



## Designing Disclosures to Inform Consumer Financial Decisionmaking: Lessons Learned from Consumer Testing

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The Federal Reserve Board has studied ways to improve the information and materials—including required disclosures—that consumers draw on when they purchase and use financial products and services. As part of its regulatory development process, the Board has used qualitative and quantitative research methods in controlled environments to create new disclosures and to test them for their ability to enhance consumer understanding of a wide range of financial products and services. The goal has been to develop disclosures that consumers can understand and use to help them make financial decisions that align with their personal circumstances.

### Key Findings

This article provides an overview of results from some of the Board's consumer testing projects. The results reveal some lessons learned, suggest potential best practices for consumer disclosure content and presentation, and highlight challenges involved in crafting effective disclosures for financial products. The following are key findings from the testing:

- **Disclosure language should be plain but meaningful.** When reading disclosure documents, consumers are best served by terms that are straightforward. Small wording changes can significantly improve consumer understanding, but for some content, communicating the intended meaning may be difficult even with the use of plain language.
- **Thoughtful design can make disclosures more usable.** Carefully designed visual elements in disclosures, such as titles, headings, tables, charts, and typography can increase consumers' willingness to read disclosures and can aid their ability to navigate and understand them.
- **Contextual information can improve comprehension and usability.** Context, or a "frame," for information on a disclosure can help readers understand both specific content in the disclosure as well as its overall message. It can also help consumers better comprehend how to use the information.
- **Achieving a neutral tone can be challenging.** Although disclosures often strive for a neutral tone to avoid "steering" consumers in one direction over another, achieving neutrality is difficult.
- **Creating disclosures may involve creating a choice structure.** In some cases where choice options are not specified in the law, establishing the structure may be part of creating the disclosure.
- **Standardizing disclosure can be challenging.** Standardization can be beneficial, but finding terms that are truly standard across all contexts can be difficult, and consumers may

need to be alerted when a “standard term” has a different meaning than the one they may be familiar with.

- **What works in print may not work online.** Disclosure design needs to take into account the possibilities and limitations of alternative delivery channels.
- **“Less is more” often remains true.** Too much information can overwhelm consumers or distract their attention from key content.

## The Role of Financial Product Disclosures in Consumer Protection

Disclosure has long been a fundamental component of consumer protection policy in financial services.<sup>1</sup> For example, in 1968, Congress passed the Truth in Lending Act (TILA), which requires that lenders provide consumers with disclosures about rates and terms for mortgages, credit cards, and a variety of other consumer loans. A number of other laws also feature consumer disclosures as a central element, including the Real Estate Settlement Procedures Act, the Consumer Leasing Act, the Electronic Fund Transfer Act, and the Truth in Savings Act. Over time, these laws have been amended and new requirements have been added. Indeed, recent federal legislation has required the revision or addition of disclosures through provisions of the Mortgage Disclosure Improvement Act, the Higher Education Opportunity Act, the Helping Families Save Their Homes Act, and the Credit Card Accountability Responsibility and Disclosure (Credit CARD) Act.

Congress has delegated authority to implement these and other consumer protection laws to the Board and other agencies. The Board’s Division of Consumer and Community Affairs (DCCA) has developed disclosures in connection with a number of these laws. These efforts are one component of DCCA’s overall mission to develop regulations, policies, and programs designed to inform and protect consumers; to enforce federal consumer protection laws; to strengthen market competition; and to promote access to banking services in historically underserved markets.

In 2010, Congress further acknowledged the importance of protecting and informing consumers in their financial transactions by passing the Dodd-Frank Wall Street Reform and Consumer Protection Act, which created an independent Consumer Financial Protection Bureau (CFPB). The act consolidates under the CFPB most of the disclosure and rulemaking responsibilities for consumer credit and deposit products that previously were carried out by the Board and other federal agencies and gives the bureau other responsibilities for consumer protection in financial services.<sup>2</sup>

While many financial service firms provide product information in the absence of mandatory disclosure requirements, the presence of these requirements imposes common standards of terminology, presentation, and calculation of relevant figures that can aid consumers in making comparisons between products and providers. Indeed, in the early 1960s, disclosures for interest rates on consumer credit products were primarily governed by state law, and multiple standards were in use by lenders. One of the aims of TILA was to create a common, national standard for disclosing the cost of credit.<sup>3</sup>

Models of information search in economics posit that consumers will seek product information and comparison shop as long as they perceive a marginal benefit from these activi-

<sup>1</sup> Thomas A. Durkin and Gregory Elliehausen (2011), *Truth in Lending: Theory, History, and a Way Forward* (New York: Oxford University Press).

<sup>2</sup> Many pieces of the Dodd-Frank Act relating to the CFPB went into effect on July 21, 2011.

<sup>3</sup> Durkin and Elliehausen, *Truth in Lending: Theory, History, and a Way Forward*.

ties; benefits can take the form of lower prices or better value, as each consumer defines it.<sup>4</sup> In an ideal marketplace, if complete information were available at no cost to all participants, fully informed consumers would make decisions that are optimal for their financial situations and lifestyles and, at the same time, enable markets to function efficiently.<sup>5</sup> While engineering this ideal marketplace is not feasible in the real world, disclosures that make product pricing and features more transparent can reduce search costs, potentially improving outcomes for those consumers who shop. Furthermore, search on the part of some consumers may lead to a more competitive marketplace as financial service providers adjust product features and reduce prices to attract informed customers.

Consumer decisions are affected not only by the broad context of the consumer's economic, social, cultural, and political environment but also by more personal psychological and socioeconomic factors.<sup>6</sup> For example, research on consumer search for financial products shows that finding ways to motivate consumers to shop, seek out, and pay attention to information disclosures is a significant challenge. Many consumers seeking mortgages and credit cards do not appear to shop among possible offerings.<sup>7</sup> Nor is it clear that many consumers understand how to shop in financial markets or even what they should look for or how to correctly use the information available. For example, there is evidence that consumers have problems processing information in financial markets just as they do in other markets (for example, the nutrition and health care markets).<sup>8</sup> In addition, individual differences in experience, expertise, and self-confidence affect how consumers process information.<sup>9</sup>

Although findings like these showing differences and limits in consumer information processing are not new, such issues have received increased attention in policy discussions. In part, this may be a response to an increase in the complexity of financial product decisions. In some cases, the features and risks of a new product may be more challenging to understand than the "old model." For example, an adjustable rate mortgage loan with multiple monthly payment options is likely to be a more complex product than a fixed rate mort-

<sup>4</sup> George J. Stigler (1961) "The Economics of Information," *Journal of Political Economy*, vol. 69 (June), pp. 213–25, [www.jstor.org/stable/1829263](http://www.jstor.org/stable/1829263); Pauline M. Ippolito (1988), "The Economics of Information in Consumer Markets: What Do We Know? What Do We Need to Know?" in E. Scott Maynes, ed., *The Frontier of Research in the Consumer Interest* (Columbia, MO: The American Council on Consumer Interests), pp. 235–63.

<sup>5</sup> For a discussion on the promotion of economic efficiency and other goals that have been suggested for the Truth in Lending Act, see Durkin and Elliehausen, *Truth in Lending: Theory, History, and a Way Forward*. Disclosures have other uses beyond their role in the shopping process; for example, they provide a legal record of the transaction.

<sup>6</sup> See, for example, George Katona (1951) *Psychological Analysis of Economic Behavior* (New York: McGraw Hill) and Sandra J. Huston (2010) "Measuring Financial Literacy," *Journal of Consumer Affairs*, vol. 44 (2), pp. 296–316, <http://onlinelibrary.wiley.com/doi/10.1111/j.1745-6606.2010/01170.x/pdf>.

<sup>7</sup> Jinkook Lee and Jeanne M. Hogarth (1999), "Returns to Information Search: Consumer Mortgage Shopping Decisions," *Financial Counseling and Planning Journal*, vol. 10 (1), pp. 49–66, <http://6aa7f5c4a9901a3e1a1682793cd11f5a6b732d29.gripelements.com/pdf/vol1015.pdf>; and Jinkook Lee and Jeanne M. Hogarth (2001), "Consumer Information Search for Home Mortgages: Who, What, How Much and What Else?" *Financial Services Review*, pp. 277–93, [www2.stetson.edu/fsr/abstracts/vol\\_9\\_num3\\_p277.pdf](http://www2.stetson.edu/fsr/abstracts/vol_9_num3_p277.pdf).

<sup>8</sup> Jinkook Lee and Jeanne M. Hogarth (1999), "The Price of Money: Consumers' Understanding of APRs and Contract Interest Rates," *Journal of Public Policy and Marketing*, vol. 18 (Spring), pp. 66–76, [www.jstor.org/stable/30000509](http://www.jstor.org/stable/30000509); Alan Levy, Sara B. Fein, and Raymond E. Schucker (1996), "Performance Characteristics of Seven Nutrition Label Formats," *Journal of Public Policy and Marketing*, vol. 15 (Spring), pp. 1–15, [www.jstor.org/stable/30000331](http://www.jstor.org/stable/30000331); and Judith H. Hibbard, Paul Slovic, and Jacqueline J. Jewett (1997), "Informing Consumer Decisions in Health Care: Implications from Decision-Making Research," *The Milbank Quarterly*, vol. 75 (3), pp. 395–414, <http://onlinelibrary.wiley.com/doi/10.1111/1468-0009.00061/pdf>.

<sup>9</sup> John W. Payne, James R. Bettman, and Eric Johnson (1993), *The Adaptive Decision Maker* (New York: Cambridge University Press); Douglas A. Hershey and David A. Walsh (2000), "Knowledge versus Experience in Financial Problem Solving Performance," *Current Psychology*, vol. 19 (Winter), pp. 261–92; and Căzilia Loibl, Soo Hyun Cho, Florian Diekmann, and Marvin T. Batte (2009), "Consumer Self-Confidence in Searching for Information," *Journal of Consumer Affairs*, vol. 43 (1), pp. 26–55, <http://onlinelibrary.wiley.com/doi/10.1111/j.1745-6606.2008.01126.x/pdf>.

gage loan with a single, constant payment. However, decisionmaking can also be affected by having a larger number of options available from which to choose.<sup>10</sup> In the current era of complex financial markets and products, being well-informed can be a costly and possibly daunting task, even for those with substantial education.

Research in psychology, marketing, and behavioral economics has highlighted not only the possible limitations of disclosure but also new opportunities for its use. For example, research shows that the way in which choices are structured or presented can change the likelihood that consumers will select them. One implication is that as policymakers confront decisions about the proper presentation of disclosure, they may face choices about whether disclosure should be “neutral” in presenting product options or should promote or discourage a consumer’s selection of certain products or features. Some argue that if design matters, no truly “neutral” presentation of choices exists.<sup>11</sup> This raises the question of which features should be promoted, as the desirability of some features depends on their fit with a particular consumer’s personal situation.

While these behavioral insights are increasingly a part of the policy discussion and debate, the statutory disclosure requirements and the longstanding goals of increased transparency and competition in markets also continue to motivate policymakers to improve the effectiveness of disclosures. The task for policymakers and regulators is to implement disclosure standards that have the potential for being timely, comprehensible, and useful in consumer decisionmaking and that take into account the associated costs and benefits for all market participants.

## Efforts to Craft Effective Disclosures

### Testing Efforts in the United States

Beginning in 1996, the Board conducted consumer focus groups to help inform the content, language, and layout of disclosures for vehicle leases, mortgages, payroll cards, and electronically delivered disclosures. In 2004, in collaboration with other federal agencies, the Board instituted a more rigorous consumer testing program, using focus groups, cognitive interviews, usability testing, and quantitative validation surveys to inform disclosure development for privacy notices (see **box 1** for a compendium of Federal Reserve Board testing reports). The Board used a similar research design for its work on credit cards. In more recent years, the Board has used cognitive interviews in developing disclosures for mortgages, home equity lines of credit, reverse mortgages, private student loans, bank overdraft services, and remittances. This article focuses primarily on results from the Board’s work on mortgages and credit cards, and its interagency work on privacy notices.

Other U.S. federal financial regulators also have used qualitative and quantitative testing when developing disclosures. For example, the interagency project on privacy notices mentioned above included six federal agencies.<sup>12</sup> In addition, the Department of Housing and Urban Development (HUD) conducted extensive qualitative and quantitative testing before

<sup>10</sup> For example, see Sheena S. Iyengar and Emir Kamenica (2010), “Choice Proliferation, Simplicity Seeking, and Asset Allocation,” *Journal of Public Economics*, vol. 94, pp. 530–39, [www.sciencedirect.com/science/article/pii/S0047272710000290](http://www.sciencedirect.com/science/article/pii/S0047272710000290).

<sup>11</sup> See, for example, the discussion of choice architecture in Richard H. Thaler and Cass R. Sunstein (2008), *Nudge: Improving Decisions about Health, Wealth, and Happiness* (New Haven: Yale University Press).

<sup>12</sup> In addition to the Board, the Federal Deposit Insurance Corporation, Federal Trade Commission, National Credit Union Administration, Office of the Comptroller of the Currency, and the Securities and Exchange Commission participated in the interagency research project on privacy notices. The Office of Thrift Supervision joined the research project for the quantitative testing phase.

## Box 1. Compendium of Consumer Testing Reports

Reports outlining the findings of the consumer testing sponsored by the Federal Reserve Board over the last few years are available online. Reports on interagency testing efforts are also available for download. These reports are listed below by type of disclosure. Visit the links to view specific reports.

### Banking Services and Payments

*Review and Testing of Overdraft Notices* (2008), [www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a6.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a6.pdf)

*Design and Testing of Overdraft Disclosures: Phase Two* (2009), [www.federalreserve.gov/newsevents/press/bcreg/bcreg20091112a4.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20091112a4.pdf)

*Design and Testing of Regulation CC Funds Availability Clauses, Disclosures, and Notices* (2010), [www.federalreserve.gov/newsevents/press/bcreg/bcreg20110302a\\_summary\\_findings.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20110302a_summary_findings.pdf)

*Design and Testing of Remittance Disclosures* (2011), [www.federalreserve.gov/econresdata/bcreg20110512\\_ICF\\_Report\\_Remittance\\_Disclosures\\_\(FINAL\).pdf](http://www.federalreserve.gov/econresdata/bcreg20110512_ICF_Report_Remittance_Disclosures_(FINAL).pdf)

### Credit Cards

*Design and Testing of Effective Truth in Lending Disclosures* (2007), [www.federalreserve.gov/dcca/regulationz/20070523/Execsummary.pdf](http://www.federalreserve.gov/dcca/regulationz/20070523/Execsummary.pdf)

*Design and Testing of Effective Truth in Lending Disclosures: Findings from Experimental Study* (2008), [www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a8.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a8.pdf)

*Design and Testing of Effective Truth in Lending Disclosures: Findings from Qualitative Consumer Research* (2008), [www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a7.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a7.pdf)

### Mortgages

*Consumer Testing of Mortgage Broker Disclosures* (2008), [www.federalreserve.gov/newsevents/press/bcreg/20080714regzconstest.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/20080714regzconstest.pdf)

*Design and Testing of Truth in Lending Disclosures for Closed-End Mortgages* (2009), [www.federalreserve.gov/boarddocs/meetings/2009/20090723/Full%20Macro%20CE%20Report.pdf](http://www.federalreserve.gov/boarddocs/meetings/2009/20090723/Full%20Macro%20CE%20Report.pdf)

*Design and Testing of Truth in Lending Disclosures for Home Equity Lines of Credit* (2009), [www.federalreserve.gov/boarddocs/meetings/2009/20090723/Full%20HELOC\\_Macro%20Report.pdf](http://www.federalreserve.gov/boarddocs/meetings/2009/20090723/Full%20HELOC_Macro%20Report.pdf)

*Design and Testing of Periodic Statements for Home Equity Lines of Credit, Disclosures about Changes to Home Equity Line Credit Limits, and Disclosures about Credit Protection Products* (2010), [www.federalreserve.gov/newsevents/press/bcreg/bcreg20100816\\_MacroBOGReportOtherDisclosures\(7-10\)\(FINAL\).pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20100816_MacroBOGReportOtherDisclosures(7-10)(FINAL).pdf)

*Design and Testing of Truth in Lending Disclosures for Rescission Notices* (2010), [www.federalreserve.gov/newsevents/press/bcreg/bcreg20100816\\_MacroBOGReportRescission\(7-10\)\(FINAL\).pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20100816_MacroBOGReportRescission(7-10)(FINAL).pdf)

*Design and Testing of Truth in Lending Disclosures for Reverse Mortgages* (2010), [www.federalreserve.gov/newsevents/press/bcreg/bcreg20100816\\_Reverse\\_Mortgage\\_Report\\_\(7-28\)\\_FINAL.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20100816_Reverse_Mortgage_Report_(7-28)_FINAL.pdf)

*Design and Testing of Escrow Disclosures* (2011), [www.federalreserve.gov/newsevents/press/bcreg/bcreg20110223b3.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20110223b3.pdf)

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**Box 1.—continued****Privacy Notices**

*Evolution of a Prototype Financial Privacy Notice: A Report on the Form Development Project* (2006), [www.ftc.gov/privacy/privacyinitiatives/ftcfinalreport060228.pdf](http://www.ftc.gov/privacy/privacyinitiatives/ftcfinalreport060228.pdf)

*Mall Intercept Study of Consumer Understanding of Financial Privacy Notices: Methodological Report* (2008), [www.ftc.gov/privacy/privacyinitiatives/Macro-Report-on-Privacy-Notice-Study.pdf](http://www.ftc.gov/privacy/privacyinitiatives/Macro-Report-on-Privacy-Notice-Study.pdf)

*Consumer Comprehension of Financial Privacy Notices: A Report on the Results of the Quantitative Testing* (2008), [www.ftc.gov/privacy/privacyinitiatives/Levy-Hastak-Report.pdf](http://www.ftc.gov/privacy/privacyinitiatives/Levy-Hastak-Report.pdf)

*Financial Privacy Notice: A Report on Validation Testing Results* (2009), [www.ftc.gov/privacy/privacyinitiatives/validation.pdf](http://www.ftc.gov/privacy/privacyinitiatives/validation.pdf)

*Web-Based Financial Privacy Notice Final Summary Findings Report* (2009), [www.ftc.gov/privacy/privacyinitiatives/WebbasedNoticeFinalSummaryReport.pdf](http://www.ftc.gov/privacy/privacyinitiatives/WebbasedNoticeFinalSummaryReport.pdf)

**Student Loans**

*Consumer Research and Testing for Private Education Loans: Report of Findings* (2009), [www.federalreserve.gov/newsevents/press/bcreg/bcreg20090311a8.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20090311a8.pdf)

*Consumer Research and Testing for Private Education Loans: Final Report of Findings* (2009), [www.federalreserve.gov/newsevents/press/bcreg/bcreg20090730a2.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20090730a2.pdf)

finalizing revised versions of the Good Faith Estimate (GFE) and HUD-1 mortgage disclosures.<sup>13</sup> And as a part of its rulemaking process, the Federal Trade Commission (FTC) has conducted quantitative testing of opt-out disclosures for prescreened credit card solicitations and used testing to inform disclosure rules for nonfinancial products such as health claims in food advertising and energy usage labeling for appliances.<sup>14</sup> The Securities and Exchange Commission (SEC) has conducted qualitative testing of disclosures for mutual fund sales fees, broker conflict of interest, and summary mutual fund prospectuses.<sup>15</sup> In

<sup>13</sup> For a summary of HUD's testing, see Kleimann Communication Group, Inc. (2008), *Summary Report: Consumer Testing of the Good Faith Estimate Form (GFE)*, prepared for the Department of Housing and Urban Development, Office of Policy Development and Research (February), [www.huduser.org/publications/pdf/Summary\\_Report\\_GFE.pdf](http://www.huduser.org/publications/pdf/Summary_Report_GFE.pdf). Additional reports from HUD's testing of the GFE can be found at [www.huduser.org/portal/publications/hsgfin/goodfaith.html#pdf](http://www.huduser.org/portal/publications/hsgfin/goodfaith.html#pdf).

<sup>14</sup> Manoj Hastak (2004), *The Effectiveness of "Opt-Out" Disclosures in Pre-Screened Credit Card Offers*, report submitted to the Federal Trade Commission (September), [www.ftc.gov/reports/prescreen/040927optoutdiscprecreenrpt.pdf](http://www.ftc.gov/reports/prescreen/040927optoutdiscprecreenrpt.pdf); Joseph Farrell, Janis K. Pappalardo, and Howard Shelanski (2010), "Economics at the FTC: Mergers, Dominant-Firm Conduct, and Consumer Behavior," *Review of Industrial Organization* (November 3). The FTC has also conducted research on mortgage disclosures that has informed regulations developed by the Board and HUD. See James M. Lacko and Janis K. Pappalardo (2004), *The Effect of Mortgage Broker Compensation Disclosures on Consumers and Competition: A Controlled Experiment*, Staff Report (Washington: FTC, Bureau of Economics, February), [www.ftc.gov/os/2004/01/030123mortgagefullrpt.pdf](http://www.ftc.gov/os/2004/01/030123mortgagefullrpt.pdf); and James M. Lacko and Janis K. Pappalardo (2007), *Improving Consumer Mortgage Disclosures: An Empirical Assessment of Current and Prototype Disclosure Forms*, Staff Report (Washington: Federal Trade Commission, Bureau of Economics, June), [www.ftc.gov/os/2007/06/P025505MortgageDisclosureReport.pdf](http://www.ftc.gov/os/2007/06/P025505MortgageDisclosureReport.pdf).

<sup>15</sup> Siegel & Gale, LLC and Gelb Consulting Group, Inc. (2004), *Results of In-Depth Investor Interviews Regarding Proposed Mutual Fund Sales Fee and Conflict of Interest Disclosures*, report to the Securities and Exchange Commission (November 4), [www.sec.gov/rules/proposed/s70604/rep110404.pdf](http://www.sec.gov/rules/proposed/s70604/rep110404.pdf); and Abt SRBI, Inc. (2008), *Final Report: Focus Groups on a Summary Mutual Fund Prospectus*, prepared for the Securities and Exchange Commission (May), [www.sec.gov/comments/s7-28-07/s72807-142.pdf](http://www.sec.gov/comments/s7-28-07/s72807-142.pdf).

addition, the agency has provided guidance on creating plain-English disclosure documents for investors.<sup>16</sup>

### Testing Efforts in Other Countries

Testing—both that conducted by government agencies and by industry groups—has also played a role in informing disclosure policies in other countries.

In the United Kingdom, consumer research carried out by the Financial Services Authority (FSA) includes studies to inform disclosure policy decisions and to evaluate the usefulness of mandatory disclosures for consumers of financial products.<sup>17</sup> For example, since the mid-1990s, the FSA (and a predecessor agency, the Personal Investment Authority) has required financial institutions to provide a “Key Features Document” as a disclosure. In a 2007 report examining firms’ implementation of the requirements, the FSA reviewed a sample of these Key Features Documents against a set of criteria relating to conduct of business rules (or “Treating Customers Fairly” outcomes) and FSA principles for business.<sup>18</sup> It found that only about 15 percent of documents met the established criteria. The review notes that consumer “testing of product literature was uncommon.” In a follow-up study two years later, the FSA found some improvement among the same set of sample documents.<sup>19</sup> It was not clear whether these improvements were due to any consumer testing, but the FSA “encourage[d] all firms to test the quality of their documents.” It also noted that the review focused on the Key Features Documents and might not reflect a consumer’s experience with the full set of documents and marketing materials available to them in the decisionmaking process.

Canada also has used testing to help develop plain-language disclosure documents. In 2008, the Financial Consumer Agency of Canada conducted qualitative testing of a proposed credit card application form in an effort to improve disclosure documents for consumers. The agency assessed the application using four key criteria: relevance, perceived ease of comprehension, motivation to read the document, and comprehension.<sup>20</sup> Although the test document met the key criteria, consumers identified supplemental information that they wanted to see on a website. The agency’s report also recommended including some numerical examples wherever figures or interest rates were mentioned to help improve the document.

In Australia, an industry group conducted testing in an effort to improve consumer understanding of disclosure information. In particular, the Association of Superannuation Funds of Australia sponsored a study of product disclosure statements for superannuation funds.<sup>21</sup> While the study focused on fee disclosures for two hypothetical investment accounts, the results showed substantial misunderstanding among participants not just of

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<sup>16</sup> Office of Investor Education, Securities and Exchange Commission (1998), *A Plain English Handbook: How to Create Clear SEC Disclosure Documents* (Washington: SEC, August), [www.sec.gov/pdf/handbook.pdf](http://www.sec.gov/pdf/handbook.pdf).

<sup>17</sup> Reports from consumer research carried out by the FSA can be found at [www.fsa.gov.uk/pages/Library/research/Consumer/index.shtml](http://www.fsa.gov.uk/pages/Library/research/Consumer/index.shtml).

<sup>18</sup> The Treating Customers Fairly outcome (number 3) used was “Customers are provided with clear information and are kept appropriately informed before, during, and after the point of sale.” The FSA principle (number 7) used was “A firm must pay due regard to the information needs of its clients, and communicate information to them in a way which is clear, fair and not misleading.” See Financial Services Authority (2007), *Good and Poor Practices in Key Features Documents* (London: FSA, September), [www.fsa.gov.uk/pubs/other/key\\_features.pdf](http://www.fsa.gov.uk/pubs/other/key_features.pdf).

<sup>19</sup> Financial Services Authority (2009), *Supplementary Annex to Good and Poor Practices in Key Features Documents* (London: FSA, April), [www.fsa.gov.uk/pubs/other/kfd\\_annex.pdf](http://www.fsa.gov.uk/pubs/other/kfd_annex.pdf).

<sup>20</sup> Les Études de Marché Créatec (2008), *Qualitative Testing of Proposed MasterCard Plain Language Application Form* (Ottawa: FCAC, May), [www.fcac-acfc.gc.ca/eng/resources/PDFs/2008PlainLanguage-eng.pdf](http://www.fcac-acfc.gc.ca/eng/resources/PDFs/2008PlainLanguage-eng.pdf).

<sup>21</sup> Superannuation funds are retirement funds that blend a compulsory employer contribution with an employee co-contribution.

fees but also of other information in the disclosures. The report included recommendations concerning the use of tables, formatting and layout, jargon, and the importance of testing consumer comprehension in “getting disclosure right.”<sup>22</sup>

## Federal Reserve Board Consumer Testing Methods

Financial information can be complex and intimidating to many people. Identifying the information consumers do not understand can help pinpoint where a disclosure document is unclear and how it can be improved. As part of its regulatory development process, the Federal Reserve Board has conducted consumer testing that relies on qualitative and quantitative methods in controlled environments to help create and test new disclosure standards. These tests focus primarily on consumers’ recognition of key features and comprehension of the information contained in disclosures—and, to a limited extent, on the usability of disclosures in decisionmaking—in order to improve the overall effectiveness of disclosures.

### Qualitative Studies

Much of the Board’s consumer testing has involved qualitative research techniques, such as focus groups and cognitive interviews, to identify why and how consumers make decisions and what information they use in the decisionmaking process. A focus group usually involves six to ten participants, while a cognitive interview is conducted with one or two participants at a time (e.g., a couple who made a financial decision together). Focus groups allow participants to share thoughts and experiences, which often produce insights and ideas that single participants would not have thought of by themselves. Interviews, on the other hand, are useful for testing knowledge, usability of the materials, and planned behaviors, and are less subject to influence of the presence or opinions of other people. Both of these qualitative research methods can be useful for collecting background information on participants’ experiences with products, shopping behavior, general knowledge, and preferences.

Participants are recruited from the databases of market research facilities and typically include people who have experience with a product or who are currently shopping for that product. Recruitment is designed to select participants across a range of demographic characteristics. Sample sizes for qualitative testing are typically small, and statistical representativeness is not possible with a limited number of participants. In addition, in order to obtain the most useable input from a small sample, potential participants who may be highly knowledgeable about the topic (e.g., they work in the financial services industry) or others who have difficulty articulating their thoughts or experiences are often excluded. Including a quantitative validation phase in the study design can help determine whether the changes based on findings from the small samples used in qualitative testing actually result in improvements when tested with a larger and statistically representative sample of the population.

Cognitive and usability interviews are particularly useful when developing disclosures, because they capture the participant’s ability to identify or use information on the disclosure in development as well as provide a window into the thought processes and reactions that contribute to consumers’ understanding of the information. Generally, the interviews conducted in support of the Board’s disclosure development have been conducted in

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<sup>22</sup> Aging Agendas Social Policy Consultants (2004), *Superannuation Fees Disclosure Consumer Testing Report*, prepared for the Association of Superannuation Funds of Australia (January), [www.superannuation.asn.au/ArticleDocuments/116/AgeingAgendas&ASFA\\_SuperFeesDisclosure.pdf](http://www.superannuation.asn.au/ArticleDocuments/116/AgeingAgendas&ASFA_SuperFeesDisclosure.pdf).

rounds of seven to ten interviews. Although these samples are small, consistent patterns of responses do emerge. One study reports that 80 percent of usability problems are uncovered with five participants and 90 percent with ten.<sup>23</sup> When a number of participants fail to notice information or find content confusing, these findings can inform design and wording changes for the next round of interviews. Design and testing proceed iteratively with attempts to improve the form in each round until a workable disclosure is developed.

Each round of interviews has a research goal. Interviewers follow a script, asking participants to complete several different exercises. They may present the participant with a scenario to provide a context for the disclosure that is being tested. For example, the scenario for a TILA mortgage disclosure might be “Imagine you recently applied for a mortgage, and three days later, you receive this form in the mail.” In a “think aloud” exercise, participants are given a document and are asked to read through it with a particular scenario or task in mind while noting aloud what they notice and questions they have. This exercise allows researchers to make numerous observations about the participant’s experience with the document: what the participant noticed first, the order in which they approached the information, whether they turned to subsequent pages or skipped content, what content was clear to the participant and what was confusing, and whether the content prompted some sort of reaction—positive or negative.

The interviewer also leads participants through a set of questions and tasks that require the participant to use certain information on the document and, in some cases, explain their answers. For example, to explore whether participants notice and comprehend information on a mortgage prepayment penalty, the script may include a series of questions like “Imagine that you won the lottery and wanted to pay off this loan after only one year. Do you think ABC Bank would charge you a fee if you decided to pay off the loan? How large do you think this fee might be?”

The interviewer works from a script developed to address the research questions that are the focus of the testing and with attention to phrasing questions objectively. However, the option of deviating from the script is one of the advantages of the qualitative interview methodology. The ability to follow up on particular responses provides additional information about a participant’s understanding or reasoning process. It also sets a more conversational tone for the interview, which may help some participants feel more comfortable in interacting with the content in the form and, thus, in providing more open and expansive answers to interview questions.

## Quantitative Studies

Unlike focus groups or individual interviews, consumer surveys can be used to assess whether alternative disclosure designs can improve consumer comprehension by a statistically significant amount. The statistical objectives of quantitative studies, such as consumer surveys, require a larger number of participants than focus groups and individual interviews and consistent adherence by the interviewer to the survey protocol.

To date, the Board has implemented consumer surveys through a standard mall intercept methodology in a variety of locations across the country.<sup>24</sup> Participants were recruited from public areas of the mall based on a series of screening questions and directed to a self-con-

<sup>23</sup> Robert Virzi (1992), “Refining the Test Phase of Usability Evaluation: How Many Subjects Is Enough?” *Human Factors*, vol. 34, pp. 457–86.

<sup>24</sup> For example, the Board’s credit card surveys took place in Dallas, Texas; Detroit, Michigan; Los Angeles, California; Seattle, Washington; Springfield, Massachusetts; St. Louis, Missouri; and Tallahassee, Florida, over a period of four weeks in September 2008. A total of 1,022 consumers were interviewed.

tained research office where they completed the interview. Interviews generally lasted about 15 minutes. A computer-assisted interview program captured participants' responses. Traditionally, market researchers have used mall intercept protocols to test visual stimuli in a controlled setting. Because surveys can take place simultaneously at malls across varying geographies, data collection can take place quickly. However, this method also has some limitations: It is not a probability sample and mall customers may not reflect the general population.<sup>25</sup>

The quantitative studies are guided by a set of key research questions to assess the impact of the disclosure document. Both the privacy and credit card notice surveys were designed as factorial experiments, which allow researchers to test the effects of different factors (for example, different wording and different design layouts as well as the interaction of wording and layout) on consumers' comprehension of the information in the disclosure.<sup>26</sup> The goal of the privacy notice study was to test whether the form design helped consumers understand the information in the form (a knowledge component) and whether consumers knew what to do as a result of reading the form (a behavior component). In addition, the study sought to gauge whether consumers' attitudes toward sharing were influenced by the disclosure format and whether consumers' planned behaviors were consistent with their stated preferences. In contrast, the credit card survey focused only on the knowledge component.

In cases where the quantitative study highlights potential improvements to the form, additional rounds of qualitative testing or a brief qualitative validation study may be needed.

## Lessons Learned from Board Testing

The Board's qualitative and quantitative studies of disclosures highlighted a number of elements that can influence how well consumers understand a disclosure's content and whether consumers will actually read and use it.

### Disclosure Language Should Be Plain but Meaningful

Small wording changes can significantly affect how a consumer understands important financial product concepts. However, some concepts remain impenetrable for consumers despite attempts to explain them in simple terms.

Tests of mortgage disclosures in different parts of the country showed, for example, that terms may have different meanings depending on a consumer's geographic location. The mortgage disclosure forms initially used the term "escrow," which participants in California understood to mean the mortgage closing event itself. In other locations, however, participants understood this term to mean taxes and insurance included as a part of the monthly mortgage payment. Thus, in the new payment tables on mortgage disclosure

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<sup>25</sup> Scott M. Smith and Gerald S. Albaum (2005), *Fundamentals of Marketing Research* (Thousand Oaks, CA: Sage Publications).

<sup>26</sup> Alan Levy and Manoj Hastak (2008), *Consumer Comprehension of Financial Privacy Notices: A Report on the Results of the Quantitative Testing* (December 15), prepared for the Interagency Notice Project (see note 12 for a listing of the agencies involved in the project), [www.ftc.gov/privacy/privacyinitiatives/Levy-Hastak-Report.pdf](http://www.ftc.gov/privacy/privacyinitiatives/Levy-Hastak-Report.pdf); and Macro International Inc. (2008), *Design and Testing of Effective Truth in Lending Disclosures: Findings from Experimental Study* (December 15), report submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a8.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a8.pdf).

forms, the phrase “taxes and insurance” has been added next to the word “escrow” to make the meaning of the term clearer.<sup>27</sup>

In an example from tests of credit card disclosures, some consumers misinterpreted the term “default rate,” which is a term used in the past by some issuers to refer to the APR charged on an account after the cardholder makes a late payment or exceeds the credit limit. In testing, some participants interpreted “default rate” to mean the normal rate—like the default setting on a computer.<sup>28</sup> The language “penalty APR” better conveyed the intended concept, so the new credit card rules now require the use of this term in disclosures. Results from the credit card testing also showed that the term “finance charge” was not meaningful to consumers with respect to credit card accounts. Participants understood these costs better when they were described as “fees” and “interest”; therefore, this terminology is now required on credit card periodic statements.

Striving for plain language doesn’t always translate into shorter disclosures. For example, Board researchers tried several ways to explain credit card “grace period”—how long a consumer has to pay the bill in full each month to avoid paying interest on purchases once the billing cycle closes. Some participants thought the term referred to the time they had *after the payment due date* before a late fee would be charged. After testing, the model disclosures were modified to use the language “how to avoid paying interest on purchases” instead of “grace period.”

In testing of current mortgage disclosures, many consumers could correctly answer that the lender would charge them a penalty for paying off the loan before a certain date, but a number thought the penalty would not apply if they refinanced the loan or sold the house. Thus, the revised disclosures proposed by the Board in August 2009 included language explicitly stating that the penalty could apply “if you pay off your loan, refinance, or sell your home” within a particular period.

Some terms, such as the “effective APR” for credit cards, have defied any plain-language efforts. The effective APR was required on periodic statements for credit cards with cash advance, balance transfer, or foreign currency transactions. The effective APR differs from the “interest-only” APR on credit card solicitations and account opening statements for credit cards in that the effective APR includes both interest and certain fees (for example, a cash advance fee of \$3). Incorporating the fee with the interest paid on the transaction creates an effective APR that is generally higher than the interest-only APR disclosed in the solicitation and account opening documents. The effective APR was meant to create a “teachable moment” for consumers, since the effective APR could be 50 percent or more. Testing revealed that participants often confused the effective APR with the more familiar interest-only APR for credit cards or simply ignored it because they could not understand it. Because of the confusion generated by the two APRs, the Board’s final rules for credit card disclosures removed the effective APR and now only require the disclosure of the usual, interest-only APR on account statements in combination with separate information on the amount of fees in the billing cycle.

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<sup>27</sup> Macro International Inc. (2009), *Design and Testing of Truth in Lending Disclosures for Closed-End Mortgages* (July 16), report submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/boarddocs/meetings/2009/20090723/Full%20Macro%20CE%20Report.pdf](http://www.federalreserve.gov/boarddocs/meetings/2009/20090723/Full%20Macro%20CE%20Report.pdf).

<sup>28</sup> Macro International Inc. (2007), *Design and Testing of Effective Truth in Lending Disclosures* (May 16), report submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/dcca/regulationz/20070523/Execsummary.pdf](http://www.federalreserve.gov/dcca/regulationz/20070523/Execsummary.pdf); and Macro International Inc. (2008), *Design and Testing of Effective Truth in Lending Disclosures: Findings from Qualitative Consumer Research* (December 15), report submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a7.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a7.pdf).

## Thoughtful Design Can Make Disclosures More Usable

Elements such as titles, tables, charts, typographic styles, and use of shading can help consumers move through a document and aid their comprehension of products and services, but sometimes even these aids come with limitations that must be considered.

In the case of privacy notices, consumers who saw a table that outlined the company's information-sharing practices and consumer rights related to those practices performed substantially better than those who saw the same content laid out in prose. In the course of the Federal Reserve credit card consumer testing project, presentations that separated fees and interest charges helped consumers understand these different elements in their bills; however, there was no difference in understanding between consumers who saw transactions grouped by type (purchases, cash advances, and balance transfers) and those who saw a chronological listing of transactions regardless of type.

While it is likely that icons and color could also help consumers recognize product features and navigate around documents, the Board's testing to date has not included these design elements. One challenge with relying on color to convey the content of a mandatory disclosure is the potential loss in clarity in situations where disclosures would be delivered by fax or printed in black and white. Furthermore, the disclosures developed by the Board have been implemented by regulation as model forms that serve as a safe harbor for creditors who follow them rather than as required forms. Thus, as a practical matter, creditors have latitude in design choices as long as their disclosures comply with the requirements set out in the regulation.

In addition to helping consumers identify information and navigate through a document, design decisions can affect participants' willingness to read a document. For example, when reviewing the Federal Reserve's "Consumer Handbook for Adjustable Rate Mortgages,"<sup>29</sup> a number of participants commented that while the content seemed helpful, they would be unlikely to read through it because of its length (36 pages). Also, early in the development of revised mortgage disclosures, participants were shown information on mortgage payments in both graph and table formats. While some responded positively to the graph, most preferred the table. One participant indicated that because he assumed information presented graphically would be difficult to understand, he would not look at it.

## Contextual Information Can Improve Comprehension and Usability

Language and design can aid comprehension and usability, but a disclosure document has more meaning when a consumer understands how the information relates to his or her personal circumstances. Contextual information can help a consumer interpret particular items on a disclosure as well as the overall purpose of the disclosure.

### Setting Context for Individual Elements

The Board's testing of consumer understanding of the APR for mortgages illustrates the relevance of context for interpreting particular elements of disclosures. The APR on a mortgage can be useful to consumers when comparing similar mortgage offerings because it incorporates many upfront loan costs—along with the payments over the life of the loan—into a single, "comparison-friendly" cost measure.

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<sup>29</sup> This publication is available on the Board's website at [www.federalreserve.gov/pubs/arms/arms\\_english.htm](http://www.federalreserve.gov/pubs/arms/arms_english.htm).

However, as testing participants in the Board's mortgage project described their past mortgage-shopping experience, about half indicated that they only contacted one mortgage broker or lender in the process of getting their loan. Even those who did shop with several lenders or brokers usually applied for a loan from only one provider. Thus, in practice, many people may not have the context provided by multiple loan offers to use the APR on a mortgage offer they receive as a comparison tool.

Consumer behavior research has shown that when consumers make a choice considering only one option, they compare it to the reference information they have available.<sup>30</sup> Testing participants have shown little understanding of the APR, and typically evaluate loan offers using information on the form that they can interpret more easily and that may be most relevant to them, such as monthly payment, interest rate, and closing costs. The revised mortgage disclosure forms proposed in August 2009 included a graphic showing the APR in relation to APRs on similar loans offered to borrowers with excellent credit (**example 1**). This context was intended to provide consumers with information they could use to evaluate the offer they received, even if they did not have multiple offers to compare. Nonetheless, even with the graphic, testing participants still had difficulty understanding the APR. As this example illustrates, making required disclosure content meaningful to consumers can be challenging.

### Setting Context for the Whole Form

When multiple items appear in each disclosure, consumers seek a whole-to-part way of organizing all the information put in front of them.<sup>31</sup> Therefore, it is important to include contextual information that aids consumers in understanding the overall message of a disclosure document as well as the individual parts.

Take the case of privacy notices, for example. Initial testing found that many participants did not understand why they were receiving the privacy disclosure form. To help orient consumers to the purpose of the notice, the final form included the information that the notice would address in the form of questions. Creating a title ("What does ABC Bank do with your personal information?"), using a set of labels (Why? What? How?), and including a set of frequently asked questions provided a context to help consumers understand why they were receiving the notice and how to use the information.<sup>32</sup> The table in the privacy notice provided the whole-to-part frame for consumers. Consumers could see all the possible reasons for which financial institutions could potentially share their information (the whole) and the way or ways in which their particular financial institution shares (the parts).

Because the knowledge and previous experience that people bring when reading a form can both help and hinder their understanding of what they read, contextual information can also aid consumers in interpreting the form content. A consumer with some knowledge of a specific product, or of the general workings of financial markets, may be better able to comprehend disclosures. However, prior knowledge that is incorrect or irrelevant may also lead participants to misunderstand or misinterpret information on a form.

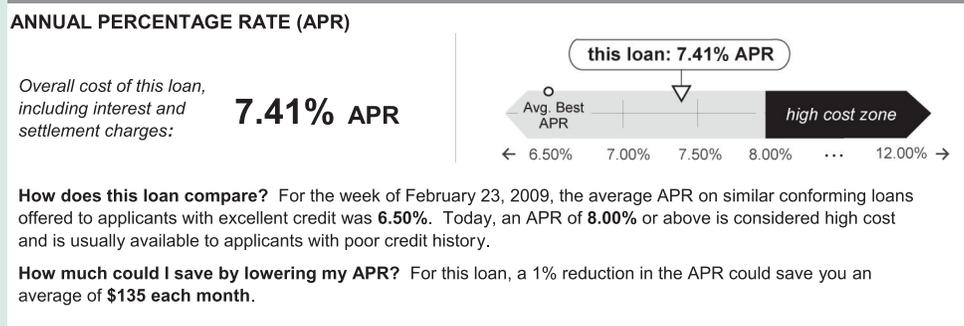
<sup>30</sup> Christopher K. Hsee and France Leclerc (1998), "Will Products Look More Attractive When Presented Separately or Together?" *Journal of Consumer Research*, vol. 25 (2), pp. 175–86.

<sup>31</sup> Kleimann Communication Group, Inc. (2006), *Evolution of a Prototype Financial Privacy Notice: A Report on the Form Development Project* (February 28), submitted to the FTC, [www.ftc.gov/privacy/privacyinitiatives/ftcfinalreport060228.pdf](http://www.ftc.gov/privacy/privacyinitiatives/ftcfinalreport060228.pdf).

<sup>32</sup> The privacy notice form developed by the agencies received the 2010 ClearMark Award from the Center for Plain Language.

### Example 1. APR Graphic from Board's 2009 Proposed Rules for Home-Secured Credit

To help establish a context for consumers to better understand the APR, revised mortgage disclosure forms proposed by the Board in 2009 included a graphic showing the APR in relation to APRs on similar loans offered to borrowers with excellent credit.<sup>1</sup>



<sup>1</sup> In the Board's 2009 proposal for the APR graphic, the "average best APR" was defined as the average prime offer rate. The "high cost zone" was defined by the HOEPA threshold for higher-priced loans; for first liens, this threshold is 1.5 percentage points above the average prime offer rate for a comparable transaction. For details on how the average prime offer rate is constructed, see [www.ffiec.gov/ratespread/newcalchelp.aspx#4](http://www.ffiec.gov/ratespread/newcalchelp.aspx#4).

For example, in the testing of overdraft notices, some participants were aware of optional overdraft plans offered by banks.<sup>33</sup> Some of these plans allow customers to sign up to link their checking account to a savings account or a line of credit so that the individual's payments would be covered if the checking account were overdrawn. Some participants familiar with these optional plans interpreted the disclosure as being about those plans. However, the overdraft notice was not primarily about optional overdraft plans that involved a link to another account, but rather about the bank's standard practices for covering overdrafts without such a plan. Banks may cover some types of payments for customers who overdraw their accounts, and may charge fees for doing so, even when the customer has not signed up for a plan.

The final model disclosure for overdrafts begins by explaining the difference between standard overdraft practices (the primary subject of the disclosure) and optional overdraft plans that are available. This introductory text provided a context for consumers to understand the overall message of the form and markedly improved comprehension of the content both for participants who had no understanding of overdrafts and those who were familiar with overdraft plans that involved linking to other accounts. However, even with this improvement in understanding of the standard overdraft practices, some participants continued to misinterpret the disclosure because of their personal experiences with the optional plans.

#### "Framing" Information to Inform Choice

The preceding examples illustrate how the contextual information on a form can help readers understand particular content and the overall message of the disclosure. In addition,

<sup>33</sup> Macro International Inc. (2008), *Review and Testing of Overdraft Notices* (December 8), report submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a6.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a6.pdf).

supplementary information and explanations can help “frame” decision options so that consumers understand possible implications of their choices.

The Board’s consumer testing for credit cards included a static disclosure of how long it would take to pay off a balance of \$1,000 at 17 percent APR, making only minimum payments (about seven years). The Board did not require that credit card companies disclose how long it would take consumers to pay off their actual credit card balances. However, in the Credit CARD Act passed in May 2009, Congress required credit card companies to disclose not only how long it would take to pay off the consumer’s actual balance but also how much consumers would have to pay in order to pay off the balance in three years.

While these particular payment scenarios required by the Credit CARD Act were not a part of the Board’s consumer testing, results from the testing of the static disclosure described above suggest they may provide a useful “frame of reference” for consumers in making decisions about monthly payment. In fact, for many participants in the credit card testing, seeing how long it would take to pay off a credit card balance was an insightful moment. However, other participants said that they would never just make the minimum payment.

Such differences in responses are not surprising because some consumers may not think certain information applies to them. Prior research on consumer use of and attitudes toward credit cards found that 7 percent of survey respondents reported that they “hardly ever” made more than the minimum payment on their credit card, while about 35 percent “hardly ever” pay their balances in full.<sup>34</sup> Differences in payment behavior are likely to imply different degrees of interest among consumers in information about estimated repayment times. Indeed, survey and experimental evidence on the effect of including a minimum payment on credit card bills showed this information did not affect the behavior of those who paid in full. However, the size of partial payments were reduced when the minimum payment was included, suggesting that the minimum payment may act as a psychological “anchor” for some consumers making less than the full payment.<sup>35</sup> Individual differences like these are one of the challenges regulators face in determining what content should be required on disclosures.

In contrast to a product like a credit card that consumers may use frequently, much of the financial management associated with mortgage loans occurs infrequently, when a consumer buys a home or decides to refinance. However, even with mortgages, month-to-month decisions about payments can add up to generate savings—or problems—over time. Indeed, ensuring an understandable presentation of information on the effects of monthly payment decisions is an element of the Board’s proposed disclosures for “payment option” mortgages. These products give consumers a choice of several possible monthly payments. The minimum payment option typically covers none of the principal and only some of the interest. As a result, the loan amount can rise if the consumer makes minimum payments because any unpaid interest is added to the principal balance. Eventually, these loan contracts require repayment of both principal and interest. Consumers who routinely make minimum payments can be subject to considerable payment shock in the future when the required payment increases to begin repayment of the loan’s principal.

The Board proposed a disclosure for payment option mortgages to be included with the monthly statement for these loans. The disclosure gives the amount of the minimum

<sup>34</sup> Thomas A. Durkin (2000), “Credit Cards: Use and Consumer Attitudes, 1970–2000,” *Federal Reserve Bulletin* (September), pp. 623–34, [www.federalreserve.gov/pubs/bulletin/2000/0900lead.pdf](http://www.federalreserve.gov/pubs/bulletin/2000/0900lead.pdf).

<sup>35</sup> Neil Stewart (2009), “The Cost of Anchoring on Credit Card Minimum Payments,” *Psychological Science*, vol. 20, pp. 39–41.

required payment, as well as other payment options that may be available, such as a payment that covers only the interest, and the fully amortizing payment that covers interest as well as principal. The proposed model form also included information on the effects of making the different payments—e.g., that the minimum payment would increase the loan balance and result in significantly higher payments in the future. This proposed model is similar to an illustration issued by the federal financial institutions supervisory agencies.<sup>36</sup> All testing participants who viewed the disclosure form understood that they had multiple payment choices for the loan, and that there were consequences for selecting the different payments. Most understood the implications of making the minimum payment included increasing their loan balance and having to make larger payments in the future.

Clearly, effective disclosure of complex products and decisions requires careful thinking about how the individual pieces of information relate to the whole and about what additional contextual information consumers might require in order to correctly interpret—and effectively use—the information provided by the disclosure.

### **Achieving a Neutral Tone Can Be Challenging**

Disclosures have historically been intended to present “just the facts”: They should not steer the consumer in one direction or the other. However, as “choice architecture”—the idea that the way options are presented influences what people choose—has entered the policy discussion, policymakers recognize that few presentations of information may be truly neutral.

Some aspects of choice architecture are set by statute, and others may be left to the discretion of the agency with implementing authority. Within the framework set by statute, the goal for presentation of information may still be a disclosure that does not steer consumers, yet sometimes maintaining a neutral tone can be challenging for regulators.

### **Experiences from the Privacy Notice Project**

For the interagency privacy notice project, the choice architecture is set by statute and is structured so that the consumers’ information will be shared unless they opt to limit the sharing (**example 2**).<sup>37</sup> The goal of the notice is to, first, inform consumers about the information-sharing practices of their financial institutions and, second, discuss their choices for limiting information sharing without steering the individual toward a particular decision. The testing focused on using factual wording, objective presentation, and neutral words. In each round of testing, interviewers listened for comments, reactions, and perceptions from consumers that indicated areas of potential bias in the notice. The iterative testing process led the agencies to incorporate design elements (for example, the Why? What? and How? frame and the table format) and language that resulted in a final notice designed to be clear and neutral.

The situation where firms that did not share information and, therefore, did not offer an opt out was a challenge—that is, there was nothing to opt out of, since the institution did not share. In early rounds of testing, consumers reacted negatively to seeing the question “Can you limit this sharing?” answered by “No.” Consumers who preferred not to have their information shared judged institutions that did not share less favorably than they did

<sup>36</sup> Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of Thrift Supervision, and National Credit Union Administration (2006), “Proposed Illustrations of Consumer Information for Nontraditional Mortgage Products,” *Federal Register*, vol. 71 (October 4), pp. 58672–78, <http://edocket.access.gpo.gov/2006/pdf/06-8479.pdf>.

<sup>37</sup> Gramm-Leach-Bliley Act, 15 U.S.C. 6801–6809.

### Example 2. Interagency Privacy Notice Disclosure Form

Through successive rounds of testing, the interagency privacy notice project team developed a disclosure form for institutions to use in informing consumers about their information-sharing practices and to highlight consumers’ choices for limiting the information shared by the institution. This sample (from page 1 of the form) illustrates the final design elements and language included in the notice.

F A C T S	<b>WHAT DOES MARS BANK DO WITH YOUR PERSONAL INFORMATION?</b>	
<b>Why?</b>	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.	
<b>What?</b>	<p>The types of personal information we collect and share depend on the product or service you have with us. This information can include:</p> <ul style="list-style-type: none"> <li>■ Social Security number and income</li> <li>■ account balances and payment history</li> <li>■ credit history and credit scores</li> </ul> <p>When you are no longer our customer, we continue to share information about you as described in this notice.</p>	
<b>How?</b>	All financial companies need to share customers’ personal information to run their everyday business—such as to process transactions, maintain customer accounts, respond to court orders and legal investigations, and report to credit bureaus. In the section below, we list the reasons financial companies can share their customers’ personal information; the reasons Mars Bank chooses to share; and whether you can limit this sharing.	
	<b>Reasons we can share your personal information</b>	<b>Does Mars Bank share?</b>
	<b>For our everyday business purposes—</b> to process your transactions, maintain your account, and report to credit bureaus	Yes
	<b>For our marketing purposes—</b> to offer our products and services to you	Yes
	<b>For joint marketing with other financial companies</b>	No
	<b>For our affiliates’ everyday business purposes—</b> information about your transactions and experiences	No
	<b>For our affiliates’ everyday business purposes—</b> information about your creditworthiness	No
	<b>For our affiliates to market to you</b>	No
	<b>For nonaffiliates to market to you</b>	No
	<b>Can you limit this sharing?</b>	<b>Can you limit this sharing?</b>
		No
		No
		We don’t share
<b>Contact Us</b>	Call 1-800-898-9696 or go to <a href="http://www.marsbankco.com/privacy">www.marsbankco.com/privacy</a>	

institutions that shared but offered an opt out (in some cases, even if consumers exercise all opt outs, institutions could still share some information). In subsequent rounds, the “No” was replaced with “We don’t share,” and more consumers understood that they did not need to opt out of information sharing with these institutions.

### Creating a Disclosure May Involve Creating a Choice Structure

The right for consumers to limit the sharing of their personal information disclosed in the privacy notices was established by statute as an opt-out choice. However, the law does not always prescribe the options consumers must be offered or how those options are to be structured. Creating simpler or more straightforward disclosures may not be feasible if the

underlying choice options vary significantly across the market or are inherently complicated.

In cases where the choice options are not standardized by law, the Board may decide to use its authority to create a standard by regulation. As noted earlier, the choice architecture of how options are presented can affect consumer decisionmaking. In addition, establishing this underlying structure may be a part of creating or improving a disclosure.

### Experiences from the Bank Overdraft Disclosure Project

In the case of overdraft disclosures, the regulations establishing the choice structure for overdraft coverage of different types of transactions were based on information about consumer preferences. In the testing of disclosures for banks' standard overdraft practices, participants were asked questions about their preferences about how banks handle different types of overdrafts as well as about sample overdraft disclosures. Many indicated that they would like their bank to cover overdrafts for checks; automated clearinghouse and recurring automatic payments, such as mortgage and car loans; and other regular bills. However, the majority did not want the bank to cover overdrafts on ATM transactions and point-of-sale debit card purchases (referred to in the final disclosure as "everyday debit card transactions"). For these latter transaction types, consumers often preferred that the bank decline the transaction instead of covering it and charging them a fee. In addition, when asked whether they would prefer to have the right to opt out of automatic overdraft coverage for ATM and point-of-sale debit card transactions, or to opt in to having overdrafts on these transactions covered by the bank, most indicated they preferred to opt in—in other words, that the default option would be *not* to have these transaction covered.

Reflecting consumer preferences in the disclosure design required not only development of disclosures but also issuance of complementary rules to standardize bank practices regarding overdrafts. Because banks varied in how they treated overdrafts on different types of transactions, the Board developed rules requiring that overdraft coverage for ATM and everyday debit transactions, when available, be offered as an opt-in choice for consumers.

### Standardizing Disclosure Can Be Challenging

Standardization can be beneficial in helping consumers locate and understand information on disclosures. However, customization may more effectively highlight characteristics of different products or alert consumers when a familiar piece of information may have a different meaning.

### Standardization across Financial Product Lines

Results from early testing of credit card disclosures revealed how standardization can help consumers recognize disclosures. Early in the testing of credit card solicitations, participants looked for the "Schumer Box"—a required table containing certain key information in credit card solicitations. Because participants recognized and were comfortable with this tabular presentation device, it was retained in the redesigned credit card disclosures. In addition, some of the proposed early disclosures for mortgages and home equity lines of credit (HELOCs) use a similar design. While these design similarities are subtle, some have suggested a more well-defined "nutrition label" for financial products.<sup>38</sup> Ideally, if information could be presented using a standard, and relatively limited, set of concepts and design

<sup>38</sup> Susan E. Woodward (1998), "Regulatory Capture at the U.S. Securities and Exchange Commission," paper prepared for the Milken Institute Conference on Capital Markets (March 16), <http://mail.sandhillecon.com/pdf/RegulatoryCapture.pdf>.

elements, this would support learning over time, and a “transfer of learning” as consumers encounter the same type of information for different products.

Another example of disclosure standardization across financial product types is the requirement for product providers to disclose the “year-to-date” amount of fees and interest paid in required and proposed disclosures for checking accounts, credit cards, and home equity lines of credit. If consumers have more than one of these products, they will begin to recognize and become comfortable with the standardized “year-to-date” box approach to disclosure of fees and interest charges.

### Departing from Standardization to Highlight Product Characteristics

Nevertheless, while the idea of using common design and information elements across financial disclosures is both appealing and potentially beneficial, the variety and complexity of financial products presents challenges for standardizing disclosures.

For example, consider the case of disclosing payments on closed-end mortgage products. In the past, TILA mortgage disclosure regulations required a standardized payment table that included all the required monthly payments due under the terms of the transaction (**example 3**). For adjustable rate mortgages (ARMs), future payments were disclosed under the assumption that the underlying index on which the rate was based would remain constant over time at its initial value. Under this disclosure regime, a 30-year ARM that adjusted once a year and started at the fully indexed rate (i.e., there was no discount or premium associated with the starting rate) might result in disclosure indicating 360 identical payments. A 30-year fixed rate mortgage could also have had a disclosure that showed 360 identical payments. However, in reality, the payment on the ARM loan would have likely changed over time, while the payment on the fixed rate loan would not. The disclosures in this case would have been very standardized, yet would have failed to reveal important differences in the potential payments and net costs to the consumer.

The revised payment tables for closed-end mortgages that lenders will be required to give to consumers (as of October 2011, **example 4**) are differentiated for several different types of mortgages in an effort to highlight the features that should be most relevant for consumer decisionmaking for that product. Proposed payment tables for fixed-rate mortgages are simpler, since the principal and interest payment remains the same; for more complex ARM products such as the hybrid ARM example included here, the proposed payment table includes additional information on (1) the maximum rate and payment during the first five years of the loan, and (2) the maximum rate and payment over the term of the loan.

#### Example 3. Old TILA Payment Table for 3/1 Hybrid ARM

In the past, TILA mortgage disclosures included a standardized payment table listing the required monthly payments due under the terms of the loan. For adjustable-rate mortgages (ARMs), future payments were disclosed under the assumption that the underlying index on which the rate would be based remained constant over time at its initial value. However, as the example below illustrates, the table did not clearly show the potential difference in the required payment if interest rates were to change.

##### Payment Schedule: Payments will be due monthly

Number of Payments	Amount of Payment	Payments Begin
36	\$ 1,564.94	04/01/2010
323	\$ 1,607.07	04/01/2013
1	\$ 1,605.09	03/01/2040

### Example 4. New TILA Payment Table for 3/1 Hybrid ARM

New payment tables for closed-end mortgages informed by the Board's consumer testing of mortgage disclosures are adapted to accommodate different products. For ARMs like the one in the sample below, the table that lenders will be required to give consumers (as of October 2011) includes information on the maximum rate and payment; the payment table for a fixed rate mortgage may only have a single column if the payment does not change.

INTEREST RATE AND PAYMENT SUMMARY			
	INTRODUCTORY Rate & Monthly Payment (for first 3 years)	MAXIMUM during FIRST FIVE YEARS (Mar. 2015)	MAXIMUM EVER (as early as Mar. 2017)
Interest Rate	4.75%	8.75%	10.75%
Principal + Interest Payment	\$1,564.94	\$2,286.12	\$2,662.14
Est. Taxes + Insurance (Escrow)	\$433.33	\$433.33	\$433.33
<b>Total Est. Monthly Payment</b>	<b>\$1,998.27</b>	<b>\$2,719.45</b>	<b>\$3,095.47</b>
<b>Introductory Rate Notice</b>			
You have a discounted introductory rate of 4.75% that ends after 3 years. In the fourth year, even if market rates do not change, this rate will increase to 5.00%.			

### The Impact of Differing Legal Requirements on Standardization Efforts

Sometimes the transfer of learning that occurs through standardized disclosure proves beneficial; at other times, it can be confusing or potentially misleading. Consider the case where financial products are governed by multiple statutes with multiple requirements. For example, credit and debit cards may carry the same logo, but they are governed by different laws (TILA and the Electronic Fund Transfer Act, respectively) that have different disclosures and different consumer protections (e.g., different liability limits). Consumers who “transfer” lessons learned from owning one card product to the ownership of another would be making decisions based on wrong assumptions. In some cases, the Board chose to use distinctly “nonstandard” language in order to highlight differences in financial products. For example, in consumer leasing disclosures, the Board uses the terms “capitalized cost reduction” and “rent charge” rather than “down payment” and “finance charge” to differentiate the terms of a vehicle lease from those of a vehicle loan.

Thus, while creating and maintaining consistency across disclosures for different products is beneficial, at times consumers may need to be alerted when a standard or familiar piece of information has a different meaning for another product. Furthermore, as products become more innovative and more complex, and as new parties become part of the regulatory scene (for example, the Federal Communications Commission in the case of mobile banking), designing meaningful disclosures will become increasingly difficult.

### What Works in Print May Not Work Online

The Board's research found that what works for a recipient of a print disclosure may not work when transferred to another recipient's “screen of choice,” be it a computer monitor or a mobile device.<sup>39</sup> Changing the delivery channel for consumer disclosures may mean

<sup>39</sup> Thus far, the Board has not ventured into disclosure design for smart phones.

revising the format and being willing to modify content.<sup>40</sup> In the case of web presentations of disclosures, the three-dimensional nature of the Internet can enable consumers to link to more detailed information, allowing for education on the product. But getting consumers to notice and then click on key links can be as challenging as getting them to interact with the paper disclosure.

Conventional wisdom has it that consumers will read hard-copy print but scan web pages, so web designers have learned to write for “scannability.” However, there is growing evidence that consumers are transferring their web page scanning techniques to print media. Thus, print disclosures are beginning to incorporate some of the elements of web page design—for example, grouping information, using graphics (boxes and bullets), and writing in “chunks” rather than prose.

### **“Less Is More” Often Remains True**

While additional content helps comprehension in some cases, sometimes less is more. Too much information can overwhelm consumers or distract their attention from key content. It may be better to focus on a handful of elements rather than “full disclosure.”

For example, when redesigning the disclosure box for credit cards, the disclosures quickly became focused on rates and fees. Other information that had been in the box—for example, balance calculation methods—was moved to an area below the box.

In the first three rounds of testing of HELOC disclosures, furthermore, many participants misunderstood the historical payment examples in the current application disclosure.<sup>41</sup> Many participants did not realize that the example showed what payments on a \$10,000 loan would have been under actual historical rates. Some thought the example showed a hypothetical future scenario of what might happen to rates and payments and did not see the example as useful because they did not think it provided any information about their loan. Others erroneously thought that the example showed their loan and that the payments would be their exact monthly payments. Even when the table was explained, participants who had originally misunderstood the example still did not think the information provided was useful. Some participants who understood the example indicated that what they found valuable was seeing how much the index had varied over time because this gave them information that helped them evaluate the likelihood the interest rate could reach its maximum in the future. Based on these findings, the revised HELOC application disclosure proposed by the Board did not include the historical example. Instead, the form included the range of the value of the index over a 15-year period in a section for “Historical Change in Interest Rate” to provide the most important information from the historical example.

In the Board’s testing of overdraft notices, a few participants gave incorrect answers to questions about how the bank would handle overdrafts because they focused on a paragraph that explained limited exceptions (that is, when the bank might pay certain types of transactions that overdraw the account, even though the bank’s standard practice was to decline such transactions). Because the discussion of the technical exceptions appeared to distract some participants from the more important concepts in the disclosure, this para-

<sup>40</sup> Kleimann Communication Group, Inc. (2009), *Web-Based Financial Privacy Notice Final Summary Findings Report* (October 29), submitted to the FTC, [www.ftc.gov/privacy/privacyinitiatives/WebbasedNoticeFinalSummaryReport.pdf](http://www.ftc.gov/privacy/privacyinitiatives/WebbasedNoticeFinalSummaryReport.pdf).

<sup>41</sup> Macro International Inc. (2009), *Design and Testing of Truth in Lending Disclosures for Home Equity Lines of Credit* (July 16), report submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/boarddocs/meetings/2009/20090723/Full%20HELOC\\_Macro%20Report.pdf](http://www.federalreserve.gov/boarddocs/meetings/2009/20090723/Full%20HELOC_Macro%20Report.pdf).

graph was dropped from the final required language. Instead, the final required disclosure states that “If we do not authorize and pay an overdraft, your transaction will be declined.” In simplifying the text to state the standard practice and not the exception, the disclosure sacrificed some technical accuracy to focus attention on the more important information in the disclosure.

## Challenges, Caveats, and the Need for Additional Research

If disclosure revisions serve their intended purposes—transparency and consumer protection—consumers will make better decisions for their personal circumstances in actual financial services transactions. The implicit assumption underlying the testing approaches used in the projects described in this article is that better performance by consumer testers in recognizing, comprehending, and using the disclosures in a controlled setting, with their attention focused on the document and the task at hand, will be correlated with improved consumer decisionmaking in the real world. This correlation is not a given, however, and questions remain about how the findings from testing might apply in practice.

While the focus here is on the efficacy of disclosure, such discussion cannot be divorced from the consideration of other complementary policies. Failure—or limited success—with disclosures may point to the need for other approaches, not just more or better disclosure. For example, other types of policies that may complement or supplement disclosures include regulations affecting the timing of disclosure delivery, or the pairing of disclosure with other information interventions (e.g., education, counseling); regulations on seller incentives or behaviors; prohibitions or restrictions on product offerings; and enforcement mechanisms on sellers to promote compliance with regulations. Disclosure is most usefully viewed as one component of a larger strategy that employs other policy tools and education efforts to improve decisions and outcomes for consumers. (See **box 2** for a fuller discussion of tools and strategies beyond disclosure.)

## Measurement and Methodology

### Making Distinctions between Good Decisions and Good Outcomes

One challenge in determining the real-world impact of changes in disclosures is the problem of observing and evaluating decisions. In a controlled environment, a researcher can control the options presented. But, in practice, it is easier to obtain information about the choice a consumer made than it is to know the details of all the options they considered. It also can be difficult to distinguish a “good” decision from a “bad” one, especially if that evaluation depends on consumer-specific preferences or circumstances. A product may be a good fit for one consumer but a bad fit for another. For example, a payment option mortgage may make sense for someone with irregular income and the discipline to make additional principal payments when possible; but it may be hazardous for households that continually focus on the minimum payment.

Furthermore, information may be available on outcomes, but good decisions do not necessarily imply a good outcome or vice versa. Products that were the right choice at the time may turn out to be suboptimal three to five years later, or when a household’s circumstances change.

It would be helpful to know more about how consumers structure their decisions and how they go about assessing the range of products in the market. Additionally, researchers want to understand the connections between consumers’ information gathering, disclosures, decisionmaking, and outcomes.

## Box 2. When Disclosures Aren't the Right Tool

Standardized disclosures can be helpful for simple, straightforward information, such as interest rates and fees. But when products and product features become complex, other tools are needed to provide the type and level of consumer protection deemed desirable. Regulators need to consider when to disclose important information directly to consumers; when to encourage consumers to seek other education, advice, or counsel; and when to step in and provide substantive regulations that provide consumer protection.

Given the inherent limitations of disclosure, such as space and design constraints, there is a role for supplementary strategies for providing information to consumers.

- Promoting direct consumer interaction with regulator resources.** Information and education can include print materials and web resources to complement disclosure, and can involve strategies such as public awareness campaigns and initiatives to build capacity among educators.<sup>1</sup> For example, required credit card disclosures refer consumers to the Board's website ([www.federalreserve.gov/creditcard](http://www.federalreserve.gov/creditcard)) to learn more about the features of credit cards that they may want to consider using. Once consumers determine what else may be important to them, they can search a database of credit card plans ([www.federalreserve.gov/creditcardagreements](http://www.federalreserve.gov/creditcardagreements) or [www.federalreserve.gov/creditcard/survey.htm](http://www.federalreserve.gov/creditcard/survey.htm)) to find a card that has the features they seek.

Furthermore, print disclosures are inherently static, while other consumer information has the potential for being dynamic. Online resources can be much more interactive and allow consumers to consider alternatives. Calculators, such as the Board's Credit Card Repayment Calculator ([www.federalreserve.gov/creditcardcalculator](http://www.federalreserve.gov/creditcardcalculator)), can help consumers get estimates of their costs and payments, and "apps" can allow consumers to do real-time comparisons at the point of sale, whether this is in the lender's office or at the kitchen table.

- Encouraging consumers to use other education resources.** Consumer information and education can supplement and go beyond what is possible in disclosures. Materials can be layered so that consumers can get the equivalent of a "quick start" (for example, the Board issues a series of 5 Tips on products and has a *What You Need to Know* series for new rules). These brief information vehicles feed into more comprehensive resources, such as websites, that dig deeper into the details of the product features, provide examples and illustrations, and offer interactive tools.

Findings from testing provide some insights into consumer responses to these types of materials. In the course of developing revised mortgage disclosures, testing participants were shown several educational disclosures for mortgages. One of these was a "Mortgage Shopping Checklist," which listed six action steps consumers should take before applying for a mortgage.<sup>2</sup> About half the participants who reviewed this disclosure felt it would be useful to them. Generally, participants who had more experience with mortgages were more likely to say they would not use the information; however, some of these participants indicated that they thought the disclosure would be useful to first-time borrowers.

<sup>1</sup> Sandra F. Braunstein (2009), "Financial Literacy," statement before the Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, Committee on Homeland Security and Governmental Affairs, U.S. Senate, April 20, [www.federalreserve.gov/newsevents/testimony/braunstein20090429a.htm](http://www.federalreserve.gov/newsevents/testimony/braunstein20090429a.htm).

<sup>2</sup> These recommended steps included obtaining a free credit report, deciding how much savings to put towards a home, comparing quotes from at least two lenders or brokers, reviewing two web publications, and seeking out help from a HUD-approved counselor if needed.

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While some information on shopping and choice has been gathered during the Board's disclosure testing, better use must be made of what is already known about shopping and choice from existing research. There is also a need to continue exploring how surveys, interviews, or perhaps more innovative data collection methods could improve understanding of information format preferences, financial product search, choice, and outcomes.

## Box 2.—continued

- **Issuing substantive regulations to protect consumers.** In addition to improving the design of disclosures and educational materials, findings from consumer testing can also inform the decision to implement substantive regulations to protect consumers. Rules may be put into place to complement or facilitate disclosure-based protections, as in the case of the opt-in provisions for certain types of overdraft coverage discussed elsewhere in this article.

In other cases, testing may reveal the need to develop new regulations of products or practices rather than disclosure-based protections. For example, in March 2008, the Board tested information about how credit cardholders' payments would be allocated among different balances (purchases, cash advances, and balance transfers, which usually carry different interest rates). More than half of participants already understood that banks usually applied payments to lower-rate balances before higher-rate balances; several of these commented that they thought this practice was unfair. Among those who did not have this understanding, none understood payment allocation any better after reading the explanation provided in the testing.<sup>3</sup> The final rule proposed by the Board in December 2008 required banks to allocate payments exceeding the minimum payment to the balance with the highest rate first or pro rata among all of the balances.

Subsequently, the Credit CARD Act required that excess payments must always be allocated first to the balance with the highest rate. In addition, the Credit CARD Act provided that, when a balance on an account is subject to a deferred interest or similar program, excess payments must be allocated first to that balance during the last two billing cycles of the deferred interest period so that the consumer can pay the balance in full and avoid deferred interest charges. The Board's final rule issued in January 2010 mirrors the statutory requirements. However, in order to provide consumers who use deferred interest programs with additional means of avoiding deferred interest charges, the final rule also permits issuers to allocate excess payments in the manner requested by the consumer at any point during a deferred interest period. This exception permits consumers to pay off a deferred interest balance in installments over the course of the deferred interest period.<sup>4</sup>

<sup>3</sup> Macro International (2008), *Design and Testing of Effective Truth in Lending Disclosures: Findings from Qualitative Consumer Research* (December), report submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a7.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a7.pdf).

<sup>4</sup> Board of Governors of the Federal Reserve System (2010), "Federal Reserve Approves Final Rules to Protect Credit Card Users from a Number of Costly Practices," press release, January 12, [www.federalreserve.gov/newsevents/press/bcreg/20100112a.htm](http://www.federalreserve.gov/newsevents/press/bcreg/20100112a.htm).

## Measuring the Impact of Disclosure on Consumer Decisions

A second challenge is measuring the impact of disclosures on decisions. The context provided by a consumer's prior knowledge—or perceived knowledge—along with the explanation provided in a document and the organization of the information can greatly influence the effectiveness of disclosure. In addition, the context in which information is delivered also has a major effect on the way a consumer responds.

For example, some participants in testing of disclosures for private student loans indicated that time pressure was a factor in deciding to take the first loan offered because getting the best deal was a lower priority than getting the tuition paid on time.<sup>42</sup> In addition, consumers may listen to a sales agent that they trust and not read the disclosures. Or, the consumer

<sup>42</sup> Rockbridge Associates, Inc. (2009), *Consumer Research and Testing for Private Education Loans: Report of Findings* (March), submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/newsevents/press/bcreg/bcreg20090311a8.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20090311a8.pdf); and Rockbridge Associates, Inc. (2009), *Consumer Research and Testing for Private Education Loans: Final Report of Findings* (July), report submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/newsevents/press/bcreg/bcreg20090730a2.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20090730a2.pdf).

may be under pressure to complete a transaction and choose to ignore information just to finish the task (consider how many people scroll through online disclosures and click on “I agree”—without completely reading those disclosures—in order to download content or connect to a website). Consumers may understand the disclosure, but they may not know of other options or may lack the understanding of how the information applies to their own situation—in other words, they may not be making a fully informed choice. These contextual factors can easily alter or perhaps override the effects of improved disclosures.

While ex ante measurement of the effects of disclosure changes on financial behavior would be ideal for policy development, ex post evaluation is valuable as well. Efforts are under way to examine the effects of implementing the Credit CARD Act, including possible effects of the payment scenarios on repayment behavior.<sup>43</sup> However, given that changes under the act went into effect relatively recently, and that those changes were implemented in the midst of a major economic crisis, establishing a body of research evidence on the impacts of the changes will take time.

### The Marketplace Effects of Disclosure

Another challenge is that disclosures may impact not only the behavior of consumers but also the actions of suppliers. These effects can sometimes be unpredictable or counterintuitive. For example, experimental evidence indicates that providing a conflict of interest disclosure may increase the bias in the recommendations of advisors, possibly because the advisor has less guilt about acting out of self-interest when the client has been forewarned.<sup>44</sup>

Disclosure policies also can affect suppliers’ incentives in pricing. For example, rules for calculating the APR have been fairly explicit about what fees must be included in the calculation and what fees are “outside” the APR. Under this “some fees in, some fees out” approach for calculating the APR on a closed-end mortgage, lenders have an incentive to shift some costs into fees that are excluded from the APR, resulting in a lower APR. In its July 2009 proposed rules, the Federal Reserve proffered a more inclusive APR definition for mortgages, noting that lenders would have less incentive to include “junk fees” in credit agreements if the APR calculation included most or all fees.<sup>45</sup>

### Optimizing versus Constrained Maximization

It is rare that disclosures start out as a *tabula rasa*. In most situations, those involved in designing disclosures are guided and, at times, constrained by language in the laws passed by Congress, the need to consider both consumer benefit and creditor burden under revised rules, or by other institutional limits. In these situations, disclosures may not help consumers optimize as much as they might only increase utility at the margin.

For example, some have argued that other metrics of overall loan cost would be better tools than the APR for consumers shopping for mortgages. However, the APR is the disclosure required by law. Likewise, simple products may only need simple disclosures, but the com-

<sup>43</sup> Presentations from the CFPB’s Conference “The CARD Act One Year Later,” held on February 22, 2011, are available at [www.consumerfinance.gov/credit-cards/credit-card-act/card-act-conference-key-findings/](http://www.consumerfinance.gov/credit-cards/credit-card-act/card-act-conference-key-findings/).

<sup>44</sup> Daylian M. Cain, George Loewenstein, and Don A. Moore (2005), “The Dirt on Coming Clean: Perverse Effects of Disclosing Conflicts of Interest,” *Journal of Legal Studies*, vol. 34 (January), [www.cldr.cmu.edu/mpapers/CainLoewensteinMoore2005.pdf](http://www.cldr.cmu.edu/mpapers/CainLoewensteinMoore2005.pdf).

<sup>45</sup> Board of Governors of the Federal Reserve System (2009), *Federal Register*, vol. 74 (August 26), pp. 43232–425, <http://edocket.access.gpo.gov/2009/pdf/E9-18119.pdf>.

plexity in the marketplace requires that disclosures cover a range of options and alternatives. While “one size” may not fit all, it may be the only size available under the conditions.

It is also the case that there can be a disconnect between when consumers need information for making decisions and when the disclosure is provided. For example, consumers may be better served by receiving information on mortgage rates and terms when they first begin to think about mortgage choices—that is, through real estate agents and at open houses, before the emotional attachment to a house and the time pressure to apply for a loan come into play. Instead, they receive this information only when they contact a lender, and given that consumers may choose to only contact one lender, there is not much of a decision to be made.

To date, almost all of the consumer-tested disclosures have been developed in a printed paper format. Given innovations in technology, it is certainly possible for consumers to have more access to interactive information and decision tools. Real-time quotes or applications that allow consumers to compare across a range of lenders or service providers raise the issues of how to design disclosures for these settings and the level of effort required by both lenders and consumers to deal with this real-time information.

### **Duration of Disclosure Testing**

Yet another challenge in designing disclosures is that doing it well takes time. Indeed, comprehensive testing, including qualitative document development and quantitative validation testing, can take several years, depending on the complexity of the product and the disclosure documents needed to meet regulatory requirements.<sup>46</sup> Interagency coordination and statutory changes during development can lengthen the process. It is critical, however, to allow time for the intensive analysis at each iteration and stage of the process in order to develop a disclosure that can perform better than what has come before it.

For example, the interagency privacy notice project began with a public workshop in December 2001, shortly after the law mandating the notices went into effect. In December 2003, the eight agencies involved issued an Advance Notice of Proposed Rulemaking, seeking public comment on whether and how the agencies should develop an alternative privacy notice. In the summer of 2004, six of the agencies entered into a Memorandum of Understanding and initiated a consumer research project, issuing a report on March 2006, together with a prototype financial privacy notice.

The agencies then initiated a quantitative validation study, but in October 2006, Congress explicitly directed the agencies to develop and propose “a model form” for voluntary use by financial companies; the study was temporarily suspended. In March 2007, the agencies issued a proposed rule using the prototype notice as the model form. The quantitative validation study resumed in March and April 2008. The analysis and final report on this was submitted in December 2008. The agencies considered further revisions to the form based on that report, and these changes were validated through additional qualitative testing.<sup>47</sup> In December 2009, the agencies published a final model form rule, and in April 2010, they provided an online form builder for financial institutions.

<sup>46</sup> In addition, the rulemaking process includes a comment period for proposed rules. For example, the comment period for the proposed credit card rules issued in May 2007 was 120 days.

<sup>47</sup> See Macro International Inc. (2008), *Mall Intercept Study of Consumer Understanding of Financial Privacy Notices: Methodological Report* (September 18), submitted to the FTC, [www.ftc.gov/privacy/privacyinitiatives/Macro-Report-on-Privacy-Notice-Study.pdf](http://www.ftc.gov/privacy/privacyinitiatives/Macro-Report-on-Privacy-Notice-Study.pdf); and Kleimann Communication Group, Inc. (2009) *Financial Privacy Notice: A Report on Validation Testing Results* (February 12), submitted to the FTC, [www.ftc.gov/privacy/privacyinitiatives/validation.pdf](http://www.ftc.gov/privacy/privacyinitiatives/validation.pdf).

Work on revisions to credit card disclosures began in 2004, with an Advance Notice of Proposed Rulemaking issued in December 2004. The contract for consumer testing research was issued in April 2006, with the first report and proposed rule issued in May 2007.<sup>48</sup> Additional qualitative and quantitative testing was conducted in 2007 and 2008, with final reports and a final rule issued in December 2008.<sup>49</sup> In May 2009, Congress passed the Credit CARD Act, which included some additional disclosures and covered some additional products (for example, gift cards).

## Conclusion

Findings from both quantitative and qualitative consumer testing conducted to inform the development of disclosures show the potential for improvements in consumer comprehension and usability of disclosures. These findings also reveal some of the limitations of disclosures, including the difficulty of making complex concepts or products understandable to consumers.

In addition to the limitations revealed by testing in a controlled environment, the impact of disclosures on consumer decisionmaking in actual financial transactions is likely to be affected by other factors, such as the context in which the disclosure is delivered and the behavior of suppliers. It is in confronting these limitations of disclosure and other real-world complications where it is particularly useful to expand the range of policy tools under discussion to include not only disclosure, but also education and substantive regulation.

The growing complexity of financial products; the number of choices, providers, products, and features; and the complexity of the regulation of these products suggest that more research is needed to inform and evaluate policies. But it also raises important questions about what research and what policies are not just informative, but truly strategic for focusing consumers and policymakers on the dimensions of choice that can meaningfully improve consumer welfare and the function of markets.

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<sup>48</sup> Macro International Inc. (2007), *Design and Testing of Effective Truth in Lending Disclosures* (March 16), submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/dcca/regulationz/20070523/Execsummary.pdf](http://www.federalreserve.gov/dcca/regulationz/20070523/Execsummary.pdf).

<sup>49</sup> Macro International Inc. (2008), *Design and Testing of Effective Truth in Lending Disclosures: Findings from Experimental Study* (December 15), submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a8.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a8.pdf); and Macro International Inc. (2008), *Design and Testing of Effective Truth in Lending Disclosures: Findings from Qualitative Consumer Research* (December 15), submitted to the Board of Governors of the Federal Reserve System, [www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a7.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a7.pdf).