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Igor Livshits is an economic advisor and economist at the Federal Reserve Bank of Philadelphia. The views expressed in this article are not necessarily those of the Federal Reserve.

Regulating Consumer Credit and Protecting (Behavioral) Borrowers

Public policy debate around consumer credit has focused on consumer protection. But from whom are we protecting these borrowers?

BY IGOR LIVSHITS

Since the financial crisis of 2007-2008, consumer credit has gotten a lot of attention, especially as it relates to consumer protection. And the attention is not just academic: The Consumer Financial Protection Bureau (CFPB) and the Credit Card Accountability Responsibility and Disclosure (CARD) Act, both instituted after the crisis, have dramatically altered the regulatory landscape of the consumer credit industry. A guiding principle behind the creation of this new regulatory environment is that consumers need protection from predatory lending practices.¹ This article highlights some of the key considerations underlying the design of such policies and possible pitfalls that arise in implementing them.

In designing any regulation to protect consumers, we need to first answer three questions. First, why do (some) consumers need to be protected? The most basic answer is that (some) consumers make “mistakes,” that is, they make decisions the regulator deems suboptimal. There is a range of causes of these mistakes, including various behavioral biases and a lack of information or attention on the part of the consumer. I argue below that the

details of this answer are very important for policy design, as they affect how we answer the next two questions.

Second, whom do the consumers need to be protected from? We consider three possible answers: lenders, more sophisticated borrowers, and themselves.

Third, which policies offer effective protection? Here, the range of answers includes financial education and restrictions on pricing and contracts. The answer depends on the answers to the previous two questions. If the regulations are based on a “wrong” model, well-intentioned policies may backfire, causing harm even to the borrowers they aim to protect. To complicate matters further, protecting some (less sophisticated) borrowers may come at the expense of limiting the (informed) choices of others. As John Campbell put it in his 2016 Ely Lecture, “Financial regulators face a difficult tradeoff between the benefits of regulation to households that make mistakes, and the cost of regulation to other financial market participants.”²

This article briefly reviews the recent and ongoing research on these issues. It is this rigorous economic research that allows

us to formulate effective policies and evaluate the tradeoffs associated with the regulation of consumer finance.

Why Do Borrowers Need Protection?

The most conventional insight in standard economics is that well-functioning markets deliver efficient allocations. Economists call this the first welfare theorem, and it assumes that economic agents are fully rational and perfectly informed. If that were true for all households in the consumer credit marketplace, they wouldn't need protection.

But the data (and common sense) suggest that borrowers are not always fully rational. Many empirical observations may be evidence of mistakes (from the point of view of a perfectly rational and informed borrower). These observations include the so-called “debt puzzle”: Laibson et al. (2003) pointed out that 60 percent of all credit card holders carry a balance and pay interest, whereas a standard model of rational borrowers predicts that only 20 percent should do so.

An even more dramatic observation is the “credit card debt puzzle,” documented by Gross and Souleles (2002): Many credit-card borrowers have liquid wealth they could use to fully pay the balance on their credit cards, thus avoiding high borrowing interest rates.³ The use of other, even more costly borrowing outlets, such as payday loans, is also hard to reconcile with the model of fully rational borrowers, especially when one considers how often these presumably very short-term loans turn into extended indebtedness.⁴ Even the failure of many heavily indebted households to utilize personal bankruptcy, as documented by White (1998), may be evidence of limited rationality (or limited information).⁵

Interventions in consumer credit markets are thus typically motivated and justified by the idea that borrowers make “wrong decisions,” or “mistakes.”⁶ These mistakes may arise from either limits to borrowers' rationality, their incorrect beliefs, or lack of information. Behavioral economics is the study of these deviations from the assumptions of standard (neoclassical) economics. Three behavioral deviations have received the most attention: the “present bias,” temptation preferences, and incorrect beliefs. All three apply to consumer finance.⁷

Because these three behavioral deviations help explain the empirical puzzles, they are a natural starting point for answering the question “Why do borrowers need protection,” and for designing consumer protection in credit markets.

The Three Behavioral Biases

The classic example of behavioral deviation in consumer credit is the idea that borrowers do not fully value or plan for the future, which economists refer to as “time-inconsistent preferences.” Individuals subject to this bias fail to obey their own financial plans when those plans are optimal from the rational perspective. Or at least they want to deviate from these best-laid plans. This essentially defines the time-inconsistency of preferences. The

so-called “present bias” is a typical manifestation of time-inconsistent preferences. It refers to consumers' elevated desire to consume instantly rather than postponing consumption even by a single period.⁸

Experimental evidence supports the conclusion that present-bias preferences shape human behavior.⁹ More importantly for our purposes, present-bias preferences help explain a number of aggregate phenomena in consumer credit markets. Laibson et al. (2003) argued that present-bias preferences are needed to reconcile an otherwise standard model with the “debt puzzle”—the fact that 60 percent of credit card holders used their cards to borrow, far more than a model with standard time preferences would imply. Skiba and Tobacman (2019) argued that the present bias (which naïve borrowers are unaware of) is essential for explaining consumer behavior in the payday-loan market.

Another behavioral deviation that justifies interventions in consumer credit markets is temptation preferences. Models that incorporate these preferences assume that individuals suffer from temptation and have to exercise costly self-control to resist

it. Temptation preferences help explain a number of otherwise puzzling observations. Gathergood and Weber (2014) used survey data to argue that self-control problems (for example, impulsive spending behavior) are the driving force behind the “co-holding puzzle.”¹⁰ As documented by Gross and Souleles (2002), many individuals carry balances (and pay interest) on credit cards while having liquid funds in low- or no-interest bank accounts.

This form of behavioral bias has a distinct set of policy implications. Nakajima (2017) pointed out that policies that restrict consumers' ability to borrow may benefit them by limiting their temptation to consume early. Nakajima (2012) also pointed out that by considering temptation preferences, we may dramatically alter how

we think of the secular increase in consumer credit over the last half-century.¹¹ In the presence of temptation, rising indebtedness is not a sign of better consumption smoothing but rather of overborrowing as individuals succumb to temptation.

The third deviation is incorrect beliefs or information. This category bundles together such behavioral biases as overconfidence, overoptimism, and “cognitive limitation” in assessing prospective contract terms or the market environment.¹² These biases' key common feature is that they directly lead borrowers to make financial “mistakes”—decisions that their fully rational, fully informed selves would disagree with. The justification for an intervention from a (better-informed) regulator is thus clear.

From Whom Do Borrowers Need Protection?

Politicians and consumer advocates often portray lenders as culprits, and regulatory responses and proposals certainly take aim at lenders' practices (see, for example, the Credit CARD Act). One illustrative quote comes from Bar-Gill and Warren (2008): “Sellers of credit products have learned to exploit the lack of information and cognitive limitations of consumers.”

Interventions in consumer credit markets are thus typically motivated and justified by the idea that borrowers make “wrong decisions,” or “mistakes.”

From the point of view of economic modeling, this presumes that lenders have monopoly power that allows them to exploit behavioral borrowers. Indeed, Ausubel (1991) argued that the credit card market displays signs of collusion among lenders, and Herkenhoff and Raveendranathan (2020), pointing to the profitability of transaction services, proposed a model of limited competition.¹³ But I view the consumer credit market in its current state as highly competitive.

Even so, contracts offered by competitive lenders may still be predatory. Competitive lenders can offer exploitative contracts in equilibrium, if borrowers are willing to accept such contracts. Bar-Gill (2012) made the important observation that, in a competitive environment, lenders have little choice but to cater to borrowers' tastes, with all their biases and miscalculations. This reasoning implies that policymakers need to protect borrowers from themselves.

But there's someone else who may take advantage of behavioral borrowers: other, "sophisticated" borrowers. That point was well illustrated by Heidhues and Kőszegi (2010). Sophisticated borrowers benefit from favorable prices that are subsidized by the mistakes made by their behavioral peers. As a modeling approach, this answer offers a helpful alternative to blaming lenders (and demonstrates that policies benefiting one group of borrowers may disadvantage another).

What Policies Offer Effective Protection of Behavioral Borrowers?

The choice of policy instruments should be informed by a specific market failure or behavioral bias.

Furthermore, it has to take into account (equilibrium) market responses of both lenders and borrowers, which may undo or offset the intended effects. Failure to do so may result in policy backfiring—doing more harm than good.

Available policies include restrictions on pricing (for example, interest caps or restrictions on teaser rates), restrictions on the set of available contracts (for example, limiting payday loans or the lock-in features of long-term contracts), information provision and counseling, and various wedges (for example, restricting which mortgages qualify as conforming).

Interest rate caps (also known as usury laws) are widely adopted though often sparsely enforced. These restrictions can be justified either as limiting the ability of lenders to exploit their monopoly power or as protecting behavioral borrowers from undertaking excessively costly (that is, excessively risky or excessively large) loans.

Restricting the kinds of contracts allowed in the marketplace is another popular policy measure. The Credit CARD Act, for example, is one set of such restrictions for credit cards.¹⁴ These policies are often motivated by the (perceived) lack of accurate information on the part of consumers, who may misunderstand

either details of the contract they are offered or the probability of triggering certain aspects of the contract, such as late fees.

Another policy that can address such lack of understanding is financial education, regarding both contract details and the propensity of borrowers to be subject to penalty clauses. This is the kind of policy prescription that arises from Heidhues and Kőszegi (2010).

Lastly, rather than prohibiting certain contracts, policymakers can use price wedges to make some contracts more or less attractive. These wedges can range from taxes on certain activities (making them more expensive) to de facto subsidies for more desirable contracts. One example of the latter is the de facto subsidy from government-sponsored enterprises (such as Freddie Mac and Fannie Mae) that applies only to conforming (desirable) mortgages.

Cautionary Tales: How Well-Intentioned Policies Can Backfire

Not all policies designed to protect the consumer actually do so. These well-intentioned policies are more likely to fail if they misidentify the underlying behavioral friction or ignore markets' reaction to the policy. Unfortunately, these failures are not unusual.

Cuesta and Sepulveda (2019) convincingly argued that the introduction of interest rate caps in Chile led to a dramatic decline in consumer welfare. The reduction in the interest rates induced by the policy was not enough to compensate for the dramatic reduction in the number of loans issued, even in the most monopolistic submarkets.

Limiting the set of contracts is definitely a double-edged sword. Restricting lock-in clauses in contracts may help protect behavioral borrowers who are unaware of their biases. But the same policy harms behavioral borrowers who are aware of their bias and thus may want to use lock-in features (such as large penalties for missing or adjusting payments) to discipline their behavior by preventing themselves from overconsuming in the future.¹⁵

Even financial education requirements are not necessarily a slam-dunk policy prescription. Allcott et al. (2019) documented

that the majority of borrowers take on seemingly exploitative contracts (payday loans) with their eyes wide open, fully aware not only of the costs but also the likelihood that they will have to roll these debts into yet another round of payday loans. And financial counseling may be costly to prospective borrowers, especially in terms of the time they would need to devote to it. Kilborn (2016) argued that mandatory counseling for bankruptcy filers, implemented in Canada in 1992 and in the U.S. in 2005, is ineffective and misguided. While well intended, it seems to have only made bankruptcy more costly for the most vulnerable segment: single parents who had to not only make time and pay for the counseling sessions, but also find and pay for child care.

These well-intentioned policies are more likely to fail if they misidentify the underlying behavioral friction or ignore markets' reaction to the policy.

When it comes to addressing borrowers' overoptimism, Exler et al. (2019) argued that none of the basic policies improves the well-being of behavioral borrowers.¹⁶ Although overoptimistic individuals borrow too much and default too little or too late, policies that bluntly discourage borrowing or encourage default backfire and make all (even behavioral) borrowers worse off. Surprisingly, even "financial literacy" intervention can be counterproductive, including for behavioral borrowers—it helps these borrowers avoid mistakes, but it also shuts down cross-subsidization from rational borrowers to their behavioral peers.

Despite such examples of policy failures, other policies do protect consumers.

Agarwal et al. (2015) found that implementation of the Credit CARD Act yielded a substantial decline in fees paid by borrowers, especially those with low credit scores, with no evidence of an offsetting increase in interest rates or a reduction in access to credit.

In an example from a different type of intervention, Carlin et al. (2019) documented how an introduction of a mobile app, which facilitated individuals' access to their financial information, led to a significant reduction in high-interest debt and bank fees. This suggests that some form of financial education may indeed be effective. It also points to the effectiveness of subtle "nudge" policies.

Details Matter


Behavioral borrowers' awareness of their own biases is critical for the design of policy remedies. Although unaware behavioral borrowers may be made better off (from a paternalistic perspective) by a regulation that limits the set of contracts available to them, behavioral borrowers who are aware of their biases are more likely to be hurt by such regulations. An "aware" behavioral borrower may choose a credit card with high financing charges (or a mortgage with high refinancing costs) over more flexible products specifically in order to address their own behavioral bias, by, for example, preventing their future selves from indulging

in excessive consumption. On the other hand, these same contracts can be simply predatory when borrowers are unaware of their biases.

One aspect of the consumer credit market makes it distinct from other markets, such as cellphone contracts, where exploitation of behavioral consumers is a concern: the possibility of default. In many settings—including those with overoptimistic households, for example—behavioral borrowers are more likely not to repay their debts than are their sophisticated, fully rational peers. This difference in default rates implies that when the two types of borrowers take on the same contract, rational borrowers tend to subsidize behavioral borrowers, and not the other way around.

This point makes all the difference in policy prescriptions resulting from Heidhues and Kőszegi (2010), who abstracted from the possibility of default, versus those from Exler et al. (2019), who treated default explicitly as a possible outcome.¹⁷ For example, financial education is unequivocally beneficial in Heidhues and Kőszegi (2010) but may backfire in Exler et al. (2019). Indeed, Exler et al. (2019) argued that, rather than being exploited by their rational peers, behavioral borrowers may instead benefit from being pooled with less risky, rational borrowers.

Conclusion

Policy prescriptions depend critically on the details of the economic environment. Specifics of the behavioral biases that motivate the intervention, borrowers' awareness of their biases, the extent of competition in the marketplace, the presence of fully rational borrowers, and the prevalence of default—they all matter when identifying the right regulation or intervention. This points to the importance of both empirical analysis of borrowers' behavioral biases and theoretical analysis of the equilibrium responses of all market participants to any potential market intervention. 

Notes

1 One of the key objectives of the Credit CARD Act was the elimination of so-called "gotcha" clauses in the fine print of credit card contracts. I am not too proud to admit that I got "caught" by at least four of the credit card features subsequently outlawed by the Credit CARD Act. And I tend to think of myself as a sophisticated and attentive consumer.

2 According to the Financial Crisis Inquiry Commission (2011), this argument is one reason why federal regulators didn't rein in mortgage market excesses in the run-up to the crisis (p. 93).

3 Admittedly, Telyukova and Wright (2008) and Telyukova (2013) offered a resolution of this puzzle without relying on behavioral assumptions.

4 See Carter et al. (2011) and Skiba and Tobacman (2019).

5 Less prominent but still interesting puzzles include "credit smoothing" (as opposed to consumption smoothing), documented by Hundtofte et al. (2019), and overborrowing in response to windfalls, documented by Olafsson and Pagel (2019).

6 Lack of competition may also justify policy interventions as it distorts allocations, leads to inefficiencies, and allows lenders with monopoly power to take advantage of borrowers. However, arguments by Ausubel (1991) and Herkenhoff and Raveendranathan (2020) notwithstanding, the consumer credit market

is quite competitive, as discussed later in this article. This is not an exhaustive list of reasons for regulation. See Elul and Gottardi (2015) for an example of a very different motivation.

7 Gathergood (2012) provided survey evidence that behaviors associated with these biases (namely, impulsive spending, heavy discounting, and financial illiteracy) are associated with overindebtedness and financial distress.

8 O'Donoghue and Rabin (1999) offered the accepted formal definition: "When considering trade-offs between two future moments, present-biased preferences give stronger relative weight to the earlier moment as it gets closer."

9 See Benhabib et al. (2010), Meier and Sprenger (2010), Balakrishnan et al. (2017), and Bisin and Hyndman (2020), just to name a few.

10 Also known as “the credit card debt puzzle.” See Telyukova and Wright (2008) and Telyukova (2013).

11 Nakajima (2012) focused on the staggering increase in the revolving debt from practically zero in 1969 to 7 percent of GDP in 2009. (Today, credit card debt amounts to about 5 percent of GDP). Increases in total consumer debt (which excludes mortgages) and total household debt were less dramatic but still substantial (from 12 percent of GDP to 19 percent today for consumer debt, and from 43 percent in 1982 to almost 100 percent at the peak for total household debt).

12 See Grubb’s (2015) discussion of the distinction between overconfidence, which he calls “overprecision,” and overoptimism.

13 A more promising approach to studying this aspect of the market could be a search model of limited competition along the lines of Drozd and Nosal (2008), Nosal and Galenianos (2015), Drozd and Serrano-Padial (2013, 2017), and Raveendranathan (2019). But this branch of the literature is still nascent.

14 The Credit CARD Act prohibits “universal default” (increasing the interest rate on one card in response to a delinquency on another one) and retroactive interest-rate increases. It also restricts “two-cycle billing,” the marketing of credit cards on university campuses, credit limits offered to young borrowers (under 21 years of age), and changes to interest rates and other fees (for credit cards and gift cards). Under the Act, lenders must also apply payments to the balance with the highest interest rate, and they must disclose how long it would take to repay the balance by making only minimal payments.

15 Even a mortgage prepayment penalty (or closing fee) may serve as such a commitment device by making cash-out refinancing less attractive.

16 Overoptimism has been documented in various forms and settings. Overoptimism regarding individuals’ income is documented by Arabsheibani et al. (2000), Dawson and Henley (2012), and Balasuriya et al. (2014). Gathergood (2012) offered evidence of unforeseen expenditures, which amounts to overoptimism regarding expenses. Weinstein (1980) found that people generally underestimate the probability of negative events for themselves.

17 In other words, the model in Heidhues and Köszegi (2010) ruled out default by assumption: All debts are always repaid. Exler et al. (2019), by contrast, explicitly modeled default as a possibility, thus reversing some key forces, such as the direction of cross-subsidization.

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