Georgia State University Law Review

Volume 38
Issue 3 *Spring 2022*

Article 11

6-1-2022

A Regulatory Budget for the Public Company Accounting Oversight Board

J.W. Verret
Delaware Court of Chancery, jayverret@gmail.com

A REGULATORY BUDGET FOR THE PUBLIC COMPANY ACCOUNTING OVERSIGHT BOARD

J.W. Verret*

ABSTRACT

The Public Company Accounting Standards Board (PCAOB) was created by the Sarbanes–Oxley Act (SOX) in 2002 in response to the Enron and WorldCom auditing scandals. The PCAOB regulates the $20 billion annual auditing industry, which itself provides assurance for the financial integrity of $27 trillion in outstanding global publicly traded equity. The PCAOB is uniquely a quasi-private entity overseen by the Securities and Exchange Commission (SEC), which approves its budget and must approve any changes in its rules. The PCAOB has undertaken initiatives to attenuate the cost–benefit calculus of its rules, most notably in a change from Auditing Standard 2 to Auditing Standard 5, to reduce the compliance costs of auditor attestation of internal controls required by § 404(b) of the SOX. This Article provides the SEC with a regulatory budget rubric, crafted on similar models implemented in the United Kingdom and Canada, to help the SEC fulfill its oversight function over the PCAOB by tracking a regulatory budget for the PCAOB.

* Associate Professor, George Mason University Antonin Scalia Law School & Senior Scholar, Mercatus Center at George Mason University.

CONTENTS

INTRODUCTION

The Public Company Accounting Oversight Board (PCAOB) regulates the public-accounting auditing industry, which reviews and audits the financial statements of all publicly traded companies in the United States to determine whether there are material weaknesses.[1] The auditing industry also examines internal controls that buttress the process of generating financial statements to determine whether that process is subject to material weaknesses.[2] The PCAOB has an annual budget of some $310 million (paid for by public companies and their shareholders). [3] The PCAOB regulates a $20-billion-a-year public-accounting auditing industry, which is responsible for assuring the integrity of the financial statements of all public companies and broker–dealers (effectively making the PCAOB responsible for the integrity of most of the $27 trillion of public equity outstanding in the United States).[4] This Article adapts lessons from regulatory budget processes in other countries to develop suggestions for how a regulatory budget could assist the Securities and Exchange Commission's (SEC) oversight of the PCAOB.[5] Unique issues in measuring the costs and benefits of auditing regulation are considered, and a literature survey of auditing academic research is offered.[6] The Article closes with initial suggestions for the PCAOB to adjust its regulatory priorities and alter the design of its approach to meet a future regulatory budget initiative.[7]

---

1. *See* Order Regarding Section 101(d) of the Sarbanes–Oxley Act of 2002, Securities Act Release No. 8223, Exchange Act Release No. 47,746, 80 SEC Docket 144 (Apr. 25, 2003) [hereinafter Section 101(d) Order], https://www.sec.gov/rules/other/33-8223.htm [https://perma.cc/CLK5-ABT9].

2. *See AS 2201: An Audit of Internal Control over Financial Reporting That is Integrated with an Audit of Financial Statements*, PCAOB, https://pcaobus.org/oversight/standards/auditing-standards/details/AS2201 [https://perma.cc/SF3F-WYWH].

3. News Release, PCAOB, PCAOB Approves 2022 Budget (Nov. 23, 2021), https://pcaobus.org/news-events/news-releases/news-release-detail/pcaob-approves-2022-budget [https://perma.cc/D864-SY42]; *Accounting Support Fee*, PCAOB, https://pcaobus.org/about/accounting-support-fee [https://perma.cc/6QT6-CU8M].

4. *Market Capitalization of Listed Domestic Companies (Current US$)*, WORLD BANK, https://data.worldbank.org/indicator/CM.MKT.LCAP.CD.

5. *See infra* Part III & Part IV.

6. *See infra* Part V & Part VI.

7. *See infra* Part VII.

This Article focuses on Section 404 of the Sarbanes–Oxley Act of 2002 (SOX 404)—a particular rule implemented by the PCAOB requiring that auditors attest to the viability of internal control processes implemented by public companies—because that rule is one whose costs tend to be both significant and discretely measurable. Although the regulatory budget process suggested in this Article focuses particularly on SOX 404, the lessons of this Article apply more broadly to all of the regulatory activities undertaken by the PCAOB.

To be clear, this Article focuses on establishing an institutional mechanism to measure and formally track the costs of PCAOB regulations to assist the SEC in its oversight of the PCAOB. These costs are primarily the costs to public company issuers and not the compliance costs imposed on auditing firms themselves. Paradoxically, auditing firms are likely to benefit from increases in audit requirements because they have strong pricing power given the level of consolidation in the market for large firm audits. It may prove necessary to entirely omit the direct cost of audit firm compliance from the process offered here.

I. SARBANES–OXLEY AND THE PCAOB

In response to nationally prominent accounting fraud scandals at Enron, WorldCom, and a number of other companies, Congress passed, and the President signed, the Sarbanes–Oxley Act (SOX) into law in 2002.[8] This law enhanced regulation of the auditing profession, required company executives to certify the effectiveness of their internal control systems to maintain the integrity of their accounting processes, and required annual external audits of company internal controls for most publicly traded companies.[9]

SOX also created the PCAOB, a regulatory body charged with overseeing public company audits.[10] The PCAOB replaced a self-regulatory body that had previously overseen the auditing

8. Parveen P. Gupta & Tim Leech, *Making Sarbanes–Oxley 404 Work: Reducing Cost, Increasing Effectiveness*, 3 INT'L J. DISCLOSURE & GOVERNANCE 27, 28 (2006).

9. *Id.*

10. Section 101(d) Order, *supra* note 1.

profession through a peer review system and the promulgation of auditing industry best practices.[11] The PCAOB is overseen by the SEC because its rules and annual budget must be approved by the SEC.[12] The PCAOB's central functions involve registration of public company auditors, auditing standard setting, inspections, and enforcement actions.[13]

Chief among the SOX requirements are §§ 302 and 404(a) (SOX 302 and SOX 404(a)), which requires publicly-traded company management to assess the effectiveness of their internal control systems and report any significant deficiencies or material weaknesses in their internal controls to their board of directors' audit committee and to their external auditor and § 404(b) of the SOX (SOX 404(b)), which requires outside auditors to attest to management's representations regarding the validity of those internal controls and to disclose whether material weaknesses exist in those internal controls.[14]

The SEC provided an exemption for smaller publicly traded companies (less than $75 million market capitalization) from the SOX 404(b) attestation requirement, which was subsequently codified in the Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd–Frank Act).[15] Smaller companies that are exempt from SOX 404(b) are still required to comply with SOX 302 and 404(a).[16] The SEC expanded that exemption to include companies that make less than $100 million in annual revenue.[17]

---

11. Steven B. Harris, PCAOB Board Member, Background on the PCAOB, Address at the Kennesaw State Graduate Student Meeting (May 16, 2013), https://pcaobus.org/news-events/speeches/speech-detail/background-on-the-pcaob_465 [https://perma.cc/Q9G6-4FJX]; Charles D. Niemeier, PCAOB Board Member, Independent Oversight of the Auditing Profession: Lessons from U.S. History, Address at the German Public Auditors Congress of 2007 (Nov. 8, 2007), https://pcaobus.org/news-events/speeches/speech-detail/independent-oversight-of-the-auditing-profession-lessons-from-u-s-history_32 [https://perma.cc/C4FA-SVTG].

12. Section 101(d) Order, *supra* note 1.

13. John L. Abernathy, Michael Barnes & Chad Stefaniak, *A Summary of 10 Years of PCAOB Research: What Have We Learned?*, 32 J. ACCT. LITERATURE 30, 31 (2013).

14. Gupta & Leech, *supra* note 8, at 30, 33.

15. U.S. GOV'T ACCOUNTABILITY OFF., GAO-13-582, INTERNAL CONTROLS: SEC SHOULD CONSIDER REQUIRING COMPANIES TO DISCLOSE WHETHER THEY OBTAINED AN AUDITOR ATTESTATION 2 (2013).

16. *See id.* at 2, 8.

17. Press Release, SEC, SEC Expands the Scope of Smaller Public Companies that Qualify for Scaled

One survey in the wake of SOX implementation found that SOX was associated with an average fee increase of $2.3 million at the average Fortune 1000 company.[18] SOX 404 was the most expensive component of that initial cost increase.[19] The initial auditing standard that the PCAOB used to implement SOX 404(b)'s internal control attestation requirement was Auditing Standard 2 (AS 2).[20] That standard was criticized by the issuer community and by some at the PCAOB itself as resulting in excessively high increases in audit fees (relative to the pre-Sarbanes–Oxley environment), being excessively duplicative and cumbersome, and being unlikely to help uncover material weaknesses in internal controls.[21]

The initial approach to SOX 404 implementation adopted by the PCAOB under AS 2 was criticized as overly focused on process controls, rather than an analytical approach grounded in risk assessment of where internal control deficiencies were deemed likely to arise.[22] The SEC issued guidance in 2007 suggesting a move toward a risk-based approach to internal control auditing.[23] The PCAOB ultimately responded to pressure from the SEC with the adoption of Auditing Standard 5 (AS 5), which embraced a risk-based approach that resulted in decreased auditing fees.[24] Although the ultimate reduction in auditing fees was expected, it was in no way metered or grounded in a holistic economic analysis of the optimal scope of regulation. The risk-based approach adjusts the scale of an audit relative to particular attributes of each individualized client, like size or complexity, that tend to serve as reliable risk indicators of

Disclosures (June 28, 2018), https://www.sec.gov/news/press-release/2018-116 [http://perma.cc/2SZ9-VV9P].

18. Gupta & Leech, *supra* note 8, at 28.

19. *See id.*

20. Mark L. DeFond & Clive S. Lennox, *Do PCAOB Inspections Improve the Quality of Internal Control Audits?*, 55 J. ACCT. RSCH. 591, 597 (2017).

21. *Id.*

22. Gupta & Leech, *supra* note 8, at 35.

23. *See generally* Commission Guidance Regarding Management's Report on Internal Control over Financial Reporting Under Section 13(a) or 15(d) of the Securities Exchange Act of 1934, Exchange Act Release No. 33-8810, 17 C.F.R. § 241 (June 20, 2007), https://www.sec.gov/rules/interp/2007/33-8810.pdf [https://perma.cc/9TX7-SQ2L].

24. DeFond & Lennox, *supra* note 20, at 597–98.

deficiencies in internal controls.[25] Yet the amount by which costs were reduced was entirely unknown at the time of the change. Regulators were effectively reaching around in the dark in reforming regulatory costs. The methodology suggested in this Article would allow them to do the same thing in a far more robust and transparent way.

The SEC's new management guidance was designed to encourage management to take a new risk-based approach to internal control certifications by allowing management to focus its determinations only on those internal controls that were directly related to a risk of material misstatements.[26] The goal of the 2007 reforms embodied in the transition to AS 5 was to reduce compliance costs of SOX 404 while maintaining effective compliance.[27] The SEC simultaneously approved the PCAOB's new AS 5, which took the same approach to external auditor attestations.[28]

The SEC describes the benefits of AS 5 as "allowing auditors to exercise their judgment, . . . scaling the level of internal control testing to match the size of the company, . . . eliminating unnecessary procedures[,] . . . [and] allowing auditors to use a principle-based approach to decide the extent to which they can rely on work already done by others."[29] In making that change, the PCAOB, responding to calls from the SEC, implicitly conducted a review of the costs and benefits of the prior regime and worked to reduce compliance costs.[30] A regulatory budget process described in this Article would formalize this process, enhance consideration of tradeoffs to a PCAOB-wide review rather than merely a review of one single regulatory level at the agency, and allow the SEC and the PCAOB an opportunity to engage in ongoing review of costs and benefits rather than relying on the incomplete picture of conducting a review at a single point in time.

That particular change to an individual standard is highly informative for this regulatory budget proposal because it provides an

25. *See id.*

26. OFF. OF ECON. ANALYSIS, SEC, STUDY OF THE SARBANES–OXLEY ACT OF 2002 SECTION 404 INTERNAL CONTROL OVER FINANCIAL REPORTING REQUIREMENTS 17 (2009).

27. *Id.* at 1.

28. *Id.* at 17.

29. *Id.* at 18.

30. *Id.*

opportunity to study the relative changes in costs and benefits from the reforms; however, it does not suggest that discrete auditing standard changes should be the singular focus of a regulatory budget. Changes to individual standards or regulatory approaches remain a terribly imprecise way to adjust regulatory costs. It was not clear, to the SEC or the PCAOB, for example, just how the reform from AS 2 to AS 5 would change costs, and neither agency considered how that change would impact the rest of the interrelated regulatory environment in any methodologically transparent way.

Congress has called on the PCAOB to conduct a more careful economic analysis of its activities.[31] A member of the SEC has also made similar calls on the PCAOB to conduct more meaningful economic analyses.[32] In the last ten years, the SEC has had a renewed focus on the cost–benefit analysis of rule proposals, but self-regulatory organizations (like the Financial Industry Regulatory Authority (FINRA) or the PCAOB) have not done so in any binding way. Although the PCAOB does sponsor academic research roundtables and has hired economists in its new Center for Economic Analysis (including noted economist Luigi Zingales), the economic analyses conducted by those economists are not treated as a binding constraint on agency action.[33]

The next Section will draw on lessons from a regulatory budget process developed in the United Kingdom, Canada, and other countries to develop suggestions for how the SEC might institute a more rigorous review of the costs and benefits of the ongoing regulatory choices made by the PCAOB.[34]

II. REGULATORY BUDGETING BASICS & THEIR RELEVANCE TO SEC

31. *See* Sarah N. Lynch, *U.S. House Panel Probes Audit Watchdogs's Economic Analyses*, REUTERS (Jan. 14, 2013, 4:12 PM), http://www.reuters.com/article/us-pcaob-congress-idUSBRE90D14I20130114 [https://perma.cc/9ZRQ-C24G].

32. Michael S. Piwowar, Comm'r, SEC, Remarks at 2016 Conference on Auditing and Capital Markets (Oct. 21, 2016), https://www.sec.gov/news/speech/piwowar-speech-conference-auditing-capital-markets-102116.html [https://perma.cc/6AXX-MCNH].

33. *Staff Guidance on Economic Analysis in PCAOB Standard-Setting*, PCAOB (Feb. 14, 2014), https://pcaobus.org/oversight/standards/economic-analysis/05152014_guidance [https://perma.cc/6H5U-Y8MH].

34. *See infra* Part III.

OVERSIGHT OF THE PCAOB

A. How Regulatory Budgeting Works

Regulatory budgeting is a methodology for allocating regulatory costs to the agencies that impose those costs on the economy.[35] It has been adopted by many Western countries.[36] Most iterations begin with a mandatory cost cut, typically of 30%, after which agencies are required to maintain the status quo in regulatory costs, by eliminating old regulations before new regulations are allowed to go into effect. More sophisticated regulatory budget methods would begin with a holistic economic analysis, including a cost–benefit analysis, to determine the optimal level of regulatory costs for each regulatory agency within the government.

Regulatory budgeting is designed to internalize the regulatory cost–benefit analysis within an agency by creating an opportunity cost to regulation.[37] The process set up by regulatory budgeting is inspired by the assumption that the agency has some incentive to adopt new regulations; thus, it has an incentive to prioritize between new proposals or otherwise to eliminate old or duplicative regulations to make way for new proposals.[38] In effect, the agency internalizes that there are tradeoffs associated with regulatory approaches and ideally selects those regulatory approaches that provide the greatest benefits with the least costs.

Regulatory budgeting has been a focus of reform efforts in a number of foreign countries as well as a focus of legislative reforms previously introduced in Congress but currently not adopted. President Donald

35. *See* Jeffrey A. Rosen & Brian Callanan, *The Regulatory Budget Revisited*, 66 ADMIN. L. REV. 835, 838–39 (2014).

36. *See generally* LAURA JONES, MERCATUS RSCH., CUTTING RED TAPE IN CANADA: A REGULATORY REFORM MODEL FOR THE UNITED STATES? (2015).

37. *See* Rosen & Callanan, *supra* note 35, at 840.

38. *See id.*; *see also Regulatory Budgeting as a Solution to the Accumulation of Regulatory Errors, An Introduction to Regulatory Budgeting: Hearing Before the House Comm. on the Budget*, 114th Cong. 2 (2016) (statement of Patrick McLaughlin, PhD, Senior Research Fellow, Mercatus Center at George Mason University); *see also Building a Regulatory Budget: What to Know and Where to Start*, Event at the Mercatus Center at George Mason University (June 8, 2017), https://www.mercatus.org/events/building-regulatory-budget-what-know-and-where-start [https://perma.cc/SJ4E-WF6M].

Trump's Administration adopted a version of regulatory budgeting by presidential executive order in one of Trump's first official acts in office.[39] The general notion is for a government to create a regulatory budget process similar to its direct fiscal budget process. The regulatory costs passed on to taxpayers can rival the direct expenditures of the government, and the former arises within regulatory bodies that experience no constraint on those costs. As a result, regulatory costs are biased upward and difficult to control. Regulatory costs are also experienced by agencies themselves because their own fiscal costs increase to conduct ongoing enforcement and compliance activities with respect to previously adopted rules.

B. What Other Countries Have Implemented

Most countries have implemented the idea of starting with a baseline of what regulation should cost for the year.[40] Some have started with a requirement to cut costs, typically by one-third, by aggregating the number of regulatory requirements (tabulated as the number of mandatory phrases in regulations, or compliance costs, or other estimates of regulatory burden, depending on the country) over a transition period.[41] After that time, most regulatory budgets adopt the prior year's cost as the baseline and require that new regulations be accompanied by corresponding cuts in regulatory costs before new regulations can go into effect.[42]

More sophisticated regulatory budgets would have a legislative body allocate cost budgets for each individual regulatory agency, but those previously adopted in other countries have uniformly applied an initial cost reduction and uniformly applied subsequent baselines. In part, this policy choice was based on the cost of implementation and measurement, a challenge that will be dramatically reduced in scale in the specific context of the SEC's oversight of the PCAOB. This is part

39. Exec. Order No. 13771, 82 Fed. Reg. 9,339 (Feb. 3, 2017).
40. *See, e.g.*, JONES, *supra* note 36, at 15.
41. *See id.* at 14–15.
42. *See id.* at 1 n.3.

of the reason that the SEC's oversight of the PCAOB is such an ideal test case for regulatory budgeting in the United States.

Regulatory budgeting is a bipartisan idea, previously endorsed in President Jimmy Carter's Economic Report of the President and by former Democrat Senator Lloyd Bentsen.[43] Although inspired by ideas similar to the ones calling for a cost–benefit analysis, regulatory budgeting takes a somewhat different approach. Susan Dudley, Director of the George Washington University Regulatory Studies Center, describes a regulatory budget as an effective complement to regulatory cost–benefit analyses because a regulatory budget allows for consideration of tradeoffs among existing regulations, whereas a regulatory cost–benefit analysis is typically performed only on one particular regulatory proposal at a discrete point in time.[44]

Some of the methodological approaches used in regulatory budgeting in other jurisdictions were designed to budget for entirely new regulations with which the government did not have much experience.[45] By contrast, the regulatory approach taken at the PCAOB does not typically involve entirely novel regulations; instead, it is characterized by the ongoing application of previously adopted regulations, interspersed with occasional new rules or rule modifications every few years. On occasion, the PCAOB proposes rules which would be classified more appropriately as new regulations—such as the mandatory reporting of critical audit matters recently adopted by the PCAOB and approved by the SEC—but even those changes function as part of the existing regulatory tapestry overseen by the PCAOB (this is often true of SEC rules as well). An annual regulatory budget review is likely more useful in considering PCAOB costs than the net present value of costs estimates utilized by other countries in considering individual regulatory proposals. The SEC has a unique statutory authority to directly regulate the PCAOB

43. *Regulatory Budgeting and the Need for Cost-Effectiveness in the Regulatory Process: Hearing Before the Joint Econ. Comm.*, 96th Cong. 2 (1979) (statement of Sen. Lloyd Bentsen, Chairman, Joint Economic Committee).

44. Susan E. Dudley, *Can Fiscal Budget Concepts Improve Regulation?*, 19 N.Y.U. J. LEGIS. & PUB. POL'Y 259, 265 (2016).

45. *See id.* at 261.

and approve its budget, which leaves no doubt as to its authority to institute a regulatory budget process.[46] Discussions about implementing a regulatory budget for independent agencies more broadly indicate that White House oversight of independent agencies may spring from the President's inherent executive power, but that position is yet untested in the courts.[47]

Canada began with a one-third reduction target for its regulatory requirement budget.[48] Canada's Red Tape Reduction Act then instituted a regulatory budget process in the form of a "one-in, two-out" rule requiring regulators across the federal government to repeal two regulatory requirements for every regulatory requirement added.[49] This process takes a macro-level and rough-estimate approach to regulatory budgeting in which the status quo essentially becomes the baseline after the initial system-wide reduction. That is, regulatory requirements rather than regulatory costs are tallied, and decreases in regulatory requirements are given half the weight of increases to account for an assumed regulatory bias on the part of regulators implementing the rule.[50] This approach obtained wide bipartisan support in Canada and passed into law with an overwhelming vote of 245-to-1.[51]

An alternative approach developed in the Netherlands—also used in Norway and Denmark—estimated direct business compliance costs and set a target of 25% cost reduction.[52] After the initial cost reduction, those regimes then transitioned to a static regulatory allocation or baseline in which increases in regulatory costs had to be met with equal reductions in other regulatory costs administered by the government.[53]

---

46. 15 U.S.C. § 7219(b).

47. *See* Robert W. Hahn & Cass R. Sunstein, *A New Executive Order for Improving Federal Regulation? Deeper and Wider Cost-Benefit Analysis*, 150 U. PA. L. REV. 1489, 1489–90 (2002).

48. JONES, *supra* note 36, at 20–21.

49. *Id.* at 19.

50. *See id.* at 15.

51. *Id.* at 3.

52. *Id.* at 12.

53. *See, e.g.*, *id.* (citing SCM Network, *International Standard Cost Model Manual: Measuring and Reducing Administrative Burdens for Business*, https://www.oecd.org/gov/regulatory-policy/34227698.pdf [https://perma.cc/BQS4-7A5V]).

C. Applying Lessons in Regulatory Budgeting to the PCAOB

The following Section argues that the Division of Economic and Risk Analysis (DERA) of the SEC, which studies regulation, should work in partnership with the PCAOB's Chief Economist to take a leadership role in setting and monitoring the PCAOB's regulatory budget. Canada tasked regulatory reform officials residing in the country's Ministry of Small Business and Economic Development with the implementation of the regulatory budget.[54] In the United States, that role would be best served by DERA, which has staff with the economics expertise to track compliance costs and has done so in past studies. The PCAOB's Chief Economist[55] might be tasked with collecting annual compliance costs to provide to DERA. Accounting experts at the SEC may provide additional input into the initial regulatory baseline calculation, and auditing experts at the PCAOB would have an important role to play in determining the appropriate tradeoffs to make in meeting the regulatory budget. Even if a direct-cost approach is more difficult to implement than the Canadian approach, it would be easily adapted to the PCAOB's regulatory work considering the wealth of accounting academic literature focusing on the PCAOB's operation and in light of prior work by DERA doing the same.

Canada's one-third reduction target was partly informed by a small business survey suggesting that the initial regulatory requirement reduction target was appropriate.[56] Although DERA could perform original econometric work to determine the optimal regulatory baseline or allocation to the PCAOB, as well as the appropriate target reduction in regulatory costs that the baseline would aim to accomplish, surveys of market professionals might also inform its determination.

Most regulatory budgeting approaches would begin with an acceptance of the status quo and, going forward, would have agencies

54. JONES, *supra* note 36, at 20.

55. *Dr. Nayantara Hensel, Chief Economist and the Director of the Office of Economic and Risk Analysis*, PCAOB, https://pcaobus.org/about/senior-staff/senior-staff-bios/dr.-nayantara-hensel [https://perma.cc/QC3D-772Y].

56. JONES, *supra* note 36, at 26.

subject to a regulatory budget limit for increases to the status quo baseline.[57] This approach economizes on the costs of establishing a regulatory budget, but such a limitation is unnecessary in the context of a regulatory budget for the PCAOB. There is sufficient data on the costs and benefits of PCAOB programs and the major requirements the PCAOB programs oversee, which allow for DERA to conduct a sophisticated analysis of costs and benefits and establish a more refined baseline to measure regulatory costs at the PCAOB.

All regulatory budget programs impliedly use a status quo baseline and take a rough estimate approach to account for the difficulty of estimating government-wide costs.[58] By contrast, a wealth of cost and benefit data is already available in the SEC's review of the PCAOB.[59] The PCAOB sponsors visiting accounting academics to study the costs and benefits of its rules, although the SEC's DERA has already published sophisticated survey-based estimates and literature-review studies of the costs and benefits of rules enforced by the PCAOB.[60] This Article provides initial suggestions for how to operationalize this information.

The Canadian approach obtained the buy-in of regulators once they understood that, within the regulatory budget constraints, they retained discretion to decide which regulatory approaches to prioritize.[61] Canada's regulatory budget was informed by what was essentially a pilot program in the province of British Columbia, which itself managed to achieve a one-third reduction in regulatory requirements and that was maintained through subsequent changes in political leadership.[62] Similarly, the PCAOB could be left to initially determine the appropriate mix of regulatory priorities and approaches, provided that it remained within its regulatory budget or was able to sufficiently explain to the SEC the reasons for departures from its regulatory budget.

57. Rosen & Callanan, *supra* note 35, at 846.
58. *See id.*
59. *See generally* OFF. OF ECON. ANALYSIS, *supra* note 26.
60. *Id.*
61. *See* JONES, *supra* note 36, at 19.
62. Sean Speer, *Regulatory Budgeting: Lessons from Canada*, R ST. POL'Y STUDY, March 2016, at 1, 4.

The government of British Columbia experimented with tweaks to its methodology for calculating regulatory costs during an initial two-year phase-in period.[63] British Columbia also empaneled an advisory committee to provide input into the regulatory budget process and cost estimation methods.[64] The PCAOB and the SEC both presently hear from advisory committees on a regular basis and could empanel an advisory committee to provide input on the PCAOB's regulatory budget. One further check on agency cost estimates would be the incentives of outside groups to track those regulatory cost estimates.[65]

Regulatory budgeting is buttressed by approaches designed to increase its reliability—like applications of standard-cost estimates developed in other countries, reliable technological innovations to establish consistent cost estimates, and peer reviews of the estimates.[66] Retrospective analysis of existing regulations has been used in other countries as a simple way to come up with an appropriate baseline.[67] That does not require, however, that the status quo costs form the regulatory baseline if a more reliable baseline can be established. Although another important component of cost–benefit analyses is retrospective review, it has proven difficult to encourage agencies subject to cost–benefit oversight by the Office of Information and Regulatory Affairs (OIRA) to do so.[68] The advantage of regulatory budgeting is that it explicitly incorporates a form of retrospective review.

Supporters of regulatory economic analysis generally warn that a regulatory cost–benefit analysis only works if the administration implementing it remains committed to the idea. Similar critiques have been applied to regulatory budgeting in its role as an analogue to

63. *Id.* at 7.

64. *Id.*

65. Clyde Wayne Crews, Jr., *Promise and Peril: Implementing a Regulatory Budget*, 31 POL'Y SCIS. 343, 355 (1998).

66. *See* Ellen G. Johnson, Andy Morton, Tim Flynn & James C. Musser, *Congressional Budgeting: Introduction to a Regulatory Budget* 8 (U.S. House of Representatives, Comm. on the Budget, Working Paper, 2016).

67. *See, e.g.*, *id.* at 11.

68. Marcus Peacock, *Implementing a Two-for-One Regulatory Requirement in the U.S.* 16 (George Washington Univ. Regul. Stud. Ctr., Working Paper, 2016).

cost–benefit analyses.[69] If a subsequent administration is openly hostile to regulatory economic analysis, the reform momentum will be quickly stalled. This concern for maintaining momentum across administrations has not played out in Western countries that have adopted regulatory budgeting because the reform survived new political parties coming into power. In contrast to these British and Canadian government-wide initiatives, the SEC is a bipartisan commission, with voices from both parties helping to maintain momentum for evidence-based policymaking.[70] This has been true of the SEC's commitment to DERA, and it has characterized a movement toward economic analysis at the Federal Trade Commission (FTC) from the 1970s and 1980s to today.[71]

In part, the professional norms of the economics division of an agency, which are grounded in the scientific method, have helped maintain this momentum over successive administrative changes at the FTC and the SEC. This suggests that a regulatory budget process would maintain a unique momentum if implemented by a bipartisan independent agency like the SEC and developed under the auspices of the economists at DERA and the PCAOB Office of Economics and Risk Analysis.

Technological innovation in tracking regulatory compliance costs can also assist the efforts to measure them. Canada developed software particularly for the purpose of tracking regulatory costs as early as the 1990s, and more recently, a wealth of new software and artificial-intelligence-based tools for regulatory compliance have been developed.[72] Uniquely, the underlying industry being regulated is the accounting industry, which itself is the group of professionals charged with tracking costs of all kinds in public companies, including the costs they impose through their own activities.

---

69. Fred Thompson, *Toward a Regulatory Budget*, 17 PUB. BUDGETING & FIN. 89, 90 (1997).

70. *See Current SEC Commissioners*, SEC, https://www.sec.gov/Article/about-commissioners.html [https://perma.cc/NJ8K-Y7NC] (Dec. 29, 2020).

71. *See* J.W. Verret, *Economic Analysis in Securities Enforcement: The Next Frontier at the SEC*, 82 U. CIN. L. REV. 491, 498 (2018) (citing William E. Kovacic, *The Modern Evolution of U.S. Competition Policy Enforcement Norms*, 71 ANTITRUST L.J. 377, 394 (2003)).

72. Thompson, *supra* note 69, at 95.

Canada used an initial three-year implementation timeline to allow regulatory agencies to transition toward a regulatory budget.[73] Any transition window used in the SEC's oversight of the PCAOB would likely be balanced against the political reality that SEC Chairmen serve five-year terms (or less), and so they are likely to seek an implementation timeframe able to generate successful returns quickly during their term.

The United Kingdom's regulatory budget considered both transitional costs and annual costs and used a discounted present-value method to estimate the present value of future costs.[74] The Canadian approach uses a ten-year window for cost estimation in which the future costs of each new activity required by a regulation are calculated over the following ten years and then discounted into a present-value calculation.[75]

In the PCAOB context, new rules are rare, and regulatory costs are instead a product of the interaction of a small set of formal rules administered by the PCAOB with more informal and subjective tools like inspections and enforcement actions. As such, an annual cost approach that does not include Net Present Value (NPV) calculations is likely to prove more useful.

One of the regulatory costs specifically targeted by the United Kingdom's approach was what it referred to as "gold-plating," or "where a department implements a Directive so that it goes beyond the minimum requirements, resulting in increased costs to business and civil society organizations."[76] Critics of cost–benefit analyses of PCAOB actions, like the implementation of SOX 404, may argue that the statutory requirement of SOX 404 makes ongoing cost analysis as suggested in this Article inappropriate; but that misses the point entirely. Consideration of any potential gold-plating of a statutory

73. JONES, *supra* note 36, at 20.

74. HM GOV'T, ONE-IN, ONE-OUT (OIOO) METHODOLOGY 8 (2011).

75. *Controlling Administrative Burden That Regulations Impose on Business: Guide for the 'One-for-One' Rule*, GOV'T OF CAN. (2012), https://www.canada.ca/en/government/system/laws/developing-improving-federal-regulations/requirements-developing-managing-reviewing-regulations/guidelines-tools/controlling-administrative-burden-guide-one-for-one-rule.html [https://perma.cc/H2TD-TMGJ].

76. HM GOV'T, *supra* note 74, at 6.

requirement, for example by imposing auditing standards that exceed the minimum required to implement the statute, is entirely appropriate for ongoing cost analyses, as the United Kingdom experience demonstrates.

D. Insights from the Academic Literature on Regulatory Budgeting

Some of the legislative regulatory budget proposals considered in the United States do not contain an enforcement mechanism. Commentators discuss some of the challenges associated with creating an analogue to the anti-deficiency process in the fiscal budget to enforce a regulatory budget.[77] Even to the extent that sanctions for non-compliance are included in previously adopted regulatory budget processes, they function to limit new rulemaking by the agency if the regulatory budget is in deficit.[78] Such an enforcement mechanism would not likely work well at the PCAOB because it rarely issues new rules. The mere act of tracking the costs, and explaining any departure from a baseline regulatory budget, can offer significant benefit to the regulatory process.

Christopher DeMuth, lawyer and distinguished fellow at the Hudson Institute, contrasts centralized, government-wide cost–benefit analyses conducted by one reviewing agency, like OIRA, with a regulatory budget process that forces each individual agency to consider serious tradeoffs in assessing the costs and benefits of individual proposals, and he argues that the decentralized approach of regulatory budgeting can be superior.[79] A regulatory budget for the PCAOB can supplement the SEC's review of individual rule changes by the PCAOB. DeMuth identifies the need to make estimates of future costs when new rules are adopted and then establish a reconciliation procedure to account for actual costs against prior estimates.[80] Although these reconciliations would be somewhat less frequent than at other agencies, estimates from individual PCAOB proposals

77. *See, e.g.*, Rosen & Callanan, *supra* note 35, at 850.
78. *See id.* at 854–55.
79. *See* Christopher C. DeMuth, *The Regulatory Budget*, 4 AEI J. ON GOV'T & SOC'Y 29, 30 (1980).
80. *Id.* at 31.

conducted during their initial review that year could be incorporated into the PCAOB's annual regulatory budget and subsequently reconciled to actual costs.

Nearly all of the regulatory budget approaches recognize that benefits are considered during the initial allocation of the regulatory baseline (or regulatory cost allocation) and that only direct-cost estimates are utilized in subsequent regulatory budgeting.[81] DeMuth notes, "The short answer is that benefits would indeed be taken into account—but early in the process, when the President and Congress determined the *size* of each agency's budget."[82] Allocation of a regulatory budget is analogous to setting a regulatory baseline and measuring annual costs to determine whether regulatory costs are in deficit.

If the link between SOX 404 auditor attestation and subsequent accounting restatements is seen as a relevant measure of the benefits of SOX 404(b) and the auditing standards promulgated pursuant to that provision, it would be considered in establishing the appropriate cost allocation or baseline but not in the subsequent annual regulatory cost review. Similarly, stock price impacts studies of PCAOB rules, and actions could be considered in the initial cost baseline but not to determine the annual regulatory cost estimates. The baseline could be periodically adjusted as well to the extent new information about benefits comes to light. The effects that PCOAB rules have on competition, and the level of consolidation in the auditing industry, may also be relevant considerations. A full discussion of the competition economics analyses that the PCAOB may consider conducting as a component of regulatory economic analyses is beyond the scope of this Article.

Net benefit calculations are not workable because benefits are not as readily estimable as costs. Another reason benefit estimates are excluded from ongoing regulatory budgets, and are only considered in the initial budget allocation, is that agencies would have an incentive to overestimate benefits so that all regulatory action would be

81. *See id.* at 32.
82. *Id.*

represented as providing a net benefit.[83] DeMuth notes the tradeoff in determining which regulatory costs to measure.[84] Too wide an estimate, measuring deadweight losses using "elasticities of demand and supply" and estimates of agency risk aversion, "could swamp the budgeting process in controversy," but a budget process "limited in scope would be easily evaded."[85] The disciplining mechanism that regulatory budgets provide—encouraging the careful weighing of tradeoffs—only works if the agency itself has no role in assessing benefits in the initial regulatory budget allocation.[86]

One study discusses multiple approaches to a regulatory budget, ranging from the establishment of a macro-level cost ceiling for all agencies, to setting targets particular to each agency, and to further subcategorizing various types of costs.[87] The second or the third options would be the only viable pathways for the SEC's review of a PCAOB regulatory budget. And DERA and the PCOAB Chief Economist would need to make appropriate decisions that balance leaving discretion to PCAOB in weighing tradeoffs between regulatory approaches and setting sub-categories of the regulatory budget to target areas of particular concern.

Given the high degree of attention to the impact of SOX 404(b) on small firms, both in the previously adopted exemption in the Dodd–Frank Act and in discussions about the extension of that exemption, it is likely unavoidable that a PCAOB regulatory budget would include sub-categorization targeting SOX 404(b) costs that flow through to issuers based on some selected ranges of issuer market capitalization. DeMuth observes that, ideally, a regulatory budget would seek to measure the deadweight losses that result from regulatory costs, rather than merely the compliance costs themselves.

---

83. *See An Introduction to Regulatory Budgeting: Hearing Before the H. Comm. on the Budget*, 114th Cong. 6 (2016) [hereinafter *An Introduction to Regulatory Budgeting*] (statement of Clyde Wayne Crews, Jr., Vice President for Policy/Director of Technology Studies, Competitive Enterprise Institute).

84. *See* DeMuth, *supra* note 79, at 38.

85. *Id.*

86. *See An Introduction to Regulatory Budgeting*, *supra* note 83, at 17 (statement of Clyde Wayne Crews, Jr.).

87. Lance D. Wood, Elliott P. Laws & Barry Breen, *Restraining the Regulators: Legal Perspectives on a Regulatory Budget for Federal Agencies*, 18 HARV. J. ON LEGIS. 1, 7 (1981).

But he suggests that it would be better to include more macro-level considerations in the initial cost allocation to an agency.[88] Subsequent cost estimates should then utilize only readily estimable direct and indirect cost measures.

There is also an implicit recognition that regulatory budget allocations begin with policy priors.[89] Part of the policymaker's decisions about an appropriate regulatory cost baseline may be grounded in a desire to increase public participation in the securities markets by increased smaller capitalization Initial Public Offerings (IPO)—in a desire to assist financing of smaller capitalization biotechnology and technology startups associated with higher spillover benefits on the broader economy or a desire to respond to particular high-profile instances of financial fraud that are directly linked to an internal control failure.

Opponents of a regulatory budget that specifically targets costs may argue that it would place the government into the business of setting auditing fees or price controls; but that argument misses the mark. First, it would not limit the ability of independent auditing firms to raise fees on their own but only their ability to do so through a regulatory design that mandates or encourages the use of a particular service. Second, this approach would only target those costs that result from the PCAOB's regulations, not from auditing costs that predated SOX and the PCAOB.

This Section has considered the basics of regulatory budgeting and the approaches in the menu of available options that would be most useful in the context of the SEC's oversight of the PCAOB. The next Section will link this with the public choice and agency institutional design literature to demonstrate that a regulatory budget constraint is well suited to the dynamic of the SEC's oversight of the PCAOB.[90]

88. DeMuth, *supra* note 79, at 34–35.
89. *See id.* at 37.
90. *See infra* Part IV.

III. AGENCY DESIGN THEORY AND PUBLIC CHOICE ANALYSIS

George Stigler, notable economist, and Sam Peltzman, Professor of Economics at the University of Chicago's Booth School of Business, observed that government regulation can be limited in effectiveness because of political pressure and regulatory capture.[91] Regulatory risk aversion is also cited as one of the reasons a regulatory budget is so important.[92] Regulators experience the fallout from a scandal that they are seen as having caused, but they do not experience any of the benefits from keeping regulatory costs low and encouraging economic growth.[93]

The aim of regulatory budgeting is to resolve this issue by having an outside party, which is more likely to measure regulatory costs against benefits, set the initial allocation.[94] Those proposals rely on the accountability that Congress and the President have to voters as justification for their likelihood of being less risk averse.[95] DERA at the SEC can partly serve this external review function. The professional norms of the economics profession can assist DERA's review.

Supporters of regulatory budgeting often buttress their work with an appeal to the public choice school of economics, which explores how regulatory costs can protect incumbent firms from competition by serving as barriers to entry or by creating regulatory demand for their services.[96] The establishment of PCAOB registration was itself associated with a withdrawal by many smaller auditing firms from public company auditing (although it is not clear from the literature whether smaller firms tended to do so as a signal of underlying audit quality).

---

91. *See* George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3, 6–7 (1971); Sam Peltzman, *The Economic Theory of Regulation After a Decade of Deregulation*, 20 BROOKINGS PAPERS ON ECON. ACTIVITY: MICROECONOMICS, Spring 1989, at 1, 5, 48; Sam Peltzman, *Toward a More General Theory of Regulation*, 19 J.L. & ECON. 211, 240 (1976).

92. DeMuth, *supra* note 79, at 34.

93. *See id.* at 33–34.

94. *See id.* at 37.

95. *Id.*

96. *See An Introduction to Regulatory Budgeting*, *supra* note 83, at 7 (statement of Clyde Wayne Crews, Jr.).

Yair Listokin, Professor of Law at Yale Law School, argues that bounded structures for federal institutions, like regulatory budgets, work best when: (1) "there is relatively little variation in quality among subjects evaluated by the agent," (2) regulators "evaluate a large number of subjects," (3) regulators are "likely to be biased" relative to the organization that oversees them, and (4) rules for regulatory process are impractical.[97] Listokin describes these four prerequisite factors as serving to "either increase the benefits of bias reduction or decrease the costs of the rigidity imposed by a bound."[98]

The first Listokin factor would seem particularly relevant with respect to SOX 404 because the level of variation in regulated auditor activity is characterized by relatively little variation with respect to the primary component, as internal control audits are either satisfactory or not (PCAOB inspections of non-SOX 404 issues can be more heterogeneous).To the second Listokin factor, the PCAOB evaluates thousands of auditors who themselves audit thousands of publicly traded firms and broker-dealers. Thus, it would appear that at least some of the key Listokin factors for effective regulatory boundaries, like regulatory budgets, are met in this context. And the level of subjective, professional judgment inherent in assessments by auditors of internal control processes or other audited accounting methodologies suggest that a rule-based approach is less useful than a regulatory budget process for controlling regulatory costs. As previously mentioned, the move from AS 2 to AS 5 was generally understood to reduce costs, but that impact was far from certain.[99] Thus, such a change in audit standards would be well coupled with a regulatory budget procedure, as initial estimates of costs could be reassessed in subsequent reviews of the regulatory budget.

Listokin argues that regulatory constraints, like a budget, work best where an agency is likely constrained by a biased approach in determining the overall level of regulatory costs but can still prioritize approaches undertaken within that budget.[100] This well characterizes

97. Yair Listokin, *Bounded Institutions*, 124 YALE L.J. 336, 341 (2014).
98. *Id.* at 357.
99. *See supra* notes 22–24 and accompanying text.
100. *See* Listokin, *supra* note 97, at 342.

the PCAOB's situation. According to Listokin, a regulatory budget can be suboptimal in the event of a seismic shift in regulatory quality indicators of the regulated entities.[101] That could be the case here; for instance, if there is an industry-wide shift in the internal auditing culture at firms. The passage of SOX and the events surrounding it were likely associated with such a shift. It is not clear that this has been the case in the post-SOX era; in any event, the SEC would retain the ability to adjust the baseline cost budget for the PCAOB to respond to indications of such a shift.

When the institution setting a regulatory budget has a high level of uncertainty with respect to the "distribution of quality" within the regulated population, Listokin argues, regulatory budgets can be suboptimal.[102] That is not apparent in this sphere because Big Four inspection results tend to be fairly homogenous. Listokin further points to a need of stability in the underlying regulated population for regulatory budgets to be most effective, in that "[w]hen the population is stable, the principal is more likely to obtain accurate knowledge regarding the distribution of quality."[103] The clustering of audits within the top five auditors, and further clustering of nearly all public company audits within the top ten auditors, would further provide that population stability.

The next Section will provide more depth to how the PCAOB's regulatory budget would be best designed and offer some thoughts on how a successful regulatory budget program for the PCAOB might inform the efforts to institute regulatory budgets more broadly.[104]

IV. SEC OVERSIGHT OF PCAOB AS IDEAL TEST CASE FOR REGULATORY BUDGETING: INITIAL QUESTIONS AND LEGAL AUTHORITY

Regulatory budgeting supporter Clyde Wayne Crews, Jr. calls for a smaller scale experiment in regulatory budgeting, essentially a pilot

101. *Id.* at 358.
102. *Id.* at 362.
103. *Id.* at 363.
104. *See infra* Part V.

program, to generate lessons learned and thereby ensure the success of subsequent larger scale attempts at a regulatory budget.[105]

Although Crews supports a binding regulatory budget proposal, he also notes that merely tracking the regulatory budget, even if it will not bind agencies, could serve a useful transparency function.[106] He also argues that it could encourage agencies to stay within the budget even when direct consequences do not follow.[107] Samuel Hughes, a partner at Ernst & Young, also observes the usefulness of regulatory budget tracking for informing debates even when it is non-binding.[108]

A successful start with a regulatory budget at the PCAOB could be extended to the other regulatory organizations overseen by the SEC and further to Congress's oversight of the SEC, Commodity Futures Trading Commission, Federal Reserve, and other independent financial regulatory agencies generally. There is also extensive literature supporting the use of pilot programs in government as an ideal way to incorporate evidence-based policymaking. An initial problem to consider in regulatory budget implementation by executive action is finding the legal authority to do so. This Article does not suggest a legislative reform to implement regulatory budgeting in part because the following Subsection argues such a change is not necessary.

This regulatory budget proposal for the PCAOB could be implemented in several ways. For instance, as the SEC reviews new proposals from the PCAOB, it can consider the costs and benefits of those new proposals against a historical pattern that shows the error rate in the PCAOB's own estimate of regulatory costs, thereby adding a level of retrospective review of existing auditing rules to its consideration of a specific PCAOB proposal, which would thereby afford a more holistic cost–benefit analysis of the discrete change. Relatedly, the Jumpstart Our Business Startups Act of 2012 (JOBS Act) requires that a cost–benefit analysis be conducted before any new

105. *An Introduction to Regulatory Budgeting*, *supra* note 83, at 19 (statement of Clyde Wayne Crews, Jr.).

106. *See id.* at 20.

107. *Id.* at 19.

108. *See* Samuel Hughes, *Regulatory Budgeting*, 31 POL'Y SCIS. 247, 273 (1998).

auditing standards are applied to Emerging Growth Companies, a process that the ongoing PCAOB regulatory budget could inform as well.[109]

The SEC's decision to approve a rule proposal by the PCAOB is governed by the same statutory cost–benefit analysis requirements that govern its consideration of rules, as the language creating the SEC's review power utilizes the same "public interest" language which otherwise triggers a cost–benefit requirement.[110] This ongoing regulatory budget analysis by the PCAOB and the SEC's review of the regulatory budget and the analysis underlying the regulatory budget could become evidence the SEC might cite in future SEC approval of PCAOB reforms.

Section 109 of the SOX provides that the PCAOB's annual budget shall be subject to approval by the SEC but does not otherwise limit the factors the SEC may consider in determining whether to approve the budget.[111] The SEC could review the outcome of the regulatory budget on the same cycle when it approves the fiscal budget and request explanations from the PCAOB for any deficits during that process. Presumably, part of the reason that Congress gave the SEC authority over the PCAOB's budget was to check the expenses incurred by fees assessed on public companies to fund the PCAOB's operations. Supporters of regulatory budgeting argue that a focus on only fiscal costs underestimates the costs imposed on taxpayers and the economy.[112] In this context, the regulatory costs imposed on auditors can be passed through to their client firms, auditing fees can increase because of auditing standards, including those affecting SOX 404(b) attestation, and costs ultimately can in part be passed through to shareholders in publicly traded companies. Thus, it would

109. *See* Jumpstart Our Business Startups (JOBS) Act, Pub. L. No. 112-106, § 104, 126 Stat. 306, 310 (2012) (codified as amended in 15 U.S.C. § 7213(a)(3)).

110. *See generally* Sarbanes–Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745 (codified as amended in scattered sections of 15 U.S.C. & 18 U.S.C.). "The Commission shall approve a proposed rule, if it finds that the rule is consistent with the requirements of this Act and the securities laws, or is necessary or appropriate in the public interest or for the protection of investors." 15 U.S.C. § 7217(b)(3).

111. Press Release, SEC, SEC Approves 2017 PCAOB Budget and Accounting Support Fee (Dec. 14, 2016) https://www.sec.gov/news/pressrelease/2016-263.html [https://perma.cc/N2QU-W4GZ].

112. *See, e.g.*, Hughes, *supra* note 108, at 247.

be appropriate for the focus of this exercise to be the costs passed through to issuers, as increases in regulatory requirements may become benefits to the auditing firms themselves.

This Section has demonstrated that the SEC has ample authority to implement a regulatory budget at the PCAOB. The next Section will consider some choices that the SEC will need to make as it establishes a process for regulatory budgeting.[113]

V. MEASURING COSTS AND BENEFITS FOR A PCAOB REGULATORY BUDGET

The basic design of a regulatory budget process for the PCAOB would be fairly straightforward. The SEC's DERA could establish a baseline cost estimate. Drawing on the wealth of evidence about the implementation of the new SOX regime, the PCAOB's exercise of its inspection and enforcement authority and the adoption and alteration of the rules it administers (including the costliest one, SOX 404(b)) weighing costs and benefits, DERA will establish a baseline estimate of the appropriate costs.

This baseline estimate could be subdivided into categories containing major direct requirements (SOX 404, auditor inspections, etc.) and could be cross-referenced to categories based on firm market capitalization (ranges of $75 million to $250 million, $250 million to $700 million, and over $700 million are currently used by the SEC in a number of contexts, although the SEC could and likely should subdivide those ranges further). This would be relatively straightforward with respect to the application of issuer rules like SOX 404. After this initial determination, the PCAOB could be afforded a transition period during which it would be responsible for bringing regulatory costs into balance. After the transition period, the PCAOB would need to stay within the regulatory budget or explain any deficiency as part of its annual budget submission.

113. *See infra* Part VI.

Yet, along the way, various methodological choices will need to be made, including how to define and measure benefits and costs in this context. The following Section will consider those issues in turn.[114]

A. Process Questions in Cost Estimation

Typical cost metrics for regulatory budgeting include the number of regulations, the administrative burden of regulations, compliance costs, or a larger estimate of macro-level costs to society (likely using multiple equilibrium econometric models).[115]

British Columbia's approach utilized a method of counting regulatory requirements, in part by tallying the number of phrases like "shall" and "must" in regulations adopted.[116] Canada used a broader compliance cost approach somewhat similar to what the Office of Management and Budget uses to determine Paperwork Reduction Act numbers.[117] That method, however, vastly undercounts the regulatory burden, particularly for environmental regulations.[118]

The optimal approach to measuring regulatory benefits is using opportunity costs and the willingness of an individual to pay for a particular regulatory benefit.[119] In this context, stock price event studies can provide helpful estimates of those benefits to the extent that differences between groups of firms can be identified or unexpected changes can be studied. Although the PCAOB may think of itself institutionally as only concerned with the auditing firms it regulates, a regulatory budget should force it to consider the costs of its activities on issuers. "General equilibrium analysis" would provide the best estimate of regulatory costs and benefits in setting a regulatory budget.[120] Even if this might inform the decisions made in an initial

114. *See infra* Part VI.A.

115. Peacock, *supra* note 68, at 8.

116. *Id.* at 9–10. For other measures of regulatory burden, see Bentley Coffey, Patrick A. McLaughlin & Pietro Peretto, *The Cumulative Cost of Regulations* (Mercatus Ctr. at George Mason Univ., Working Paper, 2016) https://www.mercatus.org/publication/cumulative-cost-regulations [https://perma.cc/8FBX-V6J2].

117. Peacock, *supra* note 68, at 10.

118. *See id.* at 11.

119. *Id.* at 13.

120. Hughes, *supra* note 108, at 250.

regulatory budget allocation, partial equilibrium analysis has become a more generally accepted mode of analysis in determining indirect costs.[121] Econometric studies tend to provide the best evidence for regulatory cost budgeting.[122] Although the level of subjectivity of model assumptions can call their reliability into question as part of regular cost estimates,[123] model assumptions can nevertheless inform decisions made in the initial cost allocation. Discrete cost–benefit analyses of individual rules will likely not be sufficiently comprehensive without an accompanying regulatory budget in the PCAOB context; nor would a regulatory budget process that merely estimates the cost of each individual rule (including a NPV of future costs within an established window, as in Canada) and then sums all rules together be sufficient.

The PCAOB does not publish many rules. To the extent the PCAOB adopts new auditing standards, they do not function as individual discrete rules but instead function as part of an interlocking system of standards that govern audits. Further, the PCAOB's regulatory system is part of a wider system of indirect regulation through inspection, independent auditors as gatekeepers, and class action liability for both issuers and auditors that indirectly impact the regulatory system. These challenges can be found in other regulatory areas, which is part of the reason why a regulatory budget at the PCAOB will be an effective test case for implementing regulatory budgeting. By infusing all of the PCAOB's regular activities and raising the entire agency's sensitivity to costs, regulatory budgeting can therefore be more useful, but only insofar as costs are considered in a holistic way rather than rule-by-rule as in the United Kingdom and Canadian approaches.

The costs of auditing are a product of (1) multi-dimensional and indirect interactions between the PCAOB, an outside auditing profession with significant market power, (2) internal auditors who report to senior executives concerned about personal liability, (3) the prospect of securities fraud liability for auditors as a result of audits

121. *See id.*
122. *Id.* at 272.
123. *Id.* at 273.

that otherwise pass PCAOB inspection, and (4) industry bodies like the Committee of Sponsoring Organizations of the Treadway Commission (COSO) (which include PCAOB participation and input) that set internal control and auditing best practices, which the PCAOB encourages the auditing profession to follow.

Crews notes three common challenges in establishing a regulatory budget, including agency incentives to underestimate regulatory costs, difficulty in isolating costs that regulated firms would have undertaken absent a regulatory requirement, and the difficulty of estimating indirect regulatory costs.[124] In this context, the ability of outside parties to estimate costs and the role of DERA in overseeing the PCAOB's estimates would address the first concern. The costs of internal controls and auditing pre-SOX provide a measure of comparison to address the second concern of measuring regulatory costs against costs that would have been undertaken without a rule—particularly because the post-SOX and PCAOB timeframe has been associated with a marked increase in auditing costs (as measured by the SEC Chief Economist's methodology). The SEC's prior experience in measuring indirect costs of PCAOB requirements through published studies suggests that the third concern is not insurmountable. Furthermore, regulatory cost estimates do not need to be perfect to be useful, just as fiscal budgets have an error rate but still achieve their function of forcing policymakers to consider the tradeoffs inherent in their decisions.[125]

Unlike many regulatory fields in which regulatory budgeting has been implemented, the SEC's prior studies of PCAOB and SOX compliance costs suggests that the PCAOB may be an optimal test case for regulatory budgeting.[126] The costs are readily estimable and rely on fifteen years of prior compliance cost data.[127] In this context, the types of problems typically encountered when regulatory budgets

124. Crews, *supra* note 65, at 358.

125. *See id.* at 359.

126. *See* OFF. OF ECON. ANALYSIS, *supra* note 26, at 96–97; U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 15, at 20.

127. *See, e.g.*, OFF. OF ECON. ANALYSIS, *supra* note 26; U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 15.

contend with novel regulations and where costs are uncertain are not an issue.

The United Kingdom's regulatory budget process included estimates of "codes of practice and self-regulation which are backed by statutory force."[128] This suggests the importance of including the costs of internal control best practices with regulatory force, like those of internal control best practices organizations. This is particularly true here, as the PCAOB participates in the COSO internal control best practices organization in an advisory capacity and can therefore influence its development of best practices.

The United Kingdom's approach took care to select wage rates that "external commentators can recogni[z]e as realistic."[129] The SEC's 2009 study of SOX 404 compliance costs used a reasonable estimate of auditing wage rates. Although, if a regulatory budget requirement were imposed, one would expect that the accounting and auditing personnel regulated by the PCAOB might be a more accurate source of appropriate wage rates than a generalized Commerce Department survey.[130]

Changes to individual auditing standards implemented by the PCAOB can reduce regulatory costs, as the switch from AS 2 to AS 5 clearly accomplished. This dynamic suggests that review of discrete changes to auditing principles and cost–benefit analyses of individual rule proposals might be helpful; nevertheless, such review cannot substitute for an ongoing and holistic cost analysis that only regulatory budgeting can provide and that can internalize the need to adjust regulatory costs at the agency best equipped to impact those costs. Studies have also documented that, although AS 5 led to a decrease in direct audit fees, more recent increases in compliance costs have largely eliminated those reductions with respect to overall SOX 404 costs.[131] It is unclear from the empirical literature what caused those more recent cost increases. Although a discrete regulatory analysis of rule changes can be helpful, it will necessarily be incomplete if it is not

128. HM GOV'T, *supra* note 74, at 4.
129. *Id.* at 9.
130. *See generally* OFF. OF ECON. ANALYSIS, *supra* note 26.
131. *See, e.g.*, Abernathy et al., *supra* note 13.

supplemented by a more holistic approach to regulatory cost control like that offered here. Regulatory budgeting can further serve as an effective pilot program (for regulatory regimes that combine both direct and indirect costs) for inclusion in a government-wide regulatory budget as well as for a regulatory budget procedure for other entities regulated by the SEC, like FINRA or the Municipal Securities Rulemaking Board, and for other independent financial regulatory agencies as well.

One open question is whether regulatory costs should be estimated on a pro rata basis for the purposes of the budget. For example, some of the SEC's prior surveys of regulatory costs consider them as a percentage of firm assets.[132] The regulatory budget could be set, considering compliance costs, as a percentage of audited firm (issuer and broker-dealer) market capitalization, of firm assets, or of firm revenues. A pro rata approach could be used to implement a method that weighs regulatory cost reductions for smaller firms more heavily because smaller firms tend to pay much higher pro rata auditing and attestation costs.

B. Process Issues in Benefits Estimation

Benefit calculations of the PCAOB's work could include specific measures of the quality of materials about which auditors ultimately are required to provide a professional opinion, including the quality of a firm's financial statements, the quality of a firm's internal control systems, or a company's ability to continue as a going concern (all of which are interrelated). Three outcome-based measures tend to dominate the literature on auditing: restatements, accruals, and going concern opinions.[133]

Benefit considerations could take a larger macroeconomic view of whether investors express more confidence in firm financial statements, consider changes in how investors react to changes in

132. *See, e.g.*, STAFF OF THE OFF. OF THE CHIEF ACCT., SEC, STUDY AND RECOMMENDATIONS ON SECTION 404(B) OF THE SARBANES–OXLEY ACT OF 2002 FOR ISSUERS WITH PUBLIC FLOAT BETWEEN $75 AND $250 MILLION 37, 38 fig.5 (2011).

133. W. Robert Knechel, Gopal V. Krishnan, Mikhail Pevzner, Lori B. Shefchik & Uma K. Velury, *Audit Quality: Insights from the Academic Literature*, 32 AUDITING: J. PRAC. & THEORY 385, 397 (2013).

financial statement estimates, or determine whether a firm's cost of capital is reduced, all as a result of PCAOB rules or regulatory activity.

W. Robert Knechel, Distinguished Professor and Director of the International Accounting and Auditing Center of the University of Florida Fisher School of Accounting, and others observe that auditors are better at describing what audit quality is not, rather than at defining what high quality audits must contain.[134] In considering the benefits of PCAOB regulation, careful consideration must be paid to difficult questions about how one measures audit quality. There is little consensus in the academic accounting literature on this question.[135] One metric might be the incidence of subsequent material misstatements.[136] Yet not all misstatements are created alike; a prior Government Accountability Office (GAO) report indicates that some restatements merely result from minor revisions that do not arise from flawed internal control processes.

Other metrics might be used that relate one accounting process to another, such as incidence of findings of material weaknesses relating to some other data point, like findings during PCAOB auditor inspections. The challenge in these measures is that both rely on subjective determinations. Knechel and others argue that restatements are used as a measure of audit quality, in part, because they tend to be negatively related to auditor expertise, auditor tenure, and auditor team experience.[137] Further, shareholders and issuer clients tend to react negatively to the occurrence of restatements at firms audited by a particular auditing firm through either negative stock price effects or by changing auditors.[138]

Discretionary accruals are at times also used as proxies for audit quality, in part, because they are also negatively associated with other attributes assumed to coincide with more effective audits, such as Big Four auditors, level of auditor specialization, auditor tenure, and audit

134. *Id.* at 386.
135. *Id.* at 385.
136. *Id.* at 386.
137. *Id.* at 397.
138. *See id.*

office size.[139] The general idea is that, although an individual discretionary accrual may be legitimate, the magnitude of discretionary accruals by an auditing firm's clients indicates what clients are more likely to be abusing discretionary accruals when managing their earnings. Thus, the theory goes, a reduction in the discretionary accruals of publicly traded firms correlates with an increase in general financial statement quality, and a reduction in the discretionary accruals for a particular auditing firm's clients corresponds with an improved audit process for that particular firm.

Some studies have found that SOX 404(b) compliant issuers were less likely to utilize discretionary accruals, particularly if there was a prior adverse finding of material control weakness.[140] Knechel and others warn, however, that discretionary accruals may not be an effective measure of earnings quality because auditors carefully scrutinize them, and thus endogenous effects may distort them as a measure of audit quality.[141]

Auditors are required to issue a "going concern" opinion, or an opinion expressing doubt in their clients' ability to avoid bankruptcy within the next year, if they find that outcome likely.[142] Thus, some suggest an increase in the tendency to issue going concern opinions means a more independent, objective, and thus higher quality audit.[143]

---

139. Knechel et al., *supra* note 133, at 398. *See generally* Jere R. Francis, Edward L. Maydew & H. Charles Sparks, *The Role of Big 6 Auditors in the Credible Reporting of Accruals*, 18 AUDITING: J. PRAC. & THEORY 17 (1999); Jeong-Bon Kim, Richard Chung & Michael Firth, *Auditor Conservatism, Asymmetric Monitoring, and Earnings Management*, 20 CONTEMP. ACCT. RSCH. 323 (2003); Gopal V. Krishnan, *Does Big 6 Auditor Industry Expertise Constrain Earnings Management?*, 17 ACCT. HORIZONS 1 (Supp. 2003); Steven Balsam, Jagan Krishnan & Joon S. Yang, *Auditor Industry Specialization and Earnings Quality*, 22 AUDITING: J. PRAC. & THEORY 71 (2003); James N. Myers, Linda A. Myers & Thomas C. Omer, *Exploring the Term of the Auditor-Client Relationship and Quality of Earnings: A Case for Mandatory Auditor Rotation?*, 78 ACCT. REV. 779 (2003); Jere R. Francis & Michael D. Yu, *Big 4 Office Size and Audit Quality*, 84 ACCT. REV. 1521 (2009); Jere R. Francis & Paul N. Michas, *The Contagion Effect of Low-Quality Audits*, 88 ACCT. REV. 521 (2013); Caren Schelleman & W. Robert Knechel, *Short-Term Accruals and the Pricing and Production of Audit Services*, 29 AUDITING: J. PRAC. & THEORY 221 (2010).

140. STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 100.

141. Knechel et al., *supra* note 133, at 398.

142. *AS 2415: Consideration of an Entity's Ability to Continue as a Going Concern*, PCAOB, https://pcaobus.org/oversight/standards/auditing-standards/details/AS2415 [https://perma.cc/27YV-LWY7].

143. *See* Knechel et al., *supra* note 133, at 397.

Knechel and others also note that an auditor's willingness to issue going concern opinions tends to appear in the literature as an indicator of auditor independence; however, they warn that the high rate of type I and type II errors suggests that this is a flawed methodology for benefits determinations (insofar as half of all companies going bankrupt did not previously generate a going concern opinion from their auditor, and 80% to 90% of companies receiving a going concern opinion do not actually go bankrupt within a year).[144]

Another approach used in the literature is to define certain financial statement characteristics or auditor behaviors as positive or negative and study their incidence regarding PCAOB rules or inspections.[145] Other studies consider attributes of the audit or auditing firms that rest on prior assumptions of what makes for a positive audit, such as auditor tenure, audit fees, auditor size or experience, etc.[146] Finally, other studies consider financial impacts on audited public firms, such as stock price impact, relative differences in cost of equity or debt financing, or other financial statement data points or ratios.[147] The 2009 SEC DERA staff study relied upon survey data from stock market participants, both issuers of financial statements and investors, and other users of financial statements to determine their perception of the benefits of SOX 404(b) attestations.[148]

The last fifteen years of SOX implementation were not static. SOX was adopted over a multi-year, phase-in period for some firms, which subsequently received permanent exemptions from some of the SOX requirements. The SOX adoption also involved an effort to rein in costs through promulgation of new SEC guidance and a revised PCAOB auditing standard for its most costly requirement.[149] This timeline of changes, some unexpected, has proved a ripe ground for econometric inquiry into the benefits of particular regulatory tools utilized by the PCAOB.

144. *Id.* at 398–99.
145. *See generally id.*
146. *See, e.g., id.* at 406.
147. *Id.* at 401, 403.
148. *See* OFF. OF ECON. ANALYSIS, *supra* note 26, at 1.
149. *See* STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 2–3.

The PCAOB's switch from AS 2 to AS 5 shows that it is entirely possible to reduce the costs of SOX 404 compliance without impeding audit quality. Thus, it is also very important that DERA consider carefully the benefits from the existing regime where it can be measured econometrically. Care should be taken to determine the source of any perceived benefits in the auditing regime to determine whether they result from specific regulatory tools (like SOX 404(b)) or whether they result from other regulatory tools used by the PCAOB or requirements contained in SOX. PCAOB rules and regulatory activity should also be reviewed to determine whether benefits resulting from voluntary and non-regulatory business practices, adopted to ensure the integrity of accounting and auditing systems, are mistakenly counted.

Any confusion in linking benefits, particularly macroeconomic benefits, to the wrong regulatory tool could significantly distort the initial baseline cost allocation (some of any distortion could be mitigated as the PCAOB prioritizes different regulatory approaches and decides the regulatory tools to remain within its budget over time). Care must also be taken to determine whether the perceived benefits result from the operation of natural market forces that would operate in the absence of the PCAOB. Further, even if individual practices are found to be beneficial to some firms, mandatory application to all firms may not be on net beneficial. For example, with respect to registration of auditing firms and auditor certification of SOX 404(b) internal controls, any analysis should also take into account that voluntary registration and certification can provide an advantage over mandatory requirements because the decision itself can establish pooling equilibria, which provide independent signaling information. For example, Professors of Accounting Asad Kausar and Nemit Shroff, and late Professor of Economics, Hal White, examine where there are benefits to an opt-in or voluntary approach to auditor inspections.[150]

Once process choices are made as to how both benefits and costs are to be measured, along with choices about how those benefits and costs

150. *See generally* Asad Kausar, Nemit Shroff & Hal White, *Real Effects of the Audit Choice*, 62 J. ACCT. & ECON. 157 (2016).

are to be defined, the SEC's DERA can proceed to harness a wealth of econometric evidence already available to develop a regulatory budget for the PCAOB. A brief review of that evidence is contained in the next Section.[151]

VI. PRIOR EMPIRICAL LITERATURE TO INFORM SETTING THE INITIAL REGULATORY COST ALLOCATION OR BASELINE

Auditing academic research literature is highly developed with respect to PCAOB standard setting (particularly SOX 404 standard setting) and the PCAOB's inspection process.[152] The tools academics and SEC officials have previously used to study auditing include archival studies of data provided by the PCAOB or various auditing professional associations, experimental studies, and survey-based research.[153]

The empirical evidence explored in this Section will further demonstrate that regulatory reform of auditing and internal controls cannot be sufficiently accomplished by discrete changes in individual rules or auditing standards alone because the less formal regulatory powers, like individual inspections, also bear on the PCAOB's regulation of the auditing process as part of an interrelated nexus. This is also true because an effective regulatory analysis demands a retrospective component, which regulatory budgeting can provide. I will consider in turn the evidence that would speak to potential benefit estimates as well as potential cost estimates of PCAOB regulatory activity.

A. Benefits

1. Impact of SOX Section 404(b) Adverse Findings on

151. *See infra* Part VII.
152. Abernathy et al., *supra* note 13.
153. Knechel et al., *supra* note 133, at 387.

Restatements

SOX 404 and the PCAOB standards associated with it are heavily researched by auditing academics partly because they represent the largest component of regulatory costs associated with the PCAOB.[154] The academic literature has only considered a small number of the auditing standards administered by the PCAOB, due to only a small number of them having high-magnitude cost effects.[155]

One of the strongest data points which challenges the benefits provided by SOX 404(b) internal control attestation is the finding of Sarah Rice and David Weber that only 32.4% of financial restatements during the timeframe of their study were preceded by a reporting of a material weakness and that 68% of the time internal control audits failed to predict subsequent financial restatements.[156] Rice and Weber report that in one specific year, findings of SOX 404(b) material weakness preceded only 13.6% of subsequent restatements.[157]

Findings from Daniel Aobdia, Preeti Choudhary, and Gil Sadka further support that SOX 404(b) reports are not effective at identifying circumstances that will subsequently lead to a restatement.[158] Yet, despite their limited ability to predict subsequent misstatements, findings of material weakness are quite expensive. Firms that report material weaknesses in internal controls but do not remedy them tend to pay higher subsequent audit fees.[159] Such increases could result from auditor market power, or they could be a result of higher costs faced by the auditor, such as litigation risks or compliance costs with other PCAOB requirements.

154. *See* Abernathy et al., *supra* note 13.

155. *Id.* at 44.

156. *See* Sarah C. Rice & David P. Weber, *How Effective Is Internal Control Reporting Under SOX 404? Determinants of the (Non-)Disclosure of Existing Material Weaknesses*, 50 J. ACCT. RSCH. 811, 814, 821, 826 tbl.2 (2012).

157. Daniel Aobdia, Preeti Choudhary & Gil Sadka, *Why Do Auditors Fail to Report Material Weaknesses in Internal Controls? Evidence from the PCAOB Data* 2 (Ctr. Econ. Analysis, Pub. Co. Acct. Oversight Bd., Working Paper, 2020) (citing Rice & Weber, *supra* note 156, at 814, 826 tbl.2).

158. *Id.* at 5.

159. STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 88; Matthew J. Keane, Randal J. Elder & Susan M. Albring, *The Effect of the Type and Number of Internal Control Weaknesses and Their Remediation on Audit Fees*, 11 REV. ACCT. & FIN. 377, 378 (2012); Jacqueline S. Hammersley, Linda A. Myers & Jian Zhou, *The Failure to Remediate Previously Disclosed Material Weaknesses in Internal Controls*, 31 AUDITING: J. PRAC. & THEORY 73, 76 (2012).

There is some evidence to suggest a link between audits of internal controls and various measures of earnings quality. Jeffrey T. Doyle, Weili Ge, and Sarah McVay find that material weaknesses in internal controls are associated with lower quality earnings reports.[160] Other studies caution, however, that this is a firm-specific question, and they find that the benefits of SOX 404 audits depend on firm-specific attributes, such as firm complexity, extent of analyst following of the firm, or the prior propensity of a firm to lobby against the passage of SOX in 2002 (the authors of these studies theorize that firms lobbying against SOX tend to have higher agency costs).[161] Albert Nagy found that issuers subject to SOX 404(a) and 404(b) are less likely to issue restatements.[162] He does not identify whether SOX 404(a) or 404(b) is the chief reason.[163] These studies indicate that, far from whole-scale abolition of SOX 404(b) requirements, tailoring 404(b) requirements to firm-specific attributes may serve to reduce cost while maintaining quality assurance.

The perceived benefit from SOX 404(b) audits may instead be the result of a far less expensive requirement contained in SOX—the requirement that management self-certify its internal control systems, which is contained principally in SOX 302 and partly in SOX 404(a), and has itself been found to be associated with higher quality financial statements. A substantial amount of literature indicates that management disclosures regarding material weaknesses in internal controls under SOX 302 are associated with negative stock price reactions upon announcement, higher equity fundraising costs, and higher debt costs.[164] The weight of the empirical literature suggests

160. Jeffrey T. Doyle, Weili Ge & Sarah McVay, *Accruals Quality and Internal Control over Financial Reporting*, 82 ACCT. REV. 1141, 1166 (2007).

161. Cindy R. Alexander, Scott W. Bauguess, Gennaro Bernile, Yoon-Ho Alex Lee & Jennifer Marietta-Westberg, *Economic Effects of SOX Section 404 Compliance: A Corporate Insider Perspective*, 56 J. ACCT. & ECON. 267, 271 (2013).

162. Albert L. Nagy, *Section 404 Compliance and Financial Reporting Quality*, 24 ACCT. HORIZONS 441, 453 (2010).

163. *See generally id.*

164. Messod Daniel Beneish, Mary Brooke Billings & Leslie D. Hodder, *Internal Control Weaknesses and Information Uncertainty*, 83 ACCT. REV. 665, 693 (2008); Jacqueline S. Hammersley, Linda A. Myers & Catherine Shakespeare, *Market Reactions to the Disclosure of Internal Control Weaknesses and to the*

that the managerial certification regime under SOX 404(a) has been far more effective than attestation under SOX 404(b) in providing benefits at a reasonable cost.

A recent paper by Gerald Lobo and others finds that SOX 302's material weakness disclosures are positively associated with the propensity of a firm's stock price to unexpectedly crash.[165] More significantly, after controlling for the predictive power of SOX 302 material weakness disclosures, they find that SOX 404 material weakness disclosures provided no statistically significant benefit in predicting crash risk.[166] This suggests that SOX 302 may be a far more effective alternative than SOX 404(b) and even more than SOX 404(a). Messod Daniel Beneish, Mary Brooke Billings, and Leslie D. Hodder also find increases in equity funding costs for firms reporting SOX 302 material weaknesses but not for firms reporting only SOX 404 material weaknesses.[167]

Some research suggests that auditors tend to find internal control weaknesses with more frequency than managers.[168] Citing that fact to support the benefits from SOX 404 attestations assumes that all findings of material control weaknesses are legitimate. A contrary perspective could simply be that auditors tend to apply that label with more frequency, particularly because findings of material control weaknesses are associated with audit fee increases in subsequent audits.

Importantly, evidence from the PCAOB's reform of AS 2 to AS 5 indicates that changes to the SOX 404(b) attestation regime designed to further decrease costs do not necessarily result in a concomitant

---

Characteristics of Those Weaknesses Under Section 302 of the Sarbanes Oxley Act of 2002, 13 REV. ACCT. STUD., 141, 146–47 (2008); Hollis Ashbaugh-Skaife, Daniel W. Collins, William R. Kinney, Jr. & Ryan Lafond, *The Effect of SOX Internal Control Deficiencies on Firm Risk and Cost of Equity*, 47 J. ACCT. RSCH. 1, 15–16 (2009); Dan Dhaliwal, Chris Hogan, Robert Trezevant & Michael Wilkins, *Internal Control Disclosures, Monitoring, and the Cost of Debt*, 86 ACCT. REV. 1131, 1152 (2011); Jeong-Bon Kim, Byron Y. Song & Liandong Zhang, *Internal Control Weakness and Bank Loan Contracting: Evidence from SOX Section 404 Disclosures*, 86 ACCT. REV. 1157, 1159 (2011).

165. Gerald Lobo, Chong Wang, Xiaoou Yu & Yuping Zhao, *Material Weakness in Internal Controls and Stock Price Crash Risk*, 35. J. ACCT. AUDITING & FIN. 106, 109 (2020).

166. *Id.*

167. Beneish et al., *supra* note 164, at 666–67.

168. *See* STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 97.

reduction in benefits associated with SOX 404(b) audits. Rajib Doogar, Padmakumar Sivadasan, and Ira Solomon find that the switch from AS 2 to AS 5 was associated with a decrease in audit fees, primarily for smaller audit clients, and that the switch was not associated with an increase in fraud risk, in part, because the audit fees and audit complexity of much larger firm clients remained constant over that time.[169] Dechun Wang and Jian Zhou similarly find no decrease in audit quality as a result of AS 5.[170] This suggests that one way in which the PCAOB may be able to maintain a regulatory budget would be to better tailor the costs of SOX 404(b) audit expectations to the size of the issuer being audited.

There was a "downward trend" in adverse internal control opinions from 2005–2009, which led some critics of the reform to speculate that auditing firms were failing to implement the standard properly.[171] Aobdia and others counter the argument that AS 5 led to a reduction in identification of material weaknesses by examining proprietary data at the PCAOB regarding auditor findings of significant deficiencies in internal controls (a lesser grade than material weaknesses and not required to be publicly disclosed unless it aggregates with other significant deficiencies to form a material weakness).[172] They find that auditor identifications of significant deficiencies are not associated with subsequent restatements; thus, auditors do not consistently under classify material weaknesses as a result of AS 5.[173] Furthermore, changes in restatements by both exempt and nonexempt firms from 2005 to 2011 follow a similar pattern of sustained downward trajectory.[174]

Mark L. DeFond and Clive S. Lennox find that, subsequent to the PCAOB's implementation of AS 5, PCAOB inspectors gave heightened focus to internal controls in their inspection efforts, and as

169. Rajib Doogar, Padmakumar Sivadasan & Ira Solomon, *The Regulation of Public Company Auditing: Evidence from the Transition to AS5*, 48 J. ACCT. RSCH. 795, 811 (2010).

170. Dechun Wang & Jian Zhou, *The Impact of PCAOB Auditing Standard No. 5 on Audit Fees and Audit Quality*, 26 ACCT. HORIZONS 493, 507 (2012).

171. DeFond & Lennox, *supra* note 20, at 592.

172. *See* Aobdia et al., *supra* note 157, at 8–10.

173. *See id.* at 4–5.

174. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 15, at 14 & fig.1.

a result of this documented heightened focus, auditors responded with a concomitant increase in adverse internal control opinions.[175] More specifically, they find that when PCAOB inspection reports find problems in internal audit processes, audit firms respond by subsequently increasing the rate at which they find client internal controls contain material deficiencies and that increase in the rate of material deficiencies is associated with an increase in the ability of internal-control material-weaknesses findings to predict subsequent restatements.[176] This response by the PCAOB did not fully undermine the objective underlying the switch to AS 5 initially because costs did decrease substantially. On the other hand, it may explain a subsequent increase in SOX 404 costs in more recent years.

This suggests that the PCAOB already has the power to attenuate regulatory costs through multiple avenues. Regulatory budgeting would help the PCAOB do so in a more formal, transparent, and systematized way. This dynamic outcome further bolsters the case for regulatory budgeting as it both demonstrates how the PCAOB's regulatory initiatives are all interrelated and that the PCAOB can shift regulatory initiatives to maintain audit quality to remain within the regulatory cost allocation imposed by the SEC.

Zvi Singer and Haifeng You compare Canadian firms that voluntarily comply with SOX 404 against exempted U.S. firms and find that firms that voluntarily complied experienced fewer restatements.[177] Yet it is unclear from that evidence whether mandatory SOX 404 compliance would result in the same benefits or whether the signaling function of voluntary compliance was the source of the benefit. A study by the SEC's Chief Accountant in 2011 determined that SOX 404(b) attestation has been beneficial by pointing to the fact that restatement rates for exempt filers are higher than those for firms subject to SOX 404(b).[178] A GAO study comparing public companies exempt from SOX 404(b) attestation and companies

175. DeFond & Lennox, *supra* note 20, at 594, 604 tbl.1.

176. *Id.* at 623.

177. Zvi Singer & Haifeng You, *The Effect of Section 404 of the Sarbanes–Oxley Act on Earnings Quality*, 26 J. ACCT. AUDITING & FIN. 556, 564–65 (2011).

178. STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 98.

subject to it notes that, on a per capita basis, the number of firms restating financials in each group is proportional to the share that each represents of all public companies.[179] Companies subject to SOX 404(b) auditor attestation restate their financials with the same frequency as companies that are exempt from the requirement, and they tend to do so for similar reasons.[180] This 2013 determination by the GAO, which was conducted pursuant to a Dodd–Frank Act mandate, directly calls into question findings in the 2011 SEC Chief Accountant study.[181] The GAO also determined that a modest increase in restatements in 2010 and 2011 was principally due to revision restatements, which they describe as restatements which "do not undermine reliance on past financials and are less disruptive to the market."[182] The SEC's 2011 study was also directly countered by a response from a 2013 GAO study which found that on a per capita basis there is in fact no discernable difference between SOX 404(b) exempt and non-SOX 404(b) exempt issuers with respect to restatements.[183]

The SEC's 2009 Chief Economist survey also obtained feedback from both company management and users of financial statements to determine their perception of the benefits obtained from SOX 404.[184] Users of financial statements responded to the SEC's survey that they found that SOX 404 substantially increased their confidence in the integrity of company annual reporting.[185] They did not, however, see any changes in their perception of the benefits from SOX 404 over time.[186] The SEC noted how this demonstrates that the SOX 404 reforms in the switch to AS 5 did result in a decrease in user perceptions of audit effectiveness.[187] The survey, combined with the literature on the move to AS 5 surveyed in this Article, demonstrates

179. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 15, at 12.
180. *Id.*
181. *Id.* at 3, 12, 33.
182. *Id.* at 13.
183. *Id.*
184. OFF. OF ECON. ANALYSIS, *supra* note 26, at 6–8.
185. *Id.* at 7.
186. *Id.*
187. *Id.*

it is also possible to decrease compliance costs without reducing user perceptions of audit effectiveness with measured adjustments to the SOX 404(b) regime.

Company respondents overall found that SOX 404 compliance costs exceeded the benefits associated with them.[188] The SEC 2009 survey noted that "44[%] of respondents from U.S. companies indicated that [SOX] 404 requirements prompted their companies to seriously or at least somewhat consider going private."[189] Seventy percent of smaller companies in particular indicated that they considered going private as a result of SOX 404 requirements.[190] The majority of respondents surveyed found that SOX 404 was not associated with any benefits in each of the following categories: to their firm's ability to raise capital, increase investor confidence in company financial information, or increase company value generally.[191]

A GAO survey found company officials responded positively when asked whether auditor attestation provided their company with direct benefits, with 80% suggesting it improved their company's internal control structure.[192] A large majority, however, responded that it did not provide indirect benefits to affected companies, with 16% responding that it improved the company's overall value and 16% saying it improved the company's ability to raise capital.[193] Although the survey respondents could be mistaken, these findings are consistent with an empirical study finding that the net effect of auditor attestation on small firms was negative.[194] Other studies have nevertheless found an empirical link between auditor attestation and investor confidence.[195]

188. *Id.* at 61.
189. *Id.* at 66.
190. OFF. OF ECON. ANALYSIS, *supra* note 26, at 66.
191. *Id.* at 6.
192. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 15, at 25.
193. *Id.* at 26 tbl.6.
194. *See, e.g.*, Peter Iliev, *The Effect of SOX Section 404: Costs, Earnings Quality, and Stock Prices*, 65 J. FIN. 1163, 1166 (2010).
195. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 15, at 31 (citing Cory A. Cassell, Linda A. Myers & Jian Zhou, *The Effects of Voluntary Internal Control Audits on the Cost of Capital* (Working Paper, 2013)).

Even if a survey-based methodology may prove useful to estimate compliance costs, once bias propensity is controlled for, it is of limited value to determine benefits. Even to the extent that survey respondents noted value-enhancing aspects, the 2009 survey was not able to quantify those qualitative observations. Surveys cannot estimate user benefits because they cannot determine a user's willingness to pay for the benefit and thereby cannot estimate their increased consumer surplus resulting from the regulation.

This brief summary of the prior literature on SOX 404 and related provisions indicates that the academic debates in the auditing literature over the role and potential benefits of SOX 404 are not likely to end anytime soon. The wealth of the evidence suggests, however, that careful attention to SOX 404 in a regulatory cost allocation to the PCAOB is warranted because the benefits of SOX and the PCAOB as a whole may be presently misperceived as flowing from the more expensive SOX 404(b), when in fact, for some groups of firms and in some circumstances, those benefits result from other SOX requirements and other regulatory tools utilized by the PCAOB.

This survey also demonstrates that attenuation of the costs of SOX 404(b), as the PCAOB and SEC have already done with the switch from AS 2 to AS 5, can reduce cost without reducing benefit or even the perception of those benefits in the investor community. The PCAOB could tailor the costs of SOX 404(b) to firm type, size, and complexity through guidance documents indicating inspection expectations to meet a reasonable regulatory budget suggested in this Article. The move from AS 2 to AS 5 already provides a roadmap for how to accomplish this objective.

2. Macroeconomic Benefits from SOX Generally

There is some macroeconomic evidence to suggest generally beneficial results from the adoption of SOX and the creation of the PCAOB, although care must be taken not to confuse this with an analysis of whether any one individual feature of the PCAOB's activities (such as SOX 404(b) standard setting) is the source of the benefit. For example, Brandon Gipper, Christian Leuz, and Mark G.

Maffett find that investor reaction to earnings announcements was much stronger after the adoptions of SOX and the creation of the PCAOB than before.[196] Some event studies of SOX passage find positive abnormal shareholder returns associated with passage of the law.[197] Other studies show that SOX generally was associated with "lower equity betas and higher stock liquidity."[198] Nemit Schroff finds that the increase in auditor oversight resulting from the adoption of SOX and the creation of the PCAOB resulted in a 0.5% increase in capital raising.[199] Evidence also suggests that investors and investor analysts respond to findings of material weaknesses in internal controls.[200]In contrast, Maria Ogneva, K.R. Subramanyam, and K. Raghunandan found no statistically significant differences in the cost of raising equity capital between firms that do and those that do not previously report internal control weaknesses.[201] Some studies find that an auditor finding of internal control deficiencies increases the cost of financing, but one contrary paper suggests that when controlling for basic firm characteristics that eliminate endogeneity, the differential disappears.[202] Attention to the macro-level effects of regulation can be useful, but they are not the primary focus of this regulatory budget process, for reasons discussed above.

3. Benefits from PCAOB Inspection Regime, Enforcement, and

196. *See generally* Brandon Gipper, Christian Leuz & Mark G. Maffett, *Public Oversight and Reporting Credibility: Evidence from the PCAOB Audit Inspection Regime* (Eur. Corp. Governance Inst., Working Paper No. 453/2015, 2019).

197. Alexander et al., *supra* note 161, at 284.

198. *Id*. at 269.

199. Nemit Shroff, Does Auditor Regulatory Oversight Affect Corporate Financing and Investment Decisions? 1 (July 2017) (unpublished manuscript), https://www.rotman.utoronto.ca/-/media/Files/Programs-and-Areas/Accounting/Conference-2017/Nemit-Shroff-2017711.pdf?la=en&hash=C9146C5BAE344C63280E61153C601164C4DD09B9 [https://perma.cc/N9AQ-5URK].

200. STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 103.

201. Maria Ogneva, K.R. Subramanyam & K. Raghunandan, *Internal Control Weakness and Cost of Equity: Evidence from SOX Section 404 Disclosures*, 82 ACCT. REV. 1255, 1256 (2007).

202. STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 101 n.247 (citing Ogneva et al., *supra* note 201, at 1255).

Auditor Independence Rules

The PCAOB annually inspects audit firms with at least 100 clients and inspects other public company audit firms once every three years.[203] Auditors have expressed in interviews that adverse inspection findings result merely from differences in professional judgment and not, in fact, from lack of audit quality.[204] There is, however, substantial evidence to suggest benefits from the PCAOB's inspection regime. Aobdia utilizes restatements and the tendency to meet or beat earnings thresholds as indicia of poor financial accounting and concludes that there is a strong association between adverse findings from a PCAOB inspection and the incidence of those indicia of poor quality among firms audited by that auditor.[205] This assumes, as explored earlier, that these indicators, like restatements and tendency to meet or beat forecasts, are accepted as appropriate indicators of audit quality that are not driven by endogenous effects (such as an increase in auditor pressure to restate from bias or risk aversion). Although he also examines going concern opinions as another indicator of accounting quality, Aobdia does not find any association between propensity to provide going concern opinions and adverse PCAOB audit findings.[206] Other studies have shown a link between PCAOB audit inspections and indicia of audit quality like going concern opinions.[207]

Auditors are required to provide a going concern report if they believe a company may not survive for twelve additional months.[208] Studies cited in the previous paragraph of PCAOB regulations and inspections have suggested that a higher incidence of auditors willing to provide going concern reports is indicative of higher audit quality.[209] Although, at the same time, it could also be simply indicative of risk

203. Clive Lennox & Jeffrey Pittman, *Auditing the Auditors: Evidence on the Recent Reforms to the External Monitoring of Audit Firms*, 49 J. ACCT. & ECON. 84, 87 (2010).

204. DeFond & Lennox, *supra* note 20, at 593.

205. Daniel Aobdia, *Do Practitioner Assessments Agree with Academic Proxies for Audit Quality? Evidence from PCAOB and Internal Inspections*, 67 J. ACCT. & ECON. 144, 145, 150 (2019).

206. *See id.* at 146–47.

207. *See, e.g.*, Phillip T. Lamoreaux, *Does PCAOB Inspection Access Improve Audit Quality? An Examination of Foreign Firms Listed in the United States*, 61 J. ACCT. & ECON. 313, 317 (2016).

208. Kathrine A. Gunny & Tracey Chunqi Zhang, *PCAOB Inspection Reports and Audit Quality*, 32 J. ACCT. & PUB. POL'Y 136, 152 (2013).

209. *See, e.g.*, Aobdia, *supra* note 205.

aversion by auditors and, as mentioned previously in this Article, going concern opinions do a very poor job of predicting subsequent bankruptcy and are subject to both high Type I error rates and high Type II error rates.

Joseph Carcello, Carl Hollingsworth, and Stacy A. Mastrolia find that incidence of PCAOB inspections improves audit quality among Big Four auditors, defined as a reduction in incidence of abnormal accruals.[210] Kathrine A. Gunny and Tracey Chunqi Zhang compare auditors inspected annually (those who audit more than 100 public firms) against auditors inspected every three years and find that adverse audit inspection findings for triennially inspected auditors are associated with higher abnormal accruals and higher incidences of restatement among those firms' clients.[211] At the same time, they also find that adverse reports among annually inspected auditors do not distinguish audit quality according to the two quality metrics they use.[212] Their findings suggest PCAOB inspections add value, but only among audit firms with fewer than 100 public-company clients who are the subject of the triennial inspections. They also find that annually inspected auditors tend to be associated with higher quality audits than even the highest rated triennially inspected auditors, which is in line with a prior study finding that larger auditors tend to be associated with much higher quality audits.[213]

Phillip T. Lamoreaux studies the differences in PCAOB access to foreign auditors and finds that the PCAOB's ability to inspect an auditing firm is associated with an increased probability of issuing a going concern opinion[214] as well as with an increase in management reported material weaknesses under SOX 302 or SOX 404(a) but not with a change in auditor reported weaknesses under SOX 404(b).[215]

The benefits of the PCAOB's inspection program should be judged relative to the peer-review program that preceded it. Gilles Hilary and

210. Joseph V. Carcello, Carl Hollingsworth & Stacy A. Mastrolia, *The Effect of PCAOB Inspections on Big 4 Audit Quality*, 23 RSCH. ACCT. REGUL. 85, 86 (2011).
211. Gunny & Zhang, *supra* note 208, at 137–38.
212. *See id.* at 139.
213. *Id.* at 146–48.
214. Lamoreaux, *supra* note 207, at 314.
215. *Id.* at 315.

Clive Lennox demonstrated that audit firm clients tended to react to peer-review opinions by switching away from auditors with unfavorable opinions while moving towards auditors with prior favorable opinions.[216] This reaction suggests that the benefits from the prior peer-review-based inspection system should be excluded through appropriate methodological tools to determine the marginal benefits of PCAOB inspections.

The literature on PCAOB inspections includes comparisons of the pre-PCAOB peer-review regime with the post-SOX PCAOB inspection regime, finding that the PCAOB regime involves a higher rate of findings of audit deficiencies.[217] There are a large number of descriptive statistic studies documenting an increase in defective-inspection reports, but these studies are largely unhelpful because they cannot differentiate whether the higher rates of defective findings represent actual problems with audits or instead merely reflect a higher propensity on the part of PCAOB inspectors to assert deficiencies.[218] Mona Offermanns and Erik Peek find that investors respond to deficient PCAOB inspection reports with negative stock reactions for firm clients.[219] Yet Lennox and Pitman find that the market shares of audit firms do not change relative to PCAOB audit report outcomes, which calls into question whether public companies take them into account.[220] They suggest that increased disclosure about the content of the PCAOB's inspection results would make the PCAOB's inspection regime more valuable.[221]

In addition to inspections, the PCAOB on rare occasions brings enforcement actions that carry large penalties against auditing firms. One stock price event study of a PCAOB sanction against Deloitte US for their audit of Ligand Pharmaceuticals found that the sanction was

216. Gilles Hilary & Clive Lennox, *The Credibility of Self-Regulation: Evidence from the Accounting Profession's Peer Review Program*, 40 J. ACCT. & ECON. 211, 213 (2005).

217. *See* Abernathy et al., *supra* note 13, at 50.

218. *See id.* at 50–51.

219. Mona Offermanns & Erik Peek, *Investor Reactions to PCAOB Inspection Reports* 10 (Working Paper, 2011), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1807994 [https://perma.cc/K2ZM-T9AT].

220. Lennox & Pittman, *supra* note 203, at 98.

221. *Id.* at 87.

associated with a negative stock market price reaction across Deloitte's publicly traded clients.[222] Empirical examination of the PCAOB's enforcement activity is difficult because the small number of enforcement cases limits the prospect of statistically significant impacts. It would appear that the PCAOB relies more on intense inspections than on enforcement actions.

This Subsection's review of the benefits literature suggests that an ongoing discussion of the benefits of PCAOB inspections will likely continue. It appears, however, that as a general matter, the benefits of PCAOB inspections are clearly demonstrated. This Subsection suggests that the PCAOB inspection and enforcement process offer substantial benefits to issuers and that modification of SOX 404(b) expectations would be a preferred focus for PCAOB cost adjustments than the inspection process or the enforcement program generally.

In addition to auditing standard setting and inspections, the PCAOB sets auditor standards for independence to ensure the audit firms perform their gatekeeper function.[223] Although these standards may impose minimal costs on issuers, in that issuers may save expenses by having their auditor also perform accounting–consulting services that overlap in subject matter, these independence requirements would not fit well into a regulatory budget, so a detailed analysis of them has not been provided in this Article. The benefits of independence restrictions are significant but particularly difficult to measure. The costs of these requirements are primarily measured as lost profits for auditing firms themselves, a cost which is irrelevant for purposes of the regulatory budget offered in this Article.

B. Costs

1. Direct Compliance Costs (with Particular Attention to SOX Section 404)

This Section considers costs incurred by issuers subject to SOX 404(b) external audit requirements. First to consider is that

222. Abernathy et al., *supra* note 13, at 54.
223. *See* Section 101(d) Order, *supra* note 1.

policymakers have prioritized costs to issuers. Second, most costs associated with SOX 404 are paid by issuers but are a net benefit to auditing firms. SEC's Office of Economic Analysis estimated that SOX 404(b) was associated with a 32% premium in direct audit fees.[224] Public companies primarily experience SOX 404(a) costs through higher internal labor and outside vendor costs, while SOX 404(b) costs are primarily external auditor fees.[225] Larger issuers pay compliance costs of higher magnitude, but smaller issuers' compliance costs represent a higher percentage of issuer assets.[226]

In a cost study conducted by the GAO, SOX 404 cost estimates included direct costs "such as the audit fees, external fees paid to outside contractors and vendors[,] . . . salaries of internal staff[,] . . . and nonlabor expenses [like] technology, software, [and] travel."[227] GAO also considered indirect costs such as "time spent by management in preparing for and addressing auditors' inquiries . . . and the diversion of funds from capital investments to auditor attestation-related expenses."[228] In the first year of SOX 404 compliance, companies between $50 and $150 million market capitalization spent 0.79% of all their assets on SOX compliance, whereas companies over $700 million market cap spent only 0.14% of their assets on compliance with SOX 404 provisions in the first year.[229]

The SEC's Chief Economist conducted a thorough study of SOX compliance costs that will be highly relevant to this discussion[230] and the quality of that work further buttresses this Article's suggestion that DERA should play a lead role in setting and monitoring the PCAOB's regulatory budget. The SEC Chief Economist study noted that surveys are imperfect, observing that bias could lead some perspectives to be over- or underrepresented.[231] To control for potential selection and response bias, the SEC's 2009 survey eliminated the first and

224. OFF. OF ECON. ANALYSIS, *supra* note 26, at 18.
225. *Id.* at 2.
226. *Id.*
227. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 15, at 21.
228. *Id.*
229. OFF. OF ECON. ANALYSIS, *supra* note 26, at 52.
230. *See generally id.*
231. *Id.* at 9–10.

ninety-ninth percentile responses.[232] It further examined the characteristics of firms responding to the survey and those failing to respond and found little difference for firms subject to SOX 404(b).[233]

The definition of audit fees typically used in these estimates tracks a SEC requirement that the professional fees paid to the company's auditor be reported to the SEC.[234] The 2009 staff study obtained specific estimates of costs in subcategories such as SOX 404(b)-related fees, outside vendor fees unrelated to direct audit fees, number of internal staff hours spent on SOX 404 compliance, and software, hardware, and travel expenses associated with SOX 404 compliance.[235] In addition to estimates of annual compliance costs, relative changes in compliance costs can serve an important role in regulatory budgeting. A wealth of research confirms the SEC 2009 study finding that the transition to AS 5 meaningfully decreased audit fees.[236] The SEC 2009 survey found the 2007 reforms resulted in a decrease in the mean total SOX 404 compliance costs from $2.87 million pre-reform to $2.33 million post-reform.[237] The SEC's study of the 2007 reforms found that median direct auditing costs declined by 23%.[238]

DERA's 2009 study specifically found that the 2007 reforms were associated with a decline in audit fees as follows: (a) for $75 million to $250 million market capitalization, a 13% decline in average outside audit fee, a 21.2% decline in outside vendor costs, and a 7% decline in total SOX 404 compliance costs; (b) for $250 million to $700 million market capitalization, a 24.2% decline in average outside audit fees, a 24.1% decline in outside vendor costs, and a 7.4% decline in total SOX 404 compliance costs; and (c) for greater than $700 million market capitalization, a 19.5% decline in average outside audit fees, a 31%

232. *See id.* at 29.
233. *Id.* at 29–31, 30 tbl.3.
234. *See id.* at 35 n.45.
235. OFF. OF ECON. ANALYSIS, *supra* note 26, at 38, 43–44 tbl.8, 46–47 tbl.9, 49 tbl.10.
236. STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 89.
237. OFF. OF ECON. ANALYSIS, *supra* note 26, at 4–5.
238. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 15, at 23.

decline in outside vendor costs, and a 20.9% decline in total SOX 404 compliance costs.[239]

2. Indirect Costs

One of the arguments typically raised in the context of SOX is that it is partly responsible for a decrease in the number of firms going public.[240] Forty-four percent of respondents to the SEC's 2009 survey indicated that they were considering taking their company private as a direct result of SOX 404(b) compliance costs.[241] Research has demonstrated a sizeable increase in the rate at which companies delist and go private following the adoption of SOX.[242] Establishing a causal link between SOX and the trend of companies going private has been the subject of much debate in the literature.

The SEC Chief Accountant study found no evidence linking a drop in U.S. IPOs for firms between $75 million market capitalization and $250 million market capitalization to the requirement that they obtain SOX 404 certifications.[243] For example, the Chief Accountant points to the fact that fewer than five U.S.-based companies raised between $75 million and $250 million on a foreign market IPO between 2005 and 2010.[244] Significant flaws in that analysis were that it only focused on a comparison to listings in other countries, considered going-dark transactions (or delisting from public exchanges) for previously public firms, and failed to consider the prospect that smaller firms are obtaining private financing and neglecting to go public on either domestic or foreign markets in the first place.[245] There are various academic studies generating evidence to either support or counter the thesis that SOX resulted in a decrease in public company listings in the United States.[246]

---

239. STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 51–52.
240. *See id.* at 64 n.102 (quoting *Whatever Happened to IPOs?*, WALL ST. J., Mar. 22, 2011).
241. *Id.* at 62.
242. *Id.* at 91.
243. *Id.* at 4.
244. *Id.* at 45.
245. STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 91–93.
246. Jefferson Duarte, Katie Kong, Stephan Siegel & Lance Young, *The Impact of the Sarbanes–Oxley Act on Shareholders and Managers of Foreign Firms*, 18 REV. FIN. 417, 417–18 (2014).

3. Impact on Small Firms

Smaller firms tend to bear the brunt of regulatory costs because they lack the economies of scale that larger firms might enjoy in regulatory compliance costs.[247] Much of the recent discussion about SOX 404 has been over whether to adopt a permanent exemption for SOX 404(b) for small firms above the threshold of those currently exempt at between $75 million and $250 million market capitalization.[248] The SEC's recent changes added an exemption from SOX 404(b) requirements for firms that have less than $100 million in annual revenue.[249]

Another literature vein suggests that public companies near the $75 million threshold manage their public float to avoid the requirement that they obtain SOX 404(b) attestations.[250] This literature suggests a revealed preference, which is more reliable than survey-based data, that firms at the $75 million market capitalization threshold do not anticipate benefits at the margin from SOX 404(b) attestation.[251] Dhammika Dharmapala conducted a bunching analysis of firms just above and below the SOX 404(b) compliance thresholds of $75 million and found that they tended to reduce their public float by roughly $1.7 million solely to avoid SOX 404 attestation.[252] He equates that to a net expected compliance cost for firms near the threshold of $4 to $6 million avoided by remaining below the $75 million market capitalization threshold that triggers SOX 404(b) audits.[253] He finds that this phenomenon continues despite the decrease in compliance costs resulting from AS 5.[254] This finding provides even more powerful evidence than firm surveys of their perception of SOX costs because it reveals the firms' preference that

247. Johnson et al., *supra* note 66, at 3.

248. *See generally* STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132.

249. *Smaller Reporting Companies*, SEC, https://www.sec.gov/smallbusiness/goingpublic/SRC [https://perma.cc/4YR9-E2NA] (Feb. 11, 2022).

250. STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 95.

251. *See id.* at 95–96.

252. Dhammika Dharmapala, *Estimating the Compliance Costs of Securities Regulation: A Bunching Analysis of Sarbanes–Oxley Section 404(b)* 5 (Ctr. for Econ. Stud. & IFO Inst., Working Paper No. 6180, 2016).

253. *Id.*

254. *Id.* at 29.

the benefits of SOX 404(b) compliance exceed the benefits for their firms.

Peter Iliev finds that SOX 404 resulted in a net decrease in firm value.[255] A number of event studies of the adoption of SOX also found that that legislation was associated with a decrease in firm value for firms subject to SOX requirements.[256] Iliev finds that the temporary exemption from SOX 404(b) for small firms (later codified) was associated with a 4.1% abnormal return for small firms.[257] William R. Kinney, Jr. and Marcy L. Shepardson similarly report that SOX compliance reduces the value of small companies.[258]

4. Miscellaneous Costs

One clear effect of the PCAOB's regulatory activity has been to increase consolidation in what is already a highly consolidated auditing industry. As evidence of the level of concentration in the audit

255. Iliev, *supra* note 194, at 1191.

256. Kate Litvak, *The Effect of Sarbanes–Oxley Act on Non-US Companies Cross-Listed in the US*, 13 J. CORP. FIN. 195, 195 (2007) ("By comparing reactions of SOX-exposed foreign firms to reactions of otherwise similar SOX-unexposed foreign firms . . . [Litvak] find[s] that stock prices of foreign firms subject to SOX declined (increased) significantly, compared to cross-listed firms not subject to SOX and to non-cross-listed firms, during key announcements indicating that SOX would (would not) fully apply to cross-listed issuers."); Ivy Xiying Zhang, *Economic Consequences of the Sarbanes–Oxley Act of 2002*, 44 J. ACCT. & ECON. 74, 74 (2007) ("Using concurrent stock returns of non-U.S.-traded foreign firms to estimate normal U.S. returns, [Zhang] find[s] that U.S. firms experienced a statistically significant negative cumulative abnormal return around key SOX events. . . . Additional tests show that deferring the compliance of Section 404, which mandates an internal control test, resulted in significant cost savings for non-accelerated filers."); Vidhi Chhaochharia & Yaniv Grinstein, *Corporate Governance and Firm Value: The Impact of the 2002 Governance Rules*, 62 J. FIN. 1789, 1789 (2007) ("We find that the announcement of these rules . . . earn positive abnormal returns compared to firms that are more compliant. We also find variation in the response across firm size. Large firms that are less compliant earn positive abnormal returns but small firms that are less compliant earn negative abnormal returns, suggesting that some provisions are detrimental to small firms."); Ehud Kamar, Pinar Karaca-Mandic & Eric Talley, *Going-Private Decisions and the Sarbanes–Oxley Act of 2002: A Cross-Country Analysis*, 25 J.L. ECON. & ORG. 107, 107 (2009) ("[W]e examine the post-SOX change in the propensity of American public targets to be bought by private acquirers rather than public ones with the corresponding change for foreign public targets, which were outside the purview of SOX. Our findings are consistent with the hypothesis that SOX induced small firms to exit the public capital market during the year following its enactment. In contrast, SOX appears to have had little effect on the going-private propensities of larger firms.").

257. Iliev, *supra* note 194, at 1190.

258. Alexander et al., *supra* note 161, at 271 (citing William R. Kinney, Jr. & Marcy L. Shepardson, *Effects of Alternative SOX Regimes on Audit Fees and Material Weakness Disclosures for Smaller Public Companies: A Natural Experiment* (Working Paper, 2009)).

market, one GAO report of the audit market concentration showed a Hirschman-Herfindahl Index (HHI) (a common measure of market concentration in antitrust review) of 2,300, which indicates a highly concentrated market.[259] There is a consensus in the literature that the advent of the PCAOB led to additional consolidation in an already consolidated market for audit services, as many smaller auditors left public company auditing.[260]Additionally, studies also indicate that a number of auditing firms with no public company clients nevertheless voluntarily registered with the PCAOB to signal quality.[261] Further, Lennox and Pittman find that the worst audit firms, defined as those with adverse findings in prior peer-review reports and by number of weaknesses in their prior report, were more likely to withdraw from public company auditing when mandatory PCAOB registration came into effect.[262]

Research on the PCAOB's Auditing Standard 3, which enhances documentation requirements, indicates that its results have been mixed at best.[263] Experimental studies have been used to examine audit documentation requirements administered by the PCAOB.[264] This standard is one of the few beyond those adopted pursuant to SOX 404 to receive scrutiny.

VII. PCAOB OPTIONS TO RESPOND TO A NEW REGULATORY BUDGET

After a request for public comment regarding its statutorily required study of SOX 404 under the Dodd–Frank Act, SEC staff lamented: "[T]here were few suggestions provided from the public input that addressed techniques for further reducing the compliance burden while maintaining investor protections without providing a complete

259. U.S. GOV'T ACCOUNTABILITY OFF., GAO-08-163, AUDITS OF PUBLIC COMPANIES: CONTINUED CONCENTRATION IN AUDIT MARKET FOR LARGE PUBLIC COMPANIES DOES NOT CALL FOR IMMEDIATE ACTION 16 (2008).

260. *See* Abernathy et al., *supra* note 13, at 31.

261. *Id.* at 34.

262. Lennox & Pittman, *supra* note 203, at 85.

263. *See, e.g.*, Abernathy et al., *supra* note 13, at 57.

264. *See, e.g., id.* at 42.

exemption."[265] This Article provides a process reform to advance regulatory budgeting as a means to more effective oversight of PCAOB's operation. This next Section will also offer a number of discrete reforms the PCAOB could undertake to reduce regulatory costs.

One suggestion the SEC already received was to have auditors opine on the design of an internal control process but not test its operation; another was for auditor attestations on internal controls to occur less than annually.[266] Together, the SEC and PCAOB could further adjust the probability determination used to define a material weakness in internal control reviews.[267] One critique of the approach implemented by SOX is that the binary classification of internal controls is misguided because it assumes that auditors can arrive at an objective determination that controls are either 100% effective or they are not.[268] This critique was suggested before the pending proposal for disclosure of findings of "significant deficiencies" was suggested; however, the critique arguing that reviews of internal controls and disclosures could benefit from a more nuanced approach still stands.[269] The binary nature of this disclosure interacts in a powerful way with the prospect of auditing firm litigation exposure because auditors likely find it more difficult to defend binary determinations than a more nuanced scale-based determination system.[270]

An alternative approach might involve a more nuanced rating system, in which internal control systems are provided with ratings on a scale. One analogue that could inform such an approach could be the rating system used by bank examiners, which they themselves rate the effectiveness of managerial and financial controls of publicly traded banks on a scale of 1 to 5. Parveen P. Gupta and Tim Leech suggested another intermediate type of audit: replacing SOX 404(b) audits, which replicate work already done by management, with an external

265. STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 5.
266. *Id.* at 78.
267. *Id.* at 82–83.
268. Gupta & Leech, *supra* note 8, at 31.
269. *Id.* at 37–38.
270. *Id.* at 32.

audit of management's internal-controls review process.[271] Whether this reform would prove effective depends on whether the PCAOB and the auditing profession would implement such a shift as a compliance cost-control measure or whether processes embodied in SOX 404(b) processes migrate over under a new guise. Alternatively, an exemption from SOX 404(b) attestation requirements for a larger class of firms than those currently exempt would still remain subject to other SOX requirements like SOX 404(a) certifications by management. An issuer exempt from SOX 404(b)'s requirement of an external control attestation will still see its SOX 404(a) representations subject to the review of an ordinary outside audit.[272]

Individuals proffering comment to the SEC have previously urged the SEC to become more involved in the development of the COSO framework.[273] SEC rules and PCAOB auditing standards require that management base its determinations about the effectiveness of its internal controls on a generally accepted internal control framework. Although the PCAOB does not mandate the use of a particular framework, it strongly suggests using the COSO framework first developed in 1992.[274] The PCAOB as an institution has a seat at the table for COSO deliberations and thus can play a role in reducing costs for managers who choose to use that framework.[275]

One simple way for the PCAOB to come into compliance with a regulatory budget would be to eliminate duplicative activity mirroring compliance audits undertaken by other regulators—such as FINRA compliance inspections for broker-dealers or bank examinations for chartered banks and bank holding companies—through the establishment of more concrete principles whereby auditors can rely on reports from those sources to conduct their reviews under the risk-based framework that now governs internal control attestations.

271. *Id.* at 42.

272. *See* Vishal A. Munsif & Meghna Singhvi, *Internal Control Reporting and Audit Fees of Non-Accelerated Filers*, 15 J. ACCT. ETHICS & PUB. POL'Y 901, 905 (2014).

273. STAFF OF THE OFF. OF THE CHIEF ACCT., *supra* note 132, at 6.

274. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 15, at 11.

275. COMM. OF SPONSORING ORGS. OF THE TREADWAY COMM'N, INTERNAL CONTROL – INTEGRATED FRAMEWORK, EXECUTIVE SUMMARY i, ii (2013), https://www.coso.org/documents/990025p-executive-summary-final-may20.pdf [https://perma.cc/WQ5Q-RFQC].

To the extent auditors are not able to access documents from those sources, the PCAOB could work with the SEC and with the Federal Financial Institutions Examination Council to obtain limited access to information, otherwise kept confidential by bank regulators as confidential supervisory information, to reduce the costs of internal auditing and external auditing certification.

The SEC should also consider that its guidance and interpretive releases can provide secondary legal authority to federal courts tasked with adjudicating cases of auditing firm liability in private securities class actions that include auditing firms as clients. Furthermore, the SEC General Counsel's practice of providing amicus briefs in securities class actions at the district-court level and on appeal—including cases in which auditing firms are defendants—should be considered a powerful component of the PCAOB regulatory budget process. The prospect of auditing firm securities class action liability serves as a powerful lens, which greatly magnifies the regulatory costs of PCAOB regulations. The SEC clearly has multiple avenues it can use to mitigate and thereby impact PCAOB's ability to achieve compliance with its regulatory cost allocation by using its own regulatory tools to reduce the liability risk that auditors face.

CONCLUSION

Regulatory budgeting like its conceptual cousin, cost–benefit analysis, seeks to operationalize a process to force regulators to consider the unavoidable role that tradeoffs play in economic decisions. This Article has provided a roadmap for the SEC to begin to track the regulatory apparatus at the PCAOB in a more transparent and systematic fashion. The roadmap would allow the SEC to continue the process of refining and attenuating the PCAOB's approach to implementing its mandate under SOX, as it attempted to do in a one-time and rough-cut manner in the move from AS 2 to AS 5.