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The Futility of Cost Benefit Analysis in Financial Disclosure Regulation

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Abstract

What would happen if cost benefit analysis were applied to disclosure regulations? Mandated disclosure has largely escaped rigorous CBA because it looks so plausible: Disclosure seems rich in benefits and low in cost. This article makes two arguments. First, it previews our thesis in *More Than You Wanted to Know* (Princeton Press, 2014) that disclosure laws do not deliver their anticipated benefits and thus could not easily pass quantified CBA. Second, it describes a previously unrecognized cost of disclosure, one arising from lawmakers' collective action problem. With the proliferation of disclosures, each new mandate diminishes the attention people can give to other information, including all other disclosures. The problem for CBA is lawmakers' inability to coordinate laws across different fields and jurisdictions. The article illustrates this regulatory failure by examining the rigorous cost-effectiveness analysis conducted by the Consumer Financial Protection Bureau in its recent mortgage disclosure regulation.

I. Introduction

Mandated disclosure is one of the most common regulatory techniques in American law. It has been the principal regulatory answer to some of the principal policy questions of recent decades, nowhere more prominently than in financial regulation. Financial crashes and crises breed new disclosure laws, from the Securities Act of 1933, the Truth-in-Lending laws of the 60s and 70s, Sarbanes-Oxley in 2002, and most recently the Dodd-Frank Act. In regulating investment markets, the law mandates disclosure of firm-specific information to investors. And in regulating credit markets, the law mandates a thicket of disclosure about loans' terms and risks.

Disclosure is lawmakers' favorite technique not only in financial regulation, but ubiquitously. Vast stretches of consumer-protection law mandate disclosures. Health law abounds in disclosures – in informed consent, health-care plans, insurance, drug labeling, and research regulation. Privacy law, campaign finance law, conflicts of interest regulation, and a long list of product-specific laws require sophisticated parties to give information to help people make better choices.

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Almost as striking as mandated disclosure's ubiquity is the absence of evidence that its benefits outweigh its costs. Even though government agencies routinely analyze costs and benefits when using other regulatory techniques, genuine analyses of mandated disclosure's costs and benefits are rare, a fact that seems to leave lawmakers unperturbed. Nor have scholars thirsted to take on the work of cost-benefit analysis. True, many studies investigating how well disclosees understand particular disclosures and how well changing disclosures improve understanding. Occasionally studies ask whether disclosures actually lead people to better choices in real, non-laboratory, settings. Few studies investigate the costs of disclosure mandates, and fewer still (if any) make a full-throated inquiry into whether benefits outweigh costs.[1]

While disclosure regulation has largely escaped the rigor of quantitative cost benefit analysis, informal analysis is largely positive. By "informal" we mean approaches that recognize the presence of costs and benefits and acknowledge that regulation's benefits ought to exceed its costs but do not actually try to measure whether they do.

How can mandated disclosure flourish as a regulatory device without "comprehensive estimates of the expected benefits and costs to society based on established definitions and practices for program and policy evaluation?"[2] Partly because the occasion for such comprehensive estimates often do not arise. Many disclosure mandates – including disclosures about financial choices – are set by courts in the common-law manner. When a court declares that a failure to warn or disclose is actionable, a new mandate is born. But courts are not asked to (and cannot) conduct serious cost benefit analysis. They generally have information only about the case before them and not about the larger problem, and their vision is easily distorted by hindsight.

Disclosure regulation flourishes in agencies' informal cost benefit analysis because its benefits look obviously great, its costs obviously small. The benefits, while hard to ascertain concretely, look substantial. Think about the benefit of warnings about how to use a medication, or information about a loan's price. These disclosures can prevent serious injury or disastrous borrowing. They also spare uninformed patients or borrowers the considerable expense of acquiring that knowledge in other less efficient ways. Whatever the disclosure's costs, the benefits seem orders of magnitude greater.

Furthermore, those costs look puny, not only relative to the perceived benefits but absolutely. Yes, firms and regulatory agencies must draft and distribute written

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[1] See John C. Coates IV, *For and Against Cost-Benefits Analysis of Financial Regulation*, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2375396.

[2] The quoted standard is taken from the government's circular laying out the requirement of cost benefit analysis. See *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*, Circular No. A-94 Revised, p. 4 (The White House Office of Management and Budget, October 29, 1992).

texts, often in predesigned and easily replicable formats, and this may require some resources. But generally mandated disclosure makes few demands either on the fisc or disclosers. It surely does not involve the kinds of costs that, say, drug approval or environmental regulation wrestle with—lost lives and significant effects on the regulated entity's primary activities.

And so informal cost-benefit analysis seems so obviously to favor disclosure that disclosurites think systematic cost benefit analysis superfluous. (We use the term "disclosurite" for those who favor mandated disclosure as a regulatory tool). Even if lawmakers overestimate the benefits or underestimate the costs, the errors look relatively harmless, for compared with other regulations the magnitude of effects is not staggering. Mandated disclosure often requires disclosers to give information they already have or can easily produce. The evidence that is therefore necessary to justify regulatory action can be looser. And scaling back or expanding a poorly drafted mandate looks easy. So most disclosure laws are enacted with weak opposition. Interest groups oppose only the few disclosures that are framed as warnings (e.g., GMO labeling, or credit card "Minimum Payment Warning".) Because interest groups rarely oppose mandates of full-disclosure, there is little systematic pressure to conduct cost-benefit accounts of a proposed mandate.

But what if cost benefit analysis were taken seriously? Could it be done? What would it show? These are of course questions too complex to be answered in a journal article, since mandated disclosure's effects depend on a long chain of fragile links. Lawmakers must correctly identify a problem, gauge what disclosure to mandate, and articulate the mandate correctly and comprehensibly. Disclosers must interpret mandates correctly and provide information appropriately. Disclosees must locate, read, understand, analyze, and apply disclosures effectively. Here, we will concentrate on some of the problems law-makers face, particularly some of the problems that have been least recognized.

We argue that were cost benefit analysis done methodically, only a diminutive fraction of the thousands of disclosures now required would be mandated. For two reasons. First, mandated disclosure's proved benefits are significantly lower than often assumed. Massive evidence points to this. The deluge of disclosures people receive, the overload of data in disclosures, the complexity of the issues disclosures try to explain, and the effort, skill, and learning disclosees would need to use disclosures to make good decisions all make it inconceivable that people will notice, read, understand, and use mandated disclosures effectively. The unending effort to reform, improve, and simplify financial disclosure is a testimony to how elusive the benefits have been. Intermediaries and agents might read and interpret disclosures for consumers, but this conjecture is contested even in securities markets and has no traction in retail credit markets.

If the benefit of disclosure were vanishingly low, mandates would be undesirable even if they cost little. But mandated disclosure's costs are significantly greater than often supposed. We identify a cost of disclosure that has not been previously articulated, and which is exceedingly unlikely to be captured even in systematic cost benefit analysis. It is a cost that emerges from the way various disclosure mandates interact with each other. We call it the "accumulation problem" and argue that it is a fundamental problem with disclosure regulation that no single lawmaker can resolve.

Our argument has two stages. We begin with the benefits of mandated disclosure. We track the standard disclosurite logic that mandated disclosure has much benefit and show that it conflicts with a vast array of findings in almost every kind of mandate. Elsewhere, we explain why mandated disclosure's benefits are quite small, so we do not reproduce that argument in detail here. [3] Rather, we develop the second stage of the argument, regarding the regime's costs. Here, too, we track the disclosurite logic that mandated disclosure is nearly costless.   We then identify the cost that evades even the most rigorous cost benefit analysis. When people receive numerous disclosures, each new mandate expropriates some of the attention paid to other disclosures. This is a cost that can offset the new disclosure's benefit. We illustrate our argument by examining a recent case in which an agency empirically tested a new disclosure mandate thoroughly and concluded that it is beneficial, but failed to account for the inter-disclosure accumulation effect. We demonstrate that this overlooked cost is likely to dwarf any perceived benefit that the agency hoped for. With our more complete account of mandated disclosure's costs we conclude that even disciplined cost-benefit analysis of any specific disclosure regulation is likely to inspire false regulatory hopes.

II. Benefit

A. The Allure of Mandated Disclosure: Many Benefits

Mandated disclosure proliferates in financial regulation and elsewhere because it seems so beneficial.   Benefits are sometimes framed in non-pecuniary, non-economic terms (e.g., "autonomy," the "right to know," the "disinfectant" against corruption, or educating consumers), but the perceived benefits have a strong foundation in welfare economics: Informed people make better choices and fewer mistakes. Informed markets compete and trade more efficiently and thus produce more surplus. Disseminating information saves the duplicate searches and over-caution uninformed people tend toward.

Information's benefits are so well accepted that they are often *assumed* to exceed mandates' costs. For example, consumer financial disclosures intend to produce a concrete benefit – helping consumers choose financial products. But measuring this benefit has been hard, leading Federal Reserve regulators, writing on truth-in-lending

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[3] Omri Ben-Shahar and Carl E. Schneider, *More than You Wanted to Know: The Failure of Mandated Disclosure* (Princeton University Press, 2014).

laws, to concede that "it may not be possible to do much more than infer or assert that disclosure requirements have probably had a favorable impact. For example, it may be difficult to demonstrate conclusively that TILA had improved consumer's ability to match product and needs . . . ." But these regulators are undisturbed, because "it certainly seems reasonable that more readily available information should do this."[4]

Disclosure's benefits also seem so broad and many that specifying their size seems almost petty. Instead of counting the magnitude of benefits, disclosurites count the number of distinct benefits (and find no less than thirty-eight social distinct benefits). The long list of disclosure's presumed benefits includes: improving competition, driving out high cost producers, reducing corruption and exploitation, increasing the competence of individual consumers' decisions, encouraging market reforms, reducing wasteful information processing costs, improving saving/consumption tradeoffs by consumers, and even enhancing economic stability.[5]

Disclosure's benefits are not only plausible and varied, they are also hard to disprove. Disclosurites ordinarily attribute a disclosure regime's failure to achieve its goals to problems in implementation which call for adjustments and reforms. If a disclosure failed, the problem is not in disclosure as regulatory tool but in some correctible flaw in the mandate or its fulfillment. Thus, disclosurites who are otherwise deeply committed to cost-benefit analysis respond to disclosure's failure with proposals to improve, simplify, and "properly design" disclosures.[6] TILA, for example, is generally thought unsuccessful because it has not led consumers to informed credit choices. This despite the attractions of TILA's principal disclosure – the APR – which is the prototype "summary disclosure" of disclosurite dreams: "concrete, straightforward, simple, meaningful, timely, and salient."[7] Its "history of dysfunctional reform" has not lessened its use—and growth—as a regulatory device or the faith that "disclosures are useful and improvements are possible."[8]

Thus, perhaps because disclosure's benefits are hard to monetize and compute concretely, its benefits are assumed. And so disclosurites proffer "a *comprehensive enumeration* of the different types of benefits" hoping that this, rather than direct measurement, can "be helpful in identifying the full range of program effects."[9]

B. The Failure to Produce Meaningful Benefits

[4] Thomas A. Durkin & Gregory Elliehausen, *Truth in Lending: Theory, History, and a Way Forward* 191 (Oxford U Press, 2011).
[5] *Id.*, at 173.
[6] Cass R. Sunstein, *Empirically Informed Regulation*, 78 U. Chi. L. Rev. 1349, 1366 (2011).
[7] Id at 1369 (2011).
[8] Thomas A. Durkin & Gregory Elliehausen, *Truth in Lending: Theory, History, and a Way Forward* xi (Oxford U Press, 2011).
[9] *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*, Circular No. A-94 Revised, p. 3 (The White House Office of Management and Budget, October 29, 1992).

We wrote a book explaining why mandated disclosure's benefits are small, and we will not reproduce that argument in detail.[10] Mandated disclosures typically address unfamiliar and complex issues. To provide the information a reasonable person would want to make a good decision, disclosers pile so much information on readers that they cannot possibly cope with the burden of understanding and analyzing what they have read. These problems are intensified by the fact that people are often not literate enough, or schooled enough in the complexities of quite specialized decisions, to use the information profitably. And to explain unfamiliar and complex choices, disclosures must often be written at a college reading level.

In addition, people are not motivated to work hard to crack disclosures: they resist contemplating a transaction's disclosed dangers of the transaction; they have learned from experience and from informal social understandings to regard disclosure as an inane legalistic ritual (how often have you read any bank mailing disclosing new terms of your account?); and they make economically rational decisions to spend their time doing things they enjoy rather than struggling through disclosures that are dense, dull, difficult, and dispiriting. And so a large body of evidence finds that consumers don't read financial disclosures (or for that matter, any kind of disclosure).[11]

These problems are well documented and well known. Even disclosurites implicitly acknowledge them by their continuing search for new disclosure forms and methods. Yet disclosurites persistently believe they can be overcome. Disclosurites call for more rigorous design, harnessing behavioral insights, experimental evidence, cutting-edge technology, and (most of all) simplification. But simplification and a panoply of other solutions have been prescribed for decades, and we are little nearer the goal of successful disclosure than when we started. It is possible that the holy grail of simplification, based on a new regulatory dedication to social science and empirically-proven methods will eventually be discovered. We cannot prove otherwise. But presenting unfamiliar and complex information simply is virtually a contradiction in terms.

For example, the disclosures made to people choosing health insurance plans are notoriously forbidding and unhelpful, even in lab-tested simplified form. Under the Affordable Care Act, reengineered "Summary of Benefits" disclosures are better laid out than before but still are so stuffed with information that "participants found the forms were much less transparent than they initially thought," continued to be overwhelmed and unable to manage all the information, and often based decisions on single factors

[10] Omri Ben-Shahar and Carl E. Schneider, *More than You Wanted to Know: The Failure of Mandated Disclosure* (Princeton University Press, 2014).
[11] Id., Ch. 3-7.

like copays.[12] Even the simplified "TILA disclosure form usually is not furnished as a single document." Rather, a "large stack of documents, many containing very peripheral information, must be sifted through in order to find the one or two pages that contain key information."[13]

Another kind of evidence of the limited potential of simplification and other fixes is a genre of studies using simplified disclosures in an ideal form in an ideal setting. For example, the SEC has authorized a summary prospectus intended to speak "in plain English in a standardized order" and to do so "succinctly, in three or four pages."[14] Beshears et al. tested the prospectus on a group—"Harvard non-faculty, white-collar staff members"—especially likely to understand it. They were better educated and more sophisticated even than the average retail investor. Yet the Summary Prospectus did "not alter subjects' investment choices. Dollar-weighted average fees and past returns of mutual fund choices [were] statistically indistinguishable." Even when investing for just one month, they chose funds with loads and fees averaging 200 basis points more than funds with the lowest fees (rational only if, miraculously, the former funds did 24 percentage points better than the latter).[15] Worse, people given the simplified prospectus paid more attention to past returns (foolish in the circumstances).

Hopes for better-designed financial disclosures are nourished by apparently successful disclosure campaigns in other areas. For example, in their book "Full Disclosure" (which advocates a version of mandated disclosure they call "targeted transparency") one of Fung, Graham, and Weil's eight examples is the mandatory hygiene-grade posted in restaurants' windows.[16] It has become the poster child for simplified disclosure. Can disclosure succeed if it is reduced to a simple score – "A", "B", or "C"?

This is exactly what decades of disclosures to borrowers have tried to do. Truth-in-lending laws put their faith in the APR – the score intended to summarize a loan's costs. This single score is perhaps the most carefully thought (and regulated) disclosure tool, and some studies have credited it with some measure of success in improving the

[12] Lynn Quincy, *Making Health Insurance Cost-Sharing Clear to Consumers: Challenges in Implementing Health Reform's Insurance Disclosure Requirements*, Commonwealth Fund pub. 1480 Vol. 2 (2011).
[13] Alan M. White & Cathy Lesser Mansfield, *Literacy and Contract*, 13 Stan. L. & Policy Rev. 233, 239 (2002).
[14] *Enhanced Disclosure and New Prospectus Delivery Option for Registered Open-End Management Investment Companies*, Securities and Exchange Commission, 17 CFR Parts 230, 232, 239, and 274 (Release Nos. 33-8861; IC-28064; File No. S7-28-070, RIN 3235-AJ44) (2007).
[15] John Beshears et al., *How Does Simplified Disclosure Affect Individuals' Mutual Fund Choice?*, in *Explorations in the Economics of Aging,* ed. David A. Wise (U Chicago Press, 2011), 75.
[16] Archon Fong, et al, *Full Disclosure: The Perils and Promise of Transparency* (Cambridge, 2008).

loan terms consumers receive.[17] Yet it is widely thought a failure in the sub-prime credit markets (where it is needed most),[18] and even the favorable assessments of this regime have not shown that it exceeds its compliance cost.[19]

In fact, even simplification's emblem—the restaurant hygiene grading—rests on empirical evidence that is, at best, equivocal. Despite one oft-cited study showing a sensational 20% decline in food-borne illnesses after the mandate was imposed,[20] newer and better data find no evidence of health benefits. Grades (however plausible) "do not convey meaningful information that would enable consumers to choose between riskier and less risky establishments." Worse is "startling evidence that grading displaced agency resources away from compliance inspections (generally at worse-scoring restaurants) to reinspections (generally at better-scoring restaurants.)"[21] This is a typical artifact of disclosure law, channeling compliance effort to the disclosed features and away from the non-disclosed ones.

In some areas, disclosurites recognize that disclosures neither reach disclosees nor improve their decision but hope that sophisticated intermediaries can be "reading agents" disseminating information to the great mass of nonreaders. The classic example is investment bankers who base advice on their reading of firms' financial disclosures. Whether mandated disclosure is necessary for such intermediaries is disputed even in securities markets, where the intermediaries clearly exist. In other areas of financial disclosure, it is a mirage. Does any sophisticated agent base recommendations to borrow on consumer-credit disclosures? What effective intermediary helps banks' customers master the fees, overdraft rules, and terms of service for standard checking

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[17] See, e.g., Victor Stango and Jonathan Zinman, *Fuzzy Math, Disclosure Regulation and Credit Market Outcomes*, 24 Rev. Econ. Stud 507 (2011); Patricia A. McCoy, *Rethinking Disclosure in a World of Risk-Based Pricing*, 44 Harv. J. on Legis. 123 (2007); Jinkook Lee and Jeanne M. Hogarth, *Consumer Information Search for Home Mortgages: Who, What, How Much, and What Else?* 9 Fin. Services Rev. 277 (2000); Elizabeth Renuart and Diane E. Thompson, *The Truth, the Whole Truth, and Nothing but the Truth: Fulfilling the Promise of Truth in Lending*, 25 Yale J. Reg. 181, 189 (2008).

[18] See, e.g., Edward L. Rubin, *Legislative Methodology: Some Lessons from the Truth-in-Lending Act*, 80 Geo. L.J. 233 (1991); Jeff Sovern, *Preventing Future Economic Crises Through Consumer Protection Law or How the Truth in Lending Act Failed the Subprime Borrowers*, 71 Ohio St. L. J. 761 (2010); James M. Lacko and Janis K. Pappalardo, *Improving Consumer Mortgage Disclosures: An Empirical Assessment of Current and Prototype Disclosure Forms* (Federal Trade Commission, Bureau of Economics Staff Report 2007).

[19] Stango and Zinman, supra note 17, at 509 ("Our results also highlight the practical downside of disclosure regulation: Any benefits of mandated APR disclosure may be offset by compliance and enforcement costs.")

[20] Ginger Zhe Jin & Philip Leslie, *The Effect of Information on Product Quality: Evidence from Restaurant Hygiene Grade Cards*, 118 Quar. J. Econ. 409 (2003).

[21] Daniel E. Ho, *Fudging the Nudge: Information Disclosure and Restaurant Grading* , 122 Yale L J 574 (2012).

accounts? Or assists people with credit-card contracts, prepaid debit-card fees, or payday lending? Besides, if sophisticated intermediaries are the true targets of disclosures, why has simplification become the priority of disclosure regulation?

In sum, no systematic empirical evidence finds that mandated disclosure achieves its goals, but disclosurites continue to assume it works or think it can be fixed. We mentioned the regulators who identified thirty-eight goals of truth-in-lending disclosures. They examine each set of goals and find a "regrettable paucity of evidence." Yet without empirical basis they conclude: "it seems clear that required disclosures likely have had a favorable impact."[22] This is the triumph of hope over experience.

If regulators were committed to justification by works – by genuine cost-benefit analysis of disclosure regulation – rather than to justification by faith, how would they proceed? A standard solution is laboratory testing to show that disclosees understand new formats better than old ones (although improved understanding does not assure improved decisions). Some of these experiments seem moderately encouraging: Isolated from other concerns, focused on their task, and led by researchers anxious for success, some people do somewhat better some of the time. Such improvements have been achieved, for example, by the Consumer Financial Protection Bureau's financial disclosure forms (under a highly motivated regulatory agenda of "Know Before You Owe"), by health regulators developing new health-benefits summaries, and by scholars studying payday lending. This method, when informed by sophisticated behavioral insights and empirical studies, rekindles hopes for rigorous cost-benefit analysis. But it has many flaws, including a fundamental defect, which we discuss in next section.

III. Cost

A. The Allure of Mandated Disclosure: Low Cost

Mandated disclosure is ubiquitous not only because its benefits seem so plain, but also because its costs look so low. Sophisticated disclosurites recognize that disclosure's benefits may be modest but imagine that its costs are so trivial that it is "at worst, harmless."[23] Disclosure's costs do look obvious and modest. Disclosures seem to consist largely of technical information that is easily revealed without the kinds of costs that require contentious (often tragic) trade-offs.

The modest costs come in several forms. First, the cost to regulate. Lawmakers must craft well-gauged mandates, but unlike laws directly regulating prices and standards, this requires minimal effort and cost. While a small regiment of government

[22] Thomas A. Durkin & Gregory Elliehausen, *Truth in Lending: Theory, History, and a Way Forward* 211 (Oxford U Press, 2011).
[23] Robert A. Hillman & Maureen O'Rourke, *Defending Disclosure in Software Contracting*, 78 Univ. of Chicago L. Rev. 95, 107-08 (2011).

officials oversee, tweak, and clarify mandates like truth-in-lending laws, the rest is done by private parties. Mandated disclosure needs no subsidies, little research, and minor enforcement. It does not require subsidies (this would be *really* costly). It does not seem to impose much delay. Disclosure regulation, then, looks not only cheap, but wonderfully cheaper than its alternatives.

The second and usually largest item in the cost column of cost benefit analysis is regulation's effect on regulated entities. In other areas, like environmental or safety regulation, compliance costs can be high and regulated parties must often alter the kind and quantity of their activities. For example, the FDA's cost benefit analysis of the efficacy of drugs costs billions and takes years, which means costly delays in introducing valuable treatments, but has the potential to generate substantial benefits as well.

Complying with disclosure mandates is hardly costless, but it implicates none of the really expensive elements of ordinary cost-benefit analysis because it rarely requires changes in the discloser's primary activities (although such changes might result if disclosures were effective in shaping consumer demand). Unlike FDA drug approval regulation, for example, disclosure regulation lets firms sell any product if they disclose its risks. In general, firms distribute information they presumably have. Compliance is thus achieved by making texts available, either by printing and distributing them, or by posting them digitally. They need only design disclosures about their conditions, contingencies, and conflicts, and attach new forms to the otherwise unchanged transactions. Compliance, in other words, is accomplished by hiring lawyers who interpret the mandate and design the language of the disclosure; it is not necessary to redesign a product, relocate a factory, or build higher smoke stacks.

Disclosure regulation may impose another category of costs on disclosers: liability costs. Firms subject to mandates may be sued and found to have under-disclosed. In financial areas, these costs can matter. But such charges do not affect cost benefit analysis because they are private, not social, costs. Every dollar a discloser who violates a mandate pays is a dollar recovered by a plaintiff harmed by the violation.

True, liability may involve deadweight loss, like lawyers' fees, court time, and even defensive conduct (e.g, leaving a market where suits are frequent). But such costs are hard to factor into cost-benefit analysis. Regulation can and should consider the cost of compliance, not the cost of non-compliance.

Finally, the costs of disclosure look modest because errors in measuring them look harmless. No jobs are lost, no factories close, no one sickens and dies. Politician will not complain about disclosure's harms, and disclosers often prefer these mandates to regulation with bite.

B. The Uncounted Costs

One kind of cost of mandated disclosure has particularly escaped the notice of law-makers and commentators. It is a kind of cost that would be hard, probably impossible, to handle in any ordinary cost-benefit analysis because it is virtually impossible to measure directly. But were it measurable, we believe this cost by itself would be great enough to make most disclosure regulation unjustifiable.

This cost is the value that disclosures exact from each other. Disclosures compete for their audience's attention. But the audience is so deluged by mandated disclosures that attention given to one necessarily comes at the expense of others. Thus, to achieve meaningful benefit in terms of affecting people's decisions, the cost involved would be measured by the reduced attention to, and effectiveness of, other disclosures. Given the structure and dynamics of American government and regulation, this poses devastating problems for lawmakers, problems that pervade and cripple mandated disclosures.

Imagine a disclosure given to a mortgagor – Disclosure #1 ("D1"). It tells the borrower the monthly payments. Because the mortgage terms permit the lender to adjust interest rates, the disclosure gives the borrower an estimated range of payments. For many borrowers, this is the most important datum in evaluating the loan. Suppose D1 is the mortgagor's only mandated disclosure. It is presented in a well-designed and tested format and – for good measure – explained orally. The discloser tests the borrower's understanding of the loan and of the availability of loans with fixed rates. If dissemination costs are low, D1 bids fair to pass cost benefit analysis.

Consider now a second disclosure, D2. It tells the borrower that the loan's cost also includes the home insurance the creditor requires. Like D1, D2 has low marginal delivery costs. Like D1, D2 helps borrowers by discouraging undue optimism about whether they can afford the loan and by encouraging them to shop for cheaper insurance. Thus, like D1, D2 seems to pass cost benefit analysis.

But there is an uncounted cost to D2. It is disclosed at the same time as D1—at the loan application (or closing). The borrower's limited attention must now be divided across two disclosures. Some borrowers may spend extra time and attention on the combined D1 + D2, but at least some of the attention to D1 is likely to be crowded out. Thus D2 reduces D1's effectiveness.

Now add D3, D4, D5, D6, . . . , Dn. Each D—delivered alone—could be made effective and useful to many borrowers. Each, viewed alone, might pass cost effectiveness analysis. Each, empirically tested in artificial surroundings, helps more than a few trial participants. But as each joins the accumulation of disclosures, any attention it draws reduces the attention the others get.

This example is not imaginary. It captures the exact reality of consumer credit disclosure regulation. The Consumer Financial Protection Bureau recently tried to simplify federal mortgage disclosures. Before the reform, federal law mandated two separate disclosures of the loan's terms: the Truth-in-Lending Act statement (the APR and several other factors) and the Real Estate Settlement Procedures Act disclosures (the Good Faith Estimate and the HUD-1 settlement statement). The Dodd-Frank Act required the Bureau to unify the two overlapping and confusing disclosures into a single integrated disclosure.[24] The Bureau used sophisticated empirical methods in a rigorous effort to produce one simple and effective disclosure.

The Bureau followed an impressive protocol for regulatory design. A professional research company tested multiple versions of the disclosure over time in a variety of social-demographic settings. It deployed sophisticated quantitative research methods. It harnessed the literature on cognitive processes and behavioral biases. The designers conducted experiments in which subjects were given forms and tested in one-on-one interviews. It is hard to imagine what else the Bureau could have done to obey the statutory command to simplify and clarify the disclosure. This effort produced a new and distinctively clear disclosure format: a three-page form that replaces the seven-page dual disclosures. The research team wrote a 500-page report explaining how it developed the new design and measuring the improvement in understanding it produced.[25] This comes as close as possible to cost-benefit analysis of a disclosure mandate.[26]

Is this a regulatory success? Hopes for it are inspired by the way the forms were drafted and tested. But the forms are tested in an environment so different from the real world that their success is likely to be illusory: they show that if people are sufficiently focused on the cognitive task of learning about a specific issue, their understanding increases by good presentation of materials. In the real world of mortgage disclosure, however, borrowers cannot focus their attention with the intensity achieved in laboratory experiments because they receive more than the single simplified form. Even a relatively simple mortgage transaction may be accompanied by as many as fifty(!) separate disclosures mandated by various agencies and statutes. The Bureau's new form is only one of these. There are disclosures mandated by other federal agencies, by state legislatures, by municipal laws, and by state and federal court

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[24] 12 U.S.C. 5532(f), 12 U.S.C. 2603(a), 15 U.S.C. 1604(b).

[25] *Know Before You Owe: Evolution of the TILA-RESPA Disclosures* (Report Presented to the Consumer Financial Protection Bureau, July 9, 2012), available at http://files.consumerfinance.gov/f/201207_cfpb_report_tila-respa-testing.pdf. The Bureau adopted the new integrated disclosure format in a regulation published at the end of 2013, effective August 1, 2015. See Bureau of Consumer Financial Protection, *Integrated Mortgage Disclosures under the Real Estate Settlement Procedures Act (Regulation X) and the Truth In Lending Act (Regulation Z)*, 12 CFR Parts 1024 and 1026. The new forms may be viewed at www.consumerfinance.gov/knowbeforeyouowe/compare/.

[26] A similar effort was conducted by the Federal Reserve in 2008. See *Design and Testing of Effective Truth in Lending Disclosures: Findings from Experimental Study* (Report Submitted to the Board of Governers of the Federal Reserve, December 15, 2008), available at http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20081218a8.pdf.

decisions. There are disclosures about the loan's tax consequences; the property appraisal; the lender's credit reporting practices; agents' conflicts of interests; the right to cancel the transaction; compliance with non-discrimination statutes; privacy and data collection; payment options; escrow choices; and much more. There is even – wonderfully – the Paperwork Reduction Act disclosure.

So instead of receiving a single form in the artificial circumstances of a pre-regulatory laboratory study, actual borrowers get a disclosure stack easily exceeding one hundred pages and needing dozens of signatures. Even if each of these fifty disclosures were superbly designed, their accumulation would defeat their purpose.

A disclosure, put differently, grazes a public commons – people's attention. Each draws a bit more of this resource, degrading the effectiveness of other disclosures. As disclosures are regulated piecemeal, this negative externality is not counted and cannot possibly be measured. The negative externality—the reduced effectiveness of other disclosures, depends on *n*—the number of disclosures people get. When it is high, any incremental attention to each disclosure is offset by the reduced attention to other disclosures.

Might this problem be solved by using a single meta-regulator for all financial disclosures? This regulator would select the optimal number of disclosures. It would prioritize the few that really matter and stop when the crowding-out effect offset a new disclosure's benefit. Alas, this is impractical.

First, consumer credit is regulated by federal, state, and local jurisdictions, and within each jurisdiction by institutions including legislatures, administrative agencies, and courts. For example, consumer mortgages raise issues within the jurisdiction of separate specialist agencies that regulate money and finances, privacy, real estate, tax, safety, and insurance. Even if, marvelously, each agency could mandate only *one* disclosure – a "D1" of its domain – the disclosures would converge at the closing, jostling for attention. Each agency's disclosure would diminish – in ways and to an extent that would be hard to ascertain – the other agencies' efforts.

Second, the accumulation problem is due to another institutional overlap: the gradual aggregation of disclosures over time. Lawmakers issue mandates in response to social problems as they arise. If a drug causes harm in a new way, a new warning seems necessary—the n-th item in a sequence of warnings. When the agency issues it, or when the court adds it to the list of mandated warnings, there is neither opportunity, information, method, nor incentive to evaluate its degrading effect on existing mandates. This problem is particularly acute for the common law method of mandating disclosure (say, under contract law's fraud doctrine or tort law's duty to warn doctrine). Judges see the risk that materialized but don't see how cluttered the disclosure landscape already was.

This problem besets even sophisticated lawmakers. The Dodd-Frank Act was launched to the beat of a different drum—of smart and simplified disclosure—but it too added to the notorious litter of mortgage disclosures. Tellingly, the Act instructed regulators to laboriously shorten two disclosure forms to their bare essentials, but it also *added* a host of new disclosures. In addition to the remaining old disclosures, the new mandated form now discloses mysterious items like "total interest percentage," "liability after foreclosure," "partial payment policy," and "negative amortization." And the Bureau is required to issue rules implementing new disclosures on matters such as "reset of hybrid adjustable rate mortgage," "loan originator identifier," "appraisals for high risk mortgages," and "post consummation escrow cancellation."[27]

So what is an agency, wholeheartedly committed to systematic cost benefit analysis, to do? It lacks the authority to abolish old disclosures mandated by lawmakers or by other agencies. It has few incentives to decide that its own old mandates have gone stale or to clear the stage for new ones. There never seems to be evidential basis to eliminate an old disclosure, but there is constantly evidence for new ones.

The accumulation problem, we see, arises from inter-disclosure dilemma, both across agencies and across time. But it is further, hopelessly, exacerbated by the fact that disclosures are mandated in so many areas in which people must make unfamiliar, complex, and consequential choices. The borrower who confronts the stack of fifty disclosures about a mortgage lives in a steady drizzle of disclosures about innumerable other decisions, financial and others. The borrower has a checking account, a few credit cards, and perhaps an investment account, all dripping with disclosures. The borrower buys products festooned in often lengthy disclosures about what the product is, how to use it, and which risks it poses. The borrower uses the internet and enters sites that are a patchwork of disclosures about privacy policies, terms of service, fees, and much more. The borrower is a patient who is offered a choice of treatments whose nature, benefits, risks, and alternatives must be detailed. The borrower must choose from a menu of health-care plans and select ad-hoc medical treatment, all with sophisticated financial implications—all explained in disclosures. The borrower is a citizen who is subject to a barrage of disclosure campaigns intended to make the borrower healthy, wealthy, safe, and sage. The borrower, in short, is asked to study disclosures many times each day. (Just reading all privacy disclosure the borrower got annually would take six weeks.) No lawmaker, however shrewd, sophisticated, and skilled can make disclosures work well in this environment.

Furthermore, nothing draws the lawmaker's attention to the accumulation problem, nor would raising it be politically attractive or (often) legally relevant. Would a court adjudicating a tort failure to warn suit ever stop short of requiring a warning just because too many disclosure already deplete people's attention? Even if the

[27] *Integrated Mortgage Disclosures under the Real Estate Settlement Procedures Act (Regulation X) and the Truth In Lending Act (Regulation Z)*, 12 CFR Parts 1024 and 1026, pp. 82-83.

accumulation problem were recognized in the literature, even if lawmakers assimilated the literature, and even if lawmakers wanted to prune the disclosure thicket, they would have neither the incentives nor occasion to do it effectively.

No method of trying to measure disclosure's cost-effectiveness can account for the accumulation problem. The externality that each disclosure imposes on others cannot be measured. Although it is obvious, the accumulation problem is not even recognized. Regulators are well aware of a different quantity problem – the problem of overload. But while they recognize that too much information *within* a disclosure is pointless, they do not recognize that too much information *across* disclosures is also harmful. The problem of extensive disclosures has not been identified as its closely related problem of intensive disclosures. And while intensive, overloaded, disclosures can be re-engineered, the extensive accumulation of disclosures cannot be solved.

Conclusion

How can lawmakers mandate disclosures so promiscuously with so little evidence that they do more good than harm? Partly because disclosures are often mandated not so much because they are expected to work as because they are the only practical response to pressure to act. That is a poor reason to mandate disclosures, but it beguilingly easy to believe that cost-benefit analysis is unneeded. Mandated disclosure seems so plausible, and its failure is so easily explained. Thus, even when lawmakers and commentators think somewhat more explicitly than usual about disclosure's costs and benefits, the balance seems at first glance self-evidently to be on the benefit side.

But the benefits of mandated disclosure have been notoriously elusive, and nowhere more prominently than in consumer financial regulation. In fact, it would astonishing if disclosures yielded much benefit. Financial products are complex, generally for good reasons. Millions and millions of people are only modestly literate, and millions and millions more are financially illiterate. How can they learn to make good choices through tutorials plastered on fine print forms?

A more careful assessment of benefits and costs reveals that mandated disclosure has unappreciated costs that are hard to measure and substantial enough to undermine the enterprise. Disclosures work (in theory) if people pay attention to them. Attention is a scarce resource, and thus at best only a limited number of disclosures could work. When the number of disclosures mandated exceeds this optimal level, additional disclosures do not increase, and may even reduce, the attention discloses pay to disclosures.

What are the lessons of disclosure regulation to the general enterprise of cost-benefit analysis in financial regulation? The risk we identified is "tunnel vision"—a narrow perspective that encourages regulators to exaggerate the benefits of a proposed regulation. Tunnel vision comes from the ways a regulation may interact with other regulations, including those issued by other federal, state, and local agencies. These interactions underscore the benefits of having a coordinator like OIRA—the White House Office of Information and Regulatory Affairs. OIRA reviews regulation from different agencies and can be a repository of institutional knowledge and of coordination. It can guide regulators and discourage them from going down blind alleys and reproducing old errors. OIRA might not be able to overcome the excessive accumulation of legislative disclosure mandates, but it can teach the limited utility of disclosure in today's regulatory landscape.

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