The Regulation of Consumer Financial Products: An Introductory Essay with Four Case Studies

by

John Y. Campbell, Harvard University

Howell E. Jackson, Harvard Law School

Brigitte C. Madrian, Harvard Kennedy School

Peter Tufano, Harvard Business School

November 17, 2010

Abstract: The recent financial crisis has led many to question how well businesses deliver consumer financial services and how well regulatory institutions address problems in consumer financial markets. In response, the Obama administration proposed a new agency to oversee consumer financial services, and the recently enacted Dodd-Frank Wall Street Reform and Consumer Protection Act embraced the Administration's proposal by creating the Bureau of Consumer Financial Protection. Other regulatory reforms have been advanced, and in some cases adopted, in recent years, at both the federal and state level. In this paper, we provide an overview of consumer financial markets, detailing the purposes they serve, the extent to which they suffer from market failures or other deficiencies, and the structure of our current system of regulation. To illustrate our analytical framework, we present case studies on retirement savings, residential mortgages, payday lending, and mutual funds. We conclude with a series of observations on the limits of government intervention, suggestions about how to measure whether government intervention is successful, and potentially fruitful lines of future research and data collection.

The authors have benefitted from helpful comments from David Autor, Sendhil Mullainathan, Tim Taylor, and participants in the Harvard Joint Center for Housing Study's February 2010 Symposium: Moving Forward – The Future of Consumer Credit and Mortgage Finance.

Cost comparison

An equally important aspect of mortgage choice is cost comparison. Mortgage costs take different forms, some being included in the interest rate and others charged up front. A mix of one time and recurring costs is particularly hard to evaluate because their relative importance depends on the length of time that the mortgage is held. Standard APR calculations assume that mortgages are held to maturity and can be seriously misleading for mortgages that are typically refinanced after a few years.

Consumer financial regulation can simplify the task of cost comparison in several ways. The existence of standard mortgages is helpful in itself, because households can concentrate on standard mortgage terms rather than considering a vast array of special features. ²⁶

Disclosure policy is obviously relevant, and both the Federal Reserve Board and the Department of Housing and Urban Development have recently augmented disclosure requirements surrounding mortgage originations. There is however an important issue of making disclosures comprehensible to consumers and available in a timely manner, during the period of comparison shopping rather than at the time of closing on a house purchase. Thaler and Sunstein (2008, Chapter 8) have proposed that mortgage terms be made available electronically in standardized form to permit the development of online sites for comparison shopping.

An alternative approach is to regulate the mortgage origination process. In 2008, Congress passed the Safe Mortgage Licensing Act with the goal of establishing minimum state standards for licensing mortgage originators. A more drastic approach would be to establish a fiduciary duty for mortgage brokers.

Cast Study 3: Payday Lending

To illustrate how the themes discussed above in this paper apply to specific consumer financial markets we turn now to a case study involving payday loans (PDLs): relatively small, short-term, generally unsecured loans that are often sold to less well-to-do consumers, many of them at a physical point of sale. This form of lending has grown rapidly in recent years, and the industry now estimates loan volume at roughly \$40 billion a year.²⁷

Background

Most payday loans follow a relatively standard lending process and take a relatively standard form. Consumers visit a storefront location, request a loan, have their employment

-

²⁶ Woodward (2003) presents evidence that households pay lower mortgage fees when all fees are rolled into the interest rate, simplifying the task of cost comparison.

²⁷ The Community Financial Services Association of America is the national payday lending industry association: www.cfsa.net. Caskey (1994, 2001, 2002) provides some of the earliest research documenting this form of what he calls "fringe banking." For a more recent overview of payday loans, see Stegman (2007).

verified, and if approved, walk out minutes later with the loan proceeds. The average payday loan is fairly small--80 percent of transactions are for less than \$300 (Stegman, 2007). The loan comes due on the borrower's next payday and is extinguished by either an explicit payment from the borrower, a pre-arranged ACH withdrawal from the borrowers' bank account, or the cashing of a post-dated check. The time until the next payday, and hence loan maturity, can range from a few days to nearly a month, but the norm is two weeks. Instead of a finance charge that varies with balance and duration of the loan, the fee is either fixed or related simply to the loan amount, typically \$15 to \$30 per \$100 borrowed (Stegman, 2007).

In some states, borrowers can repay the loan (plus fee) by rolling it over to a new, higher balance loan. Some states limit same store roll-overs to no more than four or five a year; others entirely. Even in such states, nothing prevents a borrower from getting another loan elsewhere. According to Elliehausen (2009), 40percent of payday loan consumers used more than one payday lender within a twelve month period, and of those, more than 35 percent used a payday loan from one lender to pay off another.²⁸

By virtue of the product itself, PDL customers must have a checking account and be employed. Lawrence and Elliehausen (2008) find that PDL customers tend to have a moderate level of education and are disproportionately young (under age 45) and have children. Most are from lower and middle-income households with limited liquid assets—fewer than half report any savings (Elliehausen, 2009).²⁹ Generally, they are in life stages where demand for credit is high, and although 92% rely on other types of credit, many have been denied credit in the past 12 months, have credit cards at the limit, have concerns about their ability to access credit, and are less likely to have home equity to tap (Elliehausen and Lawrence, 2001; Lawrence and Elliehausen 2008).

Payday lending grew out of the check cashing industry of the 1990s and the leading industry association reports almost 24,000 outlets nationally.³⁰ The industry is fairly dispersed with only a few large corporations holding any substantial share of the market—most payday lenders are small storefront operations.³¹ The few studies on the profitability of payday lending

²⁸ Many other studies also document sizable repeat use of payday loans. Stegman and Faris (2003) report that the average PDL user took out seven loans in 2000, and the Center for Responsible Lending reports that 90 percent of loans are made to borrowers with five or more transactions a year (Parrish 2008). Lawrence and Elliehausen (2008) find that 20 percent of PDL customers roll over more than eight loans in a twelve-month period. Flannery and Samolyk (2005) find that 46 percent of store PDL transactions are rollovers, accounting for 34–40 percent of total loan volume.

³¹ Stegman (2007) estimates that six large companies control about one-fifth of all PDL activity.

²⁹ The most-reported household income levels of PDL customers are: \$25,000 to \$39,999 (27.6 percent) \$15,000 to \$24,999 (17.6 percent) and \$50,000 to \$74,999 (16.7 percent). Nearly all PDL borrowers have a high school diploma (91.2 percent) and many have some college (35.1 percent). See also Stegman and Faris (2003). also It is also possible to characterize borrowers with regard to their larger pattern of financial service experiences. Lusardi and Tufano (2009) find that payday borrowers are more likely than others to engage in related high cost financial transactions.

³⁰ See http://www.cfsa.net/about cfsa.html.

rely on self-disclosed figures, and hence may not be representative or objective, but they suggest that the business is not as profitable as critics charge. Flannery and Samolyk (2005), for example, analyzed data for 300 stores in two chains. They conclude, "fixed operating costs and loan loss rates do justify a large part of the high APRs charged on payday advance loans" and loan volume, rather than repeat borrowing per se, is a primary determinant of profitability. Tufano and Ryan, who conduct a case study of a single chain, probide consistent anecdotal evidence, as do and by Huckstep and by Skiba and Tobacman who examine the financial statements of publicly traded payday lenders.

Applying the Regulatory Justifications to Payday Loans

Traditional market failures seem an unlikely basis for regulation of payday loans. There is little evidence of market power.³² The apparent absence of abnormal profits may reflect competition, the small scale of most operations, the requirements for both local real estate and personnel, and loan losses. In some low income communities, the number of PDL outlets far exceeds the number of banks and even fast food restaurants.³³ Given the prevalence of payday loans in select neighborhoods and the relatively standard terms in the industry, it is reasonable to suppose that consumers have low search costs. Similarly, there do not appear to be asymmetries of information or public good aspects of payday lending that would justify additional regulation of information, although standardized APR disclosures required of payday lenders under the federal Truth-in-Lending Act do provide a useful baseline of information, which might not be available in an entirely unregulated market.

There is mixed evidence on whether payday loans generate externalities. Some evidence suggests that they lead to financial hardship, which could give rise to greater need for public or private redistribution ex post. Other evidence suggests that they may give rise to positive externalities: Morse (2009) finds that households facing natural disasters are less likely to experience foreclosures or larcenies when payday loans are more accessible. Wilson and othersreplicate Morse's general result using a laboratory experiment with 318 undergraduate subjects who had to manage a household budget over thirty periods. They find that the addition of payday loans to a mix of credit products helped subjects to absorb expenditure shocks. Comparative evidence from Oregon, which imposes a PDL interest rate cap, and the neighboring state of Washington, which does not, shows that restricting access to payday loans causes "deterioration in the overall financial condition" of households (Zinman, 2008). This evidence suggests that a payday loan may be better than its alternatives.

³² However, as Mann and Hawkins (2007) argue, the most convenient locations for customers are more expensive, which may privilege established firms, put a "natural limit on the density with which profitable locations can be established" and "hinder the effectiveness of price competition." DeYoung and Phillips (2009) conclude that loan pricing reflects strategic considerations, with fees rising to legislated ceilings and with large multiple-store firms charging higher prices than independent single store operators.

³³ The geographer Graves (2003) reports that PDL stores and bank branches are inversely related, with loan stores growing in areas where banks are exiting: poorer communities with a larger fraction of minorities. Morse (2009) reports that in 2007 the number of PDL stores s per zip code in California in 2007 was twice as large as the number of McDonalds restaurants (1.9 and 0.95, respectively).

By contrast, other studies find that payday loans are associated with increased financial hardship, and thus perhaps negative community externalities. Melzer (2009), for example, exploits geographic and temporal variation in the availability of payday loans and finds that access leads to payday loans increased difficulty paying mortgage, rent, and utility bills; a higher rate of moving out of one's home due to financial difficulties; and delayed medical care, dental care and prescription drug purchases.³⁴ There also is evidence that payday loans are associated with adverse outcomes for military borrowers, including declines in overall job performance and lower levels of retention (Carrell and Zinman, 2008). To discourage such loans to military personnel, the 2007 National Defense Authorization Act caps the fees on payday loans to service members at an APR of 36 percent, a regulation that industry critics support for all payday lending (CRL Research Brief, 2009).

Behavioral considerations for PDL regulation include both cognitive limitations and present-biased preferences of borrowers. There is a limited amount of direct and indirect evidence that PDL users may have cognitive limitations. Lusardi and Tufano (2009) find that PDL borrowers and users of other forms of non-traditional credit have low levels of debt literacy (an understanding of interest compounding). As part of a field experiment, Bertrand and Morse (2009) asked PDL borrowers about the interest rate charged for their loans. About 40 percent claimed the APR was around 15 percent, confusing the cash charge per \$100 and the APR (or misunderstanding the question). Some PDL borrowers take out loans even when they have access to lower cost credit in the form of unused credit card borrowing capacity (Agarwal, Skiba and Tobacmann, 2009) or savings and checking account balances (Carter, Skiba, Tobacmann, 2010). While there may be a logical reason for these choices (for example lower intra-family disclosure or avoidance of overdraft fees), to the extent that they demonstrate a failure to understand the relative costs of alternative forms of credit, the "diagnosis" might be cognitive failures. Finally, as noted earlier, there is substantial evidence of repeat or chronic borrowing.³⁵ In states allowing rollovers, borrowers can quickly see their borrowing balloon out of control. This could reflect cognitive limitations of PDL borrowers; it could indicate present-biased preferences—individuals underweight the future costs of taking out a payday loan today), or, it could simply reflect the fragile economic state of many PDL users. Collectively this evidence is consistent with a behavioral basis for regulation, even if the empirical evidence is still rather limited.

_

³⁴ Using a regression-discontinuity approach applied to borrower-level data from Texas, Skiba and Tobacman (2009) conclude that loan approval for first-time PDL applicants increases the likelihood of Chapter 13 bankruptcy filings by 2.5oercebt through two channels: a selection effect—higher risk borrowers both seek payday loans and go bankrupt; and repeat borrowing. In contrast, Stoianovici and Maloney (2008) use state-level data and find no relationship between PDLs and bankruptcy filings. Morgan and Strain (2008) find that payday loans restrictions increase the incidence of credit problems, such as bounced checks. However, using disaggregated data, Campbell, Martinez-Jerez and Tufano (2008) find fewer involuntary bank account closures due to overdrafts after Georgia banned payday lending, especially for individuals farther from state borders where payday loans are was available nearby.

³⁵ A report by the Center for Responsible Lending (King, Parrish, and Tanik 2006) claims that repeat borrowers generate 90 percent of the revenue of the PDL industry. However, Veritec, a data provider for the industry, disputes these statistics in a report dated January 18, 2007 (see http://www.cfsa.net/veritec.html).

The distributional arguments for regulating payday loans are straightforward: the poor (or poor financial managers) pay more. As noted above, payday loans are used disproportionately by less well off individuals. Critics charge that they are in fact targeted to (and used by) lower income consumers and racial minorities (Graves, 2003; Stegman and Faris, 2003). Critics further argue that PDL pricing is "predatory"—typical fees of \$15-\$20 per \$100 borrowed imply an APR from 390 percent (if paid back at the two-week deadline) to more than 1000 percent (if repaid within one day). In some regulation, such as the Home Ownership and Equity Protection Act of 1994, the mere existence of high APRs, defined in reference to prevailing rates, is the basis for regulation.

While detractors argue that payday loans result in the poor paying more, one must ask "more than what?" Defenders point out that other sources of short-term credit, such as overdraft protection, returned check fees, and credit card late fees, have APRs ranging from 478% to 791 percent, , depending on the duration of the loan (Consumer Reports, 2005; Lehman, 2005). Furthermore, the costs of not having access to credit can be extraordinarily high. For example, if electricity or telephone service is shut off, the time and expense to restart service can far exceed a PDL fee. Similarly, a worker lacking the funds to repair a vehicle may be unable to get to work and may lose her job as a result.

The effects of payday lending on household welfare depend on the assumed alternative to PDL usage. If payday loans were not available, some households might find less convenient but perhaps less expensive financing, or might resist the temptation to engage in short-term spending. Other households, however, might use more expensive forms of short-term credit, or suffer severe consequences from lack of credit. Which counterfactual one believes will inform one's view of appropriate regulation; the existing empirical evidence provides mixed answers.

Existing Regulation

In response to the efforts of several national banks attempting to establish nationwide distribution networks through local payday lenders, federal banking authorities took a series of steps starting in 2000 to discourage federally-insured depository institutions from participating in payday lending (Smale, 2005). As a result, payday lending is conducted and regulated largely at the state level (Peterson, 2008). Georgia prohibits payday lending entirely and nine other states effectively prohibit it as a result of interest rate caps that make it unprofitable.³⁷ Annual interest rate caps also exist in some states with payday lending, including Ohio (28 percent), New Hampshire (36 percent), Oregon (36 percent), and Virginia (36 percent). The Truth-in-Lending Act requires that the loan amount, finance charges, and APR must be clearly disclosed in any contract or agreement the borrower signs. Thirty states have more stringent disclosure laws,

.

³⁶ The Community Financial Services Association of America (2006) commissioned a study to document the fees of PDL alternatives. Their findings are the following: late fees for utilities, \$9.92; utility reconnect fees, \$36.24; insufficient funds fees, \$28.34; and bank overdraft fees, \$23.18.

³⁷ These are: Connecticut, Maryland, Massachusetts, New Jersey, New York, North Carolina, Pennsylvania, Vermont and West Virginia. See regulations by state at the National Conference of State Legislatures, https://www.ncsl.org/IssuesResearch/BankingInsuranceFinancialServices/PaydayLendingStateStatutes/tabid/12473/Default_aspx.

requiring payday lenders to post APRs and fee schedules clearly and prominently inside their stores.³⁸ Many states limit the maximum loan amount, and some states, such as California, prohibit roll-over loans. Thus, the range of regulatory practices extend from an outright or de facto ban (through low permissible APRs) on one extreme to disclosure requirements on the other, with a middle ground of restrictions on contract terms (for example, repeat usage).

Policy considerations

The discussion highlights the problems with crafting optimal regulation of payday lending. While distributional considerations and externalities may form the case for regulation, there is conflicting evidence about whether payday loans benefit or harm consumers. Likely they do both. Used "responsibly" as an alternative to even higher cost borrowing or the failure to pay certain bills, they are likely beneficial—as the industry argues. But when used repeatedly, they can lead to ballooning debt and distress—as critics argue. Any regulation must address how the product is used by the borrower.

Regulation cannot deal with payday loans in isolation. Taking the functional perspective, payday loans are just one form of short-term credit. Regulation restricting one product can lead consumers to seek other, possibly even less attractive, sources of credit. That payday loans are used in conjunction with other short-term credit products reminds us that any regulation must assist consumers in making decisions that cut across various products. This "help" might come in the form of education or disclosures.

If behavioral considerations are the basis for greater regulation, then we need to know more about what drives PDL choice before we can craft more effective (and appropriate) regulation. Well designed disclosure can in principle help consumers to make better decisions, but existing research calls into question whether it will substantially change behavior. In a recent randomized field experiment, Bertrand and Morse test different types of PDL disclosures. They find that fee disclosure in dollar terms was more effective in reducing same-store PDL demand than APR disclosure³⁹ or messages about the likelihood of repeat borrowing or the importance of budget planning. However, the absolute reduction in subsequent borrowing was modest (5-6 percent depending on the specification), and the experiment could not assess whether reduced borrowing at the participating payday lender was offset by borrowing from other payday lenders. Overall, these results raise questions about the efficacy of disclosure rules.⁴⁰

To the extent that the most problematic use of payday loans relates to repeat usage, the underlying failure could be either behavioral or structural (in that people are systematically

-

³⁸ Fox and Woodall (2006), however, report that three fourths of surveyed payday lenders fail to post the APRs as required by law, and 20 percent post no cost information at all.

³⁹ The conclusion that dollar-based versus APR disclosure is most informative echoes the results of Hasting and Tejeda-Ashton (2008) who find a similar result in their study of responses to fee disclosure for investment accounts in Mexico.

⁴⁰ Choi, Laibson and Madrian (2010) and Beshears and others find that mutual fund fee disclosures are similarly ineffective.

living beyond their means). If the former, it might be possible to employ other behaviorally-informed regulatory changes (Barr et al., 2008). For example, if PDL borrowing is an impulse item, then a short "cooling off" period might give people time to consider whether they really want a loan. In the market for tax refund anticipation loans, many consumers are willing to accept a wait of one or two days for payment rather than incur additional fees to access their impending tax refund on the same day as they file (Cole et al., 2008). If the problem is structural in that people simply cannot manage their money, barring rollovers—or payday loans altogether—will not address the basic issue that gives rise to the product.

It seems sensible that policymakers should test the likely impact of any proposed rule changes. The experiments cited above were conducted mostly by scholars, rather than by the policymakers charged with rule-making. Most academics, however, seek to publish papers, and do not have the time or the inclination to test micro-variations in rules. As a result, some form of research needs to be carried out by policymakers themselves.

While regulation may seek to protect consumers, it needs to be mindful of the economics of this business. It is difficult to make the case that most lenders are earning supernormal profits. However, pending House and Senate bills (H.R.1608 and S.500) would cap interest rates at a 36 percent APR, similar to the limit imposed on payday loans for military personnel in 2007. For a \$300 two-week loan, a 36 percent APR rate cap would limit the lender's total revenue to \$4.15 (300*[0.36/26]). According to Flannery and Samolyk, average loan losses alone were \$5.72 per loan for the most mature stores, before accounting for the cost of wages, buildings, advertising or overhead. A 36 percent APR ceiling would not create "affordable" payday, but it could simply lead to the exit of existing vendors. More generally, rate caps could lead to new products or practices that skirt the rules, ⁴¹ or push payday lending underground. However, rate caps and other PDL restrictions could also spur legitimate innovation into products that are both better for consumers and profitable for firms.

Finally, the correlated use of payday loans and other short-term lending products and the growth of the PDL industry probably reflect the desire of consumers for access to short-term credit. A different regulatory approach would be to encourage alternatives to payday loans. Before she assumed her role as chairman of the FDIC, then-academic Sheila Bair reviewed PDL alternative models. Among her conclusions, she called for regulatory encouragement of low-cost short-term loans. As FDIC chair, she launched a pilot program to demonstrate the potential for these products, although the results so far are fairly limited. While some forms of regulation can stymie innovation, they can also spur it either in the cat-and-mouse fashion of the regulatory dialectic as described by Kaneor in the encouragement to pilot new ideas.

Cast Study 4: Open-End Mutual Funds

Mutual funds are collective investment vehicles in which large numbers of individual investors pools their resources under common management to invest in a diversified pool of

_

⁴¹ Anecdotally, after a PDL interest rate cap was imposed in Ohio, lenders responded by disbursing loans as checks rather than cash and then charged separate check-cashing fees.

References

Agarwal, Anup, and Mark A. Chen. 2008. "Do Analyst Conflicts Matter? Evidence from Stock Recommendations." *The Journal of Law and Economics* 51(3):503-537.

Agarwal, Sumit, John C. Driscoll, Xavier Gabaix, and David Laibson. 2009. "The Age of Reason: Financial Decisions over the Life Cycle and Implications for Regulation." *BPEA* 2 (Fall): 51–117.

Agarwal, Sumit; Paige Skiba and Jeremy Tobacman. 2009. "Payday Loans and Credit Cards: New Liquidity and Credit Scoring Puzzles?," NBER Working Paper 14659. Cambridge, Mass.: National Bureau for Economic Research.

Aguiar, Mark, and Erik Hurst. 2007. "Life-Cycle Prices and Production." *American Economic Review* 97(5):1533-1559.

Bair, Sheila. 2005. "Low-Cost Payday Loans: Opportunities and Obstacles," A report prepared by the University of Massachusetts in Amherst, Isenberg School of Management, for the . Annie E. Casey Foundation (June).

Bar-Gill, Oren. 2008. "The Behavorial Economics of Consumer Contracts." *Minnesota Law Review* 92, no 3:749-802.

Bar-Gill, Oren, and Elizabeth Warren. 2008. "Making Credit Safer." *University of Pennsylvania Law Review* 157:1-100 (2008).

Barr, Michael S., Sendhil Mullainathan, and Eldar Shafir. 2008. "Behaviorally Informed Financial Services Regulation." Sacramento: New America Foundation,

Benartzi, Shlomo. 2001. "Excessive Extrapolation and the Allocation of 401(k) Accounts to Company Stock?" *Journal of Finance*, 56(5):1747-1764.

Benartzi, Shlomo and Richard H. Thaler. 2001. "Naive Diversification Strategies in Retirement Saving Plans." *American Economic Review* 91(1): 79-98.

Benjamin, Daniel J., Sebastian A. Brown, and Jesse M. Shapiro. 2006. "Who is 'Behavioral'? Cognitive Ability and Anomalous Preferences." Unpublished paper, Harvard University and University of Chicago.

Bergstresser, Daniel, John Chalmers and Peter Tufano. 2009. "Assessing the Costs and Benefits of Brokers: A Preliminary Analysis of the Mutual Fund Industry," *Review of Financial Studies* 22 (October) 4129 - 4156.

Bertrand, Marianne and Adair Morse. 2009. "Information Disclosure, Cognitive Biases and Payday Borrowing," *University of Chicago Booth Research Paper No. 10-01*.

Bittker, Boris I., and Lawrence Lokken. 1999. Federal Taxation of Income, Estates and Gifts. Warren, Gorham & Lamont.

Brown, Jeffrey R., Nellie Liang, and Scott Weisbenner. 2007. "Individual Account Investment Options and Portfolio Choice: Behavioral Lessons from 401(k) Plans." *Journal of Public Economics* 91(10):1992-2013.

Bucks, Brian K., Arthur B. Kennickell, Traci L. Mach and Kevin B. Moore. 2009. "Changes in U.S. Family Finances from 2004 to 2007: Evidence from the Survey of Consumer Finances." Federal Reserve Bulletin Volume 95. Washington Federal Reserve Board. www.federalreserve.gov/pubs/bulletin/2009/articles/scf/default.htm#nl5.

Bucks, Brian K. and Karen M. Pence. 2008. "Do Borrowers Know Their Mortgage Terms?" *Journal of Urban Economics* 64:218-233.

Campbell, Dennis; Asis Martinez-Jerez and Peter Tufano. 2008. "Bouncing Out of the Banking System: An Empirical Analysis of Involuntary Bank Account Closures," Harvard Business

School. www.bos.frb.org/economic/cprc/conferences/payments2008/campbell_jerez_tufano.pdf

Campbell, John Y. 2006. "Household Finance." Journal of Finance 61, no. 4:1553-1604.

Campbell, John Y. and Joao Cocco. 2003. "Household Risk Management and Optimal Mortgage Choice." *Quarterly Journal of Economics* 118:1449-1494.

Campbell, John Y., Stefano Giglio, and Parag Pathak. 2009. "Forced Sales and House Prices." National Bureau of Economic Research Working Paper 14866. Cambridge, Mass.: National Bureau of Economic Research.

- Campbell, John Y., Howell E. Jackson, Peter Tufano, and Brigitte C. Madrian. 2010. "The Regulation of Consumer Financial Products: An Introductory Essay with Four Case Studies." ssrn.com/abstract=1649647.
- Carlin, Bruce I., and Simon Gervais. 2009. "Legal Protection in Retail Financial Markets." NBER Working Paper w14972. Cambridge, Mass.: National Bureau of Economic Research.

Carrell, Scott and Jonathan Zinman. 2008. "In Harm's Way? Payday Loan Access and Military Personnel Performance," Dartmouth College. www.dartmouth.edu/~jzinman/Papers/PayDay_AirForce_aug08.pdf

Carroll, Gabriel D., James J. Choi, David Laibson, Andrew Metrick and Brigitte C. Madrian. 2009. "Optimal Defaults and Active Decisions." *Quarterly Journal of Economics*

Caskey, John. 2002. "The Economics of Payday Lending," In. Madison, WI: Filene Research Institute.

_____. 1994. Fringe Banking: Check-Cashing Outlets, Pawnshops, and the Poor. New York: Russell Sage Foundation.

_____. 2001. "Payday Lending." Financial Counseling and Planning, 12(2), pp. 1-14.

Center for Responsible Lending Issue Brief, 2009, "APR Matters on Payday Loans" Durham, NC: Center for Responsible Lending.

Center for Responsible Lending Research Brief, 2009. "Congress Should Cap Interest Rates," Durham, NC: Center for Responsible Lending.

CFSA, 2006, "National Data on Short-Term Credit Alternatives" http://www.cfsa.net/downloads/National Data on Short Term Credit Alternatives.pdf.

Choi, James J., David Laibson, Brigitte C. Madrian and Andrew Metrick. 2004. "Employees' Investment Decisions About Company Stock," *Pension Design and Structure: New Lessons from Behavioral Finance*, Olivia S. Mitchell and Stephen P. Utkus, editors.

Choi, James J., David Laibson, Brigitte C. Madrian and Andrew Metrick. 2004. "For Better or For Worse: Default Effects and 401(k) Savings Behavior," *Perspectives in the Economics of Aging*, David A. Wise, editor, 2004.

Choi, James J., David Laibson, Brigitte C. Madrian and Andrew Metrick. 2009. "Reinforcement Learning and Savings Behavior," Journal of Finance, 44(6): 2515-34.

Choi, James J., David Laibson and Brigitte C. Madrian. 2005. "Are Empowerment and Education Enough? Underdiversification in 401(k) Plans." *Brookings Papers on Economic Activity*.

Choi, James J., David Laibson and Brigitte C. Madrian. 2009. "\$100 Bills on the Sidewalk: Suboptimal Investment in 401(k) Plans." Working Paper.

Choi, James J., David Laibson, and Brigitte C. Madrian. 2005. "\$100 Bills on the Sidewalk: Violations of No-Arbitrage in 401(k) Plans." National Bureau of Economic Research Working Paper 11554.

Coates, John C. 2009. "Reforming the Taxation and Regulation of Mutual Funds." *Journal of Legal Analysis* 1(2): 591-689.

Coates, John C., and R. Glenn Hubbard. 2007. "Competition and Shareholder Fees in the Mutual Fund Industry: Evidence and Implications for Policy." *Journal of Corporation Law,* 33:151-222.

Cole, Shawn, and Gauri Kartini Shastry. 2009. "If You Are So Smart, Why Aren't You Rich? The Effects of Education, Financial Literacy, and Cognitive Ability on Financial Market Participation." Harvard Business School Working Paper 09-071.

Cole, Shawn; John Thompson and Peter Tufano. 2008. "Where Does It Go? Spending by the Financially Constrained," In. Harvard Business School Working Paper 08-083.

Consumer Reports, 2005. "False Security Check-Bounce Protection," *Consumer Reports* 70, no. 5, 45.

Crane, Dwight B. et al. 1995. *The Global Financial System: A Functional Perspective*. Boston, MA: Harvard Business Press.

Christelis, Dimitris, Tullio Jappelli, and Mario Padula. 2009. "Cognitive Abilities and Portfolio Choice." Forthcoming *European Economic Review*.

Department of Labor, Employee Benefit Security Administration (2008), "Private Pension Plan Bulletin Historical Tables." http://www.dol.gov/ebsa/pdf/privatepensionplanbulletinhistoricaltables.pdf (accessed February 8, 2010).

Department of Labor, Employee Benefit Security Administration (2010), "Private Pension Plan Bulletin: Abstract of 2007 Form 5500 Annual Reports." http://www.dol.gov/ebsa/pdf/2007pensionplanbulletin.pdf (accessed February 8, 2010).

Department of Treasury. 2009. Financial Regulatory Reform: A New Foundation. Washington, D.C.

DeYoung, Robert and Ronnie J. Phillips. 2009. "Payday Loan Pricing," Federal Reserve Bank of Kansas City Economic Research Department.

Elliehausen, Gregory. 2009. "An Analysis of Consumers' Use of Payday Loans," In *Financial Services Research Program, Monograph No. 41*. Washington, DC: George Washington University School of Business.

Elliehausen, Gregory and Edward C. Lawrence. 2001. "Payday Advance Credit in America: An Analysis of Consumer Demand," In. Washington, DC: Credit Research Center, McDonough School of Business, Georgetown University.

Engelhardt, Gary and Anil Kumar. Forthcoming. "Pensions and Household Wealth Accumulation." *Journal of Human Resources*

FDIC (**Federal Deposit Insurance Corporation**). 2009. FDIC National Survey of Unbanked and Underbanked Households. Washington, D.C.

Fidelity Investments. 2009. "Evaluating Auto Solutions." *Fidelity Perspectives*, Summer 2009.

Flannery, Mark and Katherine Samolyk. 2005. "Payday Lending: Do the Costs Justify the Price?," In *Center for Financial Research Working Paper*. Washington, DC: FDIC.

Foote, Christopher, Kristopher Gerardi, Lorenz Goette, and Paul Willen. 2010. "Reducing Foreclosures." Forthcoming in *NBER Macroeconomics Annual 2009*.

Fox, Jean Anne and Patrick Woodall. 2006. "Cashed Out: Consumers Pay Steep Premium to "Bank" at Check Cashing Outlets," Washington, DC: Consumer Federation of America.

Frankel, Tamar and Clifford E. Kirsch. 2003. *Investment Management Regulation* (2nd *Edition*). Fathom Publishing Co.: Anchorage, Alaska.

Freeman, John P., and Stewart L. Brown. 2001. "Mutual Fund Advisory Fees: The Costs of Conflicts of Interest." *Journal of Corporate Law*, 26:609-674.

Gabaix, Xavier, and David Laibson. 2006. "Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets." *Quarterly Journal of Economics* 121(2):505-540.

GAO (Government Accountability Office). 2009. Financial Regulation: A Framework for Crafting and Assessing Proposals to Modernize the Outdated U.S. Financial Regulatory System (January 8, 2009) (GAO-09-216).

Ghilarducci, Teresa. 2008. "When I'm Sixty-Four: The Plot against Pensions and the Plan to Save Them." Princeton University Press.

Graves, Stephen M. 2003. "Landscapes of Predation, Landscapes of Neglect: A Locational Analysis of Payday Lenders and Banks." *The Professional Geographer*, 55(3), pp. 303-17.

Greenspan, Alan. 2004. "Understanding Household Debt Obligations." Speech to Credit Union National Association 2004 Governmental Affairs Conference, Washington, DC. Available online at http://www.federalreserve.gov/boarddocs/speeches/2004/20040223/

Grinblatt, Mark, Matti Keloharju, and Juhani Linnainmaa. 2009. "Do Smart Investors Outperform Dumb Investors?" University of Chicago Center for Research in Security Prices Working Paper 09-33.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales. 2008. "Trusting the Stock Market." *Journal of Finance* 63(6):2557-2600.

Gustman, Alan L., Thomas L. Steinmeier, and Nahid Tabatabai. 2010. "What the Stock Market Decline Means for the Financial Security and Retirement Choices of the Near-Retirement Population." Journal of Economic Perspectives 24(1):1-22.

Hillman, Richard J. 2009. "Financial Literacy and Education Commission: Progress Made in Fostering Partnerships, but National Strategy Remains Largely Descriptive Rather Than Strategic." Washington: Government Accountability Office (April 29, 2009) (GAO-09-638T).

Hortacsu, Ali, and Chad Syverson. 2004. "Product Differentiation, Search Costs, and Competition in the Mutual Fund Industry: A Case Study of S&P 500 Index Funds." *Quarterly Journal of Economics* 119(2):403-456.

Huckstep, Aaron. 2007. "Payday Lending: Do Outrageous Prices Necessarily Mean Outrageous Profits?" *Fordham Journal of Corporate and Financial Law*, 12 (October): 203-31.

Inderst, Roman, and Marco Ottaviani. 2009. "Misselling through Agents." *American Economic Review*, 99(3): 883–908.

Investment Company Institute. 2007. Review of the Regulatory Structure Associated with Financial Institutions. Submission to the Department of the Treasury. http://www.ici.org/policy/comments/07_treas_reg_structure_com#g.

Investment Company Institute. 2010 Investment Company Fact Book. Avail. at http://www.ici.org/pdf/2010 factbook.pdf.

Iwry, J. Mark and David C. John. 2009. "Pursuing Universal Retirement Security Through Automatic IRAs." The Retirement Security Project, Washington D.C.

Jackson, Howell E. 1999. "Regulation of a Multisectored Financial Services Industry: An Exploratory Essay." *Washington University Law Quarterly* 77, no. 2: 319.

Jackson, Howell E. 2007. "Variation in the Intensity of Financial Regulation: Preliminary Evidence and Potential Implications. *Yale Journal on Regulation* 24, no.2: 253.

Jackson, Howell E. 2008. "The Trilateral Dilemma in Financial Regulation." In *Overcoming the Savings Slump: How to Increase the Effectiveness of Financial Education and Savings Programs*, ed. Annamaria Lusardi, Chap. 3. Chicago, IL: University of Chicago Press.

Jackson, Howell E. and Edward L. Symons. 1999. *The Regulation of Financial Institutions: Cases and Materials.* St. Paul, MN: West Publications.

Jackson, Howell E. and Laurie Burlingame. "Kickbacks or Compensation: The Case of Yield Spread Premiums." *Stanford Journal of Law, Business and Finance* 12, no. 2: 289-362.

Jacoby, Melissa B. 2010. "Making Debtor Remedies More Effective." UNC Legal Studies Research Paper 1550964. University of North Carolina at Chapel Hill, School of Law. papers.ssrn.com/sol3/papers.cfm?abstract_id=1550964.

Kane, Edward J. 1981. "Accelerating Inflation, Technological Innovation, and the Decreasing Effectiveness of Banking Regulation." *Journal of Finance*, 36(May), pp. 355-67.

Khandani, Amir E., Andrew W. Lo, and Robert C. Merton. 2009. "Systemic Risk and the Refinancing Ratchet Effect." National Bureau of Economic Research Working Paper 15362.

Khorana, Ajay, Henri Servaes and Peter Tufano. 2009. Mutual Fund Fees Around the World," *Review of Financial Studies* 22 (March 2009) 1279 – 1310.

Khorana, Ajay, Peter Tufano, and Lei Wedge. 2007. "Board Structure, Mergers and Shareholder Wealth: A Study of the Mutual Fund Industry," *Journal of Financial Economics* 85, 2 (August 2007), 571-598.

Khorana, Ajay, Henri Servaes and Peter Tufano. 2009. "Explaining the Size of The Mutual Fund Industry Around the World,", *Journal of Financial Economics* 78 (October 2005), 145-185.

Kimball, Miles S. and Tyler Shumway. 2007. "Investor Sophistication and the Home Bias, Diversification, and Employer Stock Puzzles." Unpublished paper, University of Michigan.

King, Uriah; Leslie Parrish and Ozlem Tanik. 2006. "Financial Quicksand" Durham, NC: Center for Reponsible Lending.

Laibson, David. 1997. "Golden Eggs and Hyperbolic Discounting." *Quarterly Journal of Economics* 112, no.2: 443-477.

Langbein, John H. 1995. "The Contractarian Basis of the Law of Trusts." *Yale Law Journal* 105, no. 625: 632-43.

Laurent E. Calvet, John Y. Campbell and Paolo Sodini. 2007. "Down or Out: Assessing the Welfare Costs of Household Investment Mistakes." *Journal of Political Economy* 115(5):707-747.

Laurent E. Calvet, John Y. Campbell and Paolo Sodini. 2009. "Fight or Flight? Portfolio Rebalancing by Individual Investors" *Quarterly Journal of Economics*, February 2009

Lawrence, Edward C. and Gregory Elliehausen. 2008. "A Comparative Analysis of Payday Loan Customers." *Contemporary Economic Policy*, 26(2), pp. 299.

Lehman, Thomas E. 2005. "Contrasting Payday Loans to Bounced-Check Fees," In. Washington, DC: Consumer Credit Research Foundation.

Lusardi, Annamaria, and Olivia Mitchell. 2007a. "Baby Boomer Retirement Security: The Roles of Planning, Financial Literacy, and Housing Wealth." *Journal of Monetary Economics* 54(1):205-224.

Lerner, Josh, and Peter Tufano. 2009. The Consequences of Financial Innovation: A Research Agenda. Unpublished paper, Harvard Business School.

Lusardi, Annamaria and Olivia S. Mitchell. 2006. "Financial Literacy and Planning: Implications for Retirement Well-Being." Pension Research Council Working Paper No. 1.

Lusardi, Annamaria, and Olivia Mitchell. 2007b. "Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education." *Business Economics* 42(1): 35-44.

Lusardi, Annamaria and Peter Tufano. 2009. "Debt Literacy, Financial Experiences, and Overindebtedness." *NBER Working Paper Series*, w. 14808. Cambridge, Mass.: National Bureau of Economic Research.

Lusardi, Annamaria, Olivia S. Mitchell and Vilsa Curto. 2010. "Financial Literacy among the Young: Evidence and Implications for Consumer Policy." Working Paper.

Mann, Ronald J. and Jim Hawkins. 2007. "Just until Payday." *UCLA Law Review* 54, no. 4: 855-912.

Melzer, Brian T. 2009. "The Real Costs of Credit Access: Evidence from the Payday Lending Market," In. Evanston, IL: Kellogg School of Management, Northwestern University.

Merton, Robert C. and Zvi Bodie. 1995. "A Conceptual Framework for Analyzing the Financial Environment." In *The Global Financial System: A Functional Perspective*, ed. D.B. Crane and others, chap. 1. Boston, MA: Harvard Business Press.

Miles, David. 2003. The UK Mortgage Market: Taking A Longer-Term View, Interim Report: Information, Incentives, and Pricing. London: HM Treasury.

Mitchell, Olivia S., Gary Mottola, Steve Utkus, and Takeshi Yamaguchi. 2006. "The Inattentive Participant: Trading Behavior in 401(k) Plans." Pension Research Council Working Paper.

Morgan, Donald P. and Michael R. Strain. 2008. "Payday Holiday: How Households Fare after Payday Credit Bans," In *Staff Report no. 309*. Federal Reserve Bank of New York.

Morse, Adair. 2009. "Payday Lenders: Heroes or Villains?," University of Chicago Booth. faculty.chicagobooth.edu/adair.morse/research/Morse_paydayDisaster.pdf

Park, Youngkyun. 2009. "Investment Behavior of Target-Date Fund Users Having Other Funds in 401(k) Plan Accounts." *Employee Benefit Research Institutes Notes*, 30(12).

Parrish, Leslie. 2008. "High Cost Payday Lending Traps Arizona Borrowers," Durham, NC: Center for Responsible Lending.

Peterson, Christopher L. 2008. "Usury Law, Payday Loans, and Statutory Sleight of Hand: Salience Distortion in American Credit Pricing Limits." *Minnesota Law Review*. 92:1110.

Schiltz, Elizabeth R. 2004. "The Amazing, Elastic, Ever-Expanding Exportation Doctrine and Its Effect on Predatory Lending Regulation." *Minnesota Law Review* 88 (February): 518-22.

Schurter. 2008. "An Experimental Analysis of the Demand for Payday Loans." *Available at SSRN: http://ssrn.com/abstract=1083796*.

Shiller, Robert J. 2008. The Subprime Solution: How Today's Global Financial Crisis Happened, and What to Do About It. Princeton, NJ: Princeton University Press.

Skiba, Paige and Jeremy Tobacman. 2009. "Do Payday Loans Cause Bankruptcy?" *ssrn.com/abstract*=1266215.

_____. 2007. "The Profitability of Payday Loans," Philadelphia, PA: The Wharton School, University of Pennsylvania.

Smale, Pamela. 2005. "Payday Loans: Federal Regulatory Initiatives" (Washington: Congressional Research Service Report CR21728.)

Stango, Victor, and Jonathan Zinman. 2009. "Exponential Growth Bias and Household Finance." *Journal of Finance* 64(6):2807-2849.

Stegman, Michael A. 2007. "Payday Lending." *Journal of Economic Perspectives*, 21(1), pp. 169-90.

Stegman, Michael A. and Robert Faris. 2003. "Payday Lending: A Business Model That Encourages Chronic Borrowing." *Economic Development Quarterly*, 17(1), pp. 8-32.

Stigler, George J. 1971. "The Theory of Economic Regulation." *Bell Journal of Economics and Management Science* 2 (Spring): 3–21.

Stoianovici, Petru S., and Michael T. Maloney. 2008. "Restrictions on Credit: A Public Policy Analysis of Payday Lending." Battle Group and Clemson University, John E. Walker, Department of Economics. ssrn.com/abstract=1291278.

Strotz, R.H. 1955. "Myopia and Inconsistency in Dynamic Utility Maximization." Review of Economic Studies 23(3):165-180.

Swenson, David. 2005. *Unconventional Success: A Fundamental Approach to Personal Investing*. Free Press.

Swire, Peter P. 2003. "The Surprising Virtues of the New Financial Privacy Law." *Minnesota Law Review* 86 (June): 1263-323.

Teplin, Albert M. 2001. "The US Flow-of-Funds Accounts and their Uses", *Federal Reserve Bulletin*, July, 431-441.

Thaler, Richard H. and Cass Sunstein. 2008. *Nudge: Improving Decisions About Health, Wealth, and Happiness.* New Haven, CT: Yale University Press.

Thaler, Richard H. and Shlomo Benartzi. 2004. "Save More Tomorrow: Using Behavioral Economics to Increase Employee Savings." *Journal of Political Economy*, 112(1, Part 2): S164-S187.

Tufano, Peter. 2009. "Consumer Finance." *Annual Review of Financial Economics* 1, no.1:227-247.

Tufano, Peter and Andrea Ryan. 2009. "Blue Ocean or Stormy Waters? Buying Nix Check Cashing" "*Harvard Business School Case*, 210-012.

Tufano, Peter and Matthew Sevick, 1997, "Board Structure and Fee-Setting in the U.S. Mutual Fund Industry," *Journal of Financial Economics* 46 (December 1997), 321-356.

United States Securities and Exchange Commission. 2010. Final Rule on Money Market Reform, Release IC-29132. Available at http://www.sec.gov/rules/final/2010/ic-29132.pdf.

United States Securities and Exchange Commission. 2003. Staff Report on Implications of the Growth of Hedge Funds. Avail. at http://www.sec.gov/news/studies/hedgefunds0903.pdf.

United States Securities and Exchange Commission Division of Investment Management. 1992. Protecting Investors: A Half Century of Investment Company Regulation. Available at http://www.sec.gov/divisions/investment/guidance/icreg50-92.pdf.

Warren, Elizabeth. 2007. "Unsafe at Any Rate." Democracy 5:8-19.

White, Michelle J. 2009. "Bankruptcy: Past Puzzles, Recent Reforms, and the Mortgage Crisis." *American Law and Economics Review*, 11, no.1: 1-23.

Wilson, Bart; David W. Findlay; James W. Meehan; Charissa P. Wellford and Karl Schurter. 2010. "An Experimental Analysis of the Demand for Payday Loans." Working Paper. Chapman University, Economic Science Institute. ssrn.com/abstract=1083796.

Woodward, Susan E. 2004. "Consumer Confusion in the Mortgage Market." Sand Hill Econometrics Working Paper, available online at http://www.sandhillecon.com/pdf/consumer_confusion.pdf

Wright, Joshua D. 2007. "Behavioral Law and Economics, Paternalism, and Consumer Contracts: An Empirical Perspective." *NYU Journal of Law & Liberty*, 2, no. 3:470-511.

Zelizer, Viviana A. (1994). The Social Meaning of Money: Pin Money, Paychecks, Poor Relief, and Other Currencies. Basic Books.

Zinman, Jonathan. 2008. "Restricting Consumer Credit Access: Household Survey Evidence on Effects around the Oregon Rate Cap," *Working Paper No. 08-32*. Philadelphia: Research Department, Federal Reserve Bank of Philadelphia.