Chapter VI. Information and Disclosure (Howard)

The federal role in financial consumer protection began with an information problem. Subject to state regulation under different statutes and regulatory structures for different institutions, lenders stated the interest rate on their products in a variety of manners that greatly complicated comparisons, particularly across different institutions from which a consumer might seek credit. Under the Uniform Small Loan Law advocated by the Sage Foundation, lenders disclosed an "all in" interest rate that applied to the declining loan balance. Morris Plan or industrial banks expressed rates as a discount rate plus fees. For a $100 loan at 6% discount plus $2 in fees repaid over the course of a year, the cost as a percentage of the average loan balance would be over 17%. Retailers used an "add-on" rate, where credit charges were added on to the cash price of the merchandise. A $100 purchase at a 6% add on rate would cost $106 over 12 months.[1] Clearly, shopping for the best way to finance a transaction was a complicated endeavor.

Truth in Lending addressed this lack of comparability with a standardized "all in" cost measure, the annual percentage rate. The APR has become a widely recognized shopping tool for consumers, and along with other developments has helped enhance competition in consumer credit markets. As discussed in more detail in Chapter 8, this increased competition has greatly benefitted consumers. Truth in Lending has thus been an important success story in federal consumer financial protection.

Conceptually, disclosure is a more attractive approach to consumer protection than is substantive regulation of financial products and services because it respects consumer preferences and allows for the different circumstances of different consumers. Substantive regulation must either limit all consumers to essentially the same product, or establish criteria for determining who is eligible for which product. Even product features that may seem highly suspect in most circumstances, such as no or low documentation loans, have their place in serving consumer needs, as numerous consumers who are self employed or gig workers have discovered. Such income is very difficult to document in a way that is both reliable and predictive of future income.

The apparent success of Truth in Lending spawned a wave of ever more comprehensive, and complex, disclosures, all in an effort to make sure have "complete" information as a basis for financial product decisions. In many respects, as we discuss in detail in this chapter, this pursuit of complete information is an endless pursuit of a mirage. There is no oasis at the end of the journey.

We all make dozens, if not hundreds, of decisions every day without the benefit of complete information. It is not because we fail to recognize that additional information might improve our choices. Rather, it is because finding and using information is costly – it consumes some combination of time, money, and, perhaps most importantly, attention. Making decisions, even complex and potentially consequential financial decisions, with incomplete information is

[1] See Anne Fleming, *The Long History of "Truth in Lending"*, 30 J. Pol'y Hist. 236-271 (2018).

the rational, and optimal, choice for any consumer. Nevertheless, the common regulatory response to the observation that consumers are not using certain information that someone believes should be used is to require disclosure of that information. Disclosure requirements have grown substantially over time, resulting in a complex web of detailed disclosures that is a compliance labyrinth for regulated entities and of questionable value as a means of protecting consumers or better informing consumers' decisions.

There is nothing particularly unique about consumer financial decisions. All consumer decisions depend on information, and that information is gathered and utilized in the same fashion for any consumer product. Some financial decisions are complex, but so are many other consumer purchasing decisions. We recognize that consumers of automobiles or computers make perfectly adequate decisions about how much information to obtain about the best product to buy, and which features are worth the cost, but we burden the decision about how to finance the transaction with a flurry of required disclosures. Deciding where to live and what kind of house to buy is certainly a complex decision, but we rely on consumers to do an appropriate amount of shopping and make reasonable choices. Then the flurry of disclosures becomes a blizzard of paper necessary to finance the transaction.

This chapter explores the related issues of the costs of information, markets for information, including seller provided information, and how consumers use and process information. It discusses disclosure and the difficulties of effective communication.

A. The Economics of Information

One of the simplifying assumptions in the textbook model of perfect competition is that all participants have complete information. Although this simplification yields important insights, it obviously does not describe reality. Instead, many economic decisions are made with incomplete information. If consumers lack information about product benefits, they will undervalue the product, and not consume as much as they would with better information. A more common regulatory concern is that consumers may lack information about drawbacks of a product, in which case they will overvalue it, and consume more of it than they would otherwise. If consumers lack information about competing offerings, sellers have at least some market power, because they will not lose all their business as a result of an increase in price.

In fact, among the many decisions that market participants must make are choices about how much information to acquire. Although concerns about imperfect information have a long history, the economics of information was formalized in an influential article by George Stigler in 1961.[2] Stigler argued that consumers would search for information until the marginal benefits of additional information were just equal to the marginal cost of gathering more data. Prices and product characteristics can vary among sellers, because, although consumers will gather enough information to find a product they are willing to purchase, they will not incur the costs of considering all possible options. Other authors have termed this phenomenon "rational

[2] George J. Stigler, "[HYPERLINK "https://ideas.repec.org/a/ucp/jpolec/v69y1961p213.html"]," 69 [HYPERLINK "https://ideas.repec.org/s/ucp/jpolec.html"]213-213 (1961).

ignorance."[3] The more it costs to obtain additional information, and the smaller the benefits of additional information, the more rational consumers will choose to remain uninformed. Reducing ignorance is simply not worth the costs.

The particular problem that Stigler considered was searching for a lower price, but the result is easily generalizable. The benefit of information is the savings from the possibility of finding a lower price seller or an offering that is better in some other respect. The cost is the time and effort of gathering information from another seller. As discussed below, information may be acquired through purchase, through the expenditure of time, or from the consumer's past experience. Regardless of how it is obtained, however, information consumes attention – attention that could be devoted to more pleasurable activities than contemplating a decision.[4] We cannot pay attention to everything, and at some point consumers will decide that they would rather pay attention to family, friends, and the things that make life worthwhile rather than nailing down the facts about one more detail of a potential transaction.

Because finding and using information is costly, consumers must choose which information to seek out. Unsurprisingly, they pay more attention to information about the product features that matter most to them. For example, consumer surveys find that credit card users who almost always pay their balance in full are less aware of the APR and are less likely to check the APR on their statement every month. These consumers are much less likely to actually pay finance charges. In contrast, users who sometimes or hardly ever pay their full balance are facing the costs of credit, and are more aware of the APR and more likely to consider the APR on their statement each month.[5] Similarly, the main reason consumers who usually pay in full opened a new account was to obtain rewards; those who carry a balance did so to make a specific purchase or to rebuild or increase their credit.[6]

Even with costly information, markets can produce competitive outcomes. Some consumers will be informed, whether about price or product characteristics. As long as the informed group is sufficiently large to be worth competing for, their search for information will police the marketplace[7]. Because sellers cannot easily discriminate between informed and uninformed consumers in most circumstances, they must offer a competitive price (or competitive terms on other product dimensions) if they wish to compete for the informed

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[3] ANTHONY DOWNS, AN ECONOMIC THEORY OF DEMOCRACY (Harper) (1957)

[4] Herbert A. Simon, Designing Organizations for an Information Rich World, in In M. Greenberger (Ed.), Computers, communications, and the public interest. Baltimore, MD: The Johns Hopkins Press, 1971.

[5] Glenn B. Canner and Gregory Elliehausen, Consumer Experiences with Credit Cards, 99 Fedceral Reserve Bulletin 1-36, 22-23.(2013).

[6] Id at 27.

[7] Alan Schwartz, A. and Louis L. Wilde, "Intervening in Markets on the Basis of Imperfect Information: A Legal and Economic Analysis," 127 U. Pa. L. Rev. 630-682 (1979).

buyers.[8] With enough informed buyers, the equilibrium outcome will be the competitive equilibrium, even though many buyers choose not to be informed.

Of course, given the importance of the costs of obtaining information, government actions that reduce the cost of information can improve market performance. Standardized measuring systems that facilitate product comparisons, for example, can ease the consumer's task of obtaining information and enhance competition on the measured dimension.[9] As discussed below, this has been the major accomplishment of the Truth in Lending Act, which established the APR as a standardized measure of the interest rate in consumer credit transactions. Moreover, the authority to police deceptive practices is vital to assuring that information remains accurate and reliable.

B. Seller Provided Information

One of the most important sources of information for consumers is that provided by sellers through advertising and other forms of marketing. The substantial investments that firms make in advertising are best understood as efforts to provide information to consumers. As George Stigler noted, "advertising is an immensely powerful instrument for the elimination of ignorance."[10]

Seller incentives to provide positive information about their products are obvious. There is also a clear incentive to select the information that is of greatest interest to the consumer – the information that is most likely to influence their choice. As discussed in more detail below, disclosure requirements can effectively increase the costs of providing this information, however, and may motivate sellers to talk about something else. Information has its greatest impact on markets when it is provided voluntarily, and in response to consumer demand, rather than the result of disclosure requirements. Advertising addressing the health benefits of diets higher in fiber[11] and lower in fat[12] led to significant changes in consumption, even though fat

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[8] Shopping occurs even for the terms of standard form contracts. See, e.g., Howard Beales and Timothy J. Muris, "The Foundations of Franchise Regulation: Issues and Evidence," 21 J. Corp. Finance: Contracting, Organization and Governance 157-198. (1995) (Evidence addressing shopping for standardized franchise contracts). See also Barth, J.R., J.J. Cordes, and A.M.J. Yezer, "Benefits and Costs of Legal Restrictions on Personal Loan Markets," 29 J. Law & Econ. 357-380 (1986). (Evidence of shopping for personal loan terms). The critical role of marginal consumers in determining the competitive market outcome is discussed in more detail in Howard Beales, "Consumer Protection and Behavioral Economics: To BE or Not to BE?" 4 Competition Policy International 149-168. (2008).

[9] Howard Beales, Richard Craswell, and Steven Salop, "The Efficient Regulation of Consumer Information," 24 J. Law & Econ. 481-539 (1981).

[10] Stigler, supra note __.

[11] Pauline Ippolito & Alan Mathios, Health Claims in Advertising and Labeling: A Study of the Cereal Market, FTC Staff Report (1989), *available at* [HYPERLINK "http://www.ftc.gov/be/econrpt/232187.pdf"].

[12] Pauline Ippolito & Alan Mathios, Information and Advertising Policy: A Study of Fat and Cholesterol Consumption in the United States, 1977–1990, FTC Staff Report (1996), available at [HYPERLINK "http://www.ftc.gov/be/consumerbehavior/docs/reports/IppolitoMathios96_fat_long.pdf"].

content was frequently disclosed on nutrition labels before such advertising was widespread. It is not disclosure requirements that make it easy to locate products that are kosher or halal or organic, it is rather the self-identification of such products in response to consumer demand.

If information markets are to work efficiently, the information they provide must be accurate and reliable. Absent some check, a seller's incentive to overstate the advantages of their offering is straightforward. Intervention to prohibit false or deceptive advertising is therefore essential.

Government intervention, however, is not the sole force for honesty in the marketplace. Many financial services, including credit cards, deposit accounts, or prepaid cards, are likely experience goods, where a consumer can evaluate the quality of the service after using it.[13] Profitability depends on customer retention, and dissatisfied customers are not likely to remain for long. If consumers are misled into purchasing a service that does not deliver as advertised, they are likely to be dissatisfied, and likely to leave. In many circumstances, the mere fact that a firm advertises is a source of information about product quality. When sellers depend on repeat purchases, they can signal their quality with investments in advertising.[14] These investments only yield a return if consumers continue to buy the product. Investments in advertising thus act as a bond, which the firm will lose if poor performance leads consumers to stop purchasing the product. Such investments are an important market incentive to ensure that firms provide what they promise.[15] Similarly, a seller's reputation is an intangible asset that is at risk from misleading practices, providing an important incentive for honesty and fair dealing.[16] In a survey asking credit card consumers what factors were important in their decision to get their card, the seller's reputation was second only to card acceptance by merchants in closed ended questions, and more often mentioned than interest rates or fees.[17]

Of course, many financial products, such as mortgages, are not frequently purchased. Although the mortgage lender may hope to market other products and services to a borrower, repeat purchases are a less effective market pressure than in the case of frequently purchased items. In the case of mortgages, however, consumers usually have access to independent sources of information who may have repeated experience with a particular lender and know the lender's reputation. As discussed below, most home buyers use a real estate agent, who is likely knowledgeable about financing options. Thus, market incentives continue to constrain the lender's behavior.[18] Still other financial products, such as investment

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[13] Phillip Nelson, "Information and Consumer Behavior," 78 *Journal of Political Economy* 311-329. (1970) (distinguishing between search characteristics and experience characteristics).

[14] Phillip Nelson, "Advertising as Information," 82 *Journal of Political Economy*, 729-754 (1974).

[15] Benjamin Klein and Keith B. Leffler, "The Role of Market Forces in Assuring Contractual Performance," 89 *Journal of Political Economy* 615-641 (1981).

[16] See Armstrong, M., "Interactions between Competition and Consumer Policy," 4 *Competition Policy International* 97-148. (2008). See also Paul Rubin, "Regulation of Information and Advertising," 4 *Competition Policy International* 169-193 (2008).

[17] Consumer Financial Protection Bureau, Arbitration Study: Report to Congress (2015), at 3-14.

[18] See text accompanying note __ infra.

advice, are what economists call "credence goods,"[19] where quality cannot be evaluated even after the fact, and where other experts may disagree about quality. Even in these cases, however, theoretical analyses find that market outcomes are efficient as long as either quality is verifiable or there is liability for poor quality.[20]

A seller's key incentive is therefore to satisfy its customers, and to provide the kind of information that will attract customers who will remain with the business. In marketing credit cards, for example, one source reports a rule of thumb that it costs $275 to book a new account. That account will only be profitable if consumers continue using the card. Attrition rates on credit card accounts are about 15 percent.[21] A card provider therefore needs to provide features that consumers want and inform consumers about those features. If not, they will simply leave. The Bureau's study of arbitration clauses found that if a credit card issuer refused to refund a fee that the consumer had not agreed to, 57 percent of consumers would close the account.[22] Because they are aware of this consumer behavior, banks often offer refunds of unexpected or disputed fees when consumers complain. One Texas bank offered refunds in two thirds of cases in which a consumer complained.[23] It is simply not worth alienating otherwise profitable customers over disputed fees.

The need for repeat business also drives marketing choices about which information to provide. Because different consumers use credit cards differently, card issuers have an incentive to develop marketing materials that seek to attract the right consumer to the right card. Consumers who pay their balances regularly are likely to be far more interested in rewards for card use and unconcerned about the interest rate. Consumers looking to roll over an existing balance are likely to be far more attuned to the rate, and less concerned about other card features. Consumers are quite able to make appropriate choices: in an experiment by a large bank that offered a choice between a card with an annual fee and a lower interest rate or a higher rate with no fee, on average consumers made the cost-minimizing choice. Of course, some consumers made mistakes, but they corrected those mistakes, especially when the errors were large.[24]

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[19] M.R. Darby and E. Karni, "Free Competition and the Optimal Amount of Fraud," 16 *Journal of Law & Economics* 67-88 (1973).

[20] U. Dulleckand R. Kerschbamer, "On Doctors, Mechanics, and Computer Specialists: The Economics of Credence Goods," 44 *J. Econ. Lit.* 5-42 (2006).

[21] Brian Riley, New Credit Card Accounts Up but Volumes Remain Flat, PaymentsJournal, Feb. 8, 2018. Available at [HYPERLINK "https://www.paymentsjournal.com/new-credit-card-accounts-volumes-remain-flat/"]. Actual data on the cost of acquiring new accounts is closely held information in the industry.

[22] Consumer Financial Protection Bureau, Arbitration Study: Report to Congress (2015), at 3-14.

[23] Jason Scott Johnston and Todd Zywicki, The Consumer Financial Protection Bureau's Arbitrattion Study: A Summary and Critique, Mercatus Working Paper, Mercatus Center at George Mason University, at 32 (2015).

[24] Sumit Agarwal et al., Do Consumers Choose the Right Credit Contracts, 4 Review of Corporate Finance Studies 239-257 (2015). For a fuller discussion of the evidence that consumers make appropriate choices about credit cards, see Thomas A. Durkin, Gregory Elliehausen, and Todd J. Zywicki, An Assessment of Behavioral Law and Economics Contentions and What We Know about Credit Card Use by Consumers, 22 Supreme Court Economic Review 1-54 (2014).

Seller willingness to provide information that consumers value is apparent in the marketing of many financial services, even where information is not required. Many providers offer features such as low balance alerts that are designed to help consumers avoid fees. Others offer apps to monitory credit card transactions for common errors such as a transaction mistakenly submitted twice or a wildly disproportionate tip.

Sellers also have strong incentives to reveal negative information about products because less of a negative feature (e.g., lower fees) is a product benefit. Sellers who look better therefore have an incentive to say so. If consumers assume that sellers who are silent are inferior to those who talk about the attribute, there is an incentive for all but the worst product on that characteristic to disclose. This unfolding principle argues that sellers will voluntarily provide even negative product information, as long as competing offerings differ on the characteristic.[25]

Empirically, the evidence is clear that seller provided information through advertising significantly enhances market performance. Much of the evidence comes from studies of the effects of restrictions on advertising. The earliest restrictions studied were also quite broad, prohibiting advertising entirely in a particular market. One of the earliest studies examined the effect of state prohibitions on advertising of eyeglasses, and found that prices for eyeglasses were approximately 25 percent higher in states that adopted such restrictions.[26] Several subsequent studies conformed this result in markets for optical goods and services.[27] Similarly, states that prohibited price advertising of prescription drugs had higher prices.[28] Even the introduction of toy advertising to children led to lower toy prices.[29]

Blanket prohibitions on advertising ended when the Supreme Court extended First Amendment protection to commercial speech. Subsequent restrictions have been more subtle, and more varied. Attorney advertising restrictions, for example, varied widely, with some states prohibiting broadcast advertising, some prohibiting pictures or illustrations, and some requiring that advertising be "dignified." States with more restrictions had higher prices for routine legal services.[30] Restrictions on advertising media also raise product prices. The ban on broadcast

[25] Sanford Grossman, "The Informational Role of Warranties and Private Disclosure about Product Quality," 24 Journal of Law & Economics 461-484 (1981). See also Paul Rubin, "The Economics of Regulating Deception," 10 Cato Journal 667-690 (1991).

[26] Lee Benham, *The Effect of Advertising on the Price of Eyeglasses*, 15 J. L. & ECON. 337, 344 (1972).

[27] *See, e.g.*, John E. Kwoka, Jr., *Advertising and the Price and Quality of Optometric Services*, 74 AM. ECON. R. 211, 216 (1984); Deborah Haas-Wilson, *The Effect of Commercial Practice Restrictions: The Case of Optometry*, 29 J. L. & ECON. 165, 182 (1986) (finding that "media advertising by optometrists is associated with lower prices").

[28] JOHN F. CADY, RESTRICTED ADVERTISING AND COMPETITION: THE CASE OF RETAIL DRUGS 11, 20 (1976).

[29] C. Robert Clark, *Advertising Restrictions and Competition in the Children's Breakfast Cereal Industry*, 50 J. L. & ECON. 757, 759-60 (2007).

[30] John R. Schroeter, Scott L. Smith & Steven R. Cox, *Advertising and Competition in Routine Legal Service Markets: An Empirical Investigation*, 36 J. INDUS. ECON. 49, 59 (1987).

advertising of cigarettes, for example, led to higher cigarette prices.[31] Similarly, when Quebec adopted restrictions on television advertising to children, the result was higher prices for children's cereals in Quebec compared to other parts of Canada; there was no increase in the price of adult cereals that could still advertise.[32]

The ability to advertise tends to lower product prices whether or not advertising actually includes price information. Price advertising has been found to reduce prices for retail gasoline,[33] prescription drugs, and retail liquor stores.[34] But advertising that rarely, if ever, includes price information also leads to lower prices, as in the studies of toy advertising, cigarettes, and children's cereals discussed above. Knowing about more of the available alternatives facilitates consumer choice and encourages competition.

There is also evidence that the specific information content of advertising claims has significant market impacts. Again, the best evidence comes from studies of the effects of restrictions on advertising. Until the late 1980s, the Food and Drug Administration regarded any claim about the relationship between diet and disease as a drug claim and argued that any such claim made the product a misbranded new drug. In the 1960s, for example, the agency seized Quaker Oatmeal from store shelves because the label included a claim about the relationship between soluble oat fiber and serum cholesterol levels.[35] Some health claims appeared in food advertising, but they were relatively infrequent until claims were also permitted on food labels.

The regulatory environment began to change in 1984, when Kellogg launched an advertising and package label campaign for All Bran promoting the National Cancer Institute's recommendation that diets high in fiber could reduce the risk of some forms of cancer. Studies of the impact of the campaign found a significant market response. Fiber consumption increased, in part because of changes in purchasing patterns, but also because of changes in the products themselves. The weighted average fiber content of breakfast cereals had been essentially constant for several years before the campaign began, but increased significantly after 1984.There was no significant increase in the fat or sodium content of cereals.[36] Health claims about the relationship between saturated fat and heart disease also became far more common

[31] Robert F. Porter, *The Impact of Government Policy on the U.S. Cigarette Industry*, *in* EMPIRICAL APPROACHES TO CONSUMER PROTECTION ECONOMICS 447, 459 (Pauline M. Ippolito & David T. Scheffmann eds., 1986).

[32] C. Robert Clark, *Advertising Restrictions and Competition in the Children's Breakfast Cereal Industry*, 50 J. L. & ECON. 757, 759-60 (2007).

[33] *See* Alex Maurizi & Thom Kelly, PRICES AND CONSUMER INFORMATION: THE BENEFITS FROM POSTING RETAIL GASOLINE PRICES (1978).

[34] Jeffrey Milyo & Joel Waldfogel, *The Effect of Price Advertising on Prices: Evidence in the Wake of* 44 Liquormart, 89 AM. ECON. REV. 1081 (1999).

[35] *See* John E. Calfee & Janis K. Pappalardo, *Public Policy Issues in Healh Claims for Foods*, 10 J. PUB. POL'Y & MKTG. 33, 36 (1991) (discussing the early history of regulation of health claims).

[36] PAULINE M. IPPOLITO & ALAN D. MATHIOS, FED. TRADE COMM'N, HEALTH CLAIMS IN ADVERTISING AND LABELING: A STUDY OF THE CEREAL MARKET, ix-xx (1989); Pauline M. Ippolito & Alan D. Mathios, *Information, Advertising and Health Choices: A Study of the Cereal Market*, 21 RAND J. ECON. 459, 473-74 (1990).

after the health claim era began, and again there was a significant market impact. Fat and saturated fat consumption had both declined somewhat between 1977 and 1985, but both fell far more sharply after health claims became commonplace.[37]

An important finding from the health claims studies is that advertising tended to narrow the disparities between different demographic groups. In response to health claims about fiber, consumption increases were greatest among racial minorities and female headed households.[38] The goal of advertising is to make information easily accessible, and that effect is more important for more disadvantaged groups. Similarly, studies of restrictions on eyeglass advertising found that in states that restricted advertising, prices were highest for the least educated consumers.[39] Advertising that makes information more easily digestible is therefore particularly important to those who need information the most.

C. Markets for information

Particularly in the Internet era, consumers operate in deep and competitive markets for information. In an earlier age, finding disinterested articles or advice about a financial issue required either the coincidence of encountering a relevant article at an appropriate time in the decisionmaking process, or library research to extract useful material. Today, Google will offer up numerous answers to any question. Searches on nearly any financial question will, of course, yield sellers offering the product, but they also yield links to objective information sources such as Investopedia and, often, advice from government agencies. The difficulty is not finding information; rather, the problem is choosing which information links to pursue, and which information is worthy of attention. Information is readily available, but consumers must decide what information they wish to use.

Increasingly, websites of information aggregators turn up early in the list of Google results. These sites assemble information from a wide variety of service providers, often allow easy sorting of product offerings by key features, and may offer to match consumers with a product that is "best" for them. For example, creditcard.com organizes data about credit card offers from eight major issuers.[40] Consumers can see a list of card offers by feature (e.g., rewards card, 0% APR, no annual fee, etc.), or browse a list of the "best" cards for a given credit score range. They also have the option of supplying personal information to allow matching with a particular card that is thought appropriate for them or exploring the "best" cards either in general or in particular categories. The site offers "apply now" links that enable the consumer to apply for a product of interest directly.

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[37] Pauline M. Ippolito and Alan D. Mathios, *Information and Advertising: The Case of Fat Consumption in the United States*, 85 AM. ECON. REV. 91, 92 (1995); PAULINE M. IPPOLITO & ALAN D. MATHIOS, FTC, INFORMATION AND ADVERTISING POLICY: A STUDY OF FAT AND CHOLESTEROL CONSUMPTION IN THE UNITED STATES, 1977-1990 242 (1996).

[38] Ippolito and Mathios, supra note 25.

[39] Lee Benham & Alexandra Benham, Regulating Through the Professions: A Perspective on Information Control, 18 J.L. & ECON. 421, 444 (1975).

[40] [HYPERLINK "https://www.creditcards.com/?v1=true"]

NerdWallet offers similar options for credit cards, but it also includes a broader range of financial products, including various bank accounts, personal, student, and small business loans, auto and life insurance, and investment services. Each product category includes financial education materials that offer advice about the category, and a more general "money" category provides information on budgeting, paying for college, moving, lowering utility bills, ways to make money, and a career guide.

Other information aggregators range far beyond financial services. Top10.com offers various top ten lists for financial service products, but it also offers lists for services ranging from cocktail apps to crowdfunding platforms to places to buy used textbooks. Similarly, ConsumerAdvocate.org covers numerous financial products, including structured settlements, debt relief services, and cryptocurrency exchanges. It also offers home & lifestyle product reviews (from mattresses and meal delivery services to kitchen remodeling and car shipping companies), and health (blood tests to essential oils and online therapy).

The business models of the information aggregators vary. Some, such as Investopedia, are publishers, supported as publishers have always been by advertising revenue. Although advertising for specific products may be sold based on click throughs, there is little reason to suspect that the need for clicks would skew the editorial content, any more than the need for advertising revenue skews the editorial content of print publications. It is far more likely that the editorial content influences the kinds of products that are interested in advertising on such sites. This model seems to describe NerdWallet as well.

Probably the most common business model is sites that receive a commission or referral fee when consumers apply for or are accepted for a particular offering. For example, creditcards.com is paid by financial service providers when consumers apply or are approved for an offer. This affiliate referral model is also employed by Top10.com and consumeradvocate.org. NerdWallet also receives compensation through this model. All three aggregators disclose that they receive compensation, and that "this compensation may impact how and where products appear."[41] Although some effect is certainly possible, when a site offers a wide range of products from numerous competing sellers, there is little reason to believe that financial incentives would significantly distort rankings or recommendations.

Consumers can also produce information themselves, though shopping competing sellers and comparing their offering, either online or in person. For many products and services, consumers have prior experience with the product and perhaps the seller and can rely on what they learned both through the purchase process and through their experience using the product. That experience will enable them to identify, for example, the features of a particular credit card that they liked best, as well as pitfalls they may not have anticipated when the purchase was made initially. Subsequent decisions can take that learning into account.

[41] The example is from creditcards.com's "advertiser disclosure," reached via a link on the home page. See [HYPERLINK "https://www.creditcards.com/"].

An important source of information for many consumers is advice from family and friends, giving most consumers access to a broader base of experience. Marketers have long recognized the importance of this "word of mouth" information, and generally regard it as more influential than marketer-controlled information sources.[42]

Today, electronic word of mouth is an increasingly important influence on consumer behavior.[43] Third party review sites such as Yelp are clear examples of electronic word of mouth communication. Companies often seek to encourage such communications by offering opportunities to post reviews or to like or share content; doing so allows them to see problems and address concerns that might otherwise circulate on social media without their knowledge. Firms also make investments in reputation management, in an attempt to prevent bad consumer experiences from damaging a product or a reputation.

Consumers can also purchase advice from a wide variety of financial professionals, ranging from real estate agents to accountants to attorneys. Indeed, in many of the most complex financial transactions, other professionals are involved. A consumer searching for a new home is likely in contact with a real estate broker who is likely familiar with the pros and cons of various financing options.[44] The broker's primary incentive is to find a deal that will make the consumer happy, generating both a commission and the prospect of future referrals.

Commented [BH(1]: If the Bureau purchases this report, there may be separate data on first time purchasers for the footnote that would be better to use.

Commented [BH(2R1]: Ashley – can you check on this? If they have the report, I'd like to see the section on first time home buyers.

Consumers can also turn to disinterested information sources such as Consumer Reports and comparable publications. A wealth of online review sites also provide information, such as Yelp, mobile app sores, and social media review pages. Information has a cost, in time and effort to use it, but there is no evidence that too little information is available.

D. Consumer Behavior and Information Processing

If information is to have an impact, consumers must use it. We are all bombarded with thousands of stimuli every day, and we cannot possibly pay careful attention to each one. The marketing literature on information processing, derived from cognitive psychology, examines in detail the road from an information stimulus to the use of that information. Consumers must be exposed to information, pay attention to it, comprehend it, accept it, and retain it.[45]

[42] See Francis A. Buttle, Word of mouth: understanding and managing referral marketing, 6 Journal of Strategic Marketing 241-254 (1998).

[43] Ismagilova, E., Slade, E.L., Rana, N.P. *et al.* The Effect of Electronic Word of Mouth Communications on Intention to Buy: A Meta-Analysis. *Inf Syst Front* (2019).

[44] The National Association of Realtors 2019 Profile of Home Buyers and Sellers found that 89 percent of buyers purchased their home through a real estate agent or broker; 5 percent purchased directly from a builder or the builder's agent. Ninety percent of buyers would use their agent again. Available at [HYPERLINK "https://www.nar.realtor/research-and-statistics/research-reports/highlights-from-the-profile-of-home-buyers-and-sellers" \l "searchprocess"].

[45] For a fuller discussion of the information processing literature, see Durkin and Elliehausen, supra note __, at 53-55. An alternative formulation of the sequence of using information is that consumers must Find it, read it, understand it, use it, use it appropriately. See Ben-Shahar and Sceneider, supra note __, at 34.

The first step in the process is exposure. Whether it is marketing information or required disclosures, Information must be presented to the consumer in a way that it can be perceived. Exposure may fail if information is directed to the wrong audience or it becomes available at the wrong time.[46]

A consumer exposed to information must pay attention to it. Attention may be more likely if the information is seen as having immediate utility, as it might be if it pertains to a purchase or transaction that a consumer is contemplating when exposure occurs. Timing therefore matters; a consumer considering whether to purchase a sedan or an SUV is less likely to attend to information about financing than one who has settled on a vehicle and is seeking the best deal. The message itself also influences the likelihood that consumers pay attention. Many advertising techniques, from catchy jingles to splashy graphics, are devices that seek to attract the consumer's attention.

After exposure and attention, a consumer must comprehend the message. Unfortunately, any message can simply be misunderstood. Comprehension depends in part on the degree of attention to the message; a message that is only partially attended to is less likely to be correctly understood. It also depends on the complexity of the information, with a more complicated message less likely to be fully understood. Moreover, comprehension of any message is likely to vary from one consumer to another, if for no other reason than the different backgrounds and experiences of different individuals.

Once comprehended, a message must be accepted. A message may be correctly understood but rejected on the basis of prior experience or a counterargument that strikes the consumer as more persuasive. A message that consumers reject will have little influence on behavior.

Finally, the information must be retained in memory until it is needed. Although long term memory capacity is nearly limitless, short term or immediate memory is much more limited. People can retain and process only about 7 "chunks" of information at a time.[47] Too much information all at once can easily overwhelm these limits.

An implication of the information processing approach is that the timing of the provision of information may be critical. Timing affects the likelihood of exposure and attention. Information provided at the time it is needed reduces the need to store the information in memory for later retrieval; the information can be used at the time it is received. Information provided after a transaction is concluded is obviously information that is not likely to influence the purchase decision.

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[46] See William L. Wilkie, Affirmative Disclosure at the FTC: Communication Decisions, 6 Journal of Public Policy & Marketing 33 (1987).

[47] See George A. Miller, The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information, 63 Psychological Review 87-97 (1956). This is one of the most widely cited articles in the psychology literature.

The importance of timing has led to interest in "just in time" disclosure. Such a disclosure is one that arrives precisely when the information is needed. A clear esample is the low balance alert that tells consumers both that their account balance is low, and that if they overdraw they will incur certain fees. Such a disclosure is likely to be far more effective than a statement about overdraft fees that is repeated on every periodic statement. On the statement, the information is not timely – the consumer must remember it, and remember to check their balance regularly. The low balance warning solves both problems.

Although just in time disclosure is an important aspirational goal, it is not clear how it could be implemented in regulatory requirements. Much of the information in financial disclosures may be relevant to different consumers at different times. Some consumers beginning to shop for a new car may find information about the APR at different financial institutions useful and relevant, but others may prefer to see the dealer's offer and use it as a baseline for comparison. What constitutes "just in time" is not clear in such circumstances.

The potential value of just in time information to consumers implies that policymakers should avoid unnecessary burdens on such disclosures. In particular, it is easy to imagine information beyond the fee and the balance that could be relevant in the case of the low balance alert, but a requirement for more fulsome disclosure could prevent the service from getting off the ground in the first place.

E. Disclosure and its Limitations

The solution to problems that may result from incomplete information seems so obvious – just disclose the needed information to consumers. That has been the widespread policy response whenever there is a realization that some additional fact would have been useful to at least some consumers on at least some occasions. The result has been an unchecked proliferation of mandatory disclosures. Truth in lending has grown from an original proposal to disclose an interest rate and finance charges to a detailed list of 20 items for closed ended credit in one listing, plus additional disclosures in the case of a mortgage.[48] One author described a mortgage closing package with 49 disclosures spread over 101 pages, "all looking ominous and demanding separate signatures."[49] Open end consumer credit requires disclosures itemized from a to ee.[50] Similarly, the California Retail Installment Sale agreement has grown from an 8 x 11 inch single page with four disclosures, 743 words and two signature lines in 1961 to a document known colloquially as the bedsheet, with sixteen disclosure boxes, 2051 words, and 8 signature lines in 2010.[51]

[48] Thomas A Durkin and Gregory Elliehausen, Truth in Lending: Theory, History, and a Way Forward, Oxford University Press 2011, Table A.1, p. 234-235.

[49] Omri Ben-Shahar and Carl E. Schneider, More Than You Ever Wanted to Know: The Failure of Mandated Disclosure, Princeton University Press 2014, p. 22.

[50] Durkin and Elliehausen, supra note __, at 236.

[51] Ben-Shahar and Schneider, supra note __, at 24-25.

Extensive disclosure of all potentially relevant details does not solve the problem of how much to invest in acquiring information. It addresses, at best, only exposure, the first step in the information processing that is necessary if a consumer is going to use the information. Instead, extensive disclosure simply transforms the problem of finding information into one of how to allocate attention to the abundance of details. It seems safe to say that no one decides about refinancing a house by carefully evaluating all 49 disclosures, and no one chooses a credit card based on carefully weighing the 31 items that must be disclosed. Attention is scarce, and there are far more attractive things to pay attention to. Moreover, the extensive list of potentially relevant items simply will not fit in short term memory.

Again, differences between consumers are significant. Almost two-thirds of credit card users who almost always pay their balance in full and opened a new account found the account opening disclosures not very or not at all useful. Among those who carry a balance, 85 percent thought the information was very or somewhat useful.[52]

Despite its attractions, disclosure has important limitations as a solution to information problems. Like any other communication, disclosures may be misunderstood. Disclosing too much information can results in information overload, leading to consumers who are less informed, not better informed. Disclosures displace other information that may be more valuable. Compliance is complex and costly.

1. Disclosures May be Misunderstood

Any communication can be misunderstood. That commonplace fact of daily life applies with equal or greater force to marketing communications and the required disclosures that seek to provide additional information. If enough recipients are exposed to a message and pay attention to its content, some of them will misunderstand, in a manner that may be completely wrong and may be very different than what was intended. Academic studies of brief communications have examined misunderstanding of both advertising and editorial content of print and video communications, and found that 20 to 30 percent of the audience misunderstands some aspect of the communication. Although advertisers devote considerable resources to determining how best to convey their message, the level of misunderstanding was not significantly different for advertising and editorial content.[53]

One source of misunderstanding is the inherent ambiguity in language, particularly qualitative language. The same word may mean different things to different people. In a study of business communications with college students, subjects were asked to assign a numerical probability to generic probability terms. “Always” was interpreted, on average, as occurring around 90 percent of the time, but with a standard deviation of around 15 percent. “Never” was interpreted as 8 to 14 percent in three different groups, with standard deviations of 15 to 25

[52] Canner and Elliehousen, supra note __, at 28.
[53] *See* JACOB JACOBY ET AL., MISCOMPREHENSION OF TELEVISED COMMUNICATIONS 64 (1980) (noting the statistics of miscomprehension for television viewers). For print communications, *see* JACOB JACOBY & WAYNE D. HOYER, THE COMPREHENSION AND MISCOMPREHENSION OF PRINT COMMUNICATIONS (1987).

percent.[54] In a study in a medical context, only 80 percent of patients agreed that "certain" meant 100 of 100 people; only 67 percent agreed that "never" meant 0 of 100 patients. Patients assigned numerical probabilities to complications described as "unlikely" that were three times higher if the complication was minor than if the complication was a major one.[55]

In the business communications study, "probably," "usually," and "often" all had about the same meaning, generally around 60 percent, with a standard deviation of about 15 percent. To take a specific example from open ended responses on the meaning of "probably," a person who interprets "probably" in a way that is one standard deviation above the mean of 61 percent will be describing a probability of 78 percent. If the recipient assigns a meaning that is one standard deviation below the mean, the recipient will understand a probability of 44 percent.[56] Studies have also found that recipients assign higher numerical probabilities to chance terms if the chance is for something that is good for them personally than if it is good for others; they assign a lower probability if the risk is an unpleasant event for them than when the risk applies to others.[57] "One study found doctors' interpretations of 'likely' ranging 'from 25 to 75 percent,' and another study found interpretations of 'very likely' ranging 'from 30 to 90 percent.'"[58]

Time words are similarly ambiguous. In the business communications study, the one standard deviation range of hours meant for a request to be completed "ASAP" was from 27 to 72 hours. "Right away" seems to convey more immediacy, with average times of 4 to 9 hours, but the standard deviations are huge, 15 to 20 hours.[59]

An additional problem for consumer comprehension is that different disclosures may define certain terms differently. If a "business day," for example, has a different definition in different disclosures, consumer misunderstanding of one or the other is nearly inevitable.

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Given the inherent difficulties of communication, it should not be surprising that disclosures are often not fully understood. When consumers misunderstand the disclosure or its significance, the result may be worse decisions, not better ones. Examples of such disclosures are numerous. A study of college student's perceptions tested comprehension of three credit card disclosures, scoring one point for each disclosure that was correctly understood. Across a variety of conditions, the maximum total score was 1.71, implying that the average college

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[54] Edward C. Brewer and Terence L. Holmes, Obfuscating the Obvious: Miscommunication in the Interpretation of Common Terms, 46 J. Business Communication 480-496 (2009). Results are presented in Table 2, p. 490.

[55] Kimberly Koons Woloshin, Mack T. Ruffin, and Daniel W. Gorenflo, Patients' Interpretation of Qualitative Probability Statements, 3 Arch. Fam. Med 961-966 (1994).

[56] Brewer and Holmes, supra note __, Table 2.

[57] Tim Smits and Vera Hoorens, How Probable is *Probably*? It Depends on Whom You're Talking About, 18 J. Behav. Dec. Making 83-96 (2005).

[58] Ben-Shahar and Schneider, supra note __, at 160.

[59] Brewer and Holmes, supra note __, Table 2.

student did not comprehend slightly more than one of the three disclosures.[60] Similarly, an experimental study of mutual fund cost disclosures concluded that "cost information supplied in the ads appears to be either ignored or misunderstood."[61]

Incomplete understanding of disclosures can lead to worse decisions, not better ones. The FTC tested improved disclosures under RESPA that included information about the yield spread premium along with other information. The study asked consumers to compare the disclosures for two different mortgages and choose the lowest cost offer. When the loans had different costs, consumers were significantly less likely to choose the low-cost mortgage. When the loans had the same cost, participants who received the yield spread premium disclosure were less likely to recognize that the cost was the same. Moreover, most participants believed that broker loans, which included the disclosure, were more expensive than direct loans from the lender, where there was no disclosure, even when the total cost of the loans was the same.[62] Clearly, more information did not lead to better decisions.

Comprehension testing of disclosures can help to assure that consumers understand the message. In the TRID rulemaking, the Bureau did extensive work to improve the layout and wording of disclosures to try to enhance comprehension. But understanding is not enough. Consumers must use the disclosures to make a decision, and even if they understand each item individually, more information may degrade choices rather than enhancing them. Better decisions, tested in a context where the answer is clear, are the ultimate test of whether disclosures work.

2. Too Many Disclosures Result in Information Overload

As described above, extensive disclosures accompany even relatively simple decision tasks such as choosing a credit card provider. The premise of these disclosures is that more information will enhance consumer decisions about which product or provider to choose. The extensive academic literature on information overload argues that more information does improve decisions, but only up to a point. "If further information is provided beyond this point, the performance of the individual will rapidly decline."[63] Additional information will not be integrated into the decision. Instead, it will confuse recipients, distort their ability to set

[60] Veronica Thomas, Kendra Fowler, Richard H. Kolbe, The Implications of the FTC's Clear and Conspicuous Standards for the Communication of Credit Card Information to Young Consumers, 16 Journal of Financial Services Marketing 195 (2011), at Table 6.

[61] Beth A. Pontari, Andrea J. S. Stanaland, Tom Smythe, Regulating Information Disclosure in Mutual Fund Advertising in the United States: Will Consumers Utilize Cost Information?, 32 J. Consum. Policy 333 (2009).

[62] Bureau of Economics Staff Report, James M. Lacko and Janis K. Pappalardo, The Effect of Mortgage Broker Compensation Disclosures on Consumers and Competition: A Controlled Experiment (2004), available at https://www.ftc.gov/sites/default/files/documents/reports/effect-mortgage-broker-compensation-disclosures-consumers-and-competition-controlled-experiment/030123mortgagefullrpt.pdf.

[63] Martin J. Eppler & Jeanne Mengis The Concept of Information Overload: A Review of Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines, 20 The Information Society 325-344, 326 (2004)

priorities, and make it more difficult to recall other relevant information that should be considered. The result is stress, and a poorer quality decision.[64] Rather than reducing the costs of information, and thereby increasing information use, excessive disclosures may actually reduce information use and result in worse consumer decisions.

Information overload results from a mismatch between information processing requirements and information processing capacity. Processing requirements focus on the amount of information that *must* be integrated in order to make a decision. Processing capacity refers to the amount of information that a recipient *can* integrate in a given amount of time. When processing requirements exceed capacity, the result is information overload.[65]

One way to think about information overload is from the perspective of information costs.[66] Adding more information will increase the cost of using that information because consumers must read and understand the entire message to find the items in which they are interested. If consumers decide that the information is not worth the effort, they may simply ignore the message. Offered an encyclopedia to answer a simple question, consumers may simply decide that the answer is not that important after all. The result may be more information in a disclosure but less information actually received and understood by the consumer. As discussed above, a seller's market incentive is to provide easily usable information that is relevant to most consumers; the regulator's incentive is to provide any information that some might find useful.

For purposes of considering disclosures, one relevant causes of information overload is the information itself. Information processing capacity is higher, and information overload less likely, when information is more concise, consistent, and comprehensible. In contrast, information that is more uncertain, more ambiguous, or more complex is more difficult to process.[67]

The person and the task also affect the likelihood of information overload. Consumers differ in their innate ability to process information to some extent. Learned skills and experience in dealing with a particular type of information also reduce the risk of information overload; a skilled financial practitioner is far less likely to be overwhelmed than a consumer facing a complex decision for the first time. Individual motivation to understand and use the information also matters. Routine tasks and less complex tasks reduce information load, and the likelihood of overload.[68]

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[64] Id.

[65] Id.

[66] *See* JOSEPH P. MULHOLLAND, SUMMARY REPORT ON THE FTC BEHAVIORAL ECONOMICS CONFERENCE (2007) *available at* [HYPERLINK "https://www.ftc.gov/sites/default/files/documents/reports/summary-report-ftc-behavioral-economics-conference/070914mulhollandrpt.pdf"].

[67] Eppler and Mengis, supra note __ at 331.

[68] Id.

Different information cues effectively compete, and the more salient ones tend to undermine the less salient ones. Adding irrelevant cues can teach consumers to ignore even relevant ones.[69] That was certainly the result in the study of yield spread premium disclosure discussed above. Understanding and remembering relevant information is itself a difficult task, but reasoning with that information is an even more challenging cognitive process.[70]

Faced with information overload, there are a number of common reactions. Recipients tend to become highly selective about what information they consider, ignoring large amounts of information. They have increased difficulty relating details to the overall picture and the overall decision. They need more time to decide – and they make worse decisions. As one review noted, "…there is wide consensus today that heavy information load can affect the performance of an individual negatively (whether measured in terms of accuracy or speed."[71]

Regulatory requirements should constantly consider the risks of information overload. If the goal is better consumer decisions, too much disclosure may make matters worse. Information should be provided in a convenient format, but better formatting is not enough. Most importantly, information that is delivered should be high value, with a clear relationship to the decision the consumer confronts.[72] Instead, we have disclosures that fail as literary works. "Graceless sentences, dubious grammar, and vulgar syntax rule. The story is plotless, lifeless, humorless, endless."[73] The standard of providing high value information clearly relevant to the decision at hand is surely not met by many, if not most, of the long list of items that must be disclosed under Truth in Lending, let alone in privacy policies.

Behavioral economists have identified a somewhat similar phenomenon identified as choice overload. Backed by some experimental evidence, they argue that, faced with "too many" choices, consumers may decide not to choose at all. In effect, too many options can be paralyzing. So why aren't WalMart superstores, which offer more than 150,000 choices, filled with paralyzed shoppers unable to make a decision? It is because WalMart and other retailers have strong market incentives to organize the options to facilitate decisionmaking, effectively highlighting the more relevant alternatives[74].

As discussed above in the section on seller provided information, sellers have incentives to do the same with information: to provide the information that consumers consider relevant in a readily digestible fashion. Disclosures required for a new checking account are elaborate and complex, but many banks, covering half of U.S. deposits, have adopted a disclosure summary to

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[69] Ben-Shahar and Schneider, supra note __ at 101.

[70] Id. at 103.

[71] Eppler and Mengis, supra note __ at 331

[72] Eppler and Mengis, supra note __ at 334.

[73] Ben-Shahar and Schneider, supra note __ at 77.

[74] See the discussion in J. Howard Beales III, *Behavioral Economics and Credit Regulation*, 11 J.L. Econ. & Pol'y 349 (2015).

make the information processing task more manageable. Unfortunately, the summary itself is another form on the pile, because the required disclosures must still be provided.[75] Information aggregators are also striving to provide consumers with relevant, digestible information.. It is only when sellers are compelled to provide information that may be of little relevance to most consumers that the overload problem rears its head.

Mandatory disclosures provide uniform information for heterogeneous products to heterogeneous consumers. The most useful information, however, may vary with the nature of the transaction. For example, APR and finance charge are not very useful in mortgage transactions, but dollar finance charge information may be the most useful information in considering a short-term, small-dollar loans. The APR may even be misleading.[76]

As discussed above, consumers often use financial products differently, and are therefore interested in different product features. Many consumers pay off their credit card balances in full every month, and therefore have little interest in details about the APR. Nevertheless, the first lines of information in the Schumer box provide the APR, the balance transfer APR, and the cash advance APR, and any other APRs that may apply in other circumstances. Even that information may not apply, if, as is often the case in application disclosures, the rate depends on the creditworthiness of the customer. Other consumers are interested in the rewards that they might receive for using the card, and the Schumer box tells them nothing of interest. Instead, it provides information about other fees that may be relevant eventually, such as late fees, as well as fees such as foreign currency conversions and foreign transaction fees that may never be relevant for most consumers. Moreover, it seems likely that exceedingly few decisions, if any, about which card to apply for are driven by differences in any of these fees. Markets tailor information to the audience most likely to find that information of interest; uniform required disclosures cannot do so.

Consumers likely differ in the information they seek about other credit products as well. In searching for an auto loan, a credit-constrained consumer may be most interested in the monthly payment and the required down payment. A consumer who can borrow as much as desired is more likely to care about minimizing the total cost of credit over the expected life of the loan.

Too much information is also the inevitable consequence of the fact that disclosure requirements are almost never removed. There may have been a time when the minimum finance charge was an important differentiator between competing card products, but that is hardly the case today. Nonetheless, the minimum finance charge remains a prominent part of the Schumer box. It is difficult to imagine that the total of payments was ever useful information on a 30 year mortgage, but there it is in the Truth in Lending disclosures. It likely does not have much utility for an auto loan either, but again, it is part of the required disclosures. Some states require disclosure that married women can ask to have their credit reported in their own name.

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75 Novantas Research, Understanding Consumer Choice: A Review of Consumer Overdraft Behaviors (2015), at 18.

76 See Wallace P. Mors, *Consumer Credit Finance Charges: Rate Information and Quotation* (New York: National Bureau of Economic Research, 1965).

That information may have been vital at one time, but the disclosure is clearly an anachronism when credit reports are routinely compiled on individuals, not households. The problem is gone, but the disclosure is not.

Obsolete disclosures highlight an important tension in disclosure requirements between specific regulatory requirements and more flexible, principles-based approaches to what must be disclosed. Regulated entities often value certainty: they simply want to know what they must do to comply, and precisely how to do it. Consumer advocates often fear that required disclosures might be hidden, or lack sufficient prominence to gain the consumer's attention. Both desires often lead to detailed, prescriptive requirements, including in many instances specific requirements for font size and particular formatting, such as disclosures in ALL CAPS or in **boldface type**. Without careful testing, formatting requirements may actually make things worse. An experimental study of contract disclosures that were in all caps found that older subjects were significantly less likely to understand the disclosures than those who read the same disclosure in normal text.[77] Unfortunately, such requirements are very difficult to change, particularly when they are written into statutes.

Marketers routinely change their communications, because of the well known phenomenon of wearout – if the same message is repeated the same way over and over again, consumers will learn to tune it out. If legislators must specify disclosure details, they should leave regulators the flexibility to determine that a particular disclosure or particular formatting requirement is no longer necessary or appropriate. And regulators should periodically examine the mass of required disclosures with a sharp eye toward eliminating those that contribute more to information overload than they add to consumer enlightenment.

If disclosures are providing useful information, they will favor some firms over others, because they look better on the disclosed attribute. Firms with an advantage have every incentive to develop better ways to convey that information to consumers, and therefore to devise disclosures that may do exactly that. Moreover, even if a particular disclosure regime is perfect in every detail at the time it is adopted, changes in products and in markets as new products emerge will likely change the best way to disclose the information. Changes may make some disclosures irrelevant or may create the need to revise disclosures to avoid conveying a misleading impression to consumers as they consider a new product using disclosures designed with a different product in mind.

In this regard, the Bureau's recent decision to establish a trial disclosure sandbox is a step in the right direction. The sandbox allows firms to apply for a waiver to test possible improvements in disclosure content, format, or delivery.[78] Provided the participation conditions are not unreasonably burdensome, the sandbox offers a real opportunity to build a more flexible disclosure regime better attuned to consumers' needs.

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[77] Yonathan A. Arbel and Andrew Toler, ALL-CAPS, SSRN 3519630 (2020).

[78] Links to the policy and the application can be found at [HYPERLINK "https://www.consumerfinance.gov/policy-compliance/innovation/trial-disclosure-program/"].

3. Displaced Information

Many disclosures, such as those accompanying a mortgage, are delivered to the consumer in separate documents. There are, of course, costs of printing and distributing such disclosures, along with the costs of determining what must be disclosed. And, as discussed in the previous section, they may distract consumers from other information that is more important to them, resulting in worse decisions than would otherwise occur. They add to the information confronting the consumer, however, and do not directly displace anything.

Other disclosures, however, displace information that would otherwise be available to the consumer. This phenomenon is most obvious with advertising disclosures, where time and space devoted to the disclosure cannot be used for other purposes. In purely monetary terms, these costs can be substantial. In 2018, the average price of a 30-second prime time television advertisement on the top four national networks was $127,000, implying that disclosures cost over $4,000 per second.[79] In print advertising, even blank space has value, because it helps to set off the relevant portions of the message and enhance attention and readability. Cluttering advertisements with required disclosures should be avoided unless the added information is truly important to an informed choice for most consumers.

For consumers, too many disclosures produce information overload, effectively leading to consumers who are less informed. For sellers, excessive requirements produce information avoidance – sellers choose to talk about product characteristics that are less burdened with required disclosures. Requiring too much information can effectively prohibit advertising, because there is no feasible way to satisfy the requirements. For many years, that was the case with direct to consumer advertising of prescription drugs on television. The requirement to provide a "brief summary" of prescribing information could be satisfied in print advertising by purchasing roughly an extra page of space, but it could not be met in television advertising.[80]

Less dramatic disclosure requirements can also steer advertising in different directions, as the experience with health claims for foods clearly demonstrates. When the FDA first approved specific health claims for foods (effective in 1993), the rules included detailed information about the particular diet-health relationship, along with "model claims" written by FDA that provided detailed information, such as who was most at risk for the particular disease and what other risk

[79] Calculated from price data in Jeanine Poggi, Here's How Much it Costs to Advertise in TV's Biggest Shows, AdAge (October 2, 2018), available at [HYPERLINK "https://adage.com/article/media/tv-pricing-chart/315120"]. The rationale for estimating disclosure costs based on the time or space consumed is explored more fully in Beales, Craswell, and Salop, The Efficient Regulation of Consumer Information, 24 Journal of Law and Economics 491 (1981).

[80] *See* Margaret Gilhooley, *Heal the Damage: Prescription Drug Consumer Advertisements and Relative Choices*, 38 J. HEALTH L. 1, 17-18 (2005). Rather than revise the rules, the FDA issued a Guidance Document that allowed broadcast advertising without including the brief summary. *See* Guidance for Industry on Consumer-Directed Broadcast Advertisements, 64 Fed. Reg. 43,197, 43,197-98 (Aug. 9, 1999).

factors were relevant. Many advertisers apparently believed that an advertisement must include all of this information. The result was a sharp decline in the incidence of health claims, from 11 percent of all magazine food advertising in 1989 to less than 3 percent in 1992-1994. Claims about heart disease and serum cholesterol fell from 8.2 percent of all advertising in 1989 to zero in 1994. When the FDA clarified in 1995 that advertisers need not use the model claims as long as claims were not misleading, health claims rebounded, reaching 8 percent of ads by 1997; serum cholesterol claims rebounded to 4 percent.[81]

Disclosure requirements for financial services advertising do not appear nearly as burdensome as the short-lived "model claims" regime for health claims. Their utility, however, is highly questionable. It is difficult to imagine that very many consumers can read the fine print television disclosures of the other terms of an offer of "0% APR," that they remember any of those details, or that those details, pertaining to a hypothetical consumer who may be "well qualified" or "approved" in a hypothetical transaction are in any way useful in making a decision. These are disclosures that may satisfy regulators, but they do little to assist consumers.

Of course, consumers need to understand the basic terms of the transaction before it is consummated. Advertising, however, offers options for consideration, not the fully specified details of a purchase or lease for a complex product and a complex transaction. "Click for details" seems like exactly the right way to make such information available in online advertising, because consumers can access the information when they move from considering options to considering a specific offer. Attempting to provide all such details in conventional media advertising, however, serves no useful purpose.

4. Compliance

From the regulator's perspective, disclosures are a relatively cheap solution. Other than writing and enforcing the rules, they cost the government nothing. Compliance, however, is a different matter. A 2009 tabulation of Regulation Z alone reported it included "well over 175,000 words of complicated legalese."[82] Simply reading the rules is itself a major undertaking, let alone understanding their implications, the obligations they impose, how they might affect various products that a financial institution offers, and the details of what compliance requires.

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These are essentially fixed costs, largely independent of the size of the organization, and they create a cost disadvantage for smaller institutions, who must spread the costs over a smaller base. The fact that costs per account or other measure of output is well documented in the literature. Studies of initial compliance costs with the Equal Credit Opportunity Act, the Electronic Funds Transfer Act, and the Truth in Savings Act all find evidence of higher average costs for smaller financial institutions. Average costs of ongoing compliance have also been found to be higher for the EFT Act, Truth in Lending, the ECOA, the Community Reinvestment

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[81] *See* PAULINE IPPOLITO & JANIS PAPPALARDO, ADVERTISING NUTRITION & HEALTH: EVIDENCE FROM FOOD ADVERTISING 1977-1997 E-8 to -11 (2002) (providing detailed data on the incidence of various health claims).

[82] Durkin and Elliehausen, supra note __ at 9.

Act, Bank Secrecy Act, and the Real Estate Settlement Procedures Act.[83] A more recent study of all compliance costs at community banks (assets under $10 billion) using survey data from 2015-2017found that compliance costs were 9.8% of total noninterest expenses for the smallest institutions (less than $100 million in assets), declining to 5.3% for the largest category examined ($1 to $10 billion in assets).[84] The survey attributed 21.2 percent of compliance costs to TILA, RESPA, and Regulation Z, 12 percent to deposit account compliance, 8 percent to the Qualified Mortgage rules, and 6.7 percent to Ability to Repay rules.[85]

Much of the complexity of Truth in Lending regulation stems from two fundamental conceptual problems that are inherent in the disclosure scheme. The first is what has been termed the outlay issue[86] – which costs of concluding a transaction are part of the cost of credit, and which are costs attributable to other aspects of the purchase? In some instances, the separation is straightforward. It is easy to say, for example, the voluntary credit insurance purchased at the time of the transaction is a separate purchase and not part of the cost of credit. Fundamentally, however, credit is often part of a joint purchase – purchase of a car, or a house, or consumer goods, paid for over time. Like any other joint production problem, the allocation of many of the costs of the combined purchase to one component or the other is fundamentally arbitrary. The problem is perhaps clearest in purchasing a car. What matters to the consumer is the total cost of the car and the credit, but shifting costs between "credit" costs and "automobile" costs is relatively easy, especially when the dealer also provides the financing, and very hard to regulate. Many parts of Regulation Z proceed by example, identifying costs that are, and are not, part of the cost of credit. Even if the list is completely comprehensive at the moment it is enacted, the categorization of fees creates incentives to develop new or different fees that can make the disclosure look "better" to the consumer. When a new example arises, as it inevitably will, proper application of the rule is both complex and uncertain, and private plaintiffs have strong incentives to argue that it should have been resolved differently. The result has been a continuing cycle of regulatory change, market changes, and a new round of regulatory changes, with a new wave of compliance burdens. The benefit to consumers is elusive, at best, who may do just as well choosing a loan term that fits their budget and purchasing the deal with the lowest monthly payment.

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[83] The relevant studies are reviewed and reported in Greg Elliehausen, The Cost of Bank Regulation: A Review of the Evidence, Federal Reserve Board, Staff Study No. 171 (1998).

[84] Drew Dahl, Jim Fuchs, Andrew Meyer, and Michelle Neely, Compliance Costs, Economies of Scale and Compliance Performance, Division of Bank Supervision, Federal Reserve Bank of St. Louis, April, 2018, Figure 3, available at [HYPERLINK "https://www.communitybanking.org/~/media/files/compliance%20costs%20economies%20of%20scale%20and%20compliance%20performance.pdf"].

[85] Id. at figure 1.

[86] For a more detailed discussion of the outlay issue, see Durkin and Elliehausen, supra note __, at 88-95.

A second conceptual issue is that the "true" cost of credit depends on unknown future events.[87] The issue is most apparent with credit cards, where the cost of credit depends among other things on the extent to which the consumer taps the available credit and whether he or she pays off the balance or revolves it. Similarly, the true APR on a mortgage with points will change depending on whether, or when, the consumer sells the property or refinances the loan. And of course, with variable interest rates on both credit cards and mortgages, future interest rate changes may have an important influence on the total cost. We can make assumptions to do the required calculations – that the 30-year fixed rate mortgage will be paid off according to the contract and not before – but such assumptions are both arbitrary and wrong for many of the consumers the disclosure is supposed to benefit.

Policymakers need to rethink Truth in Lending disclosures from the ground up. The starting point should be a careful consideration, based on consumer research, of the information that most consumers need most of the time to make a decision about a particular form of credit. Consumers need access to the details of the credit arrangement, but that is a more appropriate role for the contract than for disclosures. Disclosures should highlight the most important elements of the transaction. A disclosure that repeats the contract is likely to meet the same fate as the contract itself, remaining unread until a term becomes relevant.

For closed-ended credit, it would seem that consumers need four essential pieces of information: the contract interest rate, defined and disclosed in a standardized fashion, the amount of cash due at closing, the monthly payment, and the term of the loan This approach avoids the need to decide whether a particular charge is, or is not, a part of the cost of credit, and it leaves the unknown future events question to consumers themselves, who must take into account their own future plans and circumstances with or without disclosure. Regulatory hair splitting will not make the decision any easier for consumers.

For open end credit, it would seem that the key information is the contract interest rate, again defined and disclosed in a standardized fashion, and any regular, recurring fixed fees that a consumer must pay, such as an annual or monthly fee for use of the line of credit.

[All: I'm sure the last two paragraphs warrant significant further discussion among us, and I'm happy to be talked out of them. HB]

5. The Need for Clear and Realistic Goals

Controlling information overload requires careful attention to which disclosures are really necessary, and really useful to consumers. As we noted above, once adopted, disclosures tend to last forever, even if the problem they are addressing does not. Assessing the continued utility of a particular disclosure, however, requires a clear picture of the goals it was adopted to accomplish.

Disclosure is a valuable regulatory tool, but it is not the answer to all consumer protection problems. When disclosures are required, it should be with a clear, and articulated, goal in mind.

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[87] For a more detailed discussion of the unknown future events issue, see Durkin and Elliehausen, supra note __, at 95-106.

Too often, however, disclosures have been adopted for a wide variety of different reasons, in the belief that they will accomplish tasks for which there is little or no evidence that they are an appropriate tool. As noted earlier in this chapter, Truth in Lending requires many disclosures, but somewhat surprisingly, it has more goals than disclosures! Durkin and Elliehausen's study of Truth in Lending identified 38 distinct goals, grouped into 8 different categories, ranging from specific credit market goals to general philosophical and educational goals.[88] For open end credit, Dunkin and Elliehausen's list of required disclosure items elements is "only" 31 required disclosures. A statute with so many "goals" is unlikely to accomplish them all, and offers no guidance on resolving conflicts between goals in specific circumstances.

Disclosure is well adapted to addressing problems that stem from high costs of obtaining information, but only if it is successful in reducing those costs. As discussed at the beginning of this chapter, if it is cheaper to acquire information, consumers will acquire and use more information. Unfortunately, excessive disclosures can also increase the cost of acquiring information, and in that case, disclosures will have the opposite effect – consumers will use less information to make their decisions.

The most appropriate use of disclosures is to correct problems in the market for information. The threshold inquiry should be to identify the specific problem that impairs the provision of important information. Information is often not provided because most consumers are not interested in the information, but disclosures will not correct that lack of interest – consumers will simply be uninterested in the disclosures. If, on the other hand, comparing competing offerings is difficult because different providers use different terms or calculate key parameters in different ways, a standardized definition can reduce the costs of information and facilitate informed choice.

A more problematic use of disclosures is what some have called "normative disclosures." These disclosures provide information, not because consumers are interested, but because the policymaker thinks that consumers *should* take it into account.[89] They use information, but as a means to "nudge" consumers toward a behavior that is thought more desirable than their actual behavior. Disclosures attempting to reduce the cost of acquiring information respect consumer's preferences and provide them with the information they need to accomplish their goals. Normative disclosures seek to change their goals.[90]

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[88] See Durkin and Elliehausen, supra note __, at 173-174.

[89] Todd J. Zywicki,, Market-Reinforcing versus Market-Replacing Consumer Finance Regulation, in Hester Peirce and Benjamin Klutsey, eds., *Reframing Financial Regulation: Enhancing Stability and Protecting Consumers*. Arlington, VA: Mercatus Center at George Mason University, 2016, at 327. See also Tom Durkin. "Requirements and Prospects f0r a New Time to Payoff Disclosure for Open-End Credit Under Truth in Lending" (Federal Reserve Board, Finance and Economics Discussion Series, 2006-34).

[90] Normative disclosures and "nudges" are distinct from financial literacy education efforts. Education seeks to teach consumers how to make better decisions by better understanding financial decisions and their consequences. A nudge seeks to push consumers to a favored conclusion.

One clear example is the required minimum payment warning on credit card statements. which indicates how long it will take to pay off the outstanding balance making only the minimum payment, and in many cases the payment required to pay off the balance in 3 years. The statement is more aimed at nudging consumers to pay more than the minimum payment than providing useful information. The information is only of use to consumers who contemplate paying only the minimum indefinitely, and who plan to stop using the card in the meantime. By one estimate, that amounts to only 4 percent of consumers.[91]

The drawback of normative disclosures is that they contribute just as much to information overload as any other disclosure. Even worse, there is no clear limiting principle about which behaviors policymakers should try to influence, leading to the potential for significant increases in the information load confronting consumers. Attempting to nudge consumers in a "desired" direction therefore undermines the effectiveness of disclosures that actually seek to reduce information costs and may result in consumers making worse choices with less information.

6. The Future of Disclosures

We increasingly live in a world in which information is available on demand, not by reading through a lengthy document but rather by more focused inquiries about particular product features or particular terms of an offer. Policymakers should rethink disclosure requirements, and how they apply in this environment.

Many, perhaps most, innovations in providing information at the time it is needed are likely to result from market competition, as sellers seek to provide consumers with the information they want, when they want it. The information aggregators discussed above are a clear example. The proliferation of offers of timely information such as low balance alerts or alerts about potentially erroneous transactions is driven by competition among financial services providers. So are apps such as Capita One's widely advertised Eno that offers alerts about possibly mistaken credit card transactions, or apps that search credit card statements for recurring charges that a consumer may have forgotten.

"Just in time" disclosure, providing information at the point at which it is needed, is a promising approach to providing information, as the private market examples make clear. Establishing such systems by regulation, however, seems exceedingly difficult. In the case of unexpected credit card transactions, for example, most consumers likely do not want an alert about each and every transaction on their card, especially if the account has multiple users. The constant flow of alerts would defeat the purpose of flagging potentially problematic transactions, because it would effectively flag nothing. Market-driven service providers have the right incentives to limit alerts to transactions that are most likely to be of interest to the consumer, and to allow consumer choice of the level of alerts to the extent possible. What current disclosure requirements make clear is that, to date, the regulatory incentive has been to disclose everything, because it might be important to someone in some circumstances. That instinct is simply incompatible with "just in time" disclosure.

[91] Id.

We suggest that the focus for regulation of online information should be availability, rather than disclosure. Information about any term of the transaction or feature of the product should be readily *available* but choosing which terms to consider should be up to the consumer. As noted above, consumers ultimately decide which terms they attend to in any event, but "linear" disclosures mean that terms of little interest to the consumer interfere with their ability to locate the information they want. Scrolling through a required disclosure that provides all needed information is more likely to encourage consumers to scroll quickly to the bottom and click "accept" than it is to encourage careful consideration of the information provided. That is certainly what happens with the "terms and conditions" of online services and offerings. Online disclosures, however, need not be linear: separate links that allow consumers to obtain more information about any term of interest and can facilitate the information acquisition process. Such an approach would also generate data regarding what information is of most interest to consumers.

We recognize that some consumers need an alternative to online access to information, but that population is likely to be a significantly decreasing fraction of the population. A backup, paper-based alternative for some is likely to remain necessary for some time. Both because consumers are familiar with the existing system and because change is costly for those who must comply, these alternatives should change as little as possible from the present disclosure system. It is, however, far past time to rethink disclosures in the information age, which opens up a whole new range of possibilities.