

QUANTIFIED COST–BENEFIT ANALYSIS AT THE SEC

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Following a number of high-profile judicial setbacks, the SEC has devoted considerable resources toward enhancing its economic analyses in support of rulemaking activities. An ensuing discussion has emerged among academics, policymakers, and regulators concerning the SEC's ongoing efforts to quantify the costs and benefits of its rules.

In their recent article, Jeff Schwartz and Alexandra Nelson provide an important contribution to this conversation by critiquing the SEC's quantification of the expected compliance costs for the Conflict Minerals Rule. They contend that the SEC produced a poorly constructed and inaccurate cost estimate that continues to misinform deliberations on supply chain transparency efforts, and advocate against forced quantification of costs and benefits in SEC rulemaking.

In my Response, I review criticisms levied by Schwartz and Nelson about the SEC's cost estimate for this rule, and the Commission's overall efforts to integrate quantification into its economic analyses. I also discuss where the SEC's economic analysis of the Conflict Minerals Rule followed and deviated from its own stated framework of best practices. Finally, I suggest pragmatic approaches to improve both the economic analysis of this rule and quantified cost–benefit analysis in general.

TABLE OF CONTENTS

Table of Contents	53
Introduction	54
I. Quantified Cost–Benefit Analysis Mandate	55

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A. De Facto QCBA Mandate	55
B. SEC Guidance on Economic Analysis	56
II. Economic Analysis of the Conflict Minerals Rule	58
A. Sparse Analysis of Benefits	59
B. Transparency in Combining NAM and Tulane Models	63
C. Problems with All Three Compliance Cost Models	64
1. Cost Per Issuer	65
2. Number of Affected Issuers.....	66
Table 1. SEC Estimates from Proposed Rule.....	68
Table 2. Number of Filings and Unique Issuers for Firms Reporting Annually on Forms 10-K, 20-F, and 40-F, 2008–2015	69
Figure 1. Decline in the Number of Issuers Reporting to the SEC on Forms 10-K, 20-F, and 40-F, 2008–2015.....	70
Table 3. Adjusted Number of SEC Reporting Issuers.....	71
III. Implications for the SEC	72
A. Conduct a Retrospective Analysis.....	73
B. Strive to Be Accurate	74
C. Clarify Assumptions	76
Conclusion	76
Appendix.....	78

INTRODUCTION

Jeff Schwartz and Alexandra Nelson deliver a scathing critique of the U.S. Securities and Exchange Commission (SEC or Commission) in their article, *Cost-Benefit Analysis and the Conflict Minerals Rule*.¹ After carefully dissecting and reverse engineering the SEC’s compliance-cost model with unsparing attention to detail, Schwartz and Nelson conclude that the assumptions and inputs underlying the SEC’s \$3–4 billion cost estimate are so fundamentally flawed that this figure should be completely eradicated from ongoing public discourse surrounding the Conflict Minerals Rule.² Their work provides a timely contribution with salient consequences for the debate on supply-chain transparency.³ It also has germane implications for the SEC’s economic analysis of other rules with social-welfare benefits, such

1. Jeff Schwartz & Alexandra Nelson, *Cost-Benefit Analysis and the Conflict Minerals Rule*, 68 ADMIN. L. REV. 287 (2016).

2. See Conflict Minerals, 77 Fed. Reg. 56,274, 56,334 (Sept. 12, 2012) (codified at 17 C.F.R. pts. 204.13p-1 & 249b.400); Schwartz & Nelson, *supra* note 1, at 327.

3. See Jeff Schwartz, *The Conflict Minerals Experiment*, 6 HARV. BUS. L. REV. 129, 132–33 (2016) (noting that shortcomings with the Conflict Minerals Rule has implications for future supply-chain transparency rules).

as the recently proposed rule on resource extraction disclosure.⁴

A broader issue that Schwartz and Nelson bring to the forefront is the efficacy of quantifying costs and benefits for the purposes of informed SEC rulemaking. As they report, the D.C. Circuit effectively imposed a quantified cost–benefit analysis (QCBA) mandate on the SEC following a series of judicial interventions culminating in *Business Roundtable v. SEC*.⁵ Schwartz and Nelson argue that embracing QCBA as a regulatory panacea to prevent inefficient or poorly reasoned regulations was “ill-advised.”⁶ Instead, they argue that the intrinsic flaws of QCBA lead to “insurmountable epistemic hurdles,” and that the Conflict Minerals Rule merely confirms that the QCBA mandate should be eliminated.⁷

Below, I provide a Response to Schwartz and Nelson. Part I briefly reviews important external forces influencing the SEC’s quantification efforts. Part II delves into the important contributions of Schwartz and Nelson in pinpointing key shortcomings in the economic analysis accompanying the Conflict Minerals Rule. Part III describes specific and broader implications of their findings.

I. QUANTIFIED COST–BENEFIT ANALYSIS MANDATE

A. *De Facto* QCBA Mandate

Schwartz and Nelson describe how a *de facto* QCBA mandate arose through a series of D.C. Circuit decisions that vacated SEC rules due to inadequate or faulty economic analysis.⁸ A number of essays⁹ point to

4. See Disclosure of Payments by Resource Extraction Issuers, Exchange Act Release No. 34-76620, 80 Fed. Reg. 80,058, 80,059 (proposed Dec. 11, 2015).

5. 647 F.3d 1144 (D.C. Cir. 2011); Schwartz & Nelson, *supra* note 1, at 290–91.

6. Schwartz & Nelson, *supra* note 1, at 291.

7. *Id.* at 344 (“This case study supports abolition of the [quantified cost–benefit analysis] QCBA mandate, not partial rollback.”).

8. *Id.* at 293.

9. See, e.g., Nadelle Grossman, *The Sixth Commissioner*, 49 GA. L. REV. 693, 747–48 (2015); Jonathan D. Guynn, *The Political Economy of Financial Rulemaking after Business Roundtable*, 99 VA. L. REV. 641, 643 (2013) (noting that the *Business Roundtable* decision established a stronger standard of review); John C. Coates IV, *Cost–Benefit Analysis of Financial Regulation: Case Studies and Implications*, 124 YALE L.J. 882, 886 (2015) (noting that in *Business Roundtable* the D.C. Circuit “held that existing law requires the SEC to quantify the costs and benefits of its proposed rules”); PAUL ROSE & CHRISTOPHER J. WALKER, U.S. CHAMBER OF COMMERCE, CTR. FOR CAPITAL MKTS. COMPETITIVENESS, THE IMPORTANCE OF COST–BENEFIT ANALYSIS IN FINANCIAL REGULATION 33 (2013) (“In particular, the D.C. Circuit in *Business Roundtable* noted at the outset of its analysis that it was going to vacate the rule as arbitrary and capricious ‘for having failed once again—as it did most recently in *American Equity Investment* . . . and before that in *Chamber of Commerce*—adequately to assess the

decisions in *Chamber of Commerce v. SEC*,¹⁰ *American Equity Investment v. SEC*,¹¹ and *Business Roundtable*¹² as orders for the SEC to significantly improve its quantification efforts, or risk having an appeals court strike down every new rule. For example, Edward Sherwin states the following regarding the D.C. Circuit's decision in *Chamber of Commerce*: "Undoubtedly, quantification of costs and benefits, where possible, is one of the most crucial aspects of cost-benefit analysis. The SEC's failure to express the costs and benefits of its proposed rulemakings in numerical terms represents a significant shortcoming in its analysis."¹³

The SEC's economic analysis received additional criticism in 2011 from the Senate Banking Committee, who requested that the SEC's Office of Inspector General (OIG) review its economic analyses and empirical data accompanying certain Dodd-Frank Act¹⁴ rulemakings, including the Conflict Minerals Rule.¹⁵ The SEC's OIG complied with this request by conducting an introspective review and published reports in 2011 and 2012 detailing a number of inconsistencies in the Commission's cost-benefit analyses.¹⁶

B. SEC Guidance on Economic Analysis

In response to both the D.C. Circuit's decisions and OIG's introspective review, the SEC publicly circulated a memorandum providing guidance on conducting economic analysis at the Commission.¹⁷ The Guidance

economic effects of a new rule."') (citing *Bus. Roundtable v. SEC*, 647 F.3d at 1148).

10. 412 F.3d 133 (D.C. Cir. 2005).

11. 613 F.3d 166 (D.C. Cir. 2010).

12. 647 F.3d 1144 (D.C. Cir. 2011).

13. Edward Sherwin, *The Cost-Benefit Analysis of Financial Regulation: Lessons from the SEC's Stalled Mutual Fund Reform Effort*, 12 STAN. J.L. BUS. & FIN. 1, 47 (2006).

14. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) (codified as amended at 12 U.S.C. § 5301 (2012)).

15. See Letter from U.S. Senate Comm. on Banking, Hous., and Urban Affairs, to Mary Schapiro, Chairman, U.S. Sec. & Exch. Comm'n (SEC) (Feb. 15, 2011); see also Letter from U.S. Senate Comm. on Banking, Hous., and Urban Affairs, to H. David Kotz, Inspector Gen., SEC (May 4, 2011).

16. SEC COMM'N, OFF. OF INSPECTOR GEN., REP. OF REV. OF ECON. ANALYSES PERFORMED BY THE SEC COMM'N IN CONNECTION WITH DODD-FRANK ACT RULEMAKINGS (June 13, 2011), https://www.sec.gov/oig/reportspubs/report_6_13_11.pdf; OFF. OF AUDITS, OFF. OF INSPECTOR GEN., SEC, REP. NO. 499, FOLLOW-UP REV. OF COST-BENEFIT ANALYSES IN SELECTED SEC DODD-FRANK ACT RULEMAKINGS, at Appendix V (Jan. 27, 2012), https://www.sec.gov/about/offices/oig/reports/audits/2012/rpt499_followupreviewofd-f_costbenefitanalyses_508.pdf.

17. See MEMORANDUM FROM THE DIVISION OF RISK, STRATEGY, AND FINANCIAL INNOVATION AND THE OFFICE OF THE GENERAL COUNSEL OF THE SEC TO THE STAFF OF

declared that, moving forward, all of the SEC’s economic analyses would contain at least the following four features: (1) a statement of the need for the proposed action; (2) the definition of a baseline against which to measure the likely economic consequences of the proposed regulation; (3) the identification of alternative regulatory approaches; and (4) an evaluation of the benefits and costs—both quantitative and qualitative—of the proposed action and the main alternatives identified by the analysis.¹⁸

The intent of the Guidance is to establish a framework that fortifies the SEC’s economic analysis, ostensibly to withstand inevitable legal challenges.¹⁹ The SEC claims that the Guidance is intended to be general, yet flexible.²⁰ Importantly, it explicitly instructs SEC economists to “quantify expected benefits and costs to the extent feasible” at all stages of rulemaking, even when the data might not be fully representative:

Court decisions addressing the economic analysis in Commission rules have likewise stressed the need to attempt to quantify anticipated costs and benefits, even where the available data is imperfect and where doing so may require using estimates (including ranges of potential impact) and extrapolating from analogous situations.²¹

The publication of the Guidance embodied a palpable change in the SEC’s attitude toward economic analysis.²² The section of SEC rulemakings that was colloquially referred to as “the back end”²³ by SEC staff suddenly gained additional prominence in rulemaking activities.²⁴ Perhaps the clearest evidence of the SEC’s commitment to improved economic analysis is the rapid increase of resources allocated to its Division of Economic and Risk Analysis (DERA).²⁵ Since *Business Roundtable* and

THE RULEWRITING DIVISIONS AND OFFICES OF THE SEC (Mar. 16, 2012) [hereinafter Guidance] https://www.sec.gov/divisions/riskfin/rsfi_guidance_econ_analy_secrulemaking.pdf (stating that expected benefits and costs should be quantified to the extent it is feasible).

18. *Id.* at 4.

19. *Id.* (“[T]he following guidance addresses ways to strengthen these aspects of our economic analyses.”).

20. *Id.* at 2 (“This guidance—while broadly outlining best practices—is intended to allow for flexibility in the context of any particular rulemaking.”).

21. *Id.* at 13.

22. See Bruce R. Kraus, *Economists in the Room at the SEC*, 124 YALE L.J.F. 280 (2015) (“The 2012 Guidance has in effect amended the micro-constitution of the SEC staff, elevating the economists to the status of a co-equal branch of the agency.”), <http://www.yalelawjournal.org/forum/economists-in-the-room-at-the-sec>.

23. See Jerry Ellig & Hester Peirce, *SEC Regulatory Analysis: “A Long Way to Go and a Short Time to Get There,”* 8 BROOK. J. CORP. FIN. & COM. L. 361, 365–66 (2014) (“In fulfillment of these statutory obligations, the SEC typically includes an analysis section—the so-called ‘back-end’—in its notices of proposed and final rulemaking.”).

24. See Kraus, *supra* note 22.

25. See Joshua T. White, *The Evolving Role of Economic Analysis in SEC Rulemaking*, 50 GA.

publication of the Guidance, the SEC's economics division has more than doubled its staff of Ph.D. economists²⁶ and experienced budget growth more than five times faster than any other office or division at the Commission.²⁷ Importantly, Schwartz and Nelson shed light on whether the Guidance and these additional resources have translated into improved economic analysis at the SEC.

II. ECONOMIC ANALYSIS OF THE CONFLICT MINERALS RULE

In this section, I review Schwartz and Nelson's criticisms of the SEC's cost-benefit analysis accompanying the Conflict Minerals Rule. In evaluating their critique, I largely take two approaches. First, I compare the SEC's quantification choices against those recommended by the Guidance. The purpose of this approach is to provide color to SEC economists' decisionmaking process in shaping this particular economic analysis. Also, by identifying the degree to which the Guidance was followed, I gauge its overall suitability for delivering sound cost-benefit analysis for this rule.

Second, I employ John Coates's framework of QCBA to determine if the SEC's approach to the Conflict Minerals Rule resulted in "quantified" or "guesstimated" analysis.²⁸ In developing his framework, Coates examines the economic analyses of several Dodd-Frank Act rulemakings and contends that quantified cost-benefit analysis requires strong theory, reliable research designs, and representative evidence. Coates argues, however, that QCBA is better characterized as "guesstimated" if it is based

L. REV. 293, 308–09 (2015) (noting the substantial growth in the size of the economics division and proportional resources allocated through the SEC's budget between Fiscal Years 2011 and 2014).

26. *Id.* at 308 ("The most substantial growth in the division was in the number of Ph.D. financial economists, growing from approximately thirty in 2011 to more than seventy in 2015."); see also *Continued Oversight of the SEC's Offices and Divisions: Hearing Before the Subcomm. on Capital. Mkts and Gov't Sponsored Enters. of the H. Comm. on Fin. Servs.*, 114th Cong. (2016) (statement of Mark J. Flannery, Director and Chief Economist, Division of Economic and Risk Analysis (DERA), SEC), <https://www.sec.gov/news/testimony/testimony-04-21-16.html> ("Over the past several years, DERA has grown from approximately 96 employees in 2013 to a projected workforce of 175 by the end of 2016. By that time, DERA anticipates employing 88 Ph.D.s—mostly in economics or finance, but also accountants and two physicists.").

27. See White, *supra* note 25, at 309 ("DERA net costs grew from \$20 million to \$43 million from FY 2011 to FY 2014. This represents a 72.1% growth in net costs as a percentage of the total program costs from the baseline value in FY 2011. By comparison, no other reported office or division has experienced growth in proportional net costs greater than 14%.").

28. See Coates, *supra* note 9, at 891–92.

on weak economic theory, plagued by poor research design, or employs unrepresentative data.²⁹

A. Sparse Analysis of Benefits

Schwartz and Nelson focus the bulk of their critique on the compliance cost estimates, claiming that the SEC “ignored the instruction to quantify benefits” of the Conflict Minerals Rule.³⁰ As they note, the SEC is usually criticized for its failure to convincingly quantify expected benefits rather than the estimated costs of a rule.³¹ Thus, Schwartz and Nelson are unique in focusing their foremost criticisms on the subtrahend rather than the minuend of the benefits-minus-costs equation. Nevertheless, it is worth reflecting on why the SEC elected to qualitatively rather than quantitatively assess the expected benefits of this rule.

The objective of the Conflict Minerals Rule was to increase supply-chain transparency in order to reduce violence in the Congo, thereby benefitting the Congolese people.³² This outcome assumes that SEC reporting issuers who manufacture products with conflict minerals would choose to source from non-militarized regions in the area to avoid public disclosure of procuring them from areas of sustained violence. In turn, anticipated changes in conflict minerals procurement should reduce financial resources flowing to armed groups in the Congo and, consequently, decrease the economic incentives to commit acts of violence on the Congolese people.³³

Had the SEC endeavored to quantify these humanitarian benefits, it would have necessitated both pricing acts of violence and predicting how

29. *Id.* (“This type of cost-benefit analysis—if supported by strong consensus theory, reliable research designs, and good, representative evidence—could properly be called *quantified* CBA, but—if supported only by weak, contested theory, unreliable research designs, or poor, unrepresentative evidence—better deserves the label *guesstimated* CBA.”).

30. Schwartz & Nelson, *supra* note 1, at 291.

31. *Id.* at 292–93; *see also* U.S. GOV'T ACCOUNTABILITY OFFICE, DODD-FRANK ACT REGULATIONS: IMPLEMENTATION COULD BENEFIT FROM ADDITIONAL ANALYSES AND COORDINATION 19 (2011), <http://www.gao.gov/new.items/d12151.pdf> (“As we have reported, the difficulty of reliably estimating the costs of regulations to the financial services industry and the nation has long been recognized, and the benefits of regulation generally are regarded as even more difficult to measure.”).

32. *See, e.g., The Costs and Consequences of Dodd-Frank Section 1502: Impacts On America and the Congo: Hearing Before H. Comm. on Fin. Servs.*, 112th Cong. (2012) (statement of Robert J. Dold, Vice Chairman, Subcomm. on International Monetary Policy and Trade) (“I think it is clear that we all have similar objectives: to try to reduce the violence inflicted on the Congolese people and help them achieve better quality of life.”).

33. Conflict Minerals, 77 Fed. Reg. 56,274, 56,335 (Sept. 12, 2012) (codified at 17 C.F.R. pts. 204.13p-1 & 249b.400).

many violent actions would be reduced by the rule. These calculations present a substantial challenge since SEC economists lack expertise in this type of analysis, and because obtaining reliable data on violence in the Congo might not be possible. Thus, if the SEC had undertaken the arduous task of pricing and predicting human rights abuse, their analysis surely would have yielded a guesstimation rather than an accurate measure of benefits.

Schwartz and Nelson consider the possibility that other U.S. Government agencies might possess data that quantifies instances of violence, but admit that scaling these figures to the cost of living in the Congo would present optical problems for the Commission.³⁴ They also consider the possibility that the SEC could have conducted a survey to see what dollar amount persons in the U.S. would pay to prevent violence in the Congo.³⁵ While a survey is a potentially suitable research design, it would not necessarily yield representative data because, as Schwartz and Nelson admit, a violent action “is not a market good that people can be expected to make informed judgments about.”³⁶ Undoubtedly, most approaches to quantifying benefits for the purposes of the Conflict Minerals Rule would have tilted towards Coates’ definition of guesstimation. To the extent that inaccurate forecasts are worse than non-quantification of benefits, the SEC sensibly chose to concentrate on qualitatively assessing the benefits.

The Guidance admits that it may not be feasible to quantify certain aspects of a given rule.³⁷ In this situation, the SEC’s framework emphasizes that the economic analysis should explain why specific costs or benefits cannot be calculated.³⁸ In the Conflict Minerals Rule, the SEC was forthcoming in its justification for not quantifying the benefits:

The statute therefore aims to achieve compelling social benefits, which we are unable to readily quantify with any precision, both because we do not have the data to quantify the benefits and because we are not able to assess how effective Section 1502 will be in achieving those benefits. Additionally, the social benefits are quite different from the economic or investor protection benefits that our rules ordinarily strive to

34. Schwartz & Nelson, *supra* note 1, at 331–32.

35. *Id.* at 333.

36. *Id.*

37. Guidance, *supra* note 17, at 10 (“Thus, although we should endeavor to quantify the rule’s likely economic effects, it may not be feasible to quantify many of the costs and benefits of the rule.”).

38. *Id.* at 13–14 (“If [SEC] economists and the rulewriting staff conclude that costs or benefits cannot reasonably be quantified, the release should include an explanation of the reason(s) why quantification is not practicable and include a qualitative analysis of the likely economic consequences of the proposed rule and reasonable regulatory alternatives.”).

achieve.³⁹

The plaintiffs challenging the Conflict Minerals Rule in *National Ass’n of Manufacturers v. SEC*⁴⁰ argued that the Commission’s economic analysis failed to determine if the rule would accomplish its intended benefit: “[N]ot only did the Commission fail to quantify the benefits ‘with any precision’—it failed to determine there were any benefits at all.”⁴¹ As Schwartz and Nelson report, the D.C. Circuit disagreed and endorsed the SEC’s choice not to quantify the benefits of the rule:

[T]he Association argues on the benefit side that the Commission failed to determine whether the final rule would actually achieve its intended purpose. But we find it difficult to see what the Commission could have done better.

. . . An agency is not required ‘to measure the immeasurable,’ and need not conduct a ‘rigorous, quantitative economic analysis’ unless the statute explicitly directs it to do so. . . . Here, the rule’s benefits would occur half-a-world away in the midst of an opaque conflict about which little reliable information exists, and concern a subject about which the Commission has no particular expertise. Even if one could estimate how many lives are saved or rapes prevented as a direct result of the final rule, doing so would be pointless because the costs of the rule—measured in dollars—would create an apples-to-bricks comparison.⁴²

Schwartz and Nelson aptly point to this opinion as illustrating one of the key shortcomings in QCBA: the true costs and benefits of a rule are not in the same unit.⁴³ In other words, one cannot truly compare units of suffering with money spent on supply-chain audits.

Schwartz and Nelson also note that one factor the D.C. Circuit considered in exempting the SEC from quantification was that the perceived benefits of the Conflict Minerals Rule differed from the SEC’s typical goal of investor protection or the promotion of competition, efficiency, and capital formation.⁴⁴ Schwartz and Nelson note that in *Chamber of Commerce*, the court considered the SEC’s rulemaking to be “arbitrary and capricious” under the Administrative Procedure Act (APA)

39. Conflict Minerals, 77 Fed. Reg. 56,274, 56,335 (Sept. 12, 2012) (codified at 17 C.F.R. pts. 204.13p-1 & 249b.400).

40. 748 F.3d 359 (D.C. Cir. 2013).

41. Brief of Petitioner-Appellant at 20, *Nat’l Ass’n of Mfrs. v. SEC*, No. 12-1422 (D.C. Cir. Jan. 16, 2013).

42. *Nat’l Ass’n of Mfrs. v. SEC*, 748 F.3d at 369, *overruled by* *Am. Meat Inst. v. U.S. Dep’t of Agric.*, 760 F.3d 18 (D.C. Cir. 2014), *reaffirmed by* *Nat’l Ass’n of Mfrs. v. SEC*, 800 F.3d 518, 552 (D.C. Cir. 2015).

43. Schwartz & Nelson, *supra* note 1, at 340 (“QCBA is exactly about comparing apples to bricks; a core element is quantification of otherwise incommensurable things.”).

44. *Id.* at 339–40.

due to “[t]he SEC’s failure to ‘hazard a guess’ as to the cost of its rules.”⁴⁵

The Conflict Minerals Rule differs in that its perceived benefit was social welfare enhancement. Indeed, Cass Sunstein argues that one potential justification for refusing some forms of quantification under the arbitrariness review of the APA is when regulations involve social welfare effects or actions that are difficult to monetize.⁴⁶ Yet, Schwartz and Nelson question this type of reasoning for non-quantification of benefits because “the SEC is being called on more and more to use securities regulation to pursue broader social goals.”⁴⁷

This argument is quite persuasive and the SEC should consider its implications. To the extent that rulemaking activities or commentators increasingly focus on social responsibility efforts, the Commission should anticipate progressively vocal criticism if it deems social benefits as unquantifiable. In fact, some commentators on the SEC’s Resource Extraction Proposed Rule have already criticized the economic analysis for failing to adequately quantify the social benefits of revenue transparency.⁴⁸ Moreover, some predict that activist investors that once concentrated their efforts on corporate governance reform might shift their focus to social responsibility initiatives.⁴⁹ Under these circumstances, the SEC might find

45. *Id.* at 298.

46. *See generally* Cass R. Sunstein, *Cost-Benefit Analysis and Arbitrariness Review* (Harvard Law Sch., Working Paper No. 16-12, 2016), https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2752068 (discussing potential justifications for failing to quantify costs or benefits under the arbitrariness review of the Administrative Procedure Act (APA)).

47. Schwartz & Nelson, *supra* note 1, at 343.

48. *See, e.g.*, Letter from Joseph Kraus, Senior Policy Manager, The ONE Campaign, to Mary Jo White, Chair, SEC (Mar. 16, 2016), <https://www.sec.gov/comments/s7-25-15/s72515-64.pdf> (arguing that the benefits were inadequately considered); E-mail from Stu Dalheim, Vice President S’holder Advocacy, Calvert Inv. Mgmt. Inc., (Feb. 16, 2016) <https://www.sec.gov/comments/s7-25-15/s72515-54.pdf> (“This is that the proposing release does not acknowledge investor benefits sufficiently, especially in light of the great number of submissions that point out these benefits and that the Commission has received from investors over the course of the rulemaking process.”).

49. *See, e.g.*, Charles Nathan, Communications Challenges at the New Frontiers of Corporate Governance Activism, Harvard Law Sch. Forum on Corp. Governance and Fin. Regulation (Jan. 10, 2014), <https://corpgov.law.harvard.edu/2014/01/10/communications-challenges-at-the-new-frontiers-of-corporate-governance-activism/> (“The question is not whether corporate governance activists will move on but rather where they will go. While there are a number of possible new foci, two stand out in particular: the ratio of CEO pay to the median pay of all company employees; and company sustainability, alternatively called ESG (environmental, social and governance) or CSR (corporate social responsibility), in terms of both company behavior and reporting to investors.”).

it difficult to justify ignoring the quantification of social benefits simply because they are challenging and laborious to estimate.

B. Transparency in Combining NAM and Tulane Models

Another concern raised by Schwartz and Nelson is the claim that the SEC did “little independent analysis” and instead based their compliance-cost estimate on an augmented model of those submitted by two commentators: the National Association of Manufacturers (NAM)⁵⁰ and Tulane University Law School’s Payson Center for International Development.⁵¹ Schwartz and Nelson refer to the SEC’s analysis as a “Frankenstein-like combination” of the NAM and Tulane models, and assert that the SEC cryptically “defended its reliance on the work of these commentators” by noting its assumptions were not qualitatively different than cost discussions generated by other commentators.⁵²

Before moving to Schwartz and Nelson’s critique of these models, I first consider how the SEC arrived at the decision to give these estimates greater consideration than those offered by other commentators. The Guidance issues the following advice to SEC economists in selecting among conflicting empirical studies to inform rulemaking: “Where the Commission is giving greater weight to some empirical evidence/studies than to others, it should clearly state the reason(s) for doing so.”⁵³

In the Final Rule, the SEC remarks that they chose to utilize the compliance-cost structure from the Tulane and NAM models because both were more forthcoming in their assumptions and less industry specific than estimates provided by other commentators.⁵⁴ Thus, while Schwartz and

50. See generally National Association of Manufacturers (NAM), Comment Letter on SEC Initiatives under the Dodd-Frank Act – Special Disclosures Section 1502 (Conflict Minerals) File Number S7-40-10, 24–25 (Mar. 2, 2011), <https://www.sec.gov/comments/s7-40-10/s74010-183.pdf> [hereinafter NAM Model].

51. CHRIS BAYER, TULANE UNIV., A CRITICAL ANALYSIS OF THE SEC AND NAM ECONOMIC IMPACT MODELS AND THE PROPOSAL OF A 3RD MODEL IN VIEW OF THE IMPLEMENTATION OF SECTION 1502 OF THE 2010 DODD-FRANK WALL STREET REFORM AND CONSUMER PROTECTION ACT (Oct. 17, 2011), <https://www.sec.gov/comments/s7-40-10/s74010-351.pdf> [hereinafter TULANE MODEL].

52. Schwartz & Nelson, *supra* note 1, at 291–92, 301.

53. Guidance, *supra* note 17, at 14.

54. Conflict Minerals, 77 Fed. Reg. 56,274, 56,351 (Sept. 12, 2012) (codified at 17 C.F.R. pts. 204.13p-1 & 249b.400) (“We start our analysis of the cost of compliance by incorporating all of the comments that provide quantified data on the aggregate potential costs of the proposed rule. So, while our overarching consideration of the costs of the rule we are adopting today takes into account the information provided by a broad range of commentators, the most useful frameworks for considering costs were provided by the

Nelson raise appropriate trepidations about the assumptions and inputs of these cost models, it does not appear that the SEC engaged in actions of obfuscation or camouflage by concentrating on the NAM and Tulane models. The SEC followed the Guidance in articulating their reasoning for relying more on these two frameworks than those supplied by other commentators. Although transparency does not guarantee accuracy in cost-benefit analysis, and adherence to the Guidance does not guarantee a high-quality output, this outcome is a positive step towards QCBA accountability.

C. Problems with All Three Compliance Cost Models

Turning to the crux of Schwartz and Nelson's criticism, they declare that all three compliance-cost models by Tulane, NAM, and the SEC are based on flawed assumptions and unrepresentative data.⁵⁵ In turn, they assert that misrepresented model components lead to "fatal shortcomings" in the SEC's \$3-4 billion cost estimate, and that this figure has "grossly misinformed" the debate about the true cost of the Conflict Minerals Rule.⁵⁶

It is not surprising that all three estimates are wrong because all statistical models are incorrect to some degree and only some are actually helpful in arriving at the truth.⁵⁷ Therefore, the task at hand is to explore precisely where these models failed and if any of the components are suitable for future deliberations of the Conflict Minerals Rule. Accordingly, Schwartz and Nelson allocate no fewer than twenty pages to the onerous task of carefully deconstructing and scrutinizing the Tulane and NAM models underlying the SEC's compliance cost estimate.⁵⁸

In meticulous detail, Schwartz and Nelson describe and assess the rationale and assumptions behind twelve inputs for the NAM cost model, nineteen inputs for the Tulane cost model, and five SEC modifications used to create its hybrid \$3-4 billion compliance cost estimate.⁵⁹ The approach of Schwartz and Nelson is indisputably appropriate since the validity of any

manufacturing industry association and university group commentators. Other comments, while also providing certain valuable insights into how our rules would be implemented, were either not as transparent in their analytical frameworks or not easily generalizable in terms of aggregating the costs across multiple industries.").

55. Schwartz & Nelson, *supra* note 1, at Parts III and IV.

56. *Id.* at 290-92.

57. See GEORGE E. P. BOX & NORMAN R. DRAPER, *EMPIRICAL MODEL-BUILDING AND RESPONSE SURFACES* 74 (1987) ("Remember that all models are wrong; the practical question is how wrong do they have to be to not be useful.").

58. Schwartz & Nelson, *supra* note 1, at Part III and Appendix A.

59. *Id.*

model surely relies on critical assumptions such as sufficient and representative data from a reliable source. They besiege nearly every input of all three cost models and conclude that the preponderance of the figures are based on haphazard numerical assumptions, arbitrary rationales, and poor or anecdotal evidence.⁶⁰ It would be difficult for a reasonable reader to disagree with this assessment.

While the sheer quantity of concerns exposed by Schwartz and Nelson leaves one wondering if any component of these models is useful moving forward, I focus principally on two estimates in this subsection: (1) the cost per issuer; and (2) the number of affected issuers.

1. Cost Per Issuer

The SEC's total compliance cost estimate was \$3.01–4.13 billion for 5,994 issuers.⁶¹ Using the midpoint of \$3.57 billion, this estimate equates to approximately \$596,000 per issuer. The cost estimates of Tulane and NAM were higher at \$1,324,000 and \$1,557,000 per issuer, respectively.⁶²

To generate a proxy for the accuracy of these estimates, Schwartz and Nelson consider the preliminary evidence of the surveyed *ex-post* compliance costs provided in a follow-up study by Tulane University.⁶³ After the first season of conflict minerals reporting, May–June 2014, Tulane surveyed the approximately 1,300 issuers that filed a conflict minerals related disclosure on SEC Form SD. For issuers responding to Tulane's survey, the initial compliance cost estimates total \$710 million, or about \$546,000 per issuer.⁶⁴ This figure suggests that the SEC's estimate of \$596,000 per issuer was not egregiously inaccurate, especially when compared to those supplied by Tulane and NAM.

Schwartz and Nelson wisely caution that the \$710 million compliance-cost assessment might actually be higher than the true cost of compliance since the respondents have an incentive to inflate reported expenses.⁶⁵

60. *Id.* at Part III.

61. The SEC's compliance cost estimate range was \$3,012,293,000 to \$4,132,705,000, or an average of \$3,572,499,000. *See* Conflict Minerals, 77 Fed. Reg. 56,274, 56,353–54 (Sept. 12, 2012) (codified at 17 C.F.R. pts. 204.13p-1 & 249b.400).

62. This is calculated by dividing Tulane and NAM's total compliance cost estimates of \$7,938,065,960 and \$9,332,500,000, respectively, by 5,994 issuers.

63. TULANE UNIV. PAYSON CTR. FOR INT'L DEV., DODD-FRANK SECTION 1502: POST-FILING SURVEY 2014, <http://www.payson.tulane.edu/welcome-tulanes-dodd-frank-section-1502-post-filing-survey-2014-presentation>.

64. *Id.* at 26 (“The total aggregated and extrapolated expenses of the 1,300 issuers to comply with Dodd-Frank Section 1502 was \$709.7 million by June 2014. Thus, on average, an issuer expended \$545,962 to comply with the law.”).

65. Schwartz & Nelson, *supra* note 1, at 329.

They also posit legitimate scientific concerns about Tulane's survey response rates.⁶⁶ Accordingly, survey response rate issues and potential bias in the reported costs generate apprehensions that the Tulane survey might not depict the true cost of complying with the Conflict Minerals Rule. Yet, the initial evidence suggests that the bottom-line flaw in the SEC's estimate was not in the cost per issuer, but rather in the number of affected issuers.

2. Number of Affected Issuers

To determine the number of issuers affected by the Conflict Minerals Rule, Schwartz and Nelson examine the actual number of issuers filing a Form SD with the SEC. They correctly identify this input as the principal flaw in the SEC's analysis.⁶⁷

Before exploring the source of this figure, it is important to caution that using *ex-post* compliance outcomes to measure model accuracy imposes some strict assumptions. First, this exercise assumes that the language of the rule ensures full compliance by all issuers. Second, this approach ignores the possibility that some issuers have altered their supply chain to avoid disclosure between the Final Rule in 2011 and the first conflict minerals reporting season in 2014.⁶⁸ Although these issuers might still be bound to conflict minerals reporting, these types of unobservable issuer actions weaken the ability of any empirical study to fully explain the causal effects of a given SEC rulemaking action.⁶⁹

66. *Id.* at 328–29 (cautioning that the Tulane survey figure was determined by a low response rate (8.6%) as only 112 of the Form SD filers in 2014 responded to the survey). Although there is no formal scientific standard for a minimum survey response rate, most would consider a response rate less than 10% to be highly unacceptable. *See, e.g.*, FLOYD FOWLER, JR., *SURVEY RESEARCH METHODS* 44 (5th ed. 2014) (“There is no agreed-on standard for minimum acceptable response rate.”).

67. Schwartz & Nelson, *supra* note 1, at 328 (noting that the SEC overestimated the number of affected issuers by 350%).

68. Indeed, anecdotal evidence suggests that some issuers set a sourcing goal of becoming conflict minerals free. For example, both Intel and Apple set goals of establishing supply chains free from conflict minerals. *See Intel Corp., 2012 Corporate Responsibility Report*, at 101–02 (May 17, 2013), http://csrreportbuilder.intel.com/PDFFiles/CSR_2012_Full-Report.pdf; and Apple Inc., *Apple Supplier Responsibility: 2012 Progress Report*, at 11 (Jan. 13, 2012), https://www.apple.com/br/supplier-responsibility/pdf/Apple_SR_2012_Progress_Report.pdf. These actions suggest that some SEC reporting issuers altered supply-chain activities prior to the 2013 audit year deadline in the Final Rule.

69. One potential approach to addressing this problem is to use the equity market response to identify which issuers experienced a statistically significant abnormal market reaction around significant developments in the Conflict Minerals Rule. *See, e.g.*, Yijia Chen, *Accounting for Human Rights Violations Risk: Conflict Minerals Mandatory Disclosures under the Dodd*

Schwartz and Nelson note that the SEC estimated that 5,994 issuers would be affected by the rule.⁷⁰ This figure originated in the Conflict Minerals Proposed Rule as part of the SEC's required estimate for the Paperwork Reduction Act (PRA).⁷¹ However, the SEC would later insinuate to the Government Accountability Office (GAO) that this figure was not an actual forecast. In its 2015 report to Congress on the initial conflict minerals disclosures, the GAO states the following about the SEC's estimated number of affected issuers: "According to an SEC official, this estimate was intentionally overly inclusive, was not an expectation, and was provided to satisfy the requirements of the Paperwork Reduction Act."⁷²

It is easy to accept that the predicted number of affected issuers was indeed overly inclusive, but difficult to envision that this figure was not an expectation or would not be viewed as an SEC forecast by commentators. Ultimately, this statistic perpetuated through each of the NAM and Tulane models and was referenced more than sixty times by the SEC in the Final Rule.⁷³

To arrive at the SEC's projection of 5,994 affected issuers, the Proposed Rule reports that the Commission counted the number of issuers filing annual reports on Forms 10-K, 20-F, and 40-F.⁷⁴ Although the SEC did not disclose the year of these statistics, it is reasonable to assume that 2009 (i.e., the year prior to the Proposed Rule) was the baseline year for computing the aggregate number of annual reports on these forms. Table 1 summarizes the figures published in the Proposed Rule.⁷⁵

Frank Act, 2015, Brock Univ. Master's Thesis (measuring the equity market response to key events surrounding the rule), <https://dr.library.brocku.ca/handle/10464/7159>.

70. Schwartz & Nelson, *supra* note 1, at 303.

71. See Conflict Minerals, 75 Fed. Reg. 80,948–80,975 (proposed Dec. 23, 2010) (to be codified at 17 C.F.R. pts. 229, 249b); The Paperwork Reduction Act of 1995 requires the SEC to estimate the number of issuers that could be affected by collection of information under any rulemaking activity. Pub. L. No. 104-13, 109 Stat. 163 (codified at U.S.C. §§ 3501–3520).

72. See U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-15-561, SEC CONFLICT MINERALS RULE: INITIAL DISCLOSURES INDICATE MOST COMPANIES WERE UNABLE TO DETERMINE THE SOURCE OF THEIR CONFLICT MINERALS 13 (2015), <http://gao.gov/assets/680/672051.pdf>.

73. Conflict Minerals, 77 Fed. Reg. 56,274, 56,334 (Sept. 12, 2012) (codified at 17 C.F.R. pts. 204.13p-1 & 249b.400).

74. Conflict Minerals, 75 Fed. Reg. 80,948, 80,966 (proposed Dec. 23, 2010) (to be codified at 17 C.F.R. pts. 229, 249b).

75. *Id.* at 80,964, 80,967.

Table 1. SEC Estimates from Proposed Rule (2009 Baseline)

	10-K	20-F	40-F	Total
Number of Filings	13,545	942	205	14,692
Issuers Affected by Proposed Rule	5,551	377	66	5,994

Of the 14,692 annual filings, the SEC described how it approximated the number of issuers that would be affected by the rule:

We arrived at this number by estimating the number of issuers that fall under all the SIC codes that our staff believes most likely to manufacture or contract to manufacture products with conflict minerals necessary to the functionality or production of products manufactured or contracted to be manufactured by those issuers.⁷⁶

Regrettably, the Standard Industrialized Classification (SIC) codes selected by the SEC staff as being most likely to source or manufacture conflict minerals were not revealed in either the Proposed or Final Rule. The Guidance notes the importance of making assumptions explicit.⁷⁷ Thus, omitting the SIC codes deviates from the Guidance and prohibits the ability to pinpoint the precise source of miscalculation in the SEC's estimated number of affected issuers.⁷⁸

Further, the SEC did not publish the unique number of issuers filing these forms, which impedes one's ability to ascertain the proportion of all issuers that the SEC's staff believed would be subject to the Conflict Minerals Rule disclosures. One cannot simply divide the SEC's 5,994 affected issuer estimate by the 14,692 reported annual filings in order to obtain the percentage of affected reporting issuers since companies might file more than one annual report related filing or an amended filing in any given year.

To offer clarity on this calculation, I obtained data on issuer-provided annual reports between 2008 and 2015 from the SEC's Electronic Data Gathering, Analysis, and Retrieval system (EDGAR) website.⁷⁹ I then counted the number of unique issuers reporting on Forms 10-K, 20-F, and 40-F based on the SEC's Central Index Key number. Table 2 presents the

76. *Id.* at 80,966 n.176.

77. Guidance, *supra* note 17, at 13 ("It is important to make assumptions (and the rationales for the assumptions) explicit and, where alternative assumptions are plausible, to include analysis based on each.")

78. As a point of reference, the Appendix reports a list of primary Standard Industrialized Classification (SIC) codes for all issuers filing a Form SD in 2014 or 2015. *See* Appendix *infra*.

79. *See* SEC, INFORMATION FOR FTP USERS (Mar. 9, 2015), <https://www.sec.gov/edgar/searchedgar/ftpusers.htm>.

calendar year distribution of both the number of annual reports and unique issuers.⁸⁰

Table 2. Number of Filings and Unique Issuers for Firms Reporting Annually on Forms 10-K, 20-F, and 40-F, 2008–2015

Panel A. Number of Filings				
Year	10-K	20-F	40-F	Total
2008	14,523	1,014	168	15,705
2009	12,335	956	165	13,456
2010	11,383	963	142	12,488
2011	10,842	975	167	11,984
2012	10,238	990	189	11,417
2013	9,874	900	168	10,942
2014	9,641	766	166	10,573
2015	9,277	772	146	10,195
Panel B. Number of Unique Issuers				
Year	10-K	20-F	40-F	Total
2008	11,393	811	140	12,344
2009	9,797	762	124	10,683
2010	9,003	745	127	9,875
2011	8,680	741	144	9,565
2012	8,278	716	154	9,148
2013	7,944	696	147	8,787
2014	7,891	671	143	8,705
2015	7,802	688	131	8,621

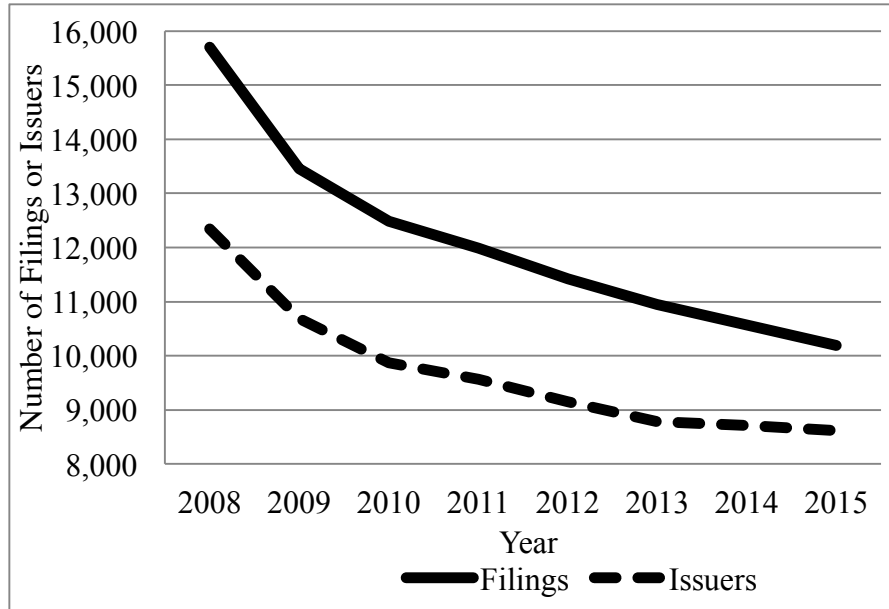
I am unable to replicate the SEC's cited figure of 14,692 annual reports during 2009. The EDGAR data from the SEC's website indicates that 13,456 annual reports were filed or furnished by 10,683 unique issuers during 2009.⁸¹ Thus, the SEC estimate of 5,994 affected issuers implies that approximately 56% of the 10,683 unique reporting issuers in 2009 would be impacted by the rule. This percentage is important because

80. The statistics in Table 2 are the author's own calculations based on the following SEC forms: 10-K, 10-K/A, 20-F, 20-F/A, 40-F, and 40-F/A.

81. It is possible that the SEC number reflects fiscal year 2009 rather than calendar year 2009.

Table 2 also reveals a precipitous decline in the total number of domestic and foreign private issuers reporting annually on these forms between the 2009 baseline year of the Proposed Rule and the 2014 calendar year of the initial SEC Form SD disclosures. Figure 1 plots a graphical display of this trend.

Figure 1. Decline in the Number of Issuers Reporting to the SEC on Forms 10-K, 20-F, and 40-F, 2008–2015



Specifically, there was an 18.5% and 19.3% decline in SEC reporting issuers 2009–2014 and 2009–2015, respectively. This decline in reporting companies would not have been foreseen or reflected in the Proposed Rule in 2010, and provides a partial explanation of why the SEC’s estimate of the number of affected issuers is too large. Of course, the SEC could have updated the baseline year to 2011 for the Final Rule to partially account for this decline. Nevertheless, comparing the frequency of Form SD filings in 2014 and 2015 to the 2009 baseline estimate overstates the error in the SEC’s figure by at least 1,000 issuers. Accordingly, I adjust the SEC’s estimates for the number of affected issuers in Table 3 to determine how the decline in reporting firms contributed to the error in the SEC’s estimate.

Table 3. Adjusted Number of SEC Reporting Issuers

Filing Year	Source	10-K	20-F	40-F	Total
January to December 2009					
(1) Number of Filings	Proposed Rule	13,545	942	205	14,692
(2) Estimated Issuers Affected	Proposed Rule	5,551	377	66	5,994
(3) Actual Unique Issuers	EDGAR	9,797	762	124	10,683
(4) Percent of unique issuers	(2) ÷ (3)	56.70%	49.50%	53.20%	56.10%
January to December 2014					
(5) Actual Unique Issuers	EDGAR	7,891	671	143	8,705
(6) Percent Decline from 2009	[(5) – (3)] ÷ (3)	–19.5%	–11.9%	15.30%	–18.5%
(7) Adjusted Issuers Affected	(4) × (5)	4,471	332	76	4,884
(8) Actual Form SD Filings	EDGAR				1,335
January to December 2015					
(9) Actual Unique Issuers	EDGAR	7,802	688	131	8,621
(10) Percent Decline from 2009	[(9) – (3)] ÷ (3)	–20.4%	–9.7%	5.60%	–19.3%
(11) Adjusted Issuers Affected	(4) × (9)	4,421	340	70	4,837
(12) Actual Form SD Filings	EDGAR				1,284

Specifically, I multiply the estimated percent of unique affected issuers based on 2009 data from EDGAR by the actual number of unique issuers reporting annually to the SEC in 2014 and 2015. This adjustment indicates that the SEC's estimate of 5,994 affected issuers should be deflated to 4,884 and 4,837 in 2014 and 2015, respectively, due to the

decline in reporting issuers. Using the 1,335 Form SD filings in 2014 indicates that this adjustment reduces the error in the SEC's forecasted number of affected issuers from approximately 350% to 266%. Thus, about one-fourth of the SEC's miscalculation was likely due to the decline in the number of reporting issuers.

Notably, this adjustment assumes that the decline in issuers reporting to the SEC during this period is proportional across affected industries. It is plausible that a large portion of this decline occurred in industries affected by the Conflict Minerals Rule. To properly adjust for this trend, I would need the actual Standard Industrialized Classification (SIC) codes that the SEC staff believed would be most likely to manufacture products with conflict minerals. But, as noted above, the SEC did not disclose these SIC codes in the Proposed or Final Rule.

Schwartz and Nelson describe the SEC's estimated number of issuers affected by the Conflict Minerals Rule as grossly inaccurate. In this subsection, I note that one source of this inaccuracy stems from the decline in SEC reporting issuers between the baseline year used in the economic analysis of the Proposed Rule (2009) and the first year of conflict minerals reporting on Form SD (2014). Yet, even after adjusting for this trend, only a quarter of the error in the SEC's estimate can be attributed to the decline in reporting issuers. Put simply, Schwartz and Nelson's criticism remains valid: the SEC misestimated the number of issuers affected by the Conflict Minerals Rule.

III. IMPLICATIONS FOR THE SEC

Schwartz and Nelson argue that shortcomings in the SEC's quantification effort for this rule highlight insurmountable limitations of QCBA and suggest that this finding supports the elimination of the de facto quantification mandate.⁸² I consider Robert Hahn's viewpoint that, "[t]he solution to legitimate concerns raised by the critics [of QCBA] is not to eliminate quantitative economic analysis, but to gain a deeper understanding of its strengths and weaknesses, and to use it wisely."⁸³ Accordingly, in this Section, I suggest actions that the SEC could pursue to improve their quantification efforts for both the Conflict Minerals Rule and QCBA in general.

82. Schwartz & Nelson, *supra* note 1, at Part IV.

83. Robert W. Hahn, *The Economic Analysis of Regulation: A Response to the Critics*, 71 U. CHI. L. REV. 1021, 1023 (2004).

A. Conduct a Retrospective Analysis

At a minimum, the SEC could update its economic analysis of the Conflict Minerals Rule to reflect a more accurate assessment of the compliance costs. This recommendation is consistent with general advice given by the Office of Management and Budget (OMB) in its 2015 report to Congress on cost-benefit analyses: “Prospective analyses may overestimate or underestimate both benefits and costs; retrospective analysis can be important as a corrective mechanism.”⁸⁴

The SEC could publish the retrospective analysis of the Conflict Minerals Rule in a DERA White Paper⁸⁵ that reflects: (1) the actual number of issuers affected by the rule; and (2) the issuer estimated cost of compliance. To determine the latter figure, the SEC could employ cost surveys or request that affected issuers provide estimates of the initial and ongoing costs of complying with the rule. In fact, it is puzzling that the SEC does not conduct retrospective analyses of most quantification efforts using the realized costs and benefits. A number of recent academic studies endeavor to quantify the effects of Dodd-Frank Act rulemakings through retrospective analysis, including those with social welfare benefits.⁸⁶

Importantly, to facilitate these reviews, the SEC could follow OMB Report’s advice by ensuring that its rules are written in a way that generates the data necessary to monitor the realized costs and benefits: “rules should be written and designed, in advance, so as to facilitate retrospective analysis of their effects, including consideration of the data that will be needed for future evaluation of the rules’ ex post costs and benefits.”⁸⁷

84. See, OFFICE OF MGMT. & BUDGET (OMB), OFFICE OF INFO. AND REG. AFFAIRS, 2015 DRAFT REPORT TO CONGRESS ON THE BENEFITS AND COSTS OF FEDERAL REGULATIONS AND AGENCY COMPLIANCE WITH THE UNFUNDED MANDATES REFORM ACT 7 (2015) [hereinafter OMB REPORT], https://www.whitehouse.gov/sites/default/files/omb/infoereg/2015_cb/draft_2015_cost_benefit_report.pdf (citing Michael Greenstone, *Toward a Culture of Persistent Regulatory Experimentation and Evaluation*, in NEW PERSPECTIVES ON REGULATION 111 (David Moss & John Cisternino eds., 2009)).

85. Since 2012, the SEC has published more than a dozen DERA White Papers on its website. These studies provide expanded economic analyses in support of SEC rules or empirical findings that inform the SEC’s Chief Economist on economic developments in an SEC-related space. See SEC, STAFF PAPERS AND ECONOMIC ANALYSES, <https://www.sec.gov/dera/staff-papers?TheYear=&TheSubtype=White+Papers>.

86. See, e.g., Hans B. Christensen, et al., *The Real Effects of Mandatory Dissemination of Non-Financial Information Through Financial Reports* 32 (2015) (Univ. of Chi. Booth Sch. of Bus., Working Paper No. 16-05, 2016) (linking the SEC’s mine-safety disclosure rules under the Dodd-Frank Act to subsequent reductions in mining-related citations, injuries, and productivity), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2680296.

87. OMB REPORT, *supra* note 84, at 7.

Although some affected issuers would surely protest by insisting that the cost of furnishing these data is overly burdensome, it is hard to imagine that this expense would push the benefits-minus-costs measure into negative territory. Moreover, most issuers surely follow the business mantra that “anything worth doing is worth measuring.” This maxim applies as much to regulators as it does the regulated. Consistent with this notion, the SEC has included mandatory retrospective analysis in at least one Dodd-Frank Act rulemaking.⁸⁸ Measuring and reporting realized costs of its rules will surely be important for the SEC as inevitable political and judicial challenges will arise regarding the cost and efficacy of the Dodd-Frank Act reforms.⁸⁹

Although the Guidance issues explicit instructions for conducting prospective analyses during the proposing stage, comment period, and adopting stage, it remains silent regarding the need for retrospective reviews.⁹⁰ Thus, the SEC might consider the role of *ex post* economic analyses in future versions of the Guidance. This change would be consistent with recommendations by Bruce Kraus and Connor Raso, who advocate for the SEC to continuously improve the Guidance.⁹¹

B. *Strive to Be Accurate*

Another concern with the SEC’s conflict minerals compliance cost estimate is that it was purposefully conservative. In the Final Rule, the SEC admits that some cost inputs were inflated: “When it is deemed prudent, we have chosen to make conservative assumptions that may, in

88. For example, the SEC and other federal agencies must periodically review the definition of a qualified residential mortgage (QRM), which provides a complete exemption from risk retention for loans with certain borrower and product features. *See* Credit Risk Retention, Exchange Act Release No. 34-73407, 79 Fed. Reg. 77,602, 77,689 (Oct. 22, 2014) (to be codified at 24 C.F.R. pt. 267) (“As provided in the final rule, the agencies will commence a review of the definition of QRM not later than four years after the effective date of this rule with respect to securitizations of residential mortgages, five years after the completion of that initial review, and every five years thereafter.”).

89. *See* Opinion, *Dodd-Frank in Retreat*, WALL ST. J. (Apr. 13, 2016), <http://www.wsj.com/articles/dodd-frank-in-retreat-1460588528> (“Dodd-Frank’s failure on its own terms virtually guarantees that someone will reform it. The question is whether it will be the judicial or legislative branch.”).

90. *See* Guidance, *supra* note 17, at 16–17.

91. *See* Bruce Kraus & Connor Raso, *Rational Boundaries for SEC Cost–Benefit Analysis*, 30 YALE J. REG. 333 (2013) (“The 2012 Guidance was focused on how to write an economic analysis. Future work of SEC economists and policymaking lawyers should help the 2012 Guidance evolve still further into a meaningful, flexible, and feasible process for economic analysis of its rules—Guidance 2.0, if you will.”).

some cases, lead to an overestimation of the costs.”⁹²

Schwartz and Nelson posit that the SEC used QCBA to refute public and judicial rebuke around the Conflict Minerals Rule.⁹³ Perhaps it is not surprising that, following *Business Roundtable*, the SEC might be tempted to overstate the estimated cost of a congressionally-mandated rule in anticipation of judicial review, especially since it sought to achieve social welfare benefits that were not quantified. Indeed, this economic analysis was among the first to be conducted and reviewed by the D.C. Circuit after the publication of the Guidance. However, as Schwartz and Nelson importantly note, the public cannot simply unread the SEC cost estimate of \$3–4 billion, and this figure continues to *anchor* the debate about the actual cost of compliance.⁹⁴

Although the SEC can take partially-corrective actions through a retrospective review, providing an initially conservative cost estimate is problematic because it ignores the potential adverse effects of the phenomenon of “anchoring,” which is the failure of individuals to rationally update initial forecasts of uncertain values.⁹⁵ In other words, even if the SEC generates improved compliance cost estimates *ex post*, the public might never fully update its perception away from the *ex ante* forecast, even in the face of updated information. Unfortunately, bad forecasts such as the affected issuer estimate in the Proposed Rule tend to persist. Thus, a broader implication of Schwartz and Nelson’s article is that

92. Conflict Minerals, 77 Fed. Reg. 56,274, 56,351 (Sept. 12, 2012) (codified at 17 C.F.R. pts. 204.13p-1 & 249b.400).

93. Schwartz & Nelson, *supra* note 1, at 341.

QCBA should be an exercise in truth-seeking and transparency, but the court’s commendation of shoddy workmanship turns it into an exercise in gaming judicial review.

In fact, the entirety of the QCBA makes sense through this lens—as an artifice designed to satisfy the court. From this perspective, the SEC relied so heavily on NAM and chose such a large estimate to help its chances in litigation. . . . This political theatre drains agency and judicial resources, encourages the SEC to cow to interest groups, and misinforms the public.

Id.

94. *Id.* at 289 (noting that the SEC’s \$3–4 billion compliance cost estimate has been “repeated over ten thousand times in a wide range of publications.”).

95. See Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124, 1128 (1974) (“In many situations, people make estimates by starting from an initial value which is adjusted to yield the final answer. The initial value, or starting point, may be suggested by the formulation of the problem, or else it may be the result of a partial computation. Whatever the source of the initial value, adjustments are typically insufficient. That is, different starting points yield different estimates, which are biased towards the initial values. We call this phenomenon anchoring.”).

the SEC should consistently strive to deliver accurate—not conservative—estimates of compliance costs. The goal of quantification is to equally inform decision makers and the public about the estimated costs and benefits of a proposed rulemaking. Achieving this goal through quantification requires a precise assessment of the potential costs and benefits of a rule.

C. Clarify Assumptions

The Conflict Minerals Rule also demonstrates the need for the SEC to ensure transparency in its quantification efforts by clearly stating all assumptions underlying the cost and benefit estimates. Transparency yields accountability, which affords oversight. Above, I observe that the SEC did not disclose the industry codes it expected to be affected by the rule.⁹⁶ This action deviates from the Guidance, which states:

It is important to clearly describe the assumptions that underlie the description of the relevant baseline and to detail those aspects of the baseline specification that are uncertain. Defining the baseline typically involves identifying and describing the market(s) and participants affected by the proposed rule.⁹⁷

I am encouraged that the SEC might have already learned from this misstep, as the Commission did furnish the industry codes underlying its economic analysis of the Resource Extraction Proposed Rule.⁹⁸ In fact, the SEC used a nearly identical approach to the one it employed for the Conflict Minerals Rule by first counting the number of issuers filing Forms 10-K, 20-F, and 40-F (in 2014). The Commission then selected *and disclosed* the oil, natural gas, and mining SIC codes that the staff believed were most likely to be resource extraction issuers.⁹⁹

CONCLUSION

In their article, Jeff Schwartz and Alexandra Nelson identify numerous flaws in the QCBA underlying the Conflict Minerals Rule. They contend that the SEC's compliance cost estimate is plagued with baseless assumptions and inputs. Schwartz and Nelson posit that, when compared to an initial survey about the realized cost of complying with the rule, the

96. See *infra* Part C.2.

97. See Guidance, *supra* note 17, at 7.

98. See Disclosure of Payments by Resource Extraction Issuers, Exchange Act Release No. 34-76620, 80 Fed. Reg. 80,058, 80,088 (proposed Dec. 11, 2015).

99. *Id.* (“Specifically, the oil, natural gas, and mining SIC codes considered are 1000, 1011, 1021, 1031, 1040, 1041, 1044, 1061, 1081, 1090, 1094, 1099, 1220, 1221, 1222, 1231, 1311, 1321, 1381, 1382, 1389, 1400, 2911, 3330, 3331, 3334, and 3339.”).

SEC's estimate is significantly overstated.

In this Response, I review the concerns raised by Schwartz and Nelson. To determine the fundamental source of the SEC's cost misestimate, I bifurcate their forecast into the expected cost per issuer and number of issuers affected. My analysis suggests that the SEC's estimated cost per issuer was a reasonable approximation. Further examination indicates that an unforeseen decline in the total number of SEC reporting issuers contributed to a portion of the inflated estimate of the number of affected issuers. Nevertheless, even when adjusting for this trend, the Commission's total cost estimate remains overstated because significantly fewer issuers were impacted by the rule than forecasted in their economic analysis.

Schwartz and Nelson argue that the SEC's quantification inaccuracies deceived the public and suggest that the mandate on QCBA should be eliminated. In my Response, I take a pragmatic approach by first identifying where the SEC's cost-benefit analysis followed and diverged from its published Guidance on economic analysis. I then call upon the SEC to provide greater transparency in its analyses and to avoid temptations to provide conservative estimates of compliance costs for rules with social welfare benefits. I also encourage the Commission to enhance its quantification efforts through retrospective analyses. Moreover, I endorse the notion that all SEC rules should be written in a way to facilitate reviews of *ex ante* economic analyses so that the *ex post* costs and efficacy of regulations can be subsequently assessed.

APPENDIX

*Industry Distribution of Issuers Filing SEC Form SD Over 2014–2015 Based on
Primary Standard Industrialized Code*

Industry (SIC2 Code) ¹⁰⁰	SIC4 Codes of Issuers Filing Form SD
Agriculture Services (07)	0700
Mining (10-14)	1000, 1040, 1221, 1311, 1381, 1382, 1389, 1400
Construction (15-17)	1520, 1600, 1623, 1700, 1731
Manufacturing (20-39)	2033, 2060, 2080, 2082, 2090, 2111, 2200, 2211, 2221, 2273, 2300, 2320, 2330, 2340, 2421, 2430, 2451, 2510, 2511, 2520, 2522, 2531, 2590, 2621, 2650, 2670, 2673, 2711, 2750, 2761, 2771, 2780, 2800, 2810, 2812, 2820, 2821, 2833, 2834, 2835, 2836, 2840, 2842, 2844, 2851, 2860, 2870, 2890, 2891, 2911, 3011, 3021, 3050, 3060, 3081, 3086, 3089, 3100, 3140, 3220, 3221, 3231, 3241, 3260, 3272, 3290, 3310, 3312, 3317, 3320, 3330, 3341, 3350, 3357, 3360, 3390, 3411, 3412, 3420, 3440, 3442, 3443, 3444, 3448, 3452, 3460, 3470, 3480, 3490, 3510, 3523, 3524, 3530, 3531, 3532, 3533, 3537, 3540, 3541, 3550, 3555, 3559, 3560, 3561, 3562, 3564, 3569, 3570, 3571, 3572, 3576, 3577, 3578, 3579, 3580, 3585, 3590, 3600, 3613, 3620, 3621, 3630, 3634, 3640, 3651, 3661, 3663, 3669, 3670, 3672, 3674, 3677, 3678, 3679, 3690, 3695, 3711, 3713, 3714, 3715, 3716, 3720, 3721, 3724, 3728, 3730, 3743, 3751, 3760, 3790, 3811, 3812, 3820, 3821, 3822, 3823, 3824, 3825, 3826, 3827, 3829, 3841, 3842, 3843, 3844, 3845, 3851, 3861, 3873, 3910, 3911, 3942, 3944, 3949, 3990

100. These broader industries are based on classifications provided by the North American Industry Classification System (NAICS). See NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM, Search SIC code by Industry, <http://www.naics.com/sic-codes-industry-drilldown/> (deriving from the broader industries classifications provided by NAICS).

Transportation & Utility Services (40-49)	4011, 4213, 4400, 4512, 4513, 4522, 4812, 4813, 4833, 4841, 4899, 4911, 4922, 4931, 4932
Wholesale Trade (50-51)	5000, 5010, 5013, 5020, 5045, 5047, 5051, 5063, 5065, 5070, 5072, 5080, 5084, 5090, 5094, 5110, 5122, 5130, 5160, 5172, 5180, 5190
Retail Trade (52-59)	5200, 5211, 5311, 5331, 5411, 5500, 5600, 5621, 5651, 5661, 5700, 5712, 5731, 5810, 5812, 5900, 5940, 5944, 5945, 5961, 5990
Finance, Insurance, & Real Estate (60-67)	6159, 6199, 6331, 6361, 6513, 6770, 6794, 6798
Services (70-89)	7200, 7310, 7359, 7363, 7370, 7371, 7372, 7373, 7374, 7380, 7381, 7389, 7600, 7812, 7900, 7948, 7990, 7997, 8071, 8093, 8200, 8711, 8731, 8734, 8742