STATEMENT PREPARED FOR CFPB SYMPOSIUM ON COST-BENEFIT ANALYSIS

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Thank you very much for inviting me to speak at this symposium. I would like to commend the Bureau for hosting this symposium on cost-benefit analysis and for taking initiatives to advance the methodology of its cost-benefit analysis.

My Background

My views on this matter are informed by the following set of experiences. From 2006 to 2007, I worked as a law clerk to Honorable Thomas B. Griffith on the U.S. Court of Appeals for the D.C. Circuit. During my clerkship, I got to see firsthand how circuit judges review agency rules that are challenged by private litigants. From 2007 to 2012, I worked at the U.S. Securities & Exchange Commission. During my first four years at the Commission, I was an Economic Fellow in the Office of Economic Analysis (which has since become part of the Division of Economic & Risk Analysis) and assisted the Commission's rulemaking efforts. In the final year, I worked as an attorney advisor in the Office of Chief Counsel for the Division. While I was at the SEC, the D.C. Circuit decided *Business Roundtable v. SEC* (D.C. Cir. 2011), which struck down the Commission's "proxy access" rule for what the court perceived as an "arbitrary or capricious" cost-benefit analysis. This loss prompted the Commission to publish its guidance document on economic analysis in SEC rulemaking. Since 2012, I have been a law professor and have been teaching securities regulation and administrative law. My research interests include agency rulemaking, cost-benefit analysis, securities regulation, administrative law, and litigation models in law and economics.

Models of Cost-Benefit Analysis

When it comes to a cost-benefit analysis of financial regulation, I share Professor John Coates' (my co-panelist today) concern. In his *Yale Law Journal* article,[1] Professor Coates explains why conducting a reliable and robust quantitative cost-benefit analysis is difficult, if not impossible, for financial regulations. Among other things, Coates (2015) mentions the difficulty of quantifying *psychological* costs and *indirect* costs of a financial crisis. Indirect benefits and costs are important for regulations in this area because often they can be magnitudes greater than direct benefits and costs, and these figures are also subject to high variances.

This brings us to the question of whether *risk-reduction models* might provide a way forward for the Bureau. Risk-reduction models potentially offer a framework for monetizing some of these indirect and psychological effects, and Professor Mark Cohen (my co-panelist today) is an expert in this area. Personally, I am excited that the Bureau is considering these models. The U.S. Environmental

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[1] John C. Coates, IV, *Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications*, 124 YALE L.J. 882 (2015).

Protection Agency (EPA) routinely uses a *value of statistical life* (VSL) estimate to quantify the benefits of mortality risk reductions for use in cost-benefit analyses of its rules and regulations. These models have been also used by a number of other agencies, including the Department of Agriculture, the Department of Transportation, and the Food and Drug Administration. Nevertheless, their uses have been almost non-existent among financial regulatory agencies. But there is no reason why that should be the case. One can imagine a similar methodology being used to estimate a value of a statistical foreclosure avoided or of a statistical bankruptcy avoided. In the realm of financial regulation, Professor Eric Posner and Glen Weyl[2] have suggested that agencies should begin with the *cost of a statistical crisis* and then estimate the magnitude of risk reduction associated with different regulatory options. They argue that "if agencies are forced to make explicit their implicit estimates, it will stimulate research and criticism, ultimately improving accuracy."[3]

In my opinion, with risk-reduction models, the Bureau should be able to justify a lot more rules under the cost-benefit analysis. That said, a couple of things to keep in mind. First, applying the conventional methodology of measuring a VSL to estimate a value of a statistical foreclosure avoided may fail to capture negative externalities (although there are ways around it). For example, if we are talking about an individual's willingness-to-pay to reduce his risk of foreclosure, then that value won't capture the benefit of avoiding the negative price effects his foreclosure may have on the neighboring property values. Those would have to be considered separately. Second, some Bureau rules may be designed to address or combat certain cognitive biases on consumers' parts. But this also means that the data gathered to calculate the value of risk reduction in those areas, too, may be subject to the same biases, especially if the data is based on surveys. So the Bureau should grapple with how these biases, such as *hyperbolic discounting* or *optimism bias*, may affect the value calculations under these models. But I don't see these as insurmountable challenges. For this reason, I would be excited to see the Bureau become a leader in this area, and perhaps we may see the other financial regulatory agencies following the Bureau's lead.

At this point, let me take a step back and talk about cost-benefit analysis more generally. It's important to remember that there are actually *three distinct challenges* when it comes to conducting a cost-benefit analysis of a financial regulation. I think of them as *tiered* challenges.

- *Equilibrium Prediction.* Given a proposed rule, before any analysis can be carried out, the agency must figure out what the economy will look like once the rule is adopted and enforced. This is the very first step. But in practice, this can be quite difficult. Correctly predicting the equilibrium requires divining how all the relevant parties who would be affected, directly or indirectly, by the rule will behave post-rule-adoption.

- *Quantification Methodology.* Having ascertained the likely equilibrium that will materialize, the agency must then determine a suitable methodology for quantifying the economic effects, including various types of non-monetary benefits and costs the new equilibrium will exhibit.

- *Data Availability.* Having ascertained the new equilibrium and determined the suitable quantification methodology, the agency must then collect relevant data (if available) to make these measurements.

[2] Eric Posner & E. Glen Weyl, *Benefit-Cost Analysis for Financial Regulation*, 103 AMER. ECON. REV. 393 (2013).
[3] *Id.* at 394.

These three challenges are ubiquitous. While not every rule will exhibit all three challenges, it's very likely that most "major" rules or "significant" rules will exhibit all of them. The panel has already discussed at length about data availability and data collection. So I'll focus on the first two challenges.

Of the first two, note that risk-reduction models will help the agency address the second challenge *but not the first*. Those models provide methods of quantifying non-monetary benefits and costs, but they will not help the agency with the equilibrium prediction problem. But this can also be a very difficult problem on its own, based on my own experience of SEC rulemaking.

Given a proposed rule, it is not unusual to see commenters expressing polar opposite views, and I don't think those extreme views are necessarily *all* groundless or *all* agenda-driven. Instead, I think the problem is that financial regulations can significantly affect how the market and its participants behave and react in response, and on top of that, one individual's best response can depend on how everyone else behaves in the market, and so on. So we just can't be sure prior to adopting the rule.

The nature of this problem is best understood as a game with multiple Nash equilibria. For example, there may be two stable equilibria that may be obtained post-rule-adoption, and both are intrinsically plausible *ex ante* but it's hard to know which one will materialize. In my previous work, I describe this problem as follows:[4]

> Multiple equilibria are especially likely where a rule's efficacy depends on individuals' and entities' collective reactions to new opportunities, costs, or information. . . . For questions such as these, disputing parties can indulge in hypothetical discussions about motives and incentives as much as they want, but these are ultimately empirical questions. . . . A rule may prove to be highly effective because citizens behave responsibly and cooperatively, or highly ineffective because citizens deviate and strategically avoid compliance.

There are plenty of examples where an agency got its cost-benefit analysis wrong not because it undervalued or overvalued certain benefits or costs, but because the agency was simply wrong about what the equilibrium will look like.

How can we address this problem? The best method is by applying a *real-options model of cost-benefit analysis*. This is a simple idea that has gotten a lot of traction over the past decade among several prominent law and economics scholars.[5] So let me spend a moment to explain this approach. There are a number of ways of applying this model, and my own work describes a menu of different approaches.[6] Here I'll just mention the simplest application of the real-options model for agency rulemaking.

Imagine we have a proposed rule that is highly controversial and there is a lot of disagreement over its expected effects. It is possible the rule might end up generating a lot of surpluses (the "good"

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[4] Yoon-Ho Alex Lee, *An Options Approach to Agency Rulemaking*, 65 ADMIN. L. REV. 881, 906-07 (2013) (hereinafter "Lee (2013)").

[5] *See* Yair Listokin, *Learning Through Policy Variation*, 118 YALE L.J. 480 (2008); Roberta Romano, *Regulating in the Dark*, *in* REGULATORY BREAKDOWN: THE CRISIS OF CONFIDENCE IN U.S. REGULATION (CARY COGLIANESE, ED. 2012); Lee (2013), *supra* note 4; Zachary J. Gubler, *Experimental Rules*, 55 B.C. L. REV. 129 (2014); Zachary J. Gubler, *Making Experimental Rules Work*, 65 ADMIN. L. REV. 551 (2015); Roberta Romano; Matthew Spitzer & Eric Talley, *On Experimentation and Real Options in Financial Regulation*, 43 J. LEG. STUD. S121 (2014); and Roberta Romano, "Further Assessment of the Iron Law of Financial Regulation: A Postscript to Regulating in the Dark," *available at* https://ssrn.com/abstract=2517853 (unpublished working paper).

[6] *See generally* Lee (2013), *supra* note 4.

equilibrium), but it might also end up costing a lot (the "bad" equilibrium). In a situation like this, at some point, it might not really be productive for the agency to try to persuade everyone *just with arguments* that the good equilibrium will materialize and not the bad one. And ultimately, the court might not find the agency's explanation satisfactory. Rather, in this situation, what the agency should do is to go ahead and adopt the rule *but with a hard sunset*. By a hard sunset, I mean just that the rule should remain in effect for only 3 to 5 years and should automatically expire, *unless* it is re-adopted by the Bureau.

Once the rule is adopted, if the bad equilibrium were to materialize in a couple years, the rule will in fact be abandoned shortly and there are no further costs to society thereafter (under the assumption that the effects of the rule are not irreversible). But if the good equilibrium were to materialize, there will be a strong case to re-adopt the rule. Because the agency will then be equipped with favorable empirical evidence, there will be much less controversy in readopting the rule. In that case, society will continue to reap the rule's benefits, not just for another 3 to 5 years, *but indefinitely*. So there is a very convenient asymmetry of equilibria: the bad state will not persist, but the good state will. Note that the Bureau is already doing this implicitly with all of its "significant" rules because the Bureau has a statutory requirement to conduct retrospective reviews under Section 1022(d) of the Dodd-Frank Act. I say "implicitly" because Section 1022(d) doesn't necessarily require an inefficient rule to expire, but that is of course the general idea.

There is one catch. For the real-options model of cost-benefit analysis to apply, the rule has to be a reversible one—meaning once the rule does expire, the economy must be able to revert to its status quo ante, or at least be able to do so at a cost that is not prohibitive. But as I see it, many of the rules regulating credit products are in fact reversible ones so there should be a wide spectrum of rules for which this model can apply.

What purposes are specifically served by adopting a rule with a sunset? It turns out you can get a lot of mileage from writing in a simple sunset provision. Let me just mention a few concrete advantages. First, by including a sunset provision, the Bureau can in good faith address the rule's detractors' concerns and comments, as required by the Administrative Procedure Act, Section 553(c).[7] But the advantage is that the Bureau can do so *without* compromising the substance of the rule, only its duration (and only probabilistically so, if the Bureau is confident in the rule's outcome). Second and most importantly, the Bureau can formally incorporate the option value of expiration into its dynamic cost-benefit analysis looking at the net present value of benefits and costs. This approach will strategically increase the net benefit of adopting the rule and permit the Bureau to be more aggressive in its rulemaking.[8] In fact, such an approach will even allow the Bureau to proceed with rules that have net negative values (under the static analysis).[9] One might even say that, to the extent that Section 1022(d) is already providing a version of a real-options model for the Bureau's significant rules, the Bureau may in fact be *underselling* those rules at their inception by not incorporating the option values into its cost-benefit analyses. Third, because the rule with a sunset provision can much easily pass the cost-benefit analysis (under the real-options model), if the rule is challenged, courts ought to give the Bureau far more deference in its arbitrariness review under Section 706 of the Administrative Procedure Act. This argument has been formalized by legal scholars.[10] Fourth, all else equal, the higher the variance, the greater the net discounted benefits

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[7] Administrative Procedure Act, 5 U.S.C. § 553(c) (2012).
[8] This method is spelled out in Lee (2011). *See* Lee (2013), *supra* note 4, at 909-913.
[9] *See id.*
[10] *See, e.g.*, Lee (2013), *supra* note 4, at 937 ("Under the balancing of costs and benefits that take into account the dynamic aspects of rulemaking, an agency's burden of justifying a rule should be significantly reduced . . .

under the real-options model.[11] So in some sense, the more controversial the rule is (or the more polarized the commenters' predictions are), the more justified the Bureau will be in moving forward with the rule. Fifth, the real-options model can even apply toward a controversial *de*regulatory rule as well as toward a regulatory rule—although the cost of "sunsetting" a deregulatory rule might be higher because it does effectively involve re-adopting a rule.[12]

Let me clarify that I am not advocating using this model for all Bureau rules: the Bureau should only consider this model for rules that are highly controversial and present a multiple equilibria problem (based on the comments received). But for those rules that present formidable prediction challenges, I would like to urge the Bureau to aggressively experiment with rulemaking by building in expirations and thereby committing to an empirically-informed and outcome-based rulemaking approach.

Distributional Considerations

Section 1022(b)(2) of the Dodd-Frank Act says the Bureau shall consider "the potential benefits and costs to consumers and covered persons, including the potential reduction of access by consumers to consumer financial products or services resulting from such rule. . . ." As a matter of statutory interpretation, I do not read the language of Section 1022(b)(2) to imply that distributional concerns should not be taken into consideration. Analyzing how transfers are made between consumers or between consumers and covered persons seems to be a reasonable component of any analysis that considers "the potential benefits and costs to consumers and covered persons." At any rate, the Bureau should receive deference on how it interprets Section 1022(b)(2)'s requirement. The question, thus, is not whether distributional considerations are irrelevant. Instead, what's important for the Bureau is being fully transparent with distributional considerations, especially with transfers.

Here is something to consider. Everybody knows that the Bureau's core mission is *consumer protection*. Those two words appear in the organization's name. No one will fault the Bureau for adopting a rule that will lead to monetary savings for consumers, *even at the expense of certain covered persons*. Many will view such rules as being consistent with the Bureau's mission. However, that should not mean that the Bureau can therefore pass off all such savings by consumers as an "economic benefit" of the rule in terms of Kaldor-Hicks efficiency, i.e., improving the aggregate social welfare. Monetary benefits that accrue to consumers, accompanied by the displacement of the same amount from covered persons, should not be acknowledged as social benefits but should be properly labeled as transfer payments. There is something admirably forthcoming and virtuous about openly acknowledging transfer payments as such. (Personally, when I see a cost-benefit analysis that properly acknowledges transfer payments and the rule's distributional effects, I'm far more inclined to believe the other parts of the analysis as well.)

But fortunately, that's not all. The fact that some Bureau rules may be facilitating such transfers does not mean that they are *merely* facilitating such transfers because many of those intended transfers will also provide *indirect but real* benefits to society. I can think of at least two forms of benefits.

."); Gubler (2014), *supra* note 5 (arguing for deferential review for experimental rules); and Gubler (2015), *supra* note 5 (same).

[11] Lee (2013), *supra* note 4, at 888 ("a rule that is subject to greater outcome variance—i.e., higher potential highs and lower potential lows—should be, all else equal, more favorably reviewed if it is ex post modifiable or subject to exemption.").

[12] *Id.* at 889.

- *Reducing Negative Externalities*. In the long-run, transfers from covered persons to consumers can have the overall effect of reducing the likelihood of foreclosure or consumer bankruptcy, which can otherwise produce negative externalities. (Here, I will assume that the transfer amount is not so large as to put those affected covered persons out of business.) One can also make a similar argument even with respect to intended transfers from sophisticated consumers to unsophisticated consumers, i.e., reducing the extent of cross-subsidization. But this argument may be a bit more attenuated because the assumption must be that, all else equal, less sophisticated consumers are more likely to face foreclosures. This may be true but we'd need empirical evidence to support the assumption.

- *Reducing Deadweight Loss*. Fraud will always impose a deadweight loss on the economy because consumers are making their decisions based on *false* preferences.[13] So insofar as Bureau rules are intended to facilitate transfers from covered persons to consumers by way of eliminating fraud, society on the whole will benefit from the reduction of the resulting deadweight loss.

On a separate note, let me mention two other issues the Bureau may want to consider regarding distributional concerns.

- *Economic Incidence Analysis*. To do a proper distributional analysis, the Bureau should also conduct an economic incidence analysis of transfers. When it comes to rules with intended transfers, especially transfers from covered persons to consumers, the Bureau would need to consider the extent to which those "costs" to the covered persons may simply get passed on to the consumers. If they can successfully pass on to the consumers, then the so-called distributional effects may be more apparent than real. To this extent, the Bureau may benefit from gathering empirical data to ascertain the relevant price-demand elasticities and consider the extent to which costs imposed on the covered parties may get passed onto the consumers.

- *Transfers to Non-Covered Persons?* Transfers to non-covered persons raise an interesting issue. Just a moment ago I mentioned that I do not read Section 1022(b)(2) to disallow consideration of transfers. But I think courts can reasonably interpret the language to disallow the Bureau from considering all *other* costs and benefits (than those listed),[14] such as costs and benefits that may accrue to non-covered persons (whoever they may be). And this raises a dilemma. For example, suppose a Bureau rule were to require a certain group of covered persons to perform some compliance services or tasks, and those services were provided by only a handful of vendors who have market power and can extract rents from the covered persons. In that case, not all of the compliance costs with the Bureau's rule will be economic costs; part of such costs will in fact be transfers from the covered persons to their vendors (who are not themselves covered persons and thus excluded from the analysis). I have previously written about similar issues in the context of securities regulation.[15] One illustrative example from securities regulation is the independent auditor attestation

[13] *See, e.g.*, Howell E. Jackson & Paul Rothstein, *The Analysis of Benefits in Consumer Protection Regulations*, 9 HARV. BUS. L. REV. 197, 261-263 (2020).

[14] *See* Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983) ("Normally, an agency rule would be arbitrary and capricious . . . if the agency has relied on factors which Congress has not intended it to consider . . . .").

[15] Yoon-Ho Alex Lee, *The Efficiency Criterion for Securities Regulation: Investor Welfare or Total Surplus?*, 57 AZ. L. REV. (2015).

requirement under Section 404(b) of the Sarbanes-Oxley Act. The statutory requirement led to what was considered to be very high compliance costs for all the firms subject to it. But because there are only four major accounting firms in the industry and they wield market power, at least some of those compliance costs would amount to transfer payments—meaning, the true economic cost of compliance may be smaller than the amount reported.[16] So what? One conclusion is that, depending on how broad the scope of "covered persons" is, it is at least theoretically possible for a Bureau rule to be considered inefficient under the Section 1022(b)(2) analysis but still efficient under the broader total-surplus, social welfare perspective, and vice versa.

I think these are potentially interesting and important issues for the Bureau to consider.

Incentivizing Research

My experience at the SEC has taught me that gaps in basic research tend to persist for two reasons. First, many government economists who work in this area and are fully aware of the important issues, unfortunately, do not have sufficient time to work on formal or empirical models independently. Second, those who are interested in formal or empirical models are not fully acquainted with the pressing policy issues that need to be addressed, and therefore, they often resort to armchair economics. So how can we address this problem? There are a few institutional policies the Bureau can implement to bridge the existing gaps.

First, if the Bureau doesn't already do this, it should actively encourage (and perhaps even reward) publications by its economists in respected law journals or peer-reviewed publications. High-quality research should be encouraged even if the topics of research are not immediately relevant to today's rulemaking needs. Incentivizing the Bureau's internal economists to actively conduct research may be the most expedient way to close the current gaps.

Second, if the Bureau doesn't already do this, it should allow Bureau economists to co-author with external economists and permit them to make use of the Bureau's confidential datasets. Access to quality data should incentivize outside economists to work together with Bureau economists. While privacy and anonymity need to be maintained, there should be few hurdles for those seeking to publish using the Bureau's data in its aggregate form. Importantly, the internal clearance process for using the Bureau's dataset should not take long.

Third, if the Bureau doesn't already do this, the Bureau should consider targeted collaboration opportunities by way of sponsoring economic fellowships for outside visitors for a year or two.

Fourth, the Bureau should consider hosting a more targeted symposium devoted to considering the costs and benefits of a specific rule. In addition, the Bureau should also find a law journal that will sponsor the symposium—i.e., a law journal that will offer to publish the articles presented. Law professors who have expertise in the matter should be invited early on to prepare original, full-length articles. They should be asked to write on specific topics in advance of the symposium and also be

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[16] *See, e.g.*, *id.* at 122. Of relevance, the SEC's guidance document on economic analysis mentions the following regarding compliance costs: "Rulewriters should work with the [Division of Economic & Risk Analysis] economists to determine whether some of these [compliance] expenses are better analyzed as 'transfers'—economic consequences that result in a redistribution of income." *See* U.S. Securities & Exchange Commission, Memorandum on Current Guidance on Economic Analysis in SEC Rulemaking note 32 (March 16, 2012), *available at* https://www.sec.gov/divisions/riskfin/rsfi_guidance_econ_analy_secrulemaking.pdf.

given opportunities to publish their work in the sponsoring law journal. Ideally, the Bureau should consider doing one every year, or at least, every year when it has to conduct a Section 1022(d) study.

Taking these steps, I think, can go a long way toward incentivizing external economists to invest in models and studies that will benefit the Bureau in the long run.

Thank you.