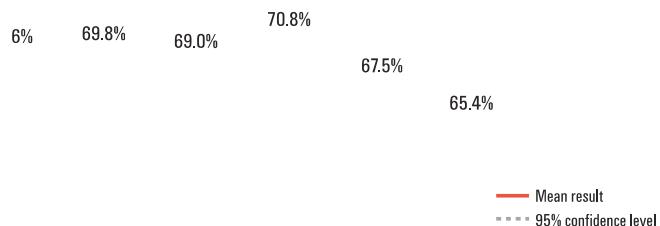
Even when presented with people who have an expressed preference for a well-diversified, low-fee, index type portfolio (which is generally recognized in investment text books and classes as the best portfolio for almost all investors), the advisors push them over time to move away from this portfolio to actively managed funds, reinforcing biases. This occurs because advisors are paid more by actively managed funds to sell these funds (an insight from neo-classical economics theory). If the markets were working correctly, the customers would be able to determine the best advisors based whether their recommendations are in the customers’ best interest, and the advisors who recommend worse portfolios would be pushed out of business from competition. This does not occur because of human biases and the incentives for the advisors, which pushes the market to a suboptimal equilibrium for the consumer.

#### Analysis of Choice in the Pension Systems<sup>xxviii</sup>:

There are lab experiments that show people suffer from challenges making decisions when there are too many choices.<sup>xxix</sup> This is referred to as choice overload and choice conflict. This is at odds with how traditional economics views choice. Generally, the traditional economic view is that more choice is better, because we will make the choice that is right for us. The research shows that while we are attracted to more choices, we then have trouble choosing. We end up not choosing at all or we chose something that is suboptimal. Gur Huberman, Sheena S. Iyengar, and Wei Jiang did research that took this finding out of the lab and confirmed this in the real world in how people make choices in investments in retirement savings. They looked at 793,794 people across 647 company 401(k) plans in 69 industries. Plans vary in the number of investment

choices they offered. For every 10 fund choices added, participation rates in the plan fell by 1.5-2% points. See figure below.

Predicted Participation Rates (as a percentage)



### Suicide and Payday lending<sup>xxx</sup>:

A newer paper by Jacyoon Lee looks at the effects of payday lending on household well-being. Lee focuses on suicide attempts as one of the more significant outcomes as a measure of household well-being. He is able to do this high-quality empirical work because of a natural experiment that exists as a result of the variation in state laws related to payday lending. Some states allow it, and some do not. He is able to look at the impact of payday lending on people who live in states that do not permit payday lending, but live in close proximity to states that do allow payday lending, versus people who live in states that do not allow it, but are farther away from the states that do. The paper finds “that access to dangerous credit adversely affects consumers’ long-term well-being. Gaining access to payday loans substantially increases suicide attempts by 10%. Overall, the most conservative estimate, 10%, implies there were an additional 5.5 suicide attempts per 100,000 people, which, if converted to the national level, would amount to an additional 15,000 suicide attempts in 1998. As such, the results suggest there is a large social cost from increased suicide attempts (and suicide deaths) caused by gaining access to payday loans.”<sup>xxxi</sup>

The idea that people always know what is best for themselves and if they aren’t right the first time they will learn if they make mistakes, are often cited arguments for allowing a completely free market for products like this. I don’t think that anyone would suggest that suicide in this situation is in a person’s best interest, or that the person will ‘learn’ from the decision and make a better one next time.

The findings of this paper not only show the negative effects of payday lending on people’s well-being, but also provide evidence of the presence of few psychological factors in decision making.

Clearly, many of these consumers are making a decision that is “wrong” for them, and one that they would prefer to have done differently after the fact. Given that the CFPB’s own research found that 67% of borrowers took out more than seven payday loans in a 12-month period and that 48% took out 10 or more loans. This means that a majority of payday loan borrowers use payday loans *at least* once every 1.7 months and that almost half of borrowers use them on a near-monthly basis.<sup>xxxii</sup> This is for a loan that is marketed as a quick short-term loan. Psychology would suggest that when people make the initial decision they are suffering from overconfidence, tunneling on short term goals, present bias, and likely reduced cognitive bandwidth as a result of financial scarcity.

#### Card Act Study<sup>xxxiii</sup>:

The Credit Card Accountability Responsibility and Disclosure Act of 2009 (CARD Act) of 2009 created a great real-world yet imperfect opportunity to look at the before-and-after impacts of the limitations that the CARD Act put on some practices. Many of the practices that were disallowed or constrained by the CARD Act were “back end” costs to consumers that could have been designed to shroud pricing and take advantage of behavioral biases such as present bias, over confidence, and limited attention (e.g overlimit fees, late fees, raising of rates on existing balances). The opportunity is imperfect, because this was not a randomized controlled trial, and the CARD Act was implemented just as the Great Recession ended (2007-2009). The Great Recession not surprisingly also had an impact on the credit market, including price of credit and availability of credit.

The general findings of both the 2013 and 2015 reports on the CARD Act is that the Total Cost of Credit (TCC) fell for consumers. This is driven by a reduction in “back end” cost to the consumer, with a slight increase to the upfront fees and stated APR. It is summarized well by these three quotes from the 2015 report:

“Consumers are not only paying less for using credit cards than they did before the CARD Act, but that cost is more predictable and transparent.”

“Had fees impacted by CARD Act rules continued at pre-CARD Act levels, consumers would have paid an additional \$16 billion in such fees from the beginning of 2011 through the end of 2014.”

“There are indications that card credit is increasingly available to consumers. New account volume has grown every year since implementation of the CARD Act, and approval rates are increasing.”

I share this because while not conclusive it suggests that reduction in practices that are more likely to take advantage of human biases (over confidence, present bias, inattention) result in consumers who are better off.

In addition, practices that continue to be allowed which are more likely to take advantage of human biases, such as free promotional periods if balance is paid in full by the end of the period, seem to contribute to consumer error and disproportionately effect people with less financial security (lower credit scores), evidence that these biases exist in the real world and can cause consumers harm. See the two quotes from the CFPB report below.

“Consumers who fail to pay off their promotion in the promotional period tend to repay the full remaining balance, including the deferred finance charge, quite rapidly. Almost a third do so within two months and almost half within four months. That rapid repayment does not prove consumer error. But it appears to be in some tension with the behavior that might be expected of a consumer who understood that interest would be assessed retroactively if the balance was not paid in full by the end of the promotional period and who nonetheless chose to revolve that balance beyond the promotional period. We were able to discern little if any evidence that consumers improve their payoff rates by ‘learning’ from repeated use of the product.”

“These promotions are taken, disproportionately, by consumers with lower credit scores. As a result, consumers with subprime scores comprise only 11% of total promotional spending in our dataset, but incur 24% of the aggregate deferred interest charges. Consumers with prime scores also incur a share of deferred interest charges greater than their share of promotional spending. Consumers with superprime scores, however, have a share of promotional spending that is nearly double their share of deferred interest charges.”

### **How should we measure “better off”?**

There are two major types of outcome measurements from a consumer’s perspective that should be used as the CFPB considers both what products to allow in the financial marketplace and how to regulate them. These are 1) objective measures of financial health and physical health and 2) self-reported measures of financial health. There are additional measurements that are important to society and a well-functioning financial market that relate to the potential for products to cause systemic risk dangers that will not be addressed in this statement.

Objective measures of financial health include items such as the consumer’s credit score, liquid emergency savings, total assets, income, cost paid for financial services, retirement savings, or bankruptcy rates. Objective measures of physical and mental health should be measured as well, including measures such as suicide rates and attempted suicide rates. Self-reported measures of financial health would be items such as the CFPB’s own measures of financial well-being (control over one’s finances, capacity to absorb a financial shock, having financial goals and being on track to meet those financial goals, and being able to make choices that allow one to enjoy life).<sup>xxxiv</sup> Exactly which measures to look at depends on the product or service being examined. Regardless of exactly which measures are used, the outcome measures should be tracked over time as much as possible to gauge the stability of outcomes.

Ideally, new products would be compared against these outcome measurements to existing standard products in the market. If products did not leave people better off on these measures, then the CFPB would question the need for their inclusion in the market in much the same way that a new prescription drug is assessed to see if it beats the standard of care and whether it is “safe” for people to take, before the FDA allows it to enter the pharmaceutical market. The effect of existing products on these outcome measures should also be considered (more on this in the next section).

Lastly, when measuring the outcomes of products, we should not simply look at the overall average outcomes, but also check to see if a product is disproportionately benefiting or harming certain categories of consumers. If the product is disproportionately harming people that could be

more vulnerable (such as older Americans, low- and moderate-income Americans, students, consumers with fewer years of education, military families, and racial or ethnic minorities) extra caution should be taken in regulating those products. Perhaps we could take a lesson from the concept of qualified investor rules, which limit which investors can invest in private placement investments that are riskier and more sophisticated. Potentially rules could be explored that limit consumers from engaging with riskier, more complex, or very high interest rate products unless they have the assets to withstand the potential negative implications of these products.

### **A practical policy and research perspective**

On any issue that the CFPB is working to regulate, the available evidence that already exists should be surveyed, regardless of whether it is based on a behavioral economics analysis or traditional neo-classical economics. If the evidence is relatively clear on the potential for either harm or benefit, the CFPB should act accordingly on what is in the best interest for consumers.

If the evidence is not clear, then the CFPB should hold off on allowing a product or practice into the market until the necessary analysis and research can be conducted.

If the product or practice is already in the marketplace but the evidence is not clear on whether it is harmful or helpful, then the CFPB should put a stay on the product or practice until the necessary analysis and research can be conducted. Products or practices already in the market should be given priority for analysis and research.

To make the research and analysis real and pragmatic to the market, the CFPB should create innovation and research “sandboxes.” This would allow companies and innovators to be given safe harbor to offer a product to a limited number of randomly selected customers and then to share or partner with the CFPB on the information, outcomes, and research insights from this sandbox work. If the product improves people’s lives by the two types of measures mentioned above, then this concrete evidence can be used in regulation and rule writing decisions. This would create a true partnership between innovators and the CFPB to bring products to markets that create value for consumers and truly help people rather than harm them.

### **Defaults and Disclosure**

I will close this section with some information about defaults and disclosure. These are two tools that are commonly discussed and are often cited as behavioral tools that the CFPB should use.

#### **Defaults:**

The use of defaults is not a panacea. They are but one of the tools that can be used to address issues, and defaults should be used carefully. Here are the main points that can be gleaned from the evidence:

- a.) There is no neutral default. Whatever a policy or regulation has decided will happen if a person does nothing is the default. That means that if people have to opt into a product, then the default is for them to not get that product. This is similar to any choice architecture. Even if you change nothing in an environment, that is still a choice architecture. No matter what a policy-maker or product designer does, there is some impact on people’s ability to do what they ‘want.’ In essence, there is no total free will to

choose, as we are always impacted by context and the way options are presented to us, or not presented to us.

- b.) Defaults are helpful when relatively homogenous preferences exist and those preferences are known. This is the case with 401(k) retirement savings,<sup>xxxv</sup> for example. In that case, while there was not perfect homogeneity, the vast majority of people when surveyed said they were saving too little for retirement, wanted to save more, and many even wanted to start soon. But then a look at the data demonstrated that they were not following through on this intention. When the default for 401(k) contributions was switched from opt-in to opt-out, close to 80% of people stuck with making contributions. It is good to note that 20% chose to opt out, as it closely reflects the 30% in the original survey who did not share wanting to save more.
- c.) Defaults are not as helpful when preferences are relatively heterogeneous and/or are not well known. This will either cause people to have a product they do not want, or will cause them to spend the time and hassle to opt out. This was the case when an effort was made to use defaults at tax time to encourage lower income people to save part of their EITC.<sup>xxxvi</sup> There was no higher savings rate, and people took the active step to opt out.

When the preferences are not homogeneous and/or are not well known, there are other options to use to help consumers make decisions, such as forced choice decisioning, and making it very easy to change to the non-default option.

#### Disclosure:

Disclosure is a weak form of regulation. Providing information is a necessary but usually insufficient input to help people make good decisions. It is something the CFPB must do, but disclosure alone will rarely be enough to help the majority of people make good decisions. In addition, the more vulnerable a population is from an economic scarcity perspective the less cognitive bandwidth they will have to digest and understand the implications of the disclosure. Thus, the people who probably stand to benefit the most from regulation (including disclosure) will get the least from disclosure alone.<sup>xxxvii</sup>

In situations where there is a heterogeneity in both the information that people need and their preferences, there is a significant opportunity to utilize the concept of smart disclosure.<sup>xxxviii</sup> This allows individuals free and easy access to their own data and transaction activity in a machine-readable format, so they can give third party choice engines access to this information to help them make a decision that is right for them.

#### Conclusion

Behavioral economics and the larger field of behavioral science when coupled with a rigorous approach to evidence and further research that is specific to the practices and products in the marketplace has great potential to protect and help consumers. Behavioral economics and traditional neo-classical economics should not be viewed as alternative ways to think about the world, but as complementary ways to think about the world. Ultimately we should use rigorous evidence from both schools of thoughts to develop policies and regulations that make consumers better off, and not worse off, with a special eye toward protecting consumers who are the most

vulnerable and least able to deal with negative repercussions from products and/or bad decisions facilitated by products.

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- <sup>i</sup> Thaler, R.H. and Sunstein, C.R., 2009. *Nudge: Improving decisions about health, wealth, and happiness*. Penguin, pp. 6.
- <sup>ii</sup> Banko, M. and Brill, E., 2001, July. Scaling to very very large corpora for natural language disambiguation. In Proceedings of the 39th annual meeting on association for computational linguistics, pp. 26-33.
- <sup>iii</sup> Kahneman, D., 2011. *Thinking, fast and slow*. Macmillan, pp. 20-21.
- <sup>iv</sup> Wansink, B. and Sobal, J., 2007. Mindless eating: The 200 daily food decisions we overlook. *Environment and Behavior*, 39(1), pp.106-123.
- <sup>v</sup> Kahneman, D., 2011. *Thinking, fast and slow*. Macmillan.
- <sup>vi</sup> Murdock Jr, B.B., 1962. The serial position effect of free recall. *Journal of experimental psychology*, 64(5), p.482.
- <sup>vii</sup> Tversky, A. and Kahneman, D., 1973. Availability: A heuristic for judging frequency and probability. *Cognitive psychology*, 5(2), pp.207-232.
- <sup>viii</sup> Zwicky, A. (2006). Why are we so illuded? Stanford University. Retrieved from <https://web.stanford.edu/~zwicky/LSA07illude.abst.pdf>
- <sup>ix</sup> LeBoeuf, R.A. and Shafir, E., 2006. The long and short of it: Physical anchoring effects. *Journal of Behavioral Decision Making*, 19(4), pp.393-406.
- <sup>x</sup> Tversky, A. and Kahneman, D., 1992. Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and uncertainty*, 5(4), pp.297-323.
- <sup>xi</sup> Cialdini, R.B. and Trost, M.R., 1998. Social influence: Social norms, conformity and compliance.
- <sup>xii</sup> Akerlof, G.A. and Kranton, R.E., 2000. Economics and identity. *The Quarterly Journal of Economics*, 115(3), pp.715-753.
- <sup>xiii</sup> Nisbett, R.E. and Wilson, T.D., 1977. The halo effect: evidence for unconscious alteration of judgments. *Journal of personality and social psychology*, 35(4), p.250.
- <sup>xiv</sup> Simon, H.A., 1972. Theories of bounded rationality. *Decision and organization*, 1(1), pp.161-176.
- <sup>xv</sup> Nisbett, R.E. and Ross, L., 1991. Person and the Situation: Perspectives of Social Psychology.
- <sup>xvi</sup> Philip, E.T., 1985. Accountability: A social check on the fundamental attribution error. *Social psychology quarterly*, 48(3), pp.227-236.
- <sup>xvii</sup> Mullainathan, S. and Shafir, E., 2013. *Scarcity: Why having too little means so much*. Macmillan.
- <sup>xviii</sup> Marianne Bertrand, Sendhil Mullainathan, and Eldar Shafir. 2006. Behavioral economics and marketing in aid of decision making among the poor. *Journal of Public Policy and Marketing* 25(1): 8- 23
- <sup>xix</sup> Bettinger, E.P., Long, B.T., Oreopoulos, P. and Sanbonmatsu, L., 2009. The role of simplification and information in college decisions: Results from the H&R Block FAFSA experiment (No. w15361). National Bureau of Economic Research.
- <sup>xx</sup> Ibid.
- <sup>xxi</sup> Bertrand, M., Karlan, D., Mullainathan, S., Shafir, E. and Zinman, J., 2010. What's advertising content worth? Evidence from a consumer credit marketing field experiment. *The quarterly journal of economics*, 125(1), pp.263-306.
- <sup>xxii</sup> Schwartz, B., 2004, January. *The paradox of choice: Why more is less*. New York: Ecco.
- <sup>xxiii</sup> Bertrand, M., Karlin, D., Mullainathan, S., Shafir, E. and Zinman, J., 2005. What's psychology worth? A field experiment in the consumer credit market (No. w11892). National Bureau of Economic Research.
- <sup>xxiv</sup> Slovic, P., Finucane, M., Peters, E. and MacGregor, D.G., 2002. Rational actors or rational fools: Implications of the affect heuristic for behavioral economics. *The Journal of Socio-Economics*, 31(4), pp.329-342; Mandel, N. and Johnson, E.J., 2002. When webpages influence choice: Effects of visual primes on experts and novices. *Journal of consumer research*, 29(2), pp.235-245.
- <sup>xxv</sup> Ru, H. and Schoar, A., 2016. Do credit card companies screen for behavioral biases? (No. w22360). National Bureau of Economic Research.
- <sup>xxvi</sup> Mullainathan, Sendhil and Noeth, Markus and Schoar, Antoinette, The Market for Financial Advice: An Audit Study (March 2012). NBER Working Paper No. w17929. Available at SSRN: <https://ssrn.com/abstract=2028263>

- 
- xxvii Barber, B.M. and Odean, T., 2000. Trading is hazardous to your wealth: The common stock investment performance of individual investors. *The journal of Finance*, 55(2), pp.773-806., Barberis, N. and Thaler, R., 2003. A survey of behavioral finance. *Handbook of the Economics of Finance*, 1, pp.1053-1128, and Campbell, J.Y., 2006. Household finance. *The journal of finance*, 61(4), pp.1553-1604.
- xxviii Sethi-Iyengar, S., Huberman, G. and Jiang, W., 2004. How much choice is too much? Contributions to 401 (k) retirement plans. *Pension design and structure: New lessons from behavioral finance*, 83, pp.84-87.
- xxix Iyengar, S.S. and Lepper, M.R., 2000. When choice is demotivating: Can one desire too much of a good thing? *Journal of personality and social psychology*, 79(6), pp.995.
- xxx Lee, J., 2017. Credit Access and Household Well-being: Evidence from Payday Lending.
- xxxi Ibid
- xxxii Bureau, C.F.P., 2014. CFPB data point: Payday lending. In *Payday Loans: Analyses of Consumers' Use*. pp. 43-67.
- xxxiii CFPB, Card Act Report, 2013 and 2015
- xxxiv Bureau, C.F.P., 2015. Measuring financial well-being: A guide to using the CFPB financial well-being scale. Retrieved from files. consumerfinance.gov/f/201512\_cfpb\_financial-well-being-user-guide-scale.pdf
- xxxv Madian and She, 2001, The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior
- xxxvi Erin Todd Bronchetti, Thomas S. Dee, David B. Huffman, and Ellen Magenhein , *National Tax Journal*, 2013, 66(3), 609-634" When a Nudge Isn't Enough: Defaults and Saving Among Low-Income Tax Filers,"
- xxxvii Mullainathan, S. and Shafir, E., 2013. Scarcity: Why having too little means so much. Macmillan.
- xxxviii Sunstein, C., 2011. Informing consumers through smart disclosure. White House, Washington DC.