COMPETITIVE ENTERPRISE INSTITUTE

1310 L Street NW, 7th Floor ◆ Washington, DC 20005 ◆ www.cei.org

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Self-Regulatory Organizations; New York Stock Exchange LLC; Order Instituting Proceedings to Determine Whether to Approve or Disapprove a Proposed Rule Change to Amend the NYSE Listed Company Manual to Adopt Listing Standards for Natural Asset Companies

Comments prepared by James Broughel, Competitive Enterprise Institute

To the Honorable Gary Gensler, Chair of the Securities and Exchange Commission, and the Honorable Commissioners Hester M. Peirce, Caroline A. Crenshaw, Mark T. Uyeda, and Jaime Lizárraga:

The Competitive Enterprise Institute (CEI) is a non-profit public interest organization committed to advancing the principles of free markets and limited government. CEI has a longstanding interest in applying these principles to the rulemaking process and has frequently commented on issues related to oversight of rulemaking and the regulatory process. On behalf of CEI, I am pleased to provide comments to the Securities and Exchange Commission (SEC) on its order titled "Self-Regulatory Organizations; New York Stock Exchange LLC; Order Instituting Proceedings to Determine Whether to Approve or Disapprove a Proposed Rule Change to Amend the NYSE Listed Company Manual to Adopt Listing Standards for Natural Asset Companies."[1]

Background.

The Securities and Exchange Commission is instituting proceedings to determine whether to approve or disapprove a proposed rule change by the New York Stock Exchange (NYSE) to adopt listing standards for a new type of public company called Natural Asset Companies (NACs).[2] The NYSE has proposed updating its NYSE Listed Company Manual to permit the listing and trading of common stock of NACs on the NYSE.[3] NACs would be a new type of corporation whose purpose is to "actively manage,

[1] Securities and Exchange Commission, "Self-Regulatory Organizations; New York Stock Exchange LLC; Order Instituting Proceedings To Determine Whether To Approve or Disapprove a Proposed Rule Change To Amend the NYSE Listed Company Manual To Adopt Listing Standards for Natural Asset Companies," 88 *Federal Register* 89788, December 28, 2023, https://www.federalregister.gov/documents/2023/12/28/2023-28611/self-regulatory-organizations-new-york-stock-exchange-llc-order-instituting-proceedings-to-determine.

[2] Securities Exchange Commission, "Self-Regulatory Organizations; New York Stock Exchange LLC; Notice of Filing of Proposed Rule Change to Amend the NYSE Listed Company Manual to Adopt Listing Standards for Natural Asset Companies," 88 *Federal Register* 68811, Oct. 4, 2023, https://www.federalregister.gov/documents/2023/10/04/2023-22041/self-regulatory-organizations-new-york-stock-exchange-llc-notice-of-filing-of-proposed-rule-change.

[3] New York Stock Exchange, "NYSE Listed Company Manual," accessed January 12, 2024, https://nyse.wolterskluwer.cloud/listed-company-manual; New York Stock Exchange, Natural Asset Companies (NACs), accessed January 12, 2024, https://www.nyse.com/introducing-natural-asset-companies.

maintain, restore (as applicable), and grow the value of natural assets and their production of ecosystem services."[4] "Ecosystem services" refer to benefits stemming from natural assets like forests, wetlands, etc.

If allowed to be listed on the NYSE, NACs would be required to meet similar quantitative listing standards as regular operating public companies in the sense that revenues and expenses would need to be reported in the financial statements of the NAC and to be prepared according to Generally Accepted Accounting Principles (GAAP). The proposal would also impose additional requirements, including certain disclosures related to the environment, human rights, and equitable benefit sharing with communities.[5] Importantly for the purposes of this comment, NACs also would be required to publish annual Ecological Performance Reports (EPRs), which include metrics on the condition and economic value of the natural assets they manage. These EPRs would be examined by an independent reviewer each year.[6]

The NYSE has an exclusive license agreement in place with a private company called Intrinsic Exchange Group (IEG) related to the framework and methodology NACs would use for the EPRs.[7] Furthermore, the NYSE has a financial interest in IEG, as it owns a minority stake in the company and also has a seat on IEG's board of directors.[8] The SEC has received some comments supporting the proposal and some opposing it or suggesting changes. It is instituting the current proceedings to further analyze whether the proposal is consistent with statutory requirements around investor protection, transparency, conflicts of interest, and competition. The SEC is requesting public comment on all aspects of the proposal to inform its decision on whether to approve or disapprove the proposed rule change.

As a senior fellow with the Competitive Enterprise Institute, I have a strong interest in ensuring federal agencies conduct high-quality economic and regulatory analysis. Previously, I submitted a public comment to the Office of Management and Budget (OMB) on its draft guidance on accounting for ecosystem services in benefit-cost analysis (that comment is included as an attachment to this one).[9] I wish to share similar concerns with the SEC about its proposal to create a new class of corporation in the form of NACs, since many of the same problems likely to arise with EPRs will mirror those found in environmental accounting more generally, including what is being promoted by the Biden administration's OMB.

The problems I previously flagged with OMB's ecosystem services guidance are highly relevant to the SEC's current proposal. The OMB guidance aims to assist regulatory analysts with monetizing, i.e., assigning dollar values to, unpriced natural assets. That methodology draws heavily from the UN System of Environmental Economic Accounting framework (SEEA).[10] Similarly, the proposed EPRs would also

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[4] 88 *Federal Register*, at 89788.
[5] 88 *Federal Register*, at 89791.
[6] 88 *Federal Register*, at 89789.
[7] 88 *Federal Register*, at 89789; Intrinsic Exchange Group, "Ecological Performance Reporting Framework," September 2023, https://www.sec.gov/files/rules/sro/nyse/2023/34-98665-ex3.pdf; Intrinsic Exchange Group, accessed January 18. 2024, https://www.intrinsicexchange.com/.
[8] House Committee on Natural Resources, "Members Initiate Probe Into SEC's Rule Change Permitting Foreign Agents and Radical Activists to Control America's National Parks and Lands," Press Release, January 11, 2024, https://naturalresources.house.gov/news/documentsingle.aspx?DocumentID=415387.
[9] James Broughel, "Comments on Proposed Guidance for Assessing Changes in Environmental and Ecosystem Services in Benefit-Cost Analysis," Competitive Enterprise Institute, September 20, 2023, https://cei.org/regulatory_comments/ceis-james-broughel-comments-on-proposed-guidance-for-assessing-changes-in-environmental-and-ecosystem-services-in-benefit-cost-analysis/.
[10] United Nations, About SEEA, accessed January 18, 2024, https://seea.un.org/content/about-seea; United Nations, Ecosystem Accounting, accessed January 18, 2024, https://seea.un.org/ecosystem-accounting.

rely on the SEEA approach to place values on nonfinancial natural assets not traded in markets. This raises comparable concerns about conflating priced and unpriced assets, introducing various forms of bias into reporting, and consequently misallocating resources across society.

The SEEA approach is, to put it bluntly, pseudoscience. It is to economics what astrology is to astronomy. While traditional accounting frameworks, such as GAAP financial reporting, are reasonable modes of evaluating companies, the EPR methodology lacks any rational economic basis. Moreover, there is no evidence that the public would desire to invest in a company that produces "ecosystem services benefits" as opposed to traditional financial returns. As a colleague of mine at CEI has noted in his own comment to this SEC on this order, "NACs do not exist in any shape or manner," and "there are no common equity securities for NACs to possess."[11] They would exist solely because the SEC has allowed them to be created, and it is entirely possible that there will be no investor demand for NAC securities, since they are a completely unproven concept.

This comment concludes that the SEC should decline approval of the NAC company class on the NYSE. Short of this, the SEC should drop reporting requirements surrounding EPRs. An environmental management company should be judged based on the same criteria as any other public companies listed on the NYSE, namely based on financial returns as evaluated by GAAP or similar accounting standards. Note that there are significant benefits that could be realized from allowing public lands to be managed by private entities. However, existing corporate structures already exist that could satisfy this aim without the need for creating a new corporation designation in the form of NACs.

Concerns About Valuation and Accounting Framework.

The proposal unnecessarily subjugates a NAC's financial returns as secondary to ecosystem services benefits and conservation goals. Specifically, the SEC's notice states, that while NACs can engage in "sustainable revenue-generating operations (e.g., eco-tourism in a natural landscape or production of regenerative food crops in a working landscape)", their "the core purpose of a NAC would be to maximize ecological performance."[12]

The implication is that the value of NACs would be assessed first based on their ecosystem services benefits, as presumably measured in the required EPS, with financial returns, as measured by GAAP accounting, playing a secondary role. However, GAAP represents decades of established accounting practices, while the EPR methodology is experimental and based on an unscientific UN accounting approach. Moreover, profits are money that is actually earned by the corporation, and therefore easier to objectively measure and track, while ecosystem services benefits have a public good-like character, meaning they will often accrue to society more generally and not the corporation. Therefore, they will tend not to have accounting entries that can be logged on a corporation's books.

The SEC should make unambiguously clear that GAAP reporting takes precedence over and supersedes any conflicting findings based on the EPR framework. Requiring experimental EPR disclosures to displace or supersede GAAP risks undermining confidence in financial reporting generally. The EPR methodology draws heavily on the controversial UN SEEA accounting framework that is, by any reasonable standard, ideology and not science. Moreover, such subjective reporting is prone to manipulation, and this is not mere speculation. Environmental accounting statements and similar

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[11] Stone Washington, "Comment to the SEC on its Self-Regulatory Organizations; New York Stock Exchange LLC; Order Instituting Proceedings to Determine Whether to Approve or Disapprove a Proposed Rule Change to Amend the NYSE Listed Company Manual to Adopt Listing Standards for Natural Asset Companies," January 18, 2023.
[12] 88 *Federal Register*, at 89788.

reporting produced by federal agencies in the U.S. are often referred to as "advocacy documents,"[13] due to their tendency to be manipulated to achieve political ends. Before requiring experimental environmental accounting, the SEC must rigorously scrutinize the theoretical foundation and rationality of the underlying valuation techniques. There are reasons to doubt the EPR framework on both of these grounds.

For example, the monetization techniques prescribed for assets not traded in markets are highly dubious. As I explained in my previous comment to OMB on its ecosystem services guidance,[14] natural capital assets generate consumption benefits that fall into three categories based on whether returns are priced, unpriced and recurring, or unpriced one-time experiences. The EPR approach risks conflating these very different outcomes by monetizing and aggregating all of them into a single estimate of value. Yet, priced assets that yield compounding financial returns over time fundamentally differ from one-time aesthetic pleasures. In short, one can't invest utility in an account, but one can reinvest financial returns earned from market production.

Equating these incommensurable values introduces systematic bias into the valuation and investment process. By relying on these specious forms of natural asset valuation, the SEC risks codifying irrationality and market failure into the financial system. As I explained in my OMB comment, individual behavioral biases like present bias, anthropomorphic bias, and exponential growth bias creep into public decision making when analysts assign dollar values to nature. The result is government failure. More concretely, when an analyst assigns a dollar value to nonmarket outcomes, he or she is implicitly assuming society should value nature in a manner akin to how an individual would value it. But in reality, individuals have much shorter time horizons than society writ large. Thus, individual preferences tend to undervalue the compounding benefits of capital accumulation, while short term experiences receive relatively too much weight, relative to how society—with its much longer time horizon—would value these benefits. Contrary to claims by the NYSE that its proposal would help to rectify "overconsumption of and underinvestment in nature,"[15] the NYSE's proposal would actually exacerbate overconsumption and underinvestment problems, except by encouraging overconsumption of ecosystem services and underinvestment in capital accumulation, relative to what is economically efficient.

The OMB's ecosystems services guidance nearly guarantees government failure if its recommendations are influential in shaping public policy. This is the case because it encourages an extreme, short-termist perspective that ignores the benefits of compound growth. Likewise, if the SEC mandates that investors value companies based on the EPR framework, the agency will similarly induce biased decision-making, in this case, in the financial markets. This will lead to inefficient capital allocation as too many investments flow into NACs relative to companies evaluated solely on their financial returns. This result conflicts with two of the SEC's core mandates, which are to promote efficiency and to facilitate capital formation.[16] The SEC should acknowledge the likelihood that economic efficiency and capital formation will be hindered by the misleading nature of EPR disclosures and the corresponding likelihood that such reporting will trigger valuation errors on the part of investors.

[13] E. Donald Elliott, "Rationing Analysis of Job Losses and Gains: An Exercise in Domestic Comparative Law," in *Does Regulation Kill Jobs?*, eds. Cary Coglianese et al., 2014, 256, 265; Christopher Carrigan and Stuart Shapiro, "What's Wrong with the Back of the Envelope? A Call for Simple (and Timely) Benefit–Cost Analysis," *Regulation & Governance* 11, 2017: 203-12.
[14] James Broughel, "Comments on Proposed Guidance for Assessing Changes in Environmental and Ecosystem Services in Benefit-Cost Analysis."
[15] 88 *Federal Register*, at 89788.
[16] 15 U.S. Code § 77b.

Conflicts of Interest and Risk Concerns.

The SEC should not enable a single private entity to dictate experimental disclosure practices impacting an entire asset class, especially when its techniques introduce valuation bias. I am deeply troubled that the proposal grants a monopoly to the IEG as the sole provider of the EPR framework and methodology. This is all the more concerning given that the NYSE has a financial stake in IEG, a relationship that casts doubt on the NYSE's ability to act as an objective party when it determines whether NACs should be allowed to be listed.

There is a complete lack of experience with NACs as a viable investment vehicle. The NAC structure remains an unproven concept without evidence investors actually desire exposure to this new class of company. Allowing NACs to list on an exchange that carries the prestige of the NYSE serves as a sort of regulatory seal of approval. Providing this seal of approval before properly vetting the concept itself will mislead investors. This violates one of the SEC's core missions of protecting retail investors.

It is all the more strange that the SEC and NYSE are trying to create a new type of corporation when responsibility for incorporation of businesses is an authority usually controlled by the states. At the same time, other types of corporations already exist that have similar missions as NACs. For example, a public benefit corporation "is a corporation created to generate social and public good, and to operate in a responsible and sustainable manner."[17] The SEC must explain what value NACs add above and beyond the value public benefit corporations already add to the marketplace.

The SEC should not be endorsing experimental corporate structures that are prone to potential conflicts of interest. Given the SEC's mandate to protect investors, exposing them to the risks associated with NACs seems inappropriate at a minimum. The SEC should instead adopt a cautious approach that shields investors from an unprecedented experiment until concrete evidence of viability emerges.

Benefits of Privatization Efforts.

While I have raised serious concerns about NACs and the environmental accounting framework they would be utilizing, privatization efforts more generally could yield substantial societal benefits by encouraging the productive use of America's considerable natural capital wealth. As I explained in my comment to OMB, the U.S. federal government alone owns more than 600 million acres of land and natural resources.[18] States also hold considerable land assets.

To the extent NACs would be permitted to purchase or lease federal lands that are otherwise locked out of productive use, and furthermore allowed to monetize some of these assets' benefit streams by introducing them into the market economy, NACs could indeed yield some significant gains for society. However, it is not obvious why a new class of corporation is needed to achieve this end. Furthermore, because NACs would be subjected to the unscientific accounting found in the EPRs, NACs could easily prove to be a cure far worse than the disease.

Any revenue generated through privatization efforts should be valued based on standard GAAP accounting methods, avoiding the need for the experimental EPR methodology. If necessary, other reporting could supplement the GAAP reporting. For example, aggregated measures of output like GDP tend to better account for the "social," or total, impacts of environmental investments than do the private

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[17] Legal Information Institute of Cornell Law School, "Public Benefit Corporation," accessed January 17, 2024, https://www.law.cornell.edu/wex/public_benefit_corporation.

[18] James Broughel, "Comments on Proposed Guidance for Assessing Changes in Environmental and Ecosystem Services in Benefit-Cost Analysis," at 9.

values reflected in standard business accounting statements. Assessing the net contributions of natural assets to GDP would account for most market failures not covered in a firm's financial statements, and would do so in a manner far better than the EPR methodology promises to do.[19] To the extent, that supplementary accounting is needed or desired, a measure like GDP is well-suited for this purpose.

Conclusion

I urge the SEC to decline approval of the NAC company class and associated EPR reporting requirements. The EPR methodology lacks a sound basis in economics or accounting. Instead it relies on experimental and controversial techniques like the UN SEEA framework. Requiring these disclosures risks undermining confidence in financial reporting and will introduce systemic biases into the asset valuation process.

Moreover, the conflicts of interest stemming from NYSE's part ownership of IEG, the sole provider of required EPR methodology, threatens the integrity of financial markets. Not only does IEG (and by extension NYSE) stand to profit from the NYSE's proposal to list NACs, casting doubt on the NYSE's ability to responsibly govern the market for NACs, but allowing NACs onto a prominent exchange introduces retail investors to unnecessary risks. It follows that the IEG and NYSE will likely profit at investor expense. This directly conflicts with the SEC's mission to protect retail investors.

NACs remain an unproven concept without evidence of actual investor demand. The SEC must fulfill its mission of protecting investors by shielding them from a risky and unprecedented social experiment. I urge reliance on proven financial reporting methods, coupled with widely-accepted economy-wide measures of aggregate social value like GDP if need be. The EPR methodology should be rejected in its entirety.

Sincerely,

James Broughel, PhD
Senior Fellow, Competitive Enterprise Institute

Attachment: James Broughel, "Comments on Proposed Guidance for Assessing Changes in Environmental and Ecosystem Services in Benefit-Cost Analysis."

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[19] James Broughel, "In Praise of GDP," *Literary Economist Newsletter,* August 28, 2023, https://literaryeconomist.substack.com/p/in-praise-of-gdp.

1310 L Street, NW, 7th Floor
Washington, DC 20005
cei.org

202 331 1010 main
202 331 0640 fax

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Docket ID: OMB–2022–0016

Request for Comments on Proposed Guidance for Assessing Changes in Environmental and Ecosystem Services in Benefit-Cost Analysis

Comments Prepared by James Broughel, Competitive Enterprise Institute

The Competitive Enterprise Institute (CEI) is a non-profit public interest organization committed to advancing the principles of free markets and limited government. CEI has a longstanding interest in applying these principles to the rulemaking process and has frequently commented on issues related to oversight of rulemaking and regulatory analysis. I am pleased to provide comments to the Office of Information and Regulatory Affairs (OIRA) and the Office of Science and Technology Policy (OSTP) on their joint effort to create new guidance for assessing changes in environmental and ecosystem services in benefit-cost analysis.[1]

The Proposed Guidance for Assessing Changes in Environmental and Ecosystem Services in Benefit-Cost Analysis (hereafter referred to as the draft guidance)[2] purportedly aims to improve how environment-related costs and benefits are captured in federal benefit-cost analyses.[3] The draft guidance is a first of its kind, developed to fulfill directives found in a 2022 executive order on strengthening forests and communities facing stress from wildfires and climate change.[4] The draft guidance also serves as a complement to other ongoing efforts by the Biden Administration, such as a strategy to develop environmental statistics for inclusion in national economic accounts,[5] as well as efforts by OIRA and the White House to transform the regulatory review process.[6]

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[1] Office of Management and Budget. "Request for Comments on Proposed Guidance for Assessing Changes in Environmental and Ecosystem Services in Benefit-Cost Analysis." 88 Fed. Reg. 50,912 (August 2, 2023). https://www.federalregister.gov/documents/2023/08/02/2023-16272/request-for-comments-on-proposed-guidance-for-assessing-changes-in-environmental-and-ecosystem.
[2] Office of Information and Regulatory Affairs. "Guidance for Assessing Changes in Environmental and Ecosystem Services in Benefit-Cost Analysis, Draft for Public Review." Office of Management and Budget (August 2023). https://www.whitehouse.gov/wp-content/uploads/2023/08/DraftESGuidance.pdf.
[3] The White House. "Accounting for Ecosystem Services in Benefit-Cost Analysis." *White House Blog*. August 1, 2023. https://www.whitehouse.gov/omb/briefing-room/2023/08/01/accounting-for-ecosystem-services-in-benefit-cost-analysis/.
[4] Executive Order No. 14072, Strengthening the Nation's Forests, Communities, and Local Economies, 87 Fed. Reg. 24,851 (Apr. 27, 2022).
[5] Office of Science and Technology Policy, Office of Management and Budget, and Department of Commerce. "National Strategy to Develop Statistics for Environmental-Economic Decisions: A U.S. System of Natural Capital Accounting and Associated Environmental Economic Statistics." Washington, DC: The White House (January 2023). https://www.whitehouse.gov/wp-content/uploads/2023/01/Natural-Capital-Accounting-Strategy-final.pdf.
[6] Joseph R. Biden, Jr. "Modernizing Regulatory Review." Presidential Memorandum (January 21, 2021). https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/modernizing-regulatory-review/.

This comment makes three key points:

- First, the need for this draft guidance has not been demonstrated. It appears to offer few novel insights beyond what is found in other OIRA circulars. Indeed, it repeatedly directs readers to read those other documents. Despite referencing OIRA Circular A-4 many times, however, the draft guidance does not clarify which version is being cited (the 2003 version or the update that is in-process).[7] This limits the ability of the public to provide useful comments. At a minimum, proposing the draft guidance before the Circular A-4 update is complete is premature, as the two documents could end up being inconsistent with one another. Moreover, if the information contained in the draft guidance is important, it should appear as an amendment or appendix to Circular A-4, rather than as a standalone new document. The fact that the draft guidance was left out of the ongoing update to Circular A-4 suggests OIRA and OSTP may have wanted it to fly under the radar, or that they believe the draft guidance would not have survived the scrutiny accompanying that update.

- Second, the draft guidance needs to better distinguish between different forms of natural capital and the corresponding stream of consumption benefits they provide over time. This comment provides a framework for how OIRA and OSTP staff can do that.

- Third, by conflating different types of natural capital, the draft guidance runs the risk of codifying irrationality into the rulemaking process, thereby institutionalizing cognitive bias in rulemaking. If finalized, this guidance and the policies it would help shape would provide a powerful example of a “behavioral government failure” in federal regulatory policy.

The techniques included in the draft guidance lack a sound economic basis. At best, the draft guidance will be ignored or spread confusion throughout federal agencies. At worst, it will lead to systematic bias in the regulatory process and a significant misallocation of societal resources. Either way, the draft guidance should be rescinded.

That said, there is some useful information contained in the draft guidance, particularly as pertains to quantifying and describing nonmarket impacts, and detailing the ways ecosystem services can indirectly impact market prices. However, OIRA and OSTP should remove any discussion from the draft guidance about monetizing natural assets whose returns are completely unpriced in markets, and these agencies should append the remaining useful information to existing circulars instead of issuing a new guidance document. At the end of this comment, I explore alternative ways to monetize nature that are superior to the methods presented in the draft guidance.

The Office Tasked with Managing Paperwork Burdens Should Not Be Creating More Unnecessary Paperwork

[7] Office of Management and Budget. "Circular A-4: Regulatory Analysis, Draft for Public Review." Washington, DC: Office of Management and Budget (April 6, 2023).

The first question that arises upon a reading of the draft guidance is why it is even needed. On the face of it, it seems like yet more paperwork emanating from the federal bureaucracy. Ironically, OIRA itself was created by the Paperwork Reduction Act of 1980, which, as the name implies, was aimed at reducing paperwork burdens imposed by the federal government.[8] Yet, paperwork burdens have hovered between 10.0 and 11.6 billion hours annually in recent years,[9] and—despite going down in some recent years—have generally been going up steadily in the years since OIRA's inception.[10]

Table 1: Paperwork Burden Changes by Category, FY 2018 thru FY 2021 (million hours)

	Total Burden	**Total Change from Previous FY**	Discretionary Agency Actions	Statutory Changes	Lapses or Discontinuations	Adjustments
FY 18	**11,357**	**-186**	112	20	-33	-285
FY 19	**10,998**	**-359**	-199	-170	-14	23
FY 20	**11,618**	**620**	159	186	-1	277
FY 21	**9,974**	**-1,645**	327	25	-9	-1,988

Source: Office of Management and Budget. "Information Collection Budget of the United States Government. 2018-2021."

Meanwhile, paperwork appears to be rising at OIRA as well. OIRA's Circular A-4 regulatory guidance has recently ballooned from 48 to 91 pages in its new draft form.[11] The ecosystems services draft guidance adds another 76, including all the various appendices. At the same time, the annual paperwork report from OIRA, known as the Information Collection Budget, has been late in recent years,[12] suggesting that managing paperwork burdens may not be a priority at OIRA or that this statutory goal is being supplanted or made secondary to other non-statutory goals.[13]

Page counts are not so important if the pages contain valuable information. However, many experts agree the proposed updates to Circular A-4 will make regulatory analysis worse, not better.[14] The same is likely true of the draft guidance, as this comment will explain in subsequent

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[8] Paperwork Reduction Act of 1980, Pub. L. No. 96-511, 94 Stat. 2812 (1980).
[9] Office of Management and Budget. "Information Collection Budget of the United States Government. 2018-2021." Washington, DC: Office of Management and Budget (2023). https://www.whitehouse.gov/wp-content/uploads/2023/05/2018-2021-ICB.pdf.
[10] Stuart Shapiro. "The Paperwork Reduction Act: Benefits, Costs and Directions for Reform." *Government Information Quarterly* 30, no. 2 (2013): 204–10. https://doi.org/10.1016/j.giq.2012.09.002; Stuart Shapiro. "The Paperwork Reduction Act: Research on Current Practices and Recommendations for Reform." Report to the Administrative Conference of the United States (2012). https://www.acus.gov/sites/default/files/documents/Draft-PRA-Report-2-15-12.pdf.
[11] Office of Management and Budget. "Circular A-4: Regulatory Analysis, Draft for Public Review."
[12] Daniel Goldbeck. "Catching Up with the National Paperwork 'Budget.'" *American Action Forum Insight.* June 1, 2023. https://www.americanactionforum.org/insight/catching-up-with-the-national-paperwork-budget/.
[13] Relatedly, the annual report from OIRA on the Benefits and Costs of Federal Regulations is several years late at the time of this writing.
[14] See, for example, James Broughel. "Biden Knocks Opportunity Cost." *Wall Street Journal* (August 10, 2023); Richard Belzer. "The Costs and Benefits of Biden's Regulation." *Wall Street Journal* (August 18, 2023); and Tomas Philipson. "Making Life Easier for Bad Regulations." *Wall Street Journal* (August 21, 2023); Susan Dudley and Kip Viscusi. "Biden's OMB Politicizes Cost-Benefit Analysis." *Wall Street Journal* (August 28, 2023).

sections. In fact, it appears even OIRA has some doubts about the rigor of this document. It is odd, for example, that OIRA, at the same time it is updating Circular A-4, chooses not to include the information in the draft guidance as part of that effort.

Consider the *Federal Register* notice announcing the draft guidance:

> The proposed Guidance is intended to be fully consistent with—and a faithful application of—the principles and guidelines in Circulars A–4 and A–94. Much in the proposed Guidance cross references applicable sections in Circular A–4—and, per a paragraph on page 1, analogous sections of Circular A–94—to address certain analytical steps.[15]

In the quoted passage above, OIRA makes clear the draft guidance directs readers to other resources a number of times throughout. In fact, OIRA Circular A-4 is referenced repeatedly in the draft guidance. Yet, the draft guidance never makes clear what version of Circular A-4 is being cited. This is a problem because Circular A-4 is in the process of being updated. Given the close relationship between OIRA Circular A-4 and the draft guidance, proposing the draft guidance is premature and limits meaningful public involvement. By not clarifying what A-4 document is being referenced, commenters have no idea what document is being referred to. This undermines the ability of the public to provide useful comments, and prevents OIRA and OSTP from receiving the most useful comments.

It makes sense, at a minimum, to delay proposing the draft guidance until the update to Circular A-4 is complete. Otherwise, the two guidance documents may not be consistent with one another when they are issued in final form. Furthermore, OIRA Circular A-4 already includes information about the valuation of nonmarket benefits, including environmental benefits. Useful information in the draft guidance could easily be included in that document. The fact that OIRA and OSTP chose to create an entirely new document for information that is clearly relevant to an ongoing, separate proceeding suggests these agencies may not believe the draft guidance could have survived the added scrutiny that the Circular A-4 update is receiving relative to this proposal.

In short, the relationship between the draft guidance and Circular A-4 appears not to be well thought out. Moreover, for reasons outlined below, it is difficult to see how the draft guidance will improve decision making. Contrary to assertions by some of the authors of the draft guidance that more reading will lead to better decision making in this case,[16] this document appears to be yet another unneeded circular, constituting what Harvard law professor and former OIRA Administrator Cass Sunstein calls "sludge."[17] Unless OIRA and OSTP can come up with a credible explanation to justify this added paperwork, including what value it adds beyond

[15] Office of Management and Budget, "Request for Comments on Proposed Guidance for Assessing Changes in Environmental and Ecosystem Services in Benefit-Cost Analysis," at 50914.
[16] "Faced with the choice between less reading and better decision-making, the government chose right." See Eli Fenichel and Andrew Stawasz. "Rationally Valuing Natural Resources Is Good Governance." *Yale Journal on Regulation: Notice and Comment blog* (August 21, 2023). https://www.yalejreg.com/nc/rationally-valuing-natural-resources-is-good-governance-by-eli-fenichel-andrew-stawasz/.
[17] Cass R. Sunstein. "Sludge: What Stops Us from Getting Things Done and What to Do about It." *MIT Press* (2021).

existing documents and why that information belongs in new guidance as opposed to in existing circulars, the draft guidance should be withdrawn.

Three Classes of Natural Capital

Ecosystem services are, according to the draft guidance, "contributions to human welfare from the environment or ecosystems."[18] Natural capital is a concept closely related to ecosystem services, and refers to the stock of natural resources that society is endowed with. It too provides a range of benefits that contribute to human well-being. While the draft guidance does include a brief classification scheme for distinguishing between some of the different forms of natural capital and ecosystem services, this scheme is seriously incomplete for the purposes of valuing resources for their inclusion in a benefit-cost analysis.

The reason the classification scheme is incomplete is that the draft guidance conflates natural capital whose returns are directly or indirectly priced in markets with natural capital whose returns are completely unpriced and disconnected from market activity. This conflation occurs through the practice of monetizing and aggregating these different types of capital stocks and flows. To be clear, the draft guidance does recognize that "the ways that ecosystem services relate to markets vary,"[19] and that ecosystem services can contribute to human welfare with or without markets as intermediaries, but it fails to distinguish between the very different streams of consumption benefits that ecosystem services and natural capital generate over time. This is a critical oversight. The stream of consumption benefits that a natural capital asset produces over its lifespan can vary dramatically, and the methods by which OIRA recommends monetizing benefits paper over these differences.

One source of clarity on this topic is the work of economist F. A. Hayek. In his 1930s book, *Prices and Production*, he explained how the quantity of consumer goods generated by a capital investment is an increasing function of time.[20] Hayek's fundamental insight was captured in a now-iconic triangle diagram, which illustrated the relationship between capital investment, time, and output in the form of consumer goods.

For modern purposes, the diagram offers a clear and intuitive representation of the opportunity cost of capital (see figure 3), only in this case the "triangle" is actually the area under an exponential function curve. Hayek's insights on capital have largely been lost by modern mainstream economists.[21] However, a more generalized form of Hayek's framework can help OIRA and OSTP distinguish natural capital assets based on the consumption streams they produce.

Consider that the consumption benefits (or "goods") derived from nature come in three basic forms: First are fleeting, temporary pleasures, like a sunset or a birdcall. These look a lot like

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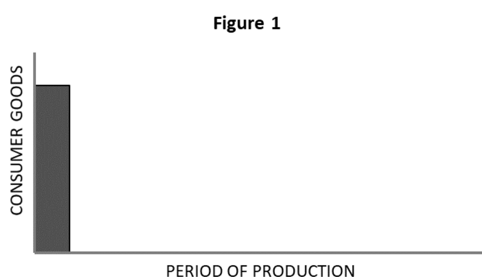
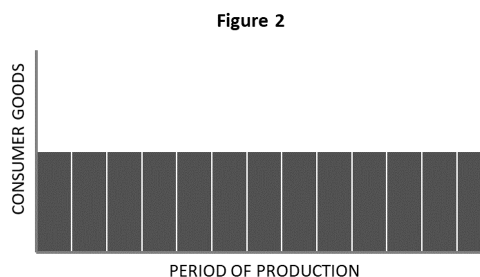
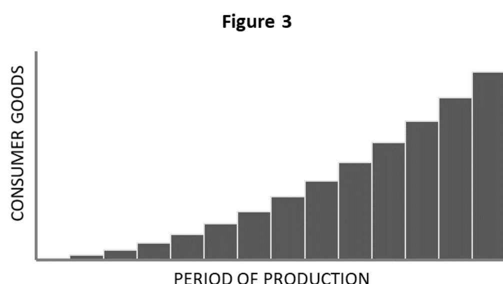
[18] Draft guidance, p. 2.
[19] Draft guidance, p. 2.
[20] F. A. Hayek. "Prices and Production and Other Works: F.A. Hayek on Money, the Business Cycle, and the Gold Standard." Ludwig von Mises Institute (2008). https://mises.org/library/prices-and-production-and-other-works.
[21] One notable exception is Tyler Cowen. "Caring about the Distant Future: Why it Matters and What it Means." *University of Chicago Law Review* 74 (2007): 5-40.

consumption that occurs in markets in the sense that the benefit derived is a fleeting experience that occurs and then is over (figure 1). However, market and nonmarket consumption are not identical, because with nonmarket consumption no money is turned over in the "exchange." The "seller," in this case nature, can't reinvest any of the proceeds. Second, are enduring nonmonetary benefits that can be appreciated day after day, such as the Grand Canyon's awe-inspiring vista. These are ongoing benefits, rather than temporary ones, but the benefit is more or less the same year after year (figure 2).[22] Again, returns to the seller can't be reinvested because exchanges don't take place with money, causing the returns to remain roughly constant each period. Third, are financial gains from commercialized resources like timber or fisheries. This last category of benefit is fundamentally different than the first two. Since money can be reinvested, returns magnify over time in a compounding fashion (figure 3). However, you can't reinvest a scenic view or a birdcall.







As should be evident from these illustrations, the benefit stream a natural capital asset generates looks very different depending on whether its returns involve money and whether they are ongoing or temporary. These distinctions are rarely accounted for in government economic analysis, however. In fact, the three classes of returns are routinely conflated, as is the case throughout the draft guidance. The draft guidance notes ways that "[m]arkets reveal the marginal value of some ecosystem services," and encourages these market prices to be used as part of

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[22] It is possible for ongoing nonmarket benefits, such as those portrayed in figure 2, to be growing over time, as a result of population growth or because of rising willingness to pay due to economic growth. Willingness to pay is constrained by wealth, however, and wealth increases are presumably constrained by the rate of return to capital. So it seems reasonable to assume that the value of benefit streams that come in the form of pure utility will tend to grow at a rate that is slower than the rate associated with commercialized returns. Population growth in nature may be similarly constrained by natural factors. Human population growth, meanwhile, affects the value of returns from both capital in the market and nonmarket capital, though perhaps not always equally. These are important issues that should be studied in more detail.

valuation methods. But the guidance also goes on to explain how "ecosystems directly provide services to individuals and households without market intermediaries."[23] It then explains ways these impacts can be monetized, and finally it recommends all the different types of impacts be aggregated together in a single "accounting statement" that involves "one presentation of net benefits."[24]

Such a mingling of impacts, even when monetized, involves making apples to oranges comparisons. Under OIRA's separate effort to update Circular A-4, the agency actually makes an even worse mistake, encouraging government analysts to treat a dollar of consumption and a dollar of investment equally (or nearly equally).[25] This is bad economics. An invested dollar can generate more consumption than a dollar spent on consumption, and a dollar invested in assets generating financial returns can produce more consumption over time than a dollar invested in natural capital assets whose returns are completely unpriced in markets, by virtue of the ability to reinvest returns.

Much better than OIRA and OSTP's approach would be adopting Hayek's perspective on capital and bringing the notion of opportunity cost (i.e., what would happen with resources in the future) to the forefront of economic analysis, rather than relegating the concept to the sidelines as the draft guidance now does. This would constitute a significant breakthrough for OIRA and OSTP. To start, this means recognizing that for each unit of capital displaced as well as created by government policy, a stream of consumption is generated, and the time stream of this consumption looks very different depending on the type of capital asset that is involved.

The Draft Guidance Codifies a Behavioral Government Failure

Behavioral biases are systematic deviations from rationality in judgment. Sometimes these biases can be attributed to heuristics, or mental shortcuts, that people make in decision making.[26] Such biases include confirmation bias, over-optimism, loss aversion, and countless other cognitive imperfections, that can cloud judgment, making individuals prone to errors and leading them to make decisions that might not be in their own best interests.

Just as individuals exhibit behavioral biases, governments too act irrationally at times.[27] This tends to occur when policies are influenced by the cognitive biases of policymakers or when policies are shaped by institutional forces that produce outcomes akin to the biases found in individual decisions. For instance, Cass Sunstein highlights how government agencies sometimes overestimate risks due to availability heuristics,[28] leading to regulations that are costlier than necessary. This might occur because policy makers themselves are irrational in their responses to high-profile events, or because the political process gives incentives to policymakers to "do

[23] Draft guidance, p. 26.
[24] Draft guidance, p. 36.
[25] Office of Management and Budget. "Circular A-4: Regulatory Analysis, Draft for Public Review."
[26] Amos Tversky and Daniel Kahneman. "Judgment under Uncertainty: Heuristics and Biases." *Science* 185, no. 4157 (1974): 1124–1131.
[27] W. Kip Viscusi and Ted Gayer. "Behavioral Public Choice: The Behavioral Paradox of Government Policy." *Harvard Journal of Law & Public Policy* 38 (2015): 973.
[28] Cass Sunstein. *Why Nudge?: The Politics of Libertarian Paternalism*. Yale University Press (2014).

something" even when the best option is to wait or to do nothing. In each case, the policy outcome is suboptimal.

When government interventions create inefficiencies or otherwise lead to an allocation of resources that is worse than what would occur absent the intervention, a "government failure" is said to occur.[29] Such failures can result from factors like lack of information, bureaucratic inefficiencies, or political or special interest pressure that diverts policies from achieving the public interest. However, government failures also result from behavioral biases, leading to what is known as a "behavioral government failure."[30]

There is a legitimate danger that the draft guidance will institutionalize behavioral bias in the federal rulemaking process. As with the discussion in the previous section, these problems relate to the manner in which environmental assets and their returns are monetized by federal agencies. The approach recommended throughout the draft guidance involves basing valuations on the preferences of current individuals, as stated in surveys or revealed through their actions in the marketplace. This is problematic because the value of a resource to any particular individual tends to differ from the value society should use, and a broad social perspective is what is called for in benefit-cost analysis.

Here is an example. An individual might value a beautiful sunset more than an investment yielding a low one percent annual return. Why? Due to his finite lifespan and the natural human propensity toward impatience, the individual might not be willing to wait around for the low-yielding investment to pay off. The same cannot be said for society, however, which exhibits no human tendency for time preference, nor—short of human extinction—a finite lifespan. To attribute these characteristics to society is an example of "anthropomorphic bias," which refers to the tendency to attribute human-like characteristics to non-human entities.[31]

A nation like the United States can always wait for the low-yielding investments to pay their dividends. Current consumers tend to prioritize the short run.[32] Yet, we must also respect the wishes and well-being of consumers in the future. A national benefit-cost analysis should not equate assets generating compounding financial returns with short-term consumption or even many sustained benefits derived from nature. (The reader is again referred to figures 1-3 in the previous section.) To do otherwise is to conflate individual and societal values.

For similar reasons, present bias is evident in the draft guidance. Present bias refers to the tendency of individuals, when considering events at two moments, to give stronger weight to events as they become closer to the present. In simpler terms, people often prioritize immediate

[29] Charles Wolf, Jr. "Markets or Governments: Choosing between Imperfect Alternatives." MIT Press (1988).
[30] Michael David Thomas. "Reapplying Behavioral Symmetry: Public Choice and Choice Architecture." *Public Choice* 180 (2019): 11–25.
[31] Luke Strongman, "The Anthropomorphic Bias: How Human Thinking Is Prone to Be Self-Referential" (Working paper no. 4-07, Open Polytechnic of New Zealand, Lower Hutt, New Zealand, February 2008).
[32] The authors of the draft guidance admit they prefer analysis to take the short-run perspective of a current consumer, implying the society-wide perspective that includes future consumers gets shortchanged. "Americans vote for these services with their wallets all the time. Consider the premiums people regularly pay for hotel rooms with ocean or mountain views. Because these buyers seem to be making reasonable decisions, the government should respect them too." See Fenichel and Stawasz, *supra* note 16.

rewards over future benefits, even if the future benefits are more substantial.[33] Natural capital assets yielding fleeting, short-run benefits should not be placed on equal footing with natural capital yielding ongoing, compounding returns. Yet this is precisely what the draft circular recommends through the monetization of these different assets and their comingling in a single net benefit estimate. The failure to appreciate the power of compound interest is sometimes called exponential growth bias.[34] Opportunity cost neglect is yet another bias evident, not just in this guidance document but across OIRA policy in general.[35]

For practical purposes, the best option would likely be for OIRA and OSTP to have agencies simply quantify aspects of nature—including natural capital stocks and flows and our impact on them—but to avoid the monetization exercise unless what is actually being evaluated is money. The best parts of the draft guidance are those areas where the guidance directs agencies to quantify and describe ecosystem services benefits without monetizing them, as well as when the draft guidance describes indirect ways environmental assets impose financial benefits and costs.

Thus, there is practical and useful information contained in the draft guidance, but valuation methods based on market prices need to be distinguished from valuation methods derived from other sources, such as stated or revealed preference techniques. The outputs of these latter methods often cannot be compared in an apples-to-apples manner with market activity. Attempts to include monetized nonmarket environmental flows in national economic accounts are similarly mistaken.[36]

To Monetize Nature, Privatize It

As should be evident from the previous discussion, there are significant challenges that arise in efforts to monetize aspects of nature not priced in markets. If the Biden administration is so concerned with monetizing nature, rather than create an unnecessary guidance document, OIRA and OSTP could instead recommend that federal agencies privatize some of the vast land resources under their control. Estimates vary, but the federal government owns about 640 million acres of land in the United States, which is approximately 28 percent of the total U.S. land area

[33] Ted O'Donoghue and Matthew Rabin. "Doing it Now or Later." *American Economic Review* 89, no.1 (1999): 103-124.

[34] David Robson. "Exponential Growth Bias: The Numerical Error behind Covid-19." *BBC*, August 13, 2020. https://www.bbc.com/future/article/20200812-exponential-growth-bias-the-numerical-error-behind-covid-19.

[35] James Broughel. "Biden Knocks Opportunity Cost;" Shane Frederick et al., "Opportunity Cost Neglect," *Journal of Consumer Research* 36, no. 4 (2009): 553–61; Richard Thaler, "Toward a Positive Theory of Consumer Choice," *Journal of Economic Behavior and Organization* 1, no. 1 (1980): 39–60.

[36] Incorporating these kinds of statistics into national economic accounts is misleading even if they are produced "alongside" GDP estimates, as opposed to added to GDP directly. When reported alongside GDP, there will still be a tendency to want to compare these environmental statistics to GDP measurements, which is a problem because the income streams often cannot be compared directly. Whether such green accounting is "essentially an add-on to GDP," or instead involves statistics that "will complement and work alongside GDP" is, for practical purposes, a distinction without a difference. See James Broughel. "The Dangers of Government Efforts to Monetize Nature." *Forbes* (August 10, 2023); and Fenichel and Stawasz, *supra* note 16.

of 2.27 billion acres.[37] The value of federal lands was estimated in 2015 to be worth about $2.6 trillion.[38]

These are rough approximations, and there is considerable uncertainty involved in estimating the value of federally-owned land.[39] Still, it is clear the U.S. federal government owns considerable land wealth. According to one analysis, in terms of land area under their control "[the Bureau of Land Management] and the Forest Service are both larger than Texas. And the fourth largest agency, the National Park Service, is larger than all but four states, Alaska, Texas, California, and Montana, slightly larger than New Mexico's 77.6 million acres."[40]

Embarking on a massive privatization effort would monetize nature in a manner that is superior to the approaches outlined in the OIRA and OSTP draft guidance, in the sense that it is more consistent with sound economic principles. Beyond raising revenue, such a privatization effort would have the added benefit that it would create new markets for environmental amenities, thereby internalizing some of the externalities associated with these assets being outside of market activity and under government control. Such an effort would enable the operation of more complete and efficient markets, a primary aim of benefit-cost analysis.

Conclusion

The draft guidance, as well as the larger effort it is part of to expand the use of green accounting in government, is a misguided endeavor. Arguably it is pseudoscience. Pricing the priceless probably only degrades nature while simultaneously leading to inefficient and irrational public policy decisions.

Cost-benefit analysis can help guide sound policy when used judiciously. But OIRA and OSTP must also not fetishize monetization or believe equating incommensurable things reveals some deeper truth. Rather than continuing to resort to accounting gimmickry that has no sound basis in economics, OIRA and OSTP should go back to basics.

The draft guidance could be improved by removing any and all discussion of monetizing those natural capital and environmental ecosystem services benefits and costs taking place entirely outside of markets. Even then, the useful information that remains should be included as an appendix or an amendment to existing circulars. The draft guidance itself must be withdrawn.

Sincerely,

James Broughel, PhD

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[37] Congressional Research Service. "Federal Land Ownership: Overview and Data," Washington, DC: Congressional Research Service (February 21, 2020). https://sgp.fas.org/crs/misc/R42346.pdf.

[38] This estimate from the Bureau of Economic Analysis was $1.8 trillion in 2009 dollars and is for the lower 48 contiguous states. The number has been updated to 2023 dollars using the consumer price index. See William Larson. "New Estimates of Value of Land of the United States." Bureau of Economic Analysis (April 2015). https://www.bea.gov/research/papers/2015/new-estimates-value-land-united-states.

[39] Randal O'Toole. "Can Federal Assets Cover the National Debt?" *Cato At Liberty* (Washington, DC: Cato Institute, June 29, 2020). https://www.cato.org/blog/can-federal-assets-cover-national-debt.

[40] Mark Bandley. "Including the Ocean Floor, the Feds Own Much More Land than You Think." *Mises Institute*. March 17, 2016. https://mises.org/library/including-ocean-floor-feds-own-much-more-land-you-think.