# WEALTH, SCHMEALTH, WELFARE, AND SCHMELFARE

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Traditional cost-benefit analysis is sometimes equated with "wealth maximization," but the equation is a mischaracterization: traditional cost-benefit analysis's "sum of compensating variations" test ignores the deadweight loss of redistribution, even though the deadweight loss of redistribution reduces society's total wealth. Thus, the traditional test measures a regulation's effect on a quantity other than wealth—what we might call "schmealth" (i.e., wealth minus the deadweight loss of redistribution).

The distinction between the traditional test and wealth maximization takes on renewed relevance in light of the Biden administration's November 2023 revision to Circular A-4, the framework document for regulatory analysis across federal executive agencies. The new framework encourages (but does not require) agencies to account for distributional benefits in their regulatory analyses—an approach that is intended to capture a regulation's effect on welfare. But much like the traditional "sum of compensating variations" test, the new framework ignores the deadweight loss of redistribution, even though the deadweight loss of redistribution reduces social welfare. Thus, the new framework measures a regulation's effect on a quantity other than welfare—what we might call "schmelfare" (i.e., welfare minus the deadweight loss of redistribution).

This Article introduces the distinction among wealth, "schmealth," welfare, and "schmelfare" with the goal of elucidating the reasons why regulatory policymakers might choose one of these standards over the others. "Schmealth" and welfare are symmetrical standards: they treat the costs and benefits of redistribution equally—ignoring both in the former and accounting for both in the latter. Wealth and "schmelfare" are asymmetrical standards: they account for either redistribution's costs or its benefits but not for both. The

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Article articulates the normative case for symmetry—and thus for either the traditional "schmealth" standard or a welfare standard. It goes on to show how the choice between "schmealth" and welfare depends upon political conditions and political values, including considerations of electoral accountability and the separation of powers. Ultimately, the conflict between traditional cost-benefit analysis and welfare analysis turns less on different understandings of microeconomics than on different visions of the macrostructure of public law.

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## INTRODUCTION

For decades, federal agencies have used cost-benefit analysis (CBA) when deciding which regulations to promulgate. The traditional standard for determining whether a regulation's benefits exceed its costs is based on the "sum of compensating variations." An individual's "compensating variation" (CV) for a policy change is the amount that—if paid by the individual into a communal pot after the new policy's adoption—would leave the individual with the same utility under the new policy as under the status quo.<sup>2</sup> For the

<sup>1.</sup> See Matthew D. Adler, Cost-Benefit Analysis, Static Efficiency, and the Goals of Environmental Law, 31 B.C. Env't Affs. L. Rev. 591, 592 (2004).

<sup>2.</sup> *Id*.

"winners" from a policy change, the CV is positive; for the "losers," the CV is negative.<sup>3</sup> If the sum of CVs for all individuals is positive, the policy passes the traditional cost-benefit test.<sup>4</sup>

Traditional CBA issometimes equated with maximization,"5 but that equation isfundamentally mischaracterization. When a regulation produces benefits that vary based on an individual's income—as major regulations very often do—then the regulation will alter the incentive to earn additional income. If regulatory benefits decrease with income, then the regulation will weaken income-earning incentives—a phenomenon described in the tax and public finance literature as the "excess burden" or "deadweight loss" of redistribution. 6 Conversely, if regulatory benefits increase with income, then the regulation will strengthen income-earning incentives and thus will reduce the deadweight loss of redistribution. Changes in deadweight loss affect society's total wealth, but traditional CBA's sum-of-CVs standard ignores (and as we shall see, ignores for good reason) the deadweightloss effects of regulations. As a result, a policy may have a positive sum of CVs but reduce total wealth or-vice versa-may have a negative sum of CVs but increase total wealth.

The difference between traditional CBA and wealth maximization takes on renewed relevance in light of the Biden administration's revision to Circular A-4, the framework document for CBA across the federal executive branch. In November 2023, the White House Office of Management and Budget (OMB) released an updated version of Circular A-4 that encourages (but does not require) agencies to consider the distributional effects of regulatory

- 3. *Id*.
- 4. *Id*.

- 6. See Daniel J. Hemel, Redistributive Regulations and Deadweight Loss, 14 J. Benefit-Cost Analysis 407, 408 (2023).
- 7. Off. of Mgmt. & Budget, Circular A-4, at 2 (2023) [hereinafter Revised Circular A-4], https://perma.cc/M7L5-7MSP.
- 8. Revised Circular A-4 notes that "[d]istributional effects exist whether or not a distributional analysis is produced," adding that "by producing a

<sup>5.</sup> See Richard A. Posner, Wealth Maximization and Judicial Decision-Making, 4 Int'l Rev. L. & Econ. 131, 132 (1984) ("Wealth maximization' as a guide to governmental including judicial action means... using cost-benefit analysis as the criterion of social choice..."); see also Karl S. Coplan, The Missing Element of Environmental Cost-Benefit Analysis: Compensation for the Loss of Regulatory Benefits, 30 Geo. Env't L. Rev. 281, 284 (2018) (stating that "cost-benefit analysis seeks to maximize net societal wealth"); Lisa Heinzerling, The Accidental Environmentalist: Judge Posner on Catastrophic Thinking, 94 Geo. L.J. 833, 836 (2006) (reviewing RICHARD A. POSNER, CATASTROPHE: RISK AND RESPONSE (2004)) (stating that "cost-benefit analysis incorporates... the criterion of wealth maximization"); Thomas O. McGarity, Regulatory Analysis and Regulatory Reform, 65 Tex. L. Rev. 1243, 1297 (1987) (explaining that CBA chooses the policy that "maximizes the aggregate wealth").

changes—in particular, whether a regulation redistributes from the rich to the poor or from the poor to the rich. OMB's method assigns a "distributional weight" to each individual or income group based on the individual or group's marginal utility of income. Due to the diminishing marginal utility of income, higher-income individuals receive smaller weights, and lower-income individuals receive larger weights. OMB's method then multiplies the CVs for all individuals or groups by their respective distributional weights. A policy passes the new cost-benefit test if the sum of weighted CVs is positive. According to OMB, the sum of weighted CVs provides an estimate of a regulation's effect on "total welfare." 13

OMB's new sum-of-weighted-CVs standard is not, however, a measure of a regulation's effect on social welfare. Like traditional CBA's sum-of-unweighted-CVs standard, OMB's new sum-of-weighted-CVs test ignores changes in the deadweight loss of redistribution that result from regulations. And just as changes in deadweight loss can have important effects on wealth, so too can they generate important effects on welfare. Indeed, whenever a regulation changes income-earning incentives, as will be the case for many and probably most major regulations, then the sum of weighted CVs will provide an inaccurate estimate of a regulation's welfare consequences.

As of this writing, the incoming second Trump administration has not yet indicated whether it will retain the Biden-era revisions to Circular A-4. But regardless of whether revised Circular A-4 survives in its current form, the decades-old debate about distributional weights in cost-benefit analysis is unlikely to go away. This Article intervenes in that debate by clarifying the role of

distributional analysis, you may be able to better identify alternative regulatory options or costs that can be mitigated through other regulatory or non-regulatory decisions." *Id.* at 62. But even while emphasizing these advantages, OMB ultimately decided *not* to require distributional analysis across the board. OFF. OF MGMT. & BUDGET, OMB CIRCULAR NO. A-4: EXPLANATION AND RESPONSE TO PUBLIC INPUT 37 (2023) [hereinafter EXPLANATION AND RESPONSE TO PUBLIC INPUT], https://perma.cc/MH67-4JR8. It remains to be seen whether agencies will begin to perform distributional analyses as a matter of course or whether they will continue to apply the traditional CBA standard in most cases.

- 9. REVISED CIRCULAR A-4, supra note 7, at 66.
- 10. Id.
- 11. Id. at 65.
- 12. Id. at 64.
- 13. See, e.g., EXPLANATION AND RESPONSE TO PUBLIC INPUT, supra note 8, at 45 ("Income-weighted estimates of net benefits are interpretable as the regulation's effect on total welfare . . . .").
- 14. For a prediction that President Trump will reverse the Biden administration's guidance, see Susan E. Dudley, What to Expect on the Regulatory Front in a Second Trump Term, FORBES (Nov. 12, 2024), perma.cc/P74B-7DPZ.

distributional benefits and deadweight loss in traditional and distributionally weighted CBA—and, in the process, excavating the moral and political values that underly competing approaches to CBA.

To preview the Article's central claims: Traditional CBA's sum-of-CVs standard measures a regulation's effect on total wealth minus the change in wealth resulting from changes in the deadweight loss of redistribution. The newly revised Circular A-4, which relies on the sum of weighted CVs, measures a regulation's effect on total welfare minus the change in welfare resulting from changes in the deadweight loss of redistribution. Thus, traditional CBA is not quite the same thing as wealth maximization; it is perhaps better described as "schmealth" maximization. And distributionally weighted CBA under Revised Circular A-4 is not quite the same thing as welfare maximization; it is perhaps better described as "schmelfare" maximation. These new words—"schmealth" and "schmelfare"—are not only fun to say; they are helpful in sharpening and evaluating the arguments for and against different approaches to CBA.

The different approaches to CBA can be mapped onto a two-bytwo matrix, with the vertical dimension reflecting whether distributional benefits are considered and the horizontal axis reflecting whether the deadweight loss of redistribution is considered.<sup>17</sup> Figure 1 lays out the four possible combinations:

<sup>15.</sup> Revised Circular A-4 clearly does not *instruct* agencies to incorporate deadweight loss into their distributional analyses. As explained below, Revised Circular A-4 goes a step further and instructs agencies *not* to incorporate deadweight loss into their distributional analyses through the use of "fiscal closure rules"—a method similar to the one outlined in Section I.B.4. *See infra* text accompanying notes 196–99.

<sup>16.</sup> For previous uses of the "schm" prefix to denote a concept that is similar but not identical to another, see, for example, Jeffrey B. Liebman & Richard J. Zeckhauser, Schmeduling 2 (Oct. 2004) (unpublished manuscript), https://perma.cc/EYX4-9LW3. See also Leslie Green, Law's Rule, 24 OSGOODE HALL L.J. 1023, 1031 (1986) (reviewing The Rule of Law: IDEAL or IDEOLOGY (A.C. Hutchinson & P. Monahan eds., 1987)) (coining the term "schmort" to refer to injury-based principles similar but not identical to tort law).

<sup>17.</sup> The two-by-two matrix is, by now, something of a cliché in the law review literature—but potentially a useful cliché. For the ur-example, see Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972). For other examples, see Samuel Issacharoff & Catherine M. Sharkey, *Backdoor Federalization*, 53 UCLA L. REV. 1353, 1359 (2006); Jessica Bulman-Pozen & Heather K. Gerken, *Uncooperative Federalism*, 118 YALE L.J. 1256, 1264 n.18 (2009); and Daniel J. Hemel & Lisa Larrimore Ouellette, *Beyond the Patents-Prizes Debate*, 92 Tex. L. Rev. 303, 333 fig.1 (2013).

FIGURE 1: CBA APPROACHES TO DISTRIBUTIONAL BENEFITS AND DEADWEIGHT LOSS<sup>18</sup>

	Deadweight Loss of Redistribution Ignored	Deadweight Loss of Redistribution Considered
Distributional Benefits Ignored	Schmealth (Traditional CBA) Sum of Unweighted CVs	Wealth
Distributional Benefits Considered	Schmelfare (Revised Circular A-4) Sum of Weighted CVs	Welfare

Mapping these four CBA standards onto a two-by-two matrix helps to elucidate the technical and normative reasons why a regulatory policymaker might select a particular CBA criterion. By "regulatory policymaker," this Article refers to the individuals or entities with authority to set the ground rules for regulatory analysis. Across most of the federal executive branch, the chief regulatory policymaker is OMB, an appendage of the White House whose Director is removable by the President without cause. However, independent executive agencies such as the Federal Trade Commission and the Securities and Exchange Commission—whose Commissioners are shielded by for-cause removal protections—are not bound by OMB's regulatory analysis guidance. When those

<sup>18.</sup> To be sure, the four approaches in Figure 1 do not exhaust the full menu of possible approaches to CBA. For example, CBA could incorporate considerations of equity along dimensions other than income (e.g., race, ethnicity, and age). For a list of agency CBAs that incorporate equity considerations—including considerations of equity along non-income dimensions—see Caroline Cecot & Robert W. Hahn, *Incorporating Equity and Justice Concerns in Regulation*, 18 REGUL. & GOVERNANCE 99, 108–11 tbl.3 (2024). The discussion of distributional benefits in the body of this Article is limited to distribution on the basis of income, but the application of distributional analysis to dimensions other than income remains an important topic for scholarly work. For one thoughtful discussion, see Daniel A. Farber, *Inequality and Regulation: Designing Rules to Address Race, Poverty, and Environmental Justice*, 3 Am. J.L. & Equal. 2, 30–43 (2023).

<sup>19.</sup> See Collins v. Yellen, 141 S. Ct. 1761, 1803 (2021) (Sotomayor, J., concurring in part and dissenting in part) ("Where Congress is silent on the question, the general rule is that the President may remove Executive Branch officers at will.").

<sup>20.</sup> See Exec. Order No. 12,866, 58 Fed. Reg. 51,735 (Oct. 4, 1993).

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agencies engage in CBA, they enjoy wide latitude to select their own decision-making standards.21

Figure 1's two-by-two matrix shows how the vertical-axis choice (whether to ignore or consider distributional benefits) relates to the horizontal-axis choice (whether to ignore or consider the deadweight loss of redistribution). Schmealth and welfare are symmetrical standards: they treat distributional benefits and deadweight loss consistently—in one case by ignoring them; in the other case by taking both into account. Wealth and schmelfare are asymmetrical standards: they treat distributional benefits and deadweight loss inconsistently—considering one but not the other. As we shall see, there are plausible normative arguments for using either of the two symmetrical standards (schmealth or welfare), but it will be difficult to muster a justification for the asymmetrical alternatives. This is itself a significant conclusion, as it suggests that OMB's Revised Circular A-4 has endorsed a flawed standard for CBA.

While it is relatively easy to winnow the field of candidates down from four to two, the choice between the remaining two standards schmealth and welfare—turns out to be much more challenging. How should regulatory policymakers select between schmealth and welfare? This Article proposes four "meta-criteria" to guide regulatory policymakers' decision-making:

- 1. Welfare Measurement: Does the use of the standard result in accurate estimates of a regulation's welfare effects?
- 2. Decision-maker Competence: Does the use of the standard allocate distributional decision-making to the most competent authority? ("Competence" in this context refers both to the decision-maker's technical expertise and to its democratic bona fides.)
- **Policy Stability:** Is the use of the standard likely to result in a stable regulatory environment across administrations, or is it likely to produce regulations that oscillate based on election outcomes?
- 4. Analytical Burden: How difficult will it be for agencies to apply the standard in their regulatory analyses?

The four meta-criteria are not meant to be exhaustive, and each meta-criterion will not necessarily carry equal weight in a regulatory policymaker's decision calculus. However, the four meta-criteria serve to focus attention on the most significant normative implications of a regulatory policymaker's choice among CBA standards.

Start with the first meta-criterion: welfare measurement. One might think that this meta-criterion would obviously favor a welfare

<sup>21.</sup> See Benefit-Cost Analysis at Independent Regulatory Agencies, ADMIN. CONF. U.S. (June 13, 2013), https://perma.cc/4XYS-KZP5.

standard—what better way to estimate a regulation's effect on welfare than to estimate its effect on welfare? But the case for a welfare standard on welfare-measurement grounds will turn out to be less of a slam dunk than it initially seems. When either of two conditions holds, then the "schmealth" standard provides a measure of a regulation's effect on welfare that is as good as or better than the welfare standard itself. First, when the tax-and-transfer system is "optimal"—or more specifically, when the amount of redistribution is set such that distributional benefits and deadweight loss are equal at margin—then any small change in redistribution approximately no effect on welfare. Redistributive regulations still generate distributional benefits, but these distributional benefits are roughly offset by the deadweight-loss costs (and indeed exactly offset at the margin). Second, when Congress adjusts the tax-and-transfer schedule to offset changes in regulatory redistribution dollar for dollar—in other words, when regulatory redistribution completely "crowds out" redistribution via the tax-and-transfer schedule—then redistributive regulations produce neither distributional benefits nor deadweight loss in the long run (since Congress's ex post changes to the tax-and-transfer schedule cancel the agency's redistributive work).

These two scenarios—optimal taxation and complete crowding out—may strike some readers as implausible. Indeed, leading legal scholars have argued against the sum-of-CVs (schmealth) standard for CBA on the grounds that the existing tax-and-transfer schedule is not optimal and complete crowding out is unlikely.<sup>22</sup> Yet the legal literature has failed to appreciate that the welfare standard implies a similarly extreme—though diametrically opposite—assumption regarding crowd-out: the welfare standard implicitly assumes that the tax-and-transfer system does not change at all in response to regulatory redistribution. If that assumption is incorrect—if, for example, Congress gives some consideration to the extent of inequality and deadweight loss when setting the tax-and-transfer schedule—then estimates of the welfare effects of regulatory redistribution will be systematically exaggerated, 23 since regulatory redistribution will partially (even if not completely) crowd out redistribution through other channels.

The second meta-criterion—decision-maker competence—lends itself to a similarly nuanced analysis. Advocates for the schmealth standard might argue that Congress, given its direct accountability to the electorate, ought to be the body with primary responsibility for distributional decision-making. According to that view, federal

<sup>22.</sup> See, e.g., Lee Anne Fennell & Richard H. McAdams, The Distributive Deficit in Law and Economics, 100 MINN. L. REV. 1051, 1098 (2016); Zachary Liscow, Is Efficiency Biased?, 85 U. Chi. L. REV. 1649, 1662-66 (2018).

<sup>23.</sup> The direction of the error will depend upon whether the analyst assumes that the status-quo level of redistribution is suboptimal or supraoptimal.

executive officials should set aside their own distributional preferences in choosing among regulatory policies and should defer to Congress's judgment as expressed through the tax-and-transfer schedule. Proponents of the welfare standard might counter that partisan gerrymandering and Senate malapportionment have deprived Congress of any superior claim to electoral legitimacy and that federal executive agencies—which are directly accountable to a President—have stronger democratic bona fides than Congress. Clearly, these same arguments cannot be cross-applied to other national contexts. Indeed, these arguments might even suggest different CBA standards for non-independent and independent executive agencies, given their different degrees of electoral accountability.

While the first and second meta-criteria arguably cut either way-in favor of schmealth or in favor of welfare-the third and fourth meta-criteria more clearly favor the schmealth standard. The schmealth standard's sum-of-CVs test does not require controversial and necessarily normative judgments about the relative welfare weight of different individuals and income groups. By contrast, the welfare standard does require regulatory policymakers to reach those judgments—and because liberals and conservatives are likely to disagree about welfare weights, the welfare standard will likely be applied differently in liberal and conservative administrations. Thus, the welfare standard raises a risk of policy instability, with liberal administrations adopting regulations that redistribute progressive direction and conservative administrations rescinding those regulations upon taking power. As for analytical burdens, the schmealth standard will always be easier to apply than the welfare standard because it only requires information about the sum of CVs, whereas the welfare standard requires much more fine-grained information about the distribution of CVs. The policy instability and heavy analytical burden of the welfare standard may or may not tip the scales decidedly in favor of schmealth, but even if these issues are not decisive, they are serious problems with which proponents of the welfare standard must contend.

The Article makes four original contributions to the literature on law and CBA. First, it explains—for the first time—how old and new standards for CBA across the federal executive branch relate to the classical criteria of wealth and welfare. Second, it identifies—again for the first time—the range of political conditions under which the welfare standard will yield misleading estimates of a regulation's long-run welfare effects. Third, the Article draws new connections between highly technical choices among CBA criteria and value-laden debates regarding the democratic legitimacy of the executive and legislative branches. Fourth and finally, the Article provides policymakers and analysts with a new qualitative rubric for selecting a CBA standard—a rubric that can inform decision-making across agencies and across jurisdictions.

The rest of the Article proceeds in two parts. Part I defines and distinguishes the four potential criteria for CBA: schmealth (the sum of unweighted CVs), wealth, schmelfare (the sum of weighted CVs), and welfare. Part II articulates and evaluates the arguments for and against each standard. It focuses on four meta-criteria: welfare measurement, decision-maker competence, policy stability, and analytical burden. In the end, the Article does not resolve the debate between schmealth and welfare once and for all, nor does it try to. Rather, the Article aims to give readers and regulators the analytical resources they need to make that choice themselves, recognizing that the relative merits of different CBA standards will vary across space and time. And by making the economic bases of competing CBA standards transparent to a lay audience, the Article invites noneconomists—including public law scholars engaged in debates about the democratic legitimacy of executive versus legislative branch decision-making—into a conversation about CBA that ultimately turns more on political theory than on economic formulas.

# I. REDISTRIBUTION AND DEADWEIGHT LOSS IN COST-BENEFIT ANALYSIS

## A. Scope of the Problem

This Article focuses on cases in which income has a causal effect on the costs that individuals incur or the benefits that individuals receive as a result of regulations.<sup>24</sup> Regulations of this type implicate the classic equity-efficiency tradeoff—that is, they involve an exchange at the societal level between distributional benefits and deadweight loss. Although not every regulation generates benefits that vary based on income, many—probably most—major regulations do.

On the cost side, many regulations raise the cost of goods. Power-plant emissions restrictions and overall air quality standards tend to raise the cost of electricity.<sup>25</sup> Motor vehicle safety standards tend to raise the cost of new cars.<sup>26</sup> Endangered Species Act regulations potentially raise the cost of wood products when habitat preservation prevents the harvesting of timber.<sup>27</sup> Since consumption of most goods rises with income, the cost of those regulations will generally rise with income as well.<sup>28</sup> In these cases, the regulation operates like a

<sup>24.</sup> The discussion in Section I.A draws from Hemel, *supra* note 6.

<sup>25.</sup> See, e.g., Karen Palmer et al., The Benefits and Costs of Reducing Emissions from the Electricity Sector, 83 J. Env't Mgmt. 115, 128–29 (2007).

<sup>26.</sup> See, e.g., Wayne R. Dunham, Are Automobile Safety Regulations Worth the Price: Evidence from Used Car Markets, 35 Econ. Inquiry 579, 579 (1997).

<sup>27.</sup> See Gardner M. Brown Jr. & Jason F. Shogren, Economics of the Endangered Species Act, 12 J. Econ. Persps. 3, 13 (1998).

<sup>28.</sup> In some cases, regulations may reduce the cost of new goods. See, e.g., Arlan Brucal & Michael J. Roberts, Do Energy Efficiency Standards Hurt

commodity tax: it reduces the amount of real consumption that individuals can purchase for a given amount of pre-tax income.

Income also may have a causal effect—positive or negative—on the benefits that individuals receive from regulations. Some regulations address harms that are especially concentrated in lower-income communities (e.g., air pollution).<sup>29</sup> In those cases, regulatory benefits may be larger for lower-income individuals than for higher-income individuals. In other cases, regulatory benefits depend upon patterns of product use. For example, motor vehicle fuel efficiency standards will tend to deliver larger fuel-saving benefits to individuals who drive more miles in their cars. Since higher-income individuals tend to drive more miles, they are likely to reap larger fuel-saving benefits from those regulations.<sup>30</sup>

Even when regulations address risks that affect the entire population equally, monetized benefits will vary with income because of the diminishing marginal utility of income. For example, imagine that a water quality standard reduces the risk of death by one in ten million for all Americans. Imagine, moreover, that an individual with \$50,000 of post-tax-and-transfer income would be willing to pay one dollar to reduce her risk of death by one in ten million. If the utility of income is the natural logarithm of income—a standard assumption in the public finance literature—then when post-tax-and-transfer income doubles from \$50,000 to \$100,000, the marginal utility of income will decline by half. In other words, a person with \$100,000 of income will derive half as much utility from an extra dollar as a person with \$50,000 of income will. If both people derive the same utility from a one-in-ten-million reduction in the risk of death—but the higher-income person derives half as much utility from one dollar as the lower-income person—then the higher-income person will be willing to trade twice as many dollars for the risk reduction (in this example, two dollars rather than one).<sup>31</sup> Thus, monetized benefits will rise with income even when everyone derives the same benefit from the regulation in utility terms.

Consumers? Evidence from Household Appliance Sales, 96 J. ENV'T ECON. & MGMT. 88, 89 (2019) (finding that stricter standards reduce the cost of new appliances). In those cases, income would continue to have a causal effect on net benefits—with higher income leading to larger benefits. See id. at 91.

<sup>29.</sup> See Jiawen Liu et al., Disparities in Air Pollution Exposure in the United States by Race/Ethnicity and Income, 1990–2010, ENV'T HEALTH PERSPS., Dec. 2021, at 127005-1, 127005-8.

<sup>30.</sup> See Arik Levinson, Energy Efficiency Standards Are More Regressive than Energy Taxes: Theory and Evidence, 6 J. Ass'n Env't & Res. Economists S7, S9 (2019).

<sup>31.</sup> On the relationship between income and the dollar values that individuals assign to mortality risk reductions, see Daniel Hemel, *Regulation and Redistribution with Lives in the Balance*, 89 U. CHI. L. REV. 649, 680–82 (2022).

In all of these cases, standard economic reasoning suggests that regulations will affect incentives to earn income.<sup>32</sup> Imagine that an individual is choosing between two jobs: one that pays \$100,000 before taxes but is less pleasant (e.g., requiring longer hours or more onerous working conditions), and another that pays \$50,000 before taxes. The reason to choose the higher-paying job is that a higher income enables an individual to purchase and consume a more valuable bundle of goods and services. Insofar as a redistributive regulation reduces the real value of the consumption bundle associated with a higher income or increases the real value of the consumption bundle associated with a lower income, the regulation will make the higher-income job relatively less attractive (and, correlatively, make the lower-income job relatively more attractive). To be sure, any single redistributive regulation is likely to have relatively small effects on income-earning incentives, just as any slight tax increase is likely to have relatively small effects. But cumulatively, a regulatory agenda that redistributes resources from high-income to low-income individuals will—according to standard economic reasoning—dull the incentive for individuals to earn higher incomes.33

It is—in theory—possible that a regulation may generate net benefits that vary with income but do not affect income-earning incentives. To offer one highly stylized example, imagine that the Federal Aviation Administration (FAA) adopts a rule that requires a minimum distance between rows of seats on commercial airlines.<sup>34</sup> Taller individuals are likely to benefit more than shorter individuals because taller individuals tend to have longer legs. Moreover, height is positively associated with income: according to economists Anne Case and Christina Paxson, an extra inch of height is correlated with a 1 to 3 percent increase in weekly earnings for U.S. workers.<sup>35</sup> But

<sup>32.</sup> See, e.g., A.B. Atkinson & J.E. Stiglitz, The Design of Tax Structure: Direct Versus Indirect Taxation, 6 J. Pub. Econ. 55, 61 (1976).

<sup>33.</sup> The discussion in text focuses on substitution effects, setting aside income effects. A regulation that makes higher-income individuals materially worse off could—in theory—induce them to work *more* insofar as it reduces their real income and thereby increases their marginal utility of income. However, the empirical literature on labor supply generally indicates that the substitution effect dominates the income effect. See Jon Gruber & Emmanuel Saez, The Elasticity of Taxable Income: Evidence and Implications, 84 J. Pub. Econ. 1, 19–20 (2002). In other words, reducing the money value of the consumption bundle associated with a higher pre-tax income will induce individuals to earn less, not more. See id.

<sup>34.</sup> In fact, the FAA has thus far declined to regulate seat spacing. See Jonathan Stempel, U.S. Court Won't Require FAA to Make Airplane Seat Size, Spacing Rules, REUTERS (Mar. 3, 2023), https://www.reuters.com/legal/us-court-wont-require-faa-make-airplane-seat-size-spacing-rules-2023-03-03.

<sup>35.</sup> Anne Case & Christina Paxson, Stature and Status: Height, Ability, and Labor Market Outcomes, 116 J. Pol. Econ. 499, 500 (2008).

at least for post-pubescent adults, a regulation that benefits taller people won't affect income-earning incentives, as there is nothing they can do to grow taller. Height thus functions as a "tag"<sup>36</sup>—it is correlated with income but cannot be altered by earning more or less income.

A regulation like the hypothetical FAA seat-spacing rule would lie outside this Article's scope: it would not implicate the tradeoff between distributional benefits and deadweight loss. Yet it is difficult to identify many (if any) real-world regulations that fit this mold (i.e., regulations for which income is correlated with net benefits but the correlation is non-causal). For the most part, when the benefits or costs of a regulation vary with income, the regulation will affect income-earning incentives.<sup>37</sup> And under standard economic assumptions, changes in income-earning incentives will lead to changes in deadweight loss.

# B. An Illustrative Example

To concretize the issue, let us imagine a regulation for which income has a causal and negative effect on net benefits. In other words, as income rises, the net benefits that an individual receives from the regulation decrease. An example might be a power plant emissions standard that improves air quality in lower-income areas but raises the cost of a normal good<sup>38</sup> such as electricity.

For the sake of simplicity, we will imagine a society with two people—Person A, who earns an income of \$100,000 before taxes and transfers, and Person B, whose pre-tax-and-transfer income is zero. The hypothetical regulation imposes a net cost of \$9 on Person A and yields a net benefit of \$11 for Person B. Moreover, let us assume that the relationship between income and net benefits is linear: for every additional \$100,000 of income, net benefits decline by \$20. In effect, the regulation operates like a 0.02 percent income surtax.

Taxable IncomeNet Benefit from Regulation (CV)Person A\$100,000-\$9Person B\$0\$11Total\$100,000\$2

TABLE 1: CVS FOR POWER PLANT EMISSIONS STANDARD

<sup>36.</sup> See generally George A. Akerlof, The Economics of "Tagging" as Applied to the Optimal Income Tax, Welfare Programs, and Manpower Planning, 68 Am. Econ. Rev. 8 (1978).

<sup>37.</sup> See Hemel, supra note 6, at 430.

<sup>38.</sup> A normal good is a good for which consumer demand rises with consumer income. NIGAR HASHIMZADE ET AL., *Normal Good*, *in* A DICTIONARY OF ECONOMICS (Oxford University Press 5th ed. 2017).

How would the regulation be judged under the various CBA criteria in Figure 1? We will consider the four alternatives—schmealth, wealth, schmelfare, and welfare—in turn.

## 1. Schmealth (Traditional CBA)

Start with the traditional criterion for CBA. In his landmark 1939 article, the Hungarian-British economist Nicholas Kaldor proposed the following criterion for policy analysis: whether "even if all those who suffer as a result [of a policy] are fully compensated for their loss, the rest of the community will still be better off than before." Kaldor's criterion forms one-half of the now-famous Kaldor-Hicks standard.

In a 1943 article, Kaldor's fellow British economist John Hicks further refined Kaldor's criterion, introducing a distinction between "compensating variations" and "equivalent variations." 41 individual's "compensating variation" for a policy change—the criterion that Kaldor had in mind—is the amount of income that would have to be taken from the individual after the adoption of the policy change such that her utility remains equal to its status quo level. 42 An individual's "equivalent variation" is the amount of income that would have to be given to an individual in the status-quo state of the world such that her utility equals the level it reaches after the policy change. 43 CVs and equivalent variations can differ when policies affect the price of goods, since CVs are based on post-reform prices and equivalent variations are based on pre-reform prices. 44 In those cases, Hicks wrote, "we ought to be prepared to make a double reckoning[:]"45 a policy satisfies the double-barreled Kaldor-Hicks standard if both the sum of CVs and the sum of equivalent variations is positive.46

The Kaldor-Hicks criterion is sometimes described as the "potential Pareto standard" because it identifies policies that have the potential to be Pareto-superior over the status quo when the winners compensate the losers.<sup>47</sup> In the sum-of-CVs version, compensation occurs after the policy's adoption based on post-reform prices; in the

<sup>39.</sup> Nicholas Kaldor, Welfare Propositions of Economics and Inter-Personal Comparisons of Utility, 49 Econ. J. 549, 550 (1939).

<sup>40.</sup> See, e.g., Matthew D. Adler & Eric A. Posner, Rethinking Cost-Benefit Analysis, 109 YALE L.J. 165, 190 (1999).

<sup>41.</sup> J.R. Hicks, *The Four Consumer's Surpluses*, 11 Rev. Econ. Stud. 31, 33, 35 (1943).

<sup>42.</sup> Id. at 33.

<sup>43.</sup> See id. at 34-35.

<sup>44.</sup> See T. de Scitovszky, A Note on Welfare Propositions in Economics, 9 REV. ECON. STUD. 77, 86 (1941).

<sup>45.</sup> Hicks, supra note 41, at 40.

<sup>46.</sup> Id.

<sup>47.</sup> Adler & Posner, supra note 40, at 190.

sum-of-equivalent-variations version, compensation occurs before the policy's adoption based on pre-reform prices.<sup>48</sup> For real-world reforms with relatively small price effects, the two standards are likely to yield similar outcomes, and traditional CBA generally uses the sum-of-CVs test without adding Hicks's suggested "double reckoning." We will refer to traditional CBA's sum-of-CVs test as the "schmealth" standard.

In our hypothetical emissions regulation example, higher-income Person A's CV is -\$9, and lower-income Person B's CV is (positive) \$11, so the sum of CVs is (positive) \$2. Since we have not introduced any price-level effects, we would arrive at the same result based on the sum of equivalent variations. Thus, the policy passes the sum-of-CVs test and the double-barreled Kaldor-Hicks test. Yet as we shall soon see, the fact that a policy has a positive sum of CVs does not necessarily mean that its adoption will be wealth-increasing.

#### 2. Wealth

We can define "wealth" as the value, typically expressed in money terms, of all of society's resources, including the value of non-marketed goods and the value that individuals assign to their leisure time. The key difference between the sum-of-CVs (schmealth) standard and a wealth standard is that wealth accounts for changes in the deadweight loss of redistribution resulting from a regulation, whereas schmealth does not. Unlike the distinction between compensating and equivalent variations, which is small for policies with small price effects, the exclusion or inclusion of deadweight loss can be outcome-determinative in CBA even when price effects are slight or nonexistent.

The deadweight loss of redistribution depends critically upon the background tax system. To keep the example simple, let us imagine that the only tax in force is a 40 percent linear income tax on all market income. In our example, revenue from the income tax is used to fund benefits that each individual values equally. These benefits could take the form of public goods, publicly provided private goods such as health care and housing, lump-sum cash transfers (demogrants), or some combination of the above. For ease of exposition, we will assume that revenues are used to fund demogrants, but the analysis would be substantially the same if revenues are used for another purpose (e.g., provision of public or private goods).

<sup>48.</sup> See, e.g., Kristof Bosmans et al., Who's Afraid of Aggregating Money Metrics?, 13 Theoretical Econ. 467, 467 (2018).

<sup>49.</sup> See Adler & Posner, supra note 40, at 204; Matthew Adler, Incommensurability and Cost-Benefit Analysis, 146 U. PA. L. REV. 1371, 1379 (1998). For a more formal discussion of what the sum-of-CVs test actually measures, see ROBIN W. BOADWAY & NEIL BRUCE, WELFARE ECONOMICS 263–69 (1984).

Person B

Total

\$0

\$100,000

\$20,000

\$100,000

\$20,000

\$40,000

\$0

\$40,000

TABLE 2: TAXES AND TRANSFERS PRIOR TO POWER PLANT EMISSIONS STANDARD

To calculate the deadweight loss of redistribution, economists typically use a formula based on the "elasticity of taxable income." <sup>50</sup> The elasticity of taxable income is the percent change in taxable income for a percent change in the net-of-tax rate. <sup>51</sup> An elasticity of taxable income of 0.3 is relatively standard in the public finance literature. <sup>52</sup> The net-of-tax rate is simply 1 minus the tax rate. <sup>53</sup> Deadweight loss, in turn, is the change in taxable income multiplied by the tax rate. <sup>54</sup> Thus, economists calculate the marginal change in deadweight loss from a tax reform by (1) multiplying the elasticity of taxable income by the percent change in the net-of-tax rate to arrive at the percent change in taxable income; (2) multiplying that percent change by total taxable income to arrive at the dollar change in taxable income; and (3) multiplying that dollar change by the tax rate to arrive at the deadweight loss effect. <sup>55</sup>

Here, the baseline net-of-tax rate is 0.6 (i.e., 1 minus 40 percent). The hypothetical power plant emissions standard, which operates like a 0.02 percent income surtax, reduces the net-of-tax rate by 0.0002. Thus, the hypothetical regulation effectuates a change in the net-of-tax rate of -0.0002/0.6, or -0.0333 percent. With an elasticity of 0.3 and a change in the net-of-tax rate of -0.0333 percent, the hypothetical regulation reduces taxable income by 0.01 percent. Here, taxable income at baseline is the same as Person A's market income—\$100,000—so the regulation reduces taxable income by 0.01 percent of \$100,000, or \$10. In other words, now that the benefit of moving

<sup>50.</sup> See, e.g., Martin Feldstein, Tax Avoidance and the Deadweight Loss of the Income Tax, 81 Rev. Econ. & Stat. 674, 674 (1999).

<sup>51.</sup> Caroline E. Weber, Toward Obtaining a Consistent Estimate of the Elasticity of Taxable Income Using Difference-in-Differences, 117 J. Pub. Econ. 90, 90 (2014).

<sup>52.</sup> See Nathaniel Hendren, Measuring Economic Efficiency Using Inverse-Optimum Weights, J. Pub. Econ., July 2020, at 1, 8.

<sup>53.</sup> Weber, *supra* note 51, at 90 n.1.

<sup>54.</sup> A companion paper explores—in much more detail—the use of the elasticity of taxable income to calculate the deadweight loss of redistributive regulations. *See generally* Hemel, *supra* note 6.

<sup>55.</sup> Id. at 409.

from a low-income area to a high-income area is slightly smaller (because the low-income area has better air quality than before), and the amount of electricity that one can buy with additional income is also slightly smaller, Person A chooses to earn \$99,990 rather than \$100,000.

TABLE 3: TAXES AND TRANSFERS AFTER POWER PLANT EMISSIONS
STANDARD

	Taxable Income	Tax (40%)	Demogrant	Income After Tax and Demogrant
$Person\ A$	\$99,990	\$39,996	\$19,998	\$79,992
Person~B	\$0	\$0	\$19,998	\$19,998
Total	\$99,990	\$39,996	\$39,996	\$99,990

One might think that a \$10 reduction in Person A's income when the income tax rate is 40 percent would translate to a \$6 reduction in Person A's wealth, since Person A would typically keep \$6 out of every \$10 that she earns. However, when wealth is defined to include the monetary value of leisure, the effect of an income change on wealth is more subtle. If Person A is choosing her labor effort optimally, she will be roughly indifferent between earning slightly more income and enjoying slightly more leisure time. Thus, when Person A reduces her after-tax income by \$6, the direct effect on her wealth (before factoring in any changes to the size of the demogrant) is approximately zero: Person A has less income, but she has more leisure time, which she values about as much as the lost income.

Society as a whole, though, is not indifferent as to whether Person A earns \$100,000 (with slightly less leisure) or \$99,990 (with slightly more leisure). When Person A's income falls from \$100,000 to \$99,990, her tax liability—given a 40 percent linear income tax—falls from \$40,000 to \$39,996. The \$4 reduction in revenue means that the government has \$4 less to spend on public goods, publicly provided private goods, and cash transfers. That \$4 reduction in revenue translates to a \$4 increase in deadweight loss—society's total wealth has declined by \$4. Given our assumption that revenues are rebated to individuals as demogrants, the \$4 reduction in revenue results in a \$2 reduction in each person's demogrant.

Taking the deadweight loss of redistribution into account, the effect of the hypothetical regulation on wealth is -\$2: the effect on schmealth (i.e., the sum of CVs, or \$2) minus the deadweight loss of redistribution (\$4). In this example, the hypothetical regulation passes the schmealth test but flunks the wealth test. The reason, once again, is that wealth includes changes in the deadweight loss of redistribution whereas schmealth does not.

TABLE 4: EFFECT OF POWER PLANT EMISSIONS STANDARD ON WEALTH

	CV	Δ After-Tax Income	Δ Money Value of Leisure	$\Delta$ Demogrant	Δ Wealth
PersonA	-\$9	-\$6	\$6	-\$2	-\$11
Person~B	\$11	\$0	\$0	-\$2	\$9
Total	\$2	-\$6	\$6	-\$4	-\$2

We might pause here to ask *why* traditional CBA does not account for changes in the deadweight loss of redistribution. The answer is that the Kaldor-Hicks standard is a *potential* Pareto criterion. A policy that passes the sum-of-CVs test (and that also passes the sum-of-equivalent-variations test<sup>56</sup>) *could* be combined with transfers such that the overall result is to benefit everyone and thus to increase total wealth. However, if these transfers do not occur, the end result will not necessarily be wealth-increasing.

To illustrate, consider again the hypothetical power plant emissions standard for which higher-income Person A's CV is -\$9 and lower-income Person B's CV is \$11. Now imagine that the regulation is combined with a transfer of \$11 from Person B to a communal pot and a transfer of \$9 from the communal pot to Person A. Both Person A and Person B would be exactly as well off as they were under the pre-regulation status quo. For Person A, market income of \$100,000 would be associated with an ultimate income including regulatory net benefits—of \$80,000.57 For Person B, a market income of \$0 would be associated with an ultimate income including regulatory net benefits—of \$20,000.58 Neither Person A nor Person B would have an incentive to adjust labor supply relative to the status quo because the relationship between market income and ultimate income would be unchanged.<sup>59</sup> Meanwhile, \$2 would be left in the communal pot. If the \$2 were distributed pro rata (\$1 to Person A and \$1 to Person B), the effective tax rate also would remain unchanged. Thus, total wealth would rise by \$2. If a larger share of the surplus in the communal pot were distributed to Person A. the effective tax rate would fall, Person A's labor effort would increase, and total wealth would rise by more than \$2. If a larger share were

<sup>56.</sup> Hicks, supra note 41, at 33–35; Adler & Posner, supra note 40, at 190.

<sup>57.</sup> Person A would earn \$100,000 of market income, pay \$40,000 in taxes, receive a \$20,000 demogrant, receive a regulatory net benefit of -\$9 (i.e., a net cost of \$9), and receive a compensating transfer of \$9.

<sup>58.</sup> Person B would earn no market income, pay no taxes, receive a \$20,000 demogrant, receive a regulatory net benefit of \$11, and pay a compensating transfer of \$11.

<sup>59.</sup> See Louis Kaplow, A Unified Perspective on Efficiency, Redistribution, and Public Policy, 73 NAT'L TAX J. 429, 435, 443–44 (2020).

distributed to Person B, the effective tax rate would rise, Person A's labor effort would decrease, and total wealth would rise by less than \$2.

In other words, the hypothetical regulation, when combined with compensating transfers, could raise total wealth by an amount equal to, greater than, or less than the sum of CVs. However, if no compensating transfers occur, the same hypothetical regulation will reduce total wealth. Thus, the difference between the schmealth and wealth standards might be understood as a difference between potential wealth maximization and actual wealth maximization. Because traditional CBA applies a *potential* Pareto standard, it is unconcerned with whether—as a matter of fact—compensating transfers actually occur. Yet the regulation's effect on wealth depends critically on whether those transfers actually take place.

# 3. Schmelfare (Revised Circular A-4)

Neither the schmealth standard nor the wealth standard explicitly accounts for the potential redistributive benefits of regulations. For the sum-of-CVs (schmealth) test, the relative income of the winners and losers has no bearing on the analysis (except insofar as income affects the monetary values that winners and losers assign to regulatory benefits and costs). For the wealth standard, a more regressive distribution of net benefits is actually a plus because it reduces the deadweight loss of redistribution. One of the Biden administration's main objectives in issuing Revised Circular A-4 was to incorporate a concern for distribution—missing from traditional CBA—into regulatory analysis.<sup>60</sup>

Revised Circular A-4 encourages agencies to perform distributional analyses as part of their CBAs, though it does not make distributional analysis a hard-and-fast requirement.<sup>61</sup> For agencies that take up OMB's suggestion to quantify distributional consequences, Revised Circular A-4 provides an overarching analytical framework. Under that framework, an agency first divides the population into groups—for example, by income decile or income quintile.<sup>62</sup> Second, the agency estimates benefits and costs for each identified group.<sup>63</sup> Third, the agency calculates a "distributional weight" for each group based on group members' marginal utility of income.<sup>64</sup> Finally, the agency multiplies each group's CV by its

<sup>60.</sup> REVISED CIRCULAR A-4, supra note 7, at 2-3, 15, 19.

<sup>61.</sup> Id. at 61.

<sup>62.</sup> See id. at 63.

<sup>63.</sup> See id. at 64.

<sup>64.</sup> See id. at 65. The body test of Circular A-4 uses the term "marginal utility of goods" rather than marginal utility of income. Id. at 65. However, the footnotes to Circular A-4 states that agencies should calculate marginal utilities based on income after taxes and transfers. See id. at 66–67 nn.124–26.

distributional weight.<sup>65</sup> The agency may choose to use the sum of weighted CVs as its "primary estimate of net benefits," or it may use the sum of weighted CVs as a supplement while relying primarily on the sum of unweighted CVs.<sup>66</sup>

Unsurprisingly, the results of the sum-of-weighted-CVs test will depend critically on the specification of weights. Revised Circular A-4 adopts a utilitarian approach to weighting: an individual's distributional weight is equal to her marginal utility of an extra dollar (and thus a group's weight is equal to the marginal utility of an extra dollar for its members).<sup>67</sup> To calculate marginal utilities, Revised Circular A-4 follows the common assumption that utility is an "isoelastic" function of income. 68 The key parameter in the isoelastic utility function is the absolute value of the "income elasticity of marginal utility" (labeled  $\varepsilon$  in Revised Circular A-4), which reflects the speed at which the marginal utility of income declines. 69 The first derivative of the isoelastic utility function is equal to an individual's income (y) raised to the power of negative  $\varepsilon$ . <sup>70</sup> Thus, in symbolic terms,  $v^{-\epsilon}$  is the marginal utility of a dollar for an individual with income of y.<sup>71</sup> Revised Circular A-4 simplifies the arithmetic by setting y equal to 1 for the median-income subgroup, such that y for everyone else is the ratio between their income and the median.<sup>72</sup>

To illustrate, traditional CBA's sum-of-unweighted-CVs test corresponds to an  $\varepsilon$  value of 0.73 Any number raised to the power of 0 is 1, so an  $\varepsilon$  value of 0 means that everyone's dollars receive the same weight. A logarithmic utility function corresponds to an  $\varepsilon$  value of 1. When  $\varepsilon$  equals 1, an individual's weight is equal to her income raised to the power of -1, or 1 divided by her income. Thus, when income doubles, the marginal utility of income declines by half. A value of  $\varepsilon$  above 1 indicates that the marginal utility of income declines even faster than the logarithmic function implies.

Revised Circular A-4 adopts an  $\varepsilon$  value of 1.4.74 When  $\varepsilon$  equals 1.4, a doubling of income means that the marginal utility of income declines by approximately 62 percent.<sup>75</sup> While an  $\varepsilon$  value of 1.4 is on the higher side of values derived from the economic literature on the

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65. See id. at 66.
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<sup>66.</sup> Id. at 65-66.

<sup>67.</sup> Id. at 65.

<sup>68.</sup> *Id.* at 66; see also Hemel, supra note 6, at 435–36.

<sup>69.</sup> See REVISED CIRCULAR A-4, supra note 7, at 66 n.126.

<sup>70.</sup> Hemel, *supra* note 6, at 435–36.

See id.

<sup>72.</sup> See REVISED CIRCULAR A-4, supra note 7, at 66 n.126.

<sup>73.</sup> See Adler, supra note 1, at 592.

<sup>74.</sup> See REVISED CIRCULAR A-4, supra note 7, at 66–67, 74 n.149.

<sup>75.</sup>  $1-2^{-1.4}\approx 0.62$ .

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wage elasticity of labor supply, 76 it is relatively close to the value of 1.3 that the United Kingdom uses in CBA.<sup>77</sup> It is also broadly consistent with estimates of  $\varepsilon$  from a variety of other sources.<sup>78</sup>

To see how the sum-of-weighted-CVs test would operate with an  $\varepsilon$  value of 1.4, consider again (though not for the last time) our hypothetical power plant emissions standard. Recall that Person A's CV was -\$9 and Person B's CV was \$11 (Table 1). Recall as well that Person A's income after taxes and transfers was \$80,000 and Person B's income after taxes and transfers was \$20,000 (Table 2).<sup>79</sup> To simplify the arithmetic, we will normalize income so that y equals 4 for Person A and 1 for Person B. Thus, Person A's welfare weight is equal to 4<sup>-1.4</sup>, or approximately 0.144, while Person B's welfare weight is 1. Person A's weighted CV is approximately -1.296 (i.e., 0.144 × -\$9), while Person B's CV remains 11 after weighting. The sum of weighted CVs is therefore 9.704. The regulation, which narrowly passed the traditional sum-of-unweighted-CVs test, now passes the sum-of-weighted-CVs test by a wide margin.

<sup>76.</sup> See Raj Chetty, A New Method of Estimating Risk Aversion, 96 Am. Econ. REV. 1821, 1822 (2006) (arriving at a mean value of 0.71, with minimum and maximum values ranging from 0.15 to 1.78, based on 33 sets of estimates of the wage and income elasticity of labor supply).

<sup>77.</sup> HM Treasury, The Green Book: Central Government Guidance on APPRAISAL AND EVALUATION 97 (2022), https://perma.cc/2K3D-R6X7.

<sup>78.</sup> For example, a recent meta-analysis of 158 studies—not limited to studies of the wage elasticity of labor supply—arrived at a mean  $\varepsilon$  estimate of 1.61, with a 95% confidence interval ranging from 1.18 to 2.04. See Daniel J. Acland & David H. Greenberg, Distributional Weighting and Welfare/Equity Tradeoffs: A New Approach, 14 J. Benefit-Cost Analysis 68, 76 (2023).

<sup>79.</sup> Since CVs are based on the state of the world following adoption of the policy, weighted CVs would—logically—be based on income in that state of the world rather than income under the status quo. However, Revised Circular A-4 does not provide agencies with any guidance regarding the estimation of deadweight loss, so agencies following Revised Circular A-4 to a tee would not have any method for estimating post-policy income. As a practical matter, the difference between the two sets of weights is likely to be inconsequential. For example, using post-tax-and-transfer incomes from Table 3 (and normalizing income such that y = 1 for Person B) would result in a weight on Person A of  $(\$79,992/\$19,998)^{-1.4}$ , which still rounds to 0.144.

TABLE 5: EFFECT OF POWER PLANT EMISSIONS STANDARD ON WELFARE WITHOUT DEADWEIGHT LOSS (SCHMELFARE)

	Unweighted CV	Income After Tax and Demogrant	Welfare Weight $(\varepsilon = 1.4)$	Weighted CV
Person A	-\$9	\$80,000	0.144	-1.296
$Person\ B$	\$11	\$20,000	1	11
Total	\$2	\$100,000	_	9.704

As an arithmetic matter, calculating the sum of weighted CVs is relatively straightforward once one knows the CVs for each income group and the value to use for  $\varepsilon$ . As a conceptual matter, though, it is hard to explain what exactly the sum of weighted CVs is measuring. In an addendum to Revised Circular A-4, OMB states that "[i]ncomeweighted estimates of net benefits are interpretable as the regulation's effect on total welfare, where welfare is denominated in units of dollars for the median American."80 But this is not correct: just as the sum of unweighted CVs fails to account for the deadweight loss of redistribution, the sum of weighted CVs also fails to account for the deadweight loss of redistribution. And just as deadweight loss affects total wealth, so too does it affect total welfare. Thus, the sum of unweighted CVs is perhaps better understood as measuring a regulation's effect on "schmelfare": the effect on welfare minus any change in welfare resulting from changes in the deadweight loss of redistribution.

## 4. Welfare

A full welfare analysis would consider both the distributional benefits and deadweight loss generated by redistributive regulations. To see how this would play out for our hypothetical power plant standard, consider again the wealth analysis in Table 4. There, we concluded that—after taking into account the deadweight loss of redistribution—the regulation would reduce the wealth of Person A by \$11 and increase the wealth of Person B by \$9. The only further step to translate wealth effects into welfare effects is to multiply the effect on each person's wealth (final column of Table 4) by the person's welfare weight (second-to-last column of Table 5). This procedure results in a welfare effect of -1.584 for Person A and 9 for Person B, for a total effect on welfare of (positive) 7.416. Put another way, the total welfare gain from the regulation is equal to the welfare gain of giving \$7.416 to a person with an after-tax income of \$20,000.

TABLE 6: EFFECT OF POWER PLANT EMISSIONS STANDARD ON WELFARE WITH DEADWEIGHT LOSS

	Δ Wealth	Welfare Weight $(\varepsilon = 1.4)$	Δ Welfare
$Person\ A$	-\$11	0.144	-1.584
Person~B	\$9	1	9
Total	-\$2	_	7.416

In this case, the hypothetical regulation remains welfare-increasing even after we incorporate the deadweight loss of redistribution into the calculation. However, the positive effect of the regulation falls by nearly a quarter from Table 5 (schmelfare) to Table 6 (welfare). For other configurations of CVs, incorporating the deadweight loss of redistribution will have an outcome-determinative effect on CBA: a regulation may have a positive sum of weighted CVs—it may increase schmelfare—while reducing welfare (or vice versa).<sup>81</sup>

For example, imagine that Person A's CV for our hypothetical regulation were -\$16 instead of -\$9, and that Person B's CV were \$4 instead of \$11. Assume that Person A and Person B have the same income as above, the tax-and-transfer schedule remains the same as above, and the elasticity of taxable income remains 0.3. Again, the net benefits to an individual from the regulation would fall by \$20 when her pre-tax-and-transfer income rises by \$100,000—effectively, a 0.02 percent income surtax—and thus the deadweight loss from the regulation would be the same as above (\$4). Now, the sum of weighted CVs for the regulation (schmelfare) would be positive (1.696), but the effect on total welfare—accounting for deadweight loss—would be negative (-0.592). In other words, the schmelfare and welfare standards would render opposite verdicts on the regulation.

TABLE 7: EFFECTS OF REVISED POWER PLANT EMISSIONS STANDARD

	Unweighted CV	Welfare Weight	Weighted CV	Δ Demogrant	Δ Wealth	Δ Welfare
Person A	-\$16	0.144	-2.304	-\$2	-\$18	-2.592
Person B	\$4	1	4	-\$2	\$2	2
Total	-\$12	_	1.696	-\$4	-\$16	-0.592

<sup>81.</sup> For another illustrative example of a regulation that satisfies the schmelfare standard but fails the welfare standard, see Hemel, *supra* note 6, at 422 tbl.2.

To recapitulate, the traditional test for CBA—the sum of unweighted CVs ("schmealth")—is not the same as a wealth-maximization standard because the sum of unweighted CVs does not account for the deadweight loss of redistribution. Likewise, Revised Circular A-4's suggested test—the sum of weighted CVs ("schmelfare")—is not the same as a welfare standard for the same reason: It fails to account for the deadweight loss of redistribution. This Part has clarified the distinctions among schmealth, wealth, schmelfare, and welfare. The more difficult question—with which we will wrestle in the next part—is how regulatory policymakers should choose among these competing criteria for CBA.

## II. CHOOSING A CRITERION FOR COST-BENEFIT ANALYSIS

Before we can choose a criterion for CBA, we need to identify the "meta-criteria" that we will use to evaluate the competing criteria. This Part introduces four potential meta-criteria and evaluates the four standards from Part I—schmealth, wealth, schmelfare, and welfare—in light of those four meta-criteria.

# A. Welfare Measurement

The primary goal of CBA is to advance welfare. 82 Thus, an obvious meta-criterion is how well a CBA standard measures a regulation's ultimate effect on welfare. One might think that this meta-criterion would always—and tautologically—favor welfare. After all, how better to measure a regulation's effect on welfare than to measure its effect on welfare? Yet as we shall soon see, there may be circumstances in which the schmealth standard performs as well as—or even better than—the welfare standard in identifying regulations that are welfare-enhancing in the long run.

The welfarist argument for the schmealth standard comes in two versions: the "optimal tax" version and the "crowding out" version. We will consider each in turn and then take stock of the implications for regulatory policymaking.

#### 1. Optimal Taxation

The "optimal tax" version of the welfarist argument for a schmealth standard originates with a 1979 article by the economists Aanund Hylland and Richard Zeckhauser.<sup>83</sup> Hylland and

<sup>82.</sup> See Eric A. Posner & Cass R. Sunstein, Moral Commitments in Cost-Benefit Analysis, 103 VA. L. REV. 1809, 1825 (2017) ("Cost-benefit analysis is not justified if it fails to advance welfare, and even if it does so, it might be criticized if it interferes with important nonwelfarist goals . . . .").

<sup>83.</sup> Aanund Hylland & Richard Zeckhauser, Distributional Objectives Should Affect Taxes but Not Program Choice or Design, 81 SCANDINAVIAN J. ECON. 264, 265–66 (1979). Steve Shavell subsequently extended the Hylland-Zeckhauser argument to an environment with externalities. See Steven Shavell.

Zeckhauser's argument assumes that the government has set the taxand-transfer schedule so that, at the margin, the social benefit of a small increase in the effective tax rate (and resulting increase in the demogrant) equals the social cost associated with a small increase in deadweight loss.<sup>84</sup> As we shall soon see, though, the optimal tax argument can potentially survive even if we ultimately reject the assumption that the tax-and-transfer schedule is optimal.

Above, we saw that redistributive regulations affect social welfare through three channels. First, regulations generate direct benefits and costs that are captured by the traditional schmealth test (i.e., the sum of CVs). 85 Second, redistributive regulations raise social welfare by shifting resources from higher-income individuals with lower welfare weights to lower-income individuals with higher welfare weights. 86 Third, redistributive regulations reduce social welfare by reducing government revenue (which translates into welfare losses for individuals through the effect on the quantity of public goods, publicly provided private goods, or the size of the demogrant). 87 When the tax-and-transfer schedule is optimal, the second and third effects offset each other, at least for small changes in the amount of redistribution. 88 We can therefore judge whether a regulation increases or decreases social welfare by focusing only on the first effect (the sum of CVs).

Importantly, the optimal tax argument for the schmealth standard does not require the tax-and-transfer schedule to be optimal in all respects. It simply requires that the tax-and-transfer schedule strikes the welfare-maximizing balance between the social benefits and costs of additional redistribution. For example, the optimal tax argument stands even if—say—the carbon tax is too low or tax incentives for homeownership are too generous, as long as the overall balance between redistribution and deadweight loss is roughly right.

Moreover, even if the tax-and-transfer schedule is not optimal, the optimal tax argument can survive if the regulatory policymaker

A Note on Efficiency vs. Distributional Equity in Legal Rulemaking: Should Distributional Equity Matter Given Optimal Income Taxation?, 71 Am. Econ. Rev. 414, 415–16 (1981).

<sup>84.</sup> Notably, the optimal tax assumption does not imply a utilitarian social welfare function. For example, if the government adopts an extremely prioritarian social welfare function and judges policies based only on their effects on the worst-off members of society, then the optimal tax system would be the one that raises as much revenue as possible from higher-income individuals and redistributes it all to lower-income individuals. At that point, the revenue gain from a slight increase in the tax rate would approximately equal the revenue loss, and small changes in the tax rate would not have first-order effects on welfare.

<sup>85.</sup> See Hemel, supra note 6, at 407–12; REVISED CIRCULAR A-4, supra note 7, at 4–5; Adler, supra note 1, at 592.

<sup>86.</sup> See Hemel, supra note 6, at 407.

<sup>87.</sup> Id. at 407–08.

<sup>88.</sup> Id. at 428.

also controls taxes and transfers. For example, the argument implies that a President with the support of majorities in the House and Senate should direct federal executive agencies to apply the schmealth standard in the regulatory context and should pursue distributional objectives through tax-and-transfer legislation. By following that strategy, the President will simplify regulatory analysis for agencies under her direction (because, as we will see in Section II.D, the schmealth test is much easier to apply in practice than the full welfare test). Since tax-and-transfer reforms can be passed with a simple majority through the budget reconciliation process, the assumption that a President will be able to enact her policy priorities through legislation is more realistic in the tax-and-transfer context than in many others.<sup>89</sup>

# 2. Crowding Out

What if the tax-and-transfer schedule is not optimal and the regulatory policymaker cannot adjust it (or cannot adjust it sufficiently to achieve her distributional objectives)? Even then, there remains a case for continuing to use schmealth as the criterion for regulatory analysis. If the tax-and-transfer system is not optimal from the regulatory policymaker's perspective, then presumably that is because the policymakers who control the tax-and-transfer schedule—in the U.S. context, Congress<sup>90</sup>—do not share the regulatory policymaker's distributional preferences. In that event, whether the regulatory policymaker should apply a schmealth standard or a welfare standard will depend—at least in part—on her expectations about how Congress will respond to redistributive regulations.

One version of the crowding-out argument posits that whenever any regulation or other policy change alters the income distribution, Congress will adjust the tax-and-transfer schedule to restore—precisely—the distribution that existed before the change.<sup>91</sup> Lee Fennell and Richard McAdams, who reject the crowding-out argument, frame the crowding-out claim this way: "whatever redistribution the current political equilibrium allows is exactly the amount that will occur, no more and no less, regardless of the methods of redistribution."<sup>92</sup> Fennell and McAdams describe this

<sup>89.</sup> See Hemel, supra note 31, at 724–27. Note as well that even without a congressional majority, presidents can adjust the amount of redistribution—sometimes quite significantly—through tax and transfer regulations. See id. at 727–29; Daniel J. Hemel, The President's Power to Tax, 102 CORNELL L. REV. 633, 646–75 (2017).

<sup>90.</sup> See U.S. CONST. art I, § 8, cl. 1.

<sup>91.</sup> See Fennell & McAdams, supra note 22, at 1117–20.

<sup>92.</sup> See id. at 1070.

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extreme version of the crowding-out argument as "the distributive invariance hypothesis."93

Complete crowd-out on a precisely dollar-for-dollar basis (i.e., "distributive invariance") is highly unlikely. Congress does not keep a running tally of all the changes in the wealth distribution resulting from federal regulations (or, if Congress does keep score, it has miraculously managed to keep its count a secret for all of these years). Moreover, the distributional results of federal regulations are often unclear. For example, the economist Antonio Bento observed in a 2013 literature review that "existing research tends to point toward the likely regressivity of environmental policy,"94 but Bento and coauthors concluded in a 2015 study that the benefits of the 1990 Clean Air Act Amendments "were in fact progressive," contrary to the conclusion of the literature review two years earlier.95 For complete crowd-out to occur. Congress would need to resolve questions about distributional incidence that have bedeviled social scientists—it would need to know the precise distributional effects of each regulation even while economists and scholars continue to debate those effects.

If crowd-out is not complete (and if the tax system is not optimal), then the schmealth standard does not provide an accurate yardstick for a regulation's welfare effects. But what the legal literature on CBA has failed to appreciate is that the near-inverse conclusion applies to the welfare standard: If crowd-out is greater than zero (and if, again, the tax system is not optimal), then the welfare standard also does not accurately measure the welfare effects of redistributive regulations. If regulatory redistribution leads to any reduction in redistribution via the tax-and-transfer system, then estimates of the distributional benefits and deadweight loss of redistributive regulations will be exaggerated unless those estimates take into account the partially offsetting effects of tax-and-transfer changes. Put another way, just as the schmealth standard relies on a very strong assumption about crowding out (i.e., that crowd-out is complete), the welfare standard relies on an equally strong but diametrically opposite assumption: that no crowd-out occurs at all.

How plausible is it that regulatory redistribution has no effect on redistribution via the tax-and-transfer system? The benchmark model of redistribution in the political economy literature introduced in an enormously influential 1981 article by Allan Meltzer

<sup>93.</sup> See id. at 1055 (defining the "distributive invariance hypothesis" as the claim "that the same distributive result will be achieved regardless of how legal rules are configured or how entitlements to resources are assigned").

<sup>94.</sup> Antonio M. Bento, Equity Impacts of Environmental Policy, 5 ANN. REV. Res. Econ. 181, 193 (2013).

<sup>95.</sup> Antonio M. Bento et al., Who Benefits from Environmental Regulation? Evidence from the Clean Air Act Amendments, 97 Rev. Econ. & Stat. 610, 610 (2015).

and Scott Richard—posits that the amount of redistribution in a society is a function of (a) the degree of inequality and (b) the marginal deadweight loss of redistribution. Find the Meltzer-Richard model, lower inequality and higher marginal deadweight loss lead to less redistribution. Find the Meltzer-Richard hypothesis is correct (and we will return to this "if" in a moment), then regulatory redistribution—which reduces inequality and increases deadweight loss at the margin—should lead to less redistribution through other channels. In other words, the implicit empirical premise underlying the welfare standard requires a rejection of the Meltzer-Richard hypothesis.

Before proceeding further, it is worth emphasizing that according to standard economic assumptions, regulatory redistribution not only increases total deadweight loss but also increases marginal deadweight loss. 98 One way to illustrate this phenomenon is through the elasticity of taxable income formula in Section I.B.2. When the baseline entails no redistribution, the net-of-tax rate is 1: an individual keeps every dollar of market income that she earns. Thus a 1 percentage point increase in the tax rate reduces the net-of-tax rate from 1 to 0.99—a reduction of 1 percent. When the baseline entails substantial redistribution—say, a tax rate of 50 percent—then the net-of-tax rate is 0.5. A 1 percentage point increase in the tax rate reduces the net-of-tax rate from 0.5 to 0.49—a reduction of 2 percent. Since marginal deadweight loss scales with the change in the net-oftax rate, and the change in the net-of-tax rate for any given change in redistribution is higher when the baseline amount of redistribution is higher, the marginal deadweight loss of redistribution will be higher when there is more redistribution.99

There are at least two causal mechanisms through which more regulatory redistribution might lead to less redistribution via the tax-and-transfer schedule. First, if congressmembers consider the Meltzer-Richard factors (i.e., the existing level of inequality and the marginal deadweight loss of redistribution) when setting the tax-and-transfer schedule, then they should favor less redistribution when inequality is lower and marginal deadweight loss is higher. Second, even if individual members of Congress do not consider these factors at all, voters may respond to higher levels of inequality by supporting pro-redistribution candidates and may respond to higher levels of deadweight loss by supporting candidates who promise to cut taxes. When those candidates win elected office, they presumably will tend to favor policies consistent with their ideological preferences. Thus, regulatory redistribution may crowd out legislative redistribution

<sup>96.</sup> See Allan H. Meltzer & Scott F. Richard, A Rational Theory of the Size of Government, 89 J. Pol. Econ. 914, 916 (1981).

<sup>97.</sup> See id. at 924.

<sup>98.</sup> See Hemel, supra note 6, at 417–18.

<sup>99.</sup> See, e.g., Feldstein, supra note 50, at 674–76.

through the tax-and-transfer schedule even if no individual lawmaker consciously considers regulatory redistribution when crafting tax-and-transfer measures.

Those, at least, are the *theories* behind the crowding-out claim. <sup>100</sup> What about the empirical evidence? Evidence for—and against—the crowding-out claim comes from three sources: (1) studies that examine the effect of inequality on preferences for redistribution; (2) studies that examine the effect of inequality on actual redistribution; and (3) studies that specifically examine the effect of redistributive changes in non-tax legal rules on redistribution via the tax-and-transfer system.

Starting with the effect of inequality on preferences for redistribution: Economists Marina Agranov and Thomas Palfrey conducted a laboratory experiment in which 228 participants worked on effortful tasks and decided collectively on redistributive policies over nine two-hour sessions. <sup>101</sup> By varying the wage rates paid to different participants, Agranov and Palfrey sought to test how changes in wage inequality and voting rules affect redistributive preferences and outcomes. <sup>102</sup> Their results indicate that wage inequality has a large and significant effect on redistribution: more inequality leads participants to vote for more redistributive policies—at least inside the laboratory. <sup>103</sup>

Other studies examine the effect of inequality on redistribution outside the laboratory by tracking changes in preferences over time. For example, sociologists Leslie McCall and Lane Kenworthy use data from the General Social Survey to examine how Americans' views about redistribution evolved in the 1980s and 1990s—a period in which income inequality increased by most measures. <sup>104</sup> Consistent with the hypothesis that higher inequality leads to greater support for redistribution, the authors find that "Americans have become increasingly concerned about inequality" since the 1980s and that "support for government action to address it has risen." <sup>105</sup> However,

<sup>100.</sup> In theory, crowd-out could exceed 100 percent if an increase in redistribution sparks an anti-redistribution backlash. *Cf.* William A. Fischel, *How* Serrano *Caused Proposition 13*, 12 J.L. & Pol. 607, 608–09 (1996) (arguing that a California Supreme Court decision requiring redistribution from high-income to low-income school districts led to the passage of a ballot initiative that constrained redistribution going forward). Alternatively, redistributive policies could have a "crowding-in" effect insofar as they reduce the political power imbalance between high-income and low-income groups, thus facilitating further progressive reforms.

<sup>101.</sup> Marina Agranov & Thomas R. Palfrey, *Equilibrium Tax Rates and Income Redistribution: A Laboratory Study*, 130 J. Pub. Econ. 45, 49 (2015).

<sup>102.</sup> *Id.* at 56.

<sup>103.</sup> Id. at 49, 56.

<sup>104.</sup> Leslie McCall & Lane Kenworthy, Americans' Social Policy Preferences in the Era of Rising Inequality, 7 Persps. on Pol. 459, 467–68 (2009).

<sup>105.</sup> Id. at 473.

the government actions that Americans tend to favor in response to rising inequality are "not traditional redistributive programs." Rather, McCall and Kenworthy identify a link between rising inequality and increased support for redistributive non-tax-and-transfer policies such as expansions of educational opportunities. NcCall and Kenworthy's findings suggest the possibility of crowd-out through a different mechanism from the one envisioned by the standard version of the crowding-out claim: non-tax-and-transfer policies that effectively reduce inequality may weaken support for other non-tax-and-transfer policies that reduce inequality, even if they have no effect on explicit taxes and transfers.

A second line of research focuses on the effect of inequality on actual redistribution rather than preferences for redistribution. Most prominently, economist Branko Milanović examines the effect of income inequality on redistribution across twenty-four countries over more than two decades. 108 Milanović's regression analysis uses country fixed effects to control for longstanding cross-national differences in redistributive preferences (e.g., the fact that Swedes tend to prefer more redistribution than Americans and Brits). 109 The fixed-effects approach allows Milanović to isolate the relationship between changes in inequality and redistribution within each country over time. 110 Using several different definitions of inequality and redistribution, Milanović consistently finds that more inequality leads to more redistribution through the tax-and-transfer system. 111 This finding, again, accords with (though falls far short of proving) the claim that at least some amount of crowding out occurs: if regulatory redistribution reduces inequality, and lower inequality leads to less redistribution via the tax-and-transfer system, then we would expect regulatory redistribution also to reduce redistribution via the tax-and-transfer system. A subsequent study by Kenworthy and political scientist Jonas Pontusson reaches conclusions that are broadly consistent with Milanovic's: "countries that have experienced greater increases in market inequality also exhibit larger increases in redistribution."112

Importantly, neither the first nor second set of studies directly examines the effect of regulatory redistribution on the tax-andtransfer system. Instead, they examine the effect of inequality on

<sup>106.</sup> Id.

<sup>107.</sup> See id. at 467–68, 473.

<sup>108.</sup> Branko Milanović, *The Median-Voter Hypothesis, Income Inequality, and Income Redistribution: An Empirical Test with the Required Data*, 16 Eur. J. Pol. Econ. 367, 367, 372 (2000).

<sup>109.</sup> See id. at 385, 388.

<sup>110.</sup> See id.

<sup>111.</sup> See id. at 384-89.

<sup>112.</sup> Lane Kenworthy & Jonas Pontusson, Rising Inequality and the Politics of Redistribution in Affluent Countries, 3 Persps. on Pol. 449, 450 (2005).

redistributive preferences and outcomes. From those findings, we might (but might not) infer that inequality-reducing regulations will set off a causal chain reaction ending in tax-and-transfer changes. Isolating the effect of any given rule change on the tax-and-transfer system is difficult because there are many legal reforms occurring around the same time and many other factors that affect tax-and-transfer policies. However, a handful of studies have used legislative mandates and court decisions as natural experiments to estimate the effect of plausibly exogeneous rule changes on state-level taxes and transfers.

One such study, by economist Katherine Baicker, analyzes the effect of federally mandated increases in state Medicaid spending on other channels of state-level redistribution. 113 In the 1980s, Congress required that states extend Medicaid coverage to pregnant women and children up to the age of six in families with incomes up to 133 percent of the federal poverty line. 114 As Baicker notes, the new federal mandate "affected some states more than others: states that were already covering more of the mandated group experienced smaller budget shocks from the introduction of the federal mandate."115 The 1980s Medicaid expansions thus generated a natural experiment that allows researchers to estimate the effect of exogenous increase in redistribution in one domain redistribution in other domains. 116 Baicker's topline result is that increases in Medicaid spending led to decreases in other forms of redistribution. 117 In her instrumental-variables estimation, she finds that "[flor every additional dollar spent on Medicaid, about 40 cents is taken away from other public welfare spending."118 This finding is consistent with a theory of partial—but not complete—crowd-out: slightly under half of the federally mandated increase in redistribution via Medicaid is effectively clawed back through cuts to other redistributive programs.

In a subsequent study, Baicker, along with fellow economist Nora Gordon, examines the effect of court-ordered state school finance reforms on other spending programs. Starting with the California Supreme Court's 1971 decision in *Serrano v. Priest*, 20 courts in more than twenty states have ordered state legislatures to revise school

<sup>113.</sup> See Katherine Baicker, Government Decision-Making and the Incidence of Federal Mandates, 82 J. Pub. Econ. 147, 148 (2001).

<sup>114.</sup> See Federal Legislative Milestones in Medicaid and CHIP, MACPAC (2024), https://perma.cc/7NT8-ZPEL.

<sup>115.</sup> Baicker, supra note 113, at 158.

<sup>116.</sup> See id. at 149-50.

<sup>117.</sup> Id. at 177-78.

<sup>118.</sup> *Id.* at 165.

<sup>119.</sup> See Katherine Baicker & Nora Gordon, The Effect of State Education Finance Reform on Total Local Resources, 29 J. Pub. Econ. 1519, 1520 (2006). 120. 487 P.2d 1241 (Cal. 1971).

financing formulas so that lower-income districts receive more generous state funding.121 These decisions, like the congressional Medicaid mandates, provided a series of natural experiments that allow researchers to examine the effect of an increase in redistribution within the education domain on redistribution elsewhere. Here, Baicker and Gordon find less crowd-out than Baicker identified in the Medicaid context: approximately one-third of the average increase in state aid to local public schools in the aftermath of a court decision is offset by cuts to public welfare, health, and hospital spending. 122 Moreover, the spending cuts in the aftermath of state court decisions disproportionately affect higherincome counties. 123 For example, a county with median family income one standard deviation below the statewide mean experiences an increase in state school aid of \$111 per capita and a decrease in other state aid of \$22 per capita. 124 By that measure, only about one-fifth of the increase in redistribution to low-income counties in the education domain is offset by cuts to redistribution in other domains.

Finally, and most recently, the legal scholar and economist Zachary Liscow studies the effect of the same court-ordered state school finance reforms on state taxes and spending. Liscow finds that these court decisions led to a large and statistically significant increase in state taxes, with most of that increase coming from state income taxes (typically the most progressive source of state tax revenue). These rate increases are not targeted at low-income taxpayers. Moreover, and in contrast to Baicker and Gordon, Liscow finds no statistically significant effects on states noneducation expenditures. As Liscow concludes, these results provide "significant evidence against the notion that taxes offset the distributional consequences of changes in legal rules" provide under the crowdout claim.

Summing up: The empirical evidence from congressionally mandated Medicaid expansions and court-ordered state school finance reforms is mixed. In the former case, Baicker's 2001 study yields evidence of partial crowd-out. <sup>130</sup> In the latter case, Baicker and

<sup>121.</sup> See Baicker & Gordon, supra note 119, at 1520.

<sup>122.</sup> See id. at 1530 tbl.3a.

<sup>123.</sup> See id. at 1529, 1531.

<sup>124.</sup> See id.

<sup>125.</sup> Zachary Liscow, Are Court Orders Sticky? Evidence on Distributional Impacts from School Finance Litigation, 15 J. Empirical Legal Stud. 4, 4–5 (2018).

<sup>126.</sup> See id. at 20 tbl.6.

<sup>127.</sup> See id. at 22 tbl.9.

<sup>128.</sup> See id. at 20 tbl.7.

<sup>129.</sup> Id. at 37.

<sup>130.</sup> See Baicker, supra note 113, at 171-72.

Gordon's study reveals less crowd-out, and Liscow's careful analysis of tax responses finds no crowd-out.<sup>131</sup> In all of these cases, the change in redistribution also coincided with a large budget shock, raising the question of whether other changes in redistribution that do not directly affect government spending have the same net effect. So in short, we have a theoretical basis for the crowd-out claim, some evidence that is consistent with the full or partial crowd-out claim (including studies of the effect of inequality on redistributive preferences and outcomes plus Baicker's 2001 analysis of Medicaid expansions), and some evidence that contradicts the crowd-out claim (most powerfully, Liscow's analysis of school finance litigation).<sup>132</sup>

What do these conclusions mean for the debate between schmealth and welfare? Again, if one believes that complete crowdout occurs, then the schmealth standard provides the best measure of a regulation's welfare effect because any increase in redistribution resulting from the regulation will be offset by reductions in redistribution elsewhere. Both the distributional benefits and deadweight loss of redistributive regulations are thus illusory. And if one rejects the crowd-out claim entirely, then the welfare standard provides the best measure of a regulation's welfare effect because the distributional and deadweight-loss consequences of redistributive regulations are sticky. Neither the 100 percent crowd-out assumption nor the zero percent crowd-out claim is fully supported by the limited empirical evidence.

One possible approach might be for CBA practitioners to split the difference between schmealth and welfare. For example, agencies might assume—consistent with Baicker's Medicaid study—that 40 percent of the distributional effect of any regulation will be offset by changes in redistribution elsewhere. Thus the hypothetical power plant regulation analyzed in Table 6—instead of reducing Person A's wealth by \$11 and increasing Person B's wealth by \$9—would reduce Person A's wealth by only 60 percent of \$11 and would increase Person B's wealth by only 60 percent of \$9. An agency might then apply the same OMB-prescribed welfare weights to these more muted wealth effects, yielding a smaller effect on total welfare (see Table 8). Moreover, if regulatory policymakers think that the 40 percent crowd-

<sup>131.</sup> See Baicker & Gordon, supra note 119, at 1531–32; Liscow, supra note 125, at 33–34.

<sup>132.</sup> Empirical estimates of crowd-out may be underestimates insofar as they fail to account for very long-run changes. As David A. Weisbach notes, "we should not expect the tax law to immediately and separately respond to each" change in a non-tax rule. See David A. Weisbach, Constrained Income Redistribution and Inequality: Legal Rules Compared to Taxes and Transfers 21 (U. Chi. Coase-Sandor Inst. for L. & Econ., Rsch. Paper No. 969, 2023), https://perma.cc/2KEK-3MFU. Instead, tax rules may change over time to reflect aggregate changes in after-tax income inequality, in which case crowd-out still may occur but may be submerged in the data.

out estimate is too high or too low, they can easily run the same analysis with larger or smaller crowd-out percentages.

TABLE 8: EFFECT OF POWER PLANT EMISSIONS STANDARD ON WELFARE WITH DEADWEIGHT LOSS AND PARTIAL CROWD-OUT

	$\Delta$ Wealth (Pre-Crowd-Out)	$\Delta$ Wealth (40% Crowd-Out)	Welfare Weight $(\varepsilon = 1.4)$	$\Delta$ Welfare
Person A	-\$11	-\$6.60	0.144	-0.950
Person~B	\$9	\$5.40	1	5.40
Total	-\$2	-\$1.20	_	4.45

To be sure, a shift from schmealth or welfare to a partial crowdout approach would impose an additional analytical burden on agencies—a subject to which we will return in Section II.D. As we will see there, the incremental burden may be quite small once an agency already has conducted a welfare analysis. But importantly, the argument here is not that agencies should adopt the partial crowdout assumption. We can evaluate the partial crowd-out assumption not as a viable policy proposal but as a thought experiment to imagine how CBA might look if the primary goal were to estimate a regulation's ultimate welfare effect. The key takeaway from the thought experiment is that neither the schmealth standard nor the welfare standard provides an accurate estimate of a regulation's ultimate welfare effect unless one adopts extreme assumptions about the extent of crowd-out.

## B. Decision-Maker Competence

Welfare measurement is not the only meta-criterion that regulatory policymakers might care about when choosing among CBA standards. A second potentially significant meta-criterion is decision-maker competence: Who is in the best position to make distributional decisions for a society? Relative to the schmealth standard, the welfare standard gives federal executive agencies a larger role in distributional decision-making. That shift implicates issues of technical expertise and democratic legitimacy.

One problem with asking all agencies to apply a welfare standard, according to Weisbach, is that it is assigns the task of redistribution to agencies that may lack "any particular expertise in distributive issues." As Weisbach argues, "[t]he government pursues a large number of different objectives, each requiring

<sup>133.</sup> David A. Weisbach, Distributionally Weighted Cost-Benefit Analysis: Welfare Economics Meets Organizational Design, 7 J. LEGAL ANALYSIS 151, 176 (2015).

specialization," and it "assigns tasks to agencies who have expertise in these tasks." <sup>134</sup> Thus, for example, "the Postal Service does not set monetary policy"; "[a]ir traffic controllers do not approve drugs"; and "[t]he Forest Service does not set education policy." <sup>135</sup> By parity of reasoning, these agencies should not be assigned distributional tasks because redistribution lies well outside their core competency. <sup>136</sup>

Weisbach is surely right that distributional issues lie far outside the core area of expertise for many federal executive agencies. Yet the welfare standard's defenders might plausibly offer the following response: Application of the welfare standard does not, in practice, require agencies such as the Federal Aviation Administration or the Forest Service to make judgments about the elasticity of taxable income or the welfare weights of different income groups. A central regulatory policymaker—for example, OMB—can set parameters based on its expertise, and other executive agencies can then incorporate those parameters into their CBAs. In much the same way, when agencies must estimate the economic growth rate in order to project the long-term costs and benefits of regulations, they do not construct their own macroeconomic models but instead borrow parameters from agencies with relevant expertise (e.g., OMB or the Congressional Budget Office). 137 Likewise, when agencies must calculate the negative externalities of carbon emissions generated by their regulations, they typically rely on estimates from the Interagency Working Group on Social Cost of Greenhouse Gases rather than coming up with their own estimates de novo. 138

The possibility of outside estimates from an expert agency reduces the force of the technical-expertise critique. Indeed, as noted above, OMB already generates an estimate of the elasticity of marginal utility—the rate at which the marginal utility of income declines. OMB's assigned task is to "oversee" the implementation of the President's vision across the Executive Branch," a task description that would appear to encompass distributional issues when redistribution is a key component of the "President's vision." Moreover, OMB employs a chief economist who often is an expert on

<sup>134.</sup> Id. at 152.

<sup>135.</sup> Id. at 157.

<sup>136.</sup> See id.

<sup>137.</sup> See, e.g., Off. of the Assistant Sec'y for Plan. & Evaluation, U.S. Dep't of Health & Hum. Servs., Guidelines for Regulatory Impact Analysis 16 (2016).

<sup>138.</sup> See, e.g., National Performance Management Measures, 23 C.F.R. § 490 (2023).

<sup>139.</sup> See supra text accompanying notes 69-74.

the efficiency and welfare effects of redistribution.<sup>141</sup> For example, the OMB chief economist from 2022 to 2023, Zachary Liscow, had—as an academic—written extensively and incisively on precisely this subject.<sup>142</sup> To be sure, asking agencies to estimate the distributional impacts of their regulations—a necessary step in welfare analysis—does impose an additional analytical burden on agencies (a subject to which we will return in Section II.D). Perhaps our conclusion there will be that *no* agency should be required to estimate the distributional impacts of regulations. But if *someone* is going to estimate—for example—the distributional impacts of an FAA or Forest Service regulation, it is hard to imagine any agency better suited to that task than the FAA or the Forest Service.

A second version of the decision-maker-competence argument for a schmealth standard over the welfare standard shifts focus from technical expertise to democratic legitimacy. According to this argument, legislatures—and in particular, the most electorally accountable chamber of the legislature—ought to have primary responsibility for distributional decision-making for reasons of political theory. It is this view, the problem with federal executive agencies applying the welfare standard is that the welfare standard requires judgments about the appropriate amount of redistribution and deadweight loss—judgments that instead ought to be made in the first instance by directly elected lawmakers. It

The idea that distributional decision-making ought to lie with the legislature traces at least as far back as the Magna Carta, which limited the Crown's power to impose taxes without the consent of a "common counsel" comprising clergymen and nobles. 146 Power over taxation continued to be contested in England for several more centuries, but finally in the 1690s, "the Commons effectively won the exclusive right to manage all revenues." 147 Several of the post-Revolutionary U.S. state constitutions carried over the requirement that all tax measures must be passed in the first instance by the lower chamber of the state legislature (the analogue to the Commons). 148 The framers of the federal Constitution incorporated this idea into the

<sup>141.</sup> See Professor Liscow Appointed Chief Economist at White House Budget Office, Yale L. Sch.: News (Aug. 24, 2022), https://perma.cc/2333-HBWH.

<sup>142.</sup> See, e.g., Liscow, supra note 125, at 4; Liscow, supra note 22, at 1649; Zachary Liscow, Redistribution for Realists, 107 IOWA L. REV. 495, 498–99 (2022).

<sup>143.</sup> See, e.g., Ronald J. Krotoszynski, Jr., Reconsidering the Nondelegation Doctrine: Universal Service, the Power to Tax, and the Ratification Doctrine, 80 Ind. L.J. 239, 246 (2005).

<sup>144.</sup> See id.

<sup>145.</sup> See id. at 245-47.

<sup>146.</sup> See Priscilla H.M. Zotti & Nicholas M. Schmitz, The Origination Clause: Meaning, Precedent, and Theory from the 12th to 21st Century, 3 Brit. J. Am. Legal Stud. 71, 75–78 (2014).

<sup>147.</sup> Id. at 78.

<sup>148.</sup> See id. at 85–91.

Origination Clause, which provides that "[a]ll Bills for raising Revenue shall originate in the House of Representatives." <sup>149</sup>

According to Rebecca Kysar, the rationale for the origination requirement "was that the lower house was in closer communication with the citizens, and thus its members were in a better position to judge the optimal level of taxation." Over time, the Origination Clause has lost much of its bite, as the Supreme Court has permitted the Senate to engage in a game of "shell-bill" avoidance—taking a tax measure that originated in the House, striking out everything except the enacting clause, and inserting a Senate-crafted measure as an "amendment" to the House-originated bill. Yet as Ronald Krotoszynski observes, the Origination Clause still "reflects a symbolic commitment to the principle that those who tax must be accountable to the people." That commitment may have normative force even though the Origination Clause has become toothless.

Drawing on the values reflected by the Origination Clause, proponents of the schmealth standard might argue that federal executive agencies should defer to Congress's distributional judgments. That is, agencies should assume that Congress has struck the optimal balance between distributional benefits and deadweight loss. And recall that when distributional benefits and deadweight loss are equal at the margin, the schmealth standard tells us whether a regulation has a positive or negative effect on social welfare. <sup>153</sup> By contrast, the welfare standard involves agencies second-guessing Congress's distributional decisions.

To this argument, proponents of the welfare standard might offer two responses: one formalist, another functionalist. The formalist defense of the welfare standard would emphasize that the Origination Clause applies only to tax-related measures, not to other legal rules with distributional and deadweight-loss effects that are analogous to (in some cases, identical to) tax measures. According to the Supreme Court, measures that come within the scope of the Origination Clause are "those that levy taxes in the strict sense of the word." A nontax regulation—even a non-tax regulation that redistributes income and generates deadweight loss—is not a revenue-raising bill for purposes of the origination requirement.

The formalist argument is correct on its own terms, but it is not entirely satisfying. Granted, there is nothing *unconstitutional* about

<sup>149.</sup> U.S. CONST. art. I, § 7, cl. 1.

<sup>150.</sup> Rebecca M. Kysar, On the Constitutionality of Tax Treaties, 38 Yale J. Int'l L. 1, 7 (2013).

<sup>151.</sup> See Rebecca M. Kysar, The 'Shell Bill' Game: Avoidance and the Origination Clause, 91 Wash. U. L. Rev. 659, 661–63 (2014).

<sup>152.</sup> Krotoszynski, *supra* note 143, at 259.

<sup>153.</sup> See supra Section I.B.1.

<sup>154.</sup> Twin City Nat'l Bank of New Brighton v. Nebecker, 167 U.S. 196, 202 (1897); accord United States v. Munoz-Flores, 495 U.S. 385, 397 (1990).

federal executive agencies second-guessing Congress's distributional judgments, but such second-guessing still is *inconsistent* with the notion that the legislative branch should have primary responsibility for distributional matters. The functionalist defense of the welfare standard takes issue with that latter notion, contesting the claim that Congress has any democratic-legitimacy advantage over the executive branch in the distributional domain.

The affirmative case for assigning distributional decisions to the executive branch emphasizes the legitimating role of presidential elections. For members of the House or Senate, reelection may depend upon the ability to bring pork-barrel benefits back home to their district or state. By contrast, as Jerry Mashaw emphasizes, "issues of national scope and the candidates' positions on those issues are the essence of presidential politics." Although voters are unlikely to cast their ballots based on their approval or disapproval of CBA methodologies, they might plausibly vote based on—or have their votes influenced by—the alignment between the President's distributional vision and their own views. Thus, when OMB establishes a parameter value for the elasticity of marginal utility, it is arguably translating not only the President's distributional vision but also the preferences of the electorate into technical terms.

The case for executive-branch primacy in distributional matters also can be framed negatively: Congress, at least as currently constituted, lacks the democratic legitimacy that American political theorists sometimes ascribe to it. House districts are severely gerrymandered: most seats are "safe seats"—soundly under the control of one party or the other—and the members who occupy those seats have only weak electoral incentives to respond to voter preferences. The Supreme Court's decision in *Rucho v. Common Cause*, 156 The Supreme Court's decision in *Rucho v. Common Cause*, 157 in which the Justices abdicated authority to police partisan gerrymandering, 158 will likely lead to the practice's further proliferation. The Senate, for its part, reflects small states' populationally disproportionate influence, which—in turn—tends to bias outcomes in a conservative direction. 159 Of course, presidential elections are not entirely majoritarian either: as the 2000 and 2016 elections demonstrated, a popular-vote loser still can prevail in the

<sup>155.</sup> Jerry L. Mashaw, Prodelegation: Why Administrators Should Make Political Decisions, 1 J.L. Econ. & Org. 81, 95 (1985).

<sup>156.</sup> For recent empirical evidence, see Christopher T. Kenny et al., Widespread Partisan Gerrymandering Mostly Cancels Nationally, but Reduces Electoral Competition, PNAS, June 2023, at 1, 4–5.

<sup>157. 139</sup> S. Ct. 2484 (2019).

<sup>158.</sup> See id. at 2506–07 (holding that partisan gerrymandering presents a nonjusticiable political question).

<sup>159.</sup> See Richard Johnson & Lisa L. Miller, The Conservative Policy Bias of US Senate Malapportionment, 56 PS: Pol. Sci. & Pol. 10, 16 (2023).

Electoral College. 160 But in light of gerrymandering and Senate malapportionment, Congress's claim to be the "most democratic branch" 161 is far from axiomatic.

Ultimately, the question of whether Congress or the President has a stronger claim to democratic legitimacy lies beyond the scope of this Article. (Indeed, the question would likely require not just an article but a book.) The answer depends—at least in part—on mutable factors such as the prevalence of gerrymandering (which may vary over time based on the frequency of state court interventions. the popularity of independent redistricting the Supreme Court's commissions, and perhaps reconsideration of Rucho), the severity and ideological skew of Senate malapportionment (which also may change over time based on population patterns and shifting partisan alignments), 162 and the progress of the movement for a National Popular Vote Interstate Compact. 163 If one views democratic legitimacy not only in terms of electoral accountability but also in terms of opportunities for participation, then the answer also may depend upon procedural aspects of regulation and lawmaking—for example, the extent to which individuals and interest groups can voice their views on distributional matters through public comment (on the regulatory side) and committee hearings (on the legislative side). OMB, for its part, solicited public comments as part of its Circular A-4 revision, 164 while Congress increasingly rushes major legislation—including distributional legislation—through the bicameral process without extensive committee hearings or floor debate. 165 These factors, too, are variables, not constants. The upshot is that the decision-maker competence meta-criterion—at least insofar as we understand competence in democratic rather than technocratic terms—may favor legislative responsibility for distributional decisions under one set of political conditions and executive responsibility under others.

The valence of the decision-maker competence meta-criterion may vary not only cross-temporally but also cross-sectionally (i.e., across agencies and jurisdictions). For example, presidential elections

<sup>160.</sup> See Agreement Among the States to Elect the President by National Popular Vote, NAT'L POPULAR VOTE (Apr. 24, 2024), https://perma.cc/J7QX-FHPJ.

<sup>161.</sup> See Nina A. Mendelson, Foreword: Rulemaking, Democracy, and Torrents of E-Mail, 79 Geo. Wash. L. Rev. 1343, 1347 (2011).

<sup>162.</sup> See Johnson & Miller, supra note 159, at 11–16 (charting the policy bias of Senate malapportionment from 1961 to 2019).

<sup>163.</sup> As of late 2024, seventeen states and the District of Columbia had enacted laws pledging their Electoral College delegates to the national popular vote winner, contingent upon jurisdictions representing an Electoral College majority doing the same. See NAT'L POPULAR VOTE, supra note 160.

<sup>164.</sup> Request for Comments on Proposed OMB Circular No. A-4, "Regulatory Analysis," 88 Fed. Reg. 20,915 (Apr. 7, 2023).

<sup>165.</sup> See Barbara Sinclair, Unorthodox Lawmaking: New Legislative Processes in the U.S. Congress 129 (5th ed. 2016).

may establish a stronger link between voter preferences and agency decisions in the context of non-independent agencies (e.g., the Protection Agency and the Department Environmental Transportation, whose Cabinet-level leaders are removable by the President without cause)166 than in the context of independent agencies (e.g., the Federal Trade Commission and the Securities and Exchange Commission, whose multimember boards are appointed to staggered terms and protected by for-cause removal restrictions). 167 Arguably, the welfare standard—which, again, involves the executive branch second-guessing Congress's distributional judgments—is more appropriate in the former context (where agency heads have a claim to democratic legitimacy on par with and potentially superior to Congress's) than in the latter context (where agency heads are less accountable electorally). Moreover, the decision-maker competence meta-criterion may shake out differently in different jurisdictions. For example, presidential elections may have a weaker legitimating effect on executive-branch distributional decision-making at the national level than gubernatorial elections do at the state level because of the peculiar presence of the Electoral College at the national level. And beyond the United States, arguments for the schmealth standard that are based on a Madisonian separation of powers between the legislative and executive branches will not map onto the institutional landscape of parliamentary democracies. One clear methodological implication is that the choice among CBA standards—though often considered the province of economists—is as much a matter of political as economic theory. It is a choice that necessarily reflects political conditions and political values—a reality that can be obscured by the technical terminology and mathematical models that characterize much of CBA.

#### C. Policy Stability

Policy stability is important to individuals because it allows them to construct and carry out long-term life plans. For example, an individual may choose a job with the expectation that specific Occupational Safety and Health Administration (OSHA) standards will protect her from workplace harms. If the relevant OSHA standards are rescinded, then the individual may be exposed to greater on-the-job dangers than she bargained for (or she may have to find employment elsewhere, which may entail uprooting her family). Policy stability is also important to firms when they are deciding whether to make new investments. Thus a potentially

<sup>166.</sup> Executive Agencies Under Federal Law, Justia (2024), https://perma.cc/6EJX-FT2N.

<sup>167.</sup> Id.

<sup>168.</sup> See, e.g., Jonathan Masur, Judicial Deference and the Credibility of Agency Commitments, 60 VAND. L. REV. 1021, 1041 (2007).

significant meta-criterion for CBA standards is whether a standard promotes or undermines policy stability.

Traditional CBA's schmealth standard offers one source of regulatory stability. CBA—or at least, the particular form of CBA that uses the schmealth standard as its test—"has proved resilient through presidential administrations of both parties." <sup>169</sup> Jonathan Masur argues that CBA is therefore "status-quo reinforcing" because it will "counsel rejection of any changes to the status quo that would not demonstrably produce greater benefits than costs." <sup>170</sup>

Yet as Masur emphasizes, the stabilizing function of CBA "depends...on the mechanics of CBA remaining relatively constant." As he elaborates, "[d]ifferent administrations could conceivably tinker with how their agencies conduct CBA to serve their own purposes," thus "usher[ing] in a period of 'cost-benefit oscillation,' which might then facilitate regulatory oscillation." In other words, politically charged changes to CBA standards may lead to administration-to-administration swings in regulatory content. Those administration-to-administration changes are not necessarily bad on net—they may enhance the regulatory state's responsiveness to changes in voter preferences—but they are clearly bad for policy stability.

Regulatory oscillation as a result of shifting CBA standards could play out in either of two ways. First, Democratic administrations applying the welfare standard may choose welfare weights and estimates of the elasticity of taxable income that reflect a view that the tax-and-transfer system redistributes too little. Republican administrations, when they come to power, may restore the pre-November-2023 schmealth status quo. Thus, every four, eight, or twelve years, CBA may swing from a welfare standard to a schmealth standard, with individual regulations being reevaluated under the newly regnant criterion.<sup>173</sup>

<sup>169.</sup> Jonathan S. Gould, Cost-Benefit Analysis in Polarized Times, 75 Admin. L. Rev. 695, 710 (2023). Gould offers several potential explanations for CBA's persistence. Id. at 710–21. For example, the practice facilitates presidential control over the administrative state by requiring agencies to justify their policies in a standardized format to OMB, which is an appendage to the White House. See id. at 710–13. For an early statement of this point, see Eric A. Posner, Controlling Agencies with Cost-Benefit Analysis: A Positive Political Theory Perspective, 68 U. Chi. L. Rev. 1137, 1141 (2001). Furthermore, the practice "benefits from path dependence" and—in particular—from the presence of career civil servants inside agencies who are committed to traditional CBA methods. See Gould, supra, at 718–19.

<sup>170.</sup> Jonathan S. Masur, *Regulatory Oscillation*, 39 YALE J. ON REG. 744, 760 (2022).

<sup>171.</sup> Id.

<sup>172.</sup> Id.

<sup>173.</sup> The discussion in this Section assumes that Democrats want more redistribution and Republicans want less. While this seems like a fair

Second, Republican presidents—who tend to believe that the tax-and-transfer system redistributes too much—may choose a CBA standard that counts a reduction in redistribution as a benefit (in contradistinction to the schmealth standard, which treats changes in redistribution neutrally). Particularly if Democratic administrations continue to follow the Biden administration's schmelfare standard (which considers distributional benefits but ignores deadweight loss), future Republican administrations might adopt a wealth standard, which ignores distributional benefits but accounts for deadweight loss. As the two-by-two matrix in Figure 1 illustrates, schmealth is a compromise position between the asymmetrical extremes of wealth and schmelfare. Especially if Democrats defect from the compromise in a pro-redistributive direction, Republicans may play tit-for-tat and defect in the opposite direction.

The possibility that Republican administrations might adopt the wealth standard (i.e., will ignore distributional benefits but account for deadweight loss) is not entirely fanciful. In 2019, President Trump's Council of Economic Advisers issued a report arguing that "[r]egulatory reviews . . . should routinely account for the excess burden of regulation," though it acknowledged that the practice "appears to be uncommon." The Council further clarified that "excess burden" in this context referred to the "deadweight loss of taxation"175—the same consideration that this Article has used to distinguish wealth from schmealth and welfare from schmelfare. And the report said nothing about accounting for distributional benefits only deadweight-loss costs. Thus, the Council appeared to be endorsing a wealth standard (as opposed to the schmealth standard then in effect). Federal agencies in the final two years of the first Trump administration do not appear to have taken up the Council's wealth-standard suggestion, which was buried deep inside a 705-page report. 176 But that was before the Biden administration adopted the schmelfare standard in its Revised Circular A-4. Conceivably, the incoming Trump administration or a future Republican regime might swing to the opposite asymmetrical extreme of a wealth standard rather than merely returning to the schmealth standard.

David Weisbach describes this as "the problem of reversals": Democratic administrations might adopt regulations that deviate from efficiency in a redistributive direction, Republican

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characterization of the current partisan-ideological alignment, it is possible that the parties could switch sides in the future, or a new major party could emerge. The substance of the analysis does not depend upon any particular partisan-ideological alignment, as long as some administrations favor more redistribution and other administrations favor less redistribution.

 $<sup>174.\,</sup>$  Council of Econ. Advisers, Economic Report of the President 116 (2019), https://perma.cc/92KL-4VEH.

<sup>175.</sup> Id. at 117.

<sup>176.</sup> See id.

administrations might adopt regulations that deviate from efficiency in a counter-redistributive direction, and the net effect may be no net change in the amount of redistribution (and no net change in the deadweight loss of redistribution) but a significant loss in efficiency terms. Those efficiency losses may take two forms. First, the sum of unweighted CVs for both the Democratic and Republican administrations' policies may be negative, since both administrations would be choosing policies based on non-schmealth standards. Second, the policy churn generated by reversals may generate transition costs of its own. According to the reversals argument, everyone would be better off if Democratic and Republican administrations could return to the cooperative equilibrium reflected by the schmealth standard—an equilibrium that lasted from the early 1980s until late 2023. 181

The regulatory oscillation concern (i.e., the problem of reversals) provides a powerful argument in favor of the schmealth standard. But proponents of the welfare standard are not entirely without a response. Welfare standard proponents might point out that Republican administrations could adopt the wealth standard regardless of what Democrats do. Alternatively, Republican administrations might stick to the schmealth standard when they are in charge. In the latter case, oscillation between the welfare standard and the schmealth standard still would lead to policy churn, but distributional neutrality under Republican rule would not entirely cancel out the Democrats' redistributive push. (This assumes that Democratic administrations would operationalize the welfare standard in such a way that redistribution would be scored as a welfare gain—a result that depends upon the particular welfare weights assigned to different income groups and the parameter value for the elasticity of taxable income.)

Without a crystal ball, we cannot know for sure whether one administration's adoption of the welfare standard (or the schmelfare standard) will lead to a tit-for-tat response from a future administration with different distributional preferences. The answer will depend upon political conditions—for example, how committed each administration is to its distributional agenda and how resolutely the civil service resists CBA-standard churn. Yet even if oscillations are less extreme than Weisbach's reversal argument imagines (for example, if Republicans restore the schmealth standard but go no further), the costs of policy instability are real costs that reduce overall welfare. This is one more way in which the application of a welfare standard might not yield welfare-enhancing results: not only

<sup>177.</sup> See Weisbach, supra note 132, at 28-31.

<sup>178.</sup> See id. at 28–33.

<sup>179.</sup> Id.

<sup>180.</sup> Id. at 29.

<sup>181.</sup> See id. at 29–30.

do regulatory policymakers need to consider the possibility of crowding out, but they also must contend with the concern that the costs of policy instability may swamp any welfare gains from moving the distributional dial.

#### D. Analytical Burden

There are at least two reasons why regulatory policymakers should be concerned about the analytical burdens imposed on agencies by different CBA standards. First, when agencies must devote significant resources to regulatory analysis (including employee time and data-collection expenses), they have fewer resources available for other priorities. Even if Congress provides agencies with additional funding to conduct CBAs, those additional funds must come at someone's expense (e.g., via cuts to other federal programs or increases in federal taxation). Second, when regulatory analysis is costly, agencies may try to avoid those costs by pursuing their policy priorities through non-rulemaking channels. 182 They may, for example, seek to regulate through case-by-case adjudications or informal guidance. Or they may choose not to regulate at all. Of course, if one believes that federal regulations have net-negative effects on social welfare, then one might celebrate the anti-regulatory effects of agency analytical burdens. But if one is, on the whole, proregulation—and in particular, if one believes that rulemaking carries important advantages over other forms of regulation in terms of transparency and efficacy—then the anti-regulatory effects of agency analytical burdens should be a more serious worry.

From an analytical-burden perspective, the schmealth standard enjoys a decisive advantage over the welfare standard. The schmealth standard requires agencies to calculate the sum of CVs but does not require agencies to determine the ultimate incidence of benefits and costs. For example, when a regulation raises costs for factories, the schmealth standard requires agencies to estimate those costs but does not require agencies to determine whether costs will be shifted to consumers through higher prices. Or when a regulation improves local air quality, the schmealth standard requires agencies to estimate the benefits of cleaner air but does not require agencies to determine whether those benefits will be passed on from tenants to landlords in the form of higher rents. By contrast, the welfare standard requires agencies to determine whether—and to whom—the costs and benefits of regulations will ultimately be shifted. Only then can agencies apply welfare weights and estimate the extent to

<sup>182.</sup> On the possibility that agencies may try to circumvent CBA mandates, see Jennifer Nou, *Agency Self-Insulation Under Presidential Review*, 126 HARV. L. REV. 1755, 1776–77 (2013).

<sup>183.</sup> See Hemel, supra note 31, at 720–23.

which changes in redistribution will lead to changes in deadweight loss

Heavier analytical burdens are not, on their own, a reason to reject a particular CBA standard. If the minimization of analytical burdens were the sole meta-criterion for choosing among CBA procedures, we would want to eliminate CBA altogether. However, if the other meta-criteria leave us in equipoise—or close to it—concerns about analytical burdens provide a reason to choose schmealth over welfare. Even if we conclude that the welfare standard leads to more socially beneficial regulations in individual cases (and that conclusion is far from clear based on the discussion in Sections II.A through II.C), the additional analytical burden of the welfare standard suggests a possible quality-quantity tradeoff: insofar as resource-constrained agencies apply the welfare standard in their CBAs, they may produce better regulations but also fewer of them.<sup>184</sup>

## E. Revisiting Wealth and Schmelfare

At the outset of this Part, we set aside the two asymmetrical standards (wealth and schmelfare) and focused on the two standards that treat distribution's benefits and costs symmetrically (schmealth and welfare). Our dismissal of wealth and schmelfare reflected more than an aesthetic preference for symmetry: distributional benefits and deadweight loss are two sides of the same coin, so it is fundamentally misleading to consider benefits without costs or vice versa. But before concluding our discussion, it is worth revisiting the two asymmetrical standards—at least briefly—to see if there is anything one can say in defense of either.

## 1. The Case for Wealth?

The case for the wealth standard—if one had to make such a case—would rest on a rejection of redistribution altogether. If one believes that society ought not redistribute from rich to poor, then one might ignore distributional benefits while counting the deadweight loss of redistribution as a cost. But even this extreme view would not fully establish the case for a wealth standard. One would also have to argue that federal executive agencies ought to countermand

<sup>184.</sup> Central regulatory policymakers may seek to alleviate analytical burdens by allowing agencies to *choose* between the schmealth standard and the welfare standard. Indeed, Revised Circular A-4 adopts precisely this approach. *See* Revised Circular A-4, *supra* note 7, at 61–62. One concern about optionality, though, is that agencies may choose whichever standard makes their regulations look better. Cherry-picking among CBA standards may, in turn, undermine one of CBA's goals: to ensure that agency decisions "are based on reasoned analysis and not . . . on the unaccountable whim of an official or a bargain-hunting special interest." RICHARD L. REVESZ & MICHAEL A. LIVERMORE, RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH 13 (2008).

Congress's redistributive efforts—in other words, to undo the balance between distributional benefits and deadweight loss that the legislature has struck.

This is a very difficult case to make. To be sure, some economists have—for many decades—rejected the idea of interpersonal utility comparisons in CBA.<sup>185</sup> Following in the tradition of Lionel Robbins, these economists believe that one person's marginal utility of income cannot be compared to another's and thus that shifting resources from high-income individuals to low-income individuals does not by itself generate a total welfare gain.<sup>186</sup> But even economists who reject interpersonal utility comparisons often agree that redistribution brings other benefits—for example, the satisfaction of altruistic preferences.<sup>187</sup> Thus, an argument against interpersonal utility comparisons still would not justify ignoring distributional benefits altogether.

Indeed, even hard-core libertarians and anarcho-capitalists who believe that taxation is theft would have a hard time justifying a wealth standard for CBA. A wealth standard would potentially lead agencies to adopt coercive regulations simply because those regulations reduce redistribution and thus reduce deadweight loss. For libertarians and anarcho-capitalists who believe that the problem with redistributive taxation is coercion, counter-redistributive but coercive regulations would seem to be no better. In short, there does not appear to be a coherent worldview—even when we look well beyond mainstream economic thought—that would be consistent with a wealth standard for CBA.

# 2. The Case for Schmelfare?

The case for a schmelfare standard is somewhat stronger than the case for a wealth standard—though still quite tenuous. The case could rest on either of two arguments. First, schmelfare-standard

<sup>185.</sup> See, e.g., Lionel Robbins, Interpersonal Comparisons of Utility: A Comment, 48 Econ. J. 635, 639–40 (1938).

<sup>186.</sup> See id. at 636-37.

<sup>187.</sup> See Alberto Alesina & Paola Giuliano, Preferences for Redistribution, in 1A HANDBOOK OF SOCIAL ECONOMICS 93 (Jess Benhabib et al. eds., 2010).

<sup>188.</sup> A third—and even weaker—argument for the schmelfare standard would highlight the lower analytical burden of the schmelfare standard relative to the welfare standard. The argument is weak because under both the schmelfare and welfare standards, agencies must estimate net benefits for each individual or income group. With those estimates in hand, it is relatively straightforward to calculate the deadweight loss of redistribution using the elasticity-of-taxable-income formula introduced in Section I.B; the hard part is figuring out the distribution of benefits and costs. Thus, the schmelfare standard is only slightly less burdensome to apply than the welfare standard. By contrast, the schmealth standard enjoys a large analytical-burden advantage relative to the others because it does not require analysts to estimate the distribution of benefits and costs.

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proponents might contest the claim that regulatory redistribution generates deadweight loss. The deadweight-loss claim follows straightforwardly from the usual premise in optimal tax theory that individuals act rationally to maximize utility from consumption and leisure, 189 but perhaps that usual premise is incorrect. Boundedly rational individuals may misunderstand the relationship between income and regulatory benefits, in which case they may fail to adjust their labor effort or other income-determining behavior in response to redistributive regulations. 190 In that case, or so the argument goes, regulatory redistribution might truly be a free lunch: it might offer the possibility of distributional benefits without the countervailing cost of deadweight loss.

There are several reasons to doubt the "zero deadweight loss" defense of the schmelfare standard. While the relationship between income and regulatory net benefits is sometimes subtle, at other times it is more salient. For example, some regulations (e.g., rules regarding federally subsidized loans to college students and their families)<sup>191</sup> explicitly condition benefits on reported income. There is at least some empirical evidence to suggest that individuals adjust their labor effort and savings in response to regulations that condition benefits on income. 192 Furthermore, redistributive regulations may

<sup>189.</sup> See Hylland & Zechkauser, supra note 83, at 265-69.

Cf. Hunt Allcott et al., Ramsey Strikes Back: Optimal Commodity Taxes and Redistribution in the Presence of Salience Effects (Nat'l Bureau of Econ. Rsch., Working Paper No. 24233, 2018) (questioning the premise that incomedetermining decisions fully reflect the effect of non-income taxes).

<sup>191.</sup> See, e.g., Improving Income Driven Repayment for the William D. Ford Federal Direct Loan Program and the Federal Family Education Loan (FFEL) Program, 88 Fed. Reg. 43,820 (July 10, 2023).

<sup>192.</sup> Two new papers bear directly on this question. First, Ning Zhang finds that Section 8 housing choice vouchers, which effectively impose a 30 percent marginal income tax on recipients, generate large negative effects on labor supply, though Zhang does not frame her findings in elasticity-of-taxable-income terms. Ning Zhang, The Effect of Housing Assistance Program on Labor Supply and Family Formation 3-4 (Ctr. for Econ. Stud., Working Paper No. CES-22-35, 2022), https://perma.cc/2JGH-3JYB. For broadly similar results, see also Brian A. Jacob & Jens Ludwig, The Effects of Housing Assistance on Labor Supply: Evidence from a Voucher Lottery, 102 Am. Econ. Rev. 272, 300 (2012). Second, Nick Gebbia estimates that the elasticity of taxable income with respect to the implicit tax imposed by college financial aid is approximately 0.10 for middleincome families and 0.28 for higher-income families. Nick Gebbia, Misperception and Income Response to Means-Tested Programs: Evidence from the College Financial Aid Implicit Tax 1, 2 (Nov. 27, 2023) (Ph.D. job market paper, University of California, Berkeley), https://perma.cc/9KG6-83AC. Gebbia's estimates fall within—though on the lower end of—the range of ETI estimates for explicit taxes, and they do not support the zero-deadweight-loss hypothesis. Id. at 5, 10. Note, though, that not all studies of income-contingent programs find significant effects on labor effort. See, e.g., Jack Britton & Jonathan Gruber, Do Income Contingent Student Loans Reduce Labor Supply?, ECON. EDUC. REV., Dec.

generate deadweight loss even if individuals are entirely unaware of the relationship between income and regulatory net benefits. For example, if regulations raise the price of consumption goods, and if individuals make labor supply decisions by comparing the utility of extra consumption against the opportunity cost of lost leisure, then rising prices may have a negative substitution effect on labor effort even if individuals do not know about the specific regulations that are driving prices up. Finally, a large-scale program of regulatory redistribution pursued through the broad application of the schmelfare standard may have significant effects on incomedetermining behavior even when one-off redistributive regulations do not. For example, under the pre-November-2023 schmealth status quo, some regulations had progressive redistributive effects, other regulations had regressive redistributive effects, and boundedly rational individuals might have chosen to ignore effects that were cross-cutting and roughly offsetting. Ignoring the distributional effects of specific regulations may be a form of "satisficing": achieving outcomes that are good enough given the cognitive costs of full optimization.<sup>193</sup> However, when the entire federal executive branch adopts a schmelfare standard and systematically seeks out regulations that redistribute from rich to poor, then individuals who previously ignored the cross-cutting distributional effects of regulations will have much stronger incentives to pay attention to and adjust their behavior in response to—regulatory redistribution.194

2020, at 1, 11–12 (null result for income-contingent student loan program in the United Kingdom).

193. See Herbert A. Simon, Rationality as Process and as Product of Thought, 68 AM, ECON, REV. 1, 8 (1978).

194. In a companion paper, I highlight the additional concern that the uncertainty implicit in a program of regulatory redistribution might exacerbate deadweight loss:

Imagine that the government announces that it will redistribute an unspecified amount from higher-income households to lower-income households each year....[I]ndividuals will develop their own expectations about the effective tax rates implied by the government's peculiar policy. If those expectations are on average correct, the deadweight loss will likely exceed the deadweight loss of an equivalent amount of redistribution via a pre-specified tax-and-transfer schedule because of the uncertainty baked into individual's expectations. Risk-averse individuals will prefer a guaranteed 40 % tax over a coin flip with a one-in-two chance of a 30 % tax and a one-in-two chance of a 50 % tax. Accordingly, the labor and savings disincentives of the certain tax.

Hemel, supra note 6, at 428.

A schmelfare standard might have implications similar to the hypothetical unspecified tax. In effect, the central regulatory policymaker who establishes the schmelfare standard would be "urging agencies to redistribute from higherA second argument for the schmelfare standard might acknowledge the possibility of deadweight loss but emphasize that the inevitable cost of redistribution cannot be incorporated into a social welfare function without making strong assumptions about the distribution of deadweight loss across the population. For example, in Section I.B.4, we made the simplifying assumption that any shortfall in government revenue would be distributed across the population on a per-capita basis through changes to the implicit or explicit demogrant. (Recall that in the "elasticity of taxable income" framework, deadweight loss manifests as a reduction in government revenue.) However, it is possible that the revenue shortfall could be offset by tax increases on the rich or by cuts to programs that primarily benefit the poor. Different assumptions about the distribution of deadweight loss will lead to different estimates of the relationship between deadweight loss and social welfare.

In general equilibrium analysis, assumptions about the policies that governments will adopt in response to budget deficits are known as "fiscal closure rules." Revised Circular A-4 instructs agencies to "take care to ensure that such rules do not inappropriately affect the results of your analysis." Revised Circular A-4 goes on to say specifically that fiscal closure rules should not be allowed to affect distributional analysis. OMB's rationale appears to be that because agencies do not know who will bear the consequences of deadweight loss, agencies should exclude deadweight loss from their primary estimates of a regulation's costs and benefits. 199

It is true, of course, that agencies rarely if ever know the identities or incomes of the individuals who will bear the burden of revenue shortfalls. The distribution of deadweight loss depends upon future tax and spending decisions, and even congressional leaders may not know how those decisions will play out. But even when we do not know where the deadweight loss of redistribution will ultimately fall (i.e., whose taxes will be increased or whose transfers will be cut to offset the budget shortfall), we know that deadweight loss—where it arises—will fall on someone (if not someone alive today, then future generations that must repay the federal debt that we incur now). The schmelfare standard implicitly assumes, instead, that the loss will fall on no one. The assumption in Section I.B—that deadweight loss will be distributed across the population on a per-

income households to lower-income households," but without specifying how much redistribution will ultimately occur. *See id.* at 429. This would potentially put individuals "in the same position as individuals in the thought experiment who face a progressive but unspecified tax-and-transfer schedule." *Id.* 

<sup>195.</sup> See supra Section I.B.4.

<sup>196.</sup> REVISED CIRCULAR A-4, supra note 7, at 43.

<sup>197.</sup> *Id*.

<sup>198.</sup> Id.

<sup>199.</sup> See id. at 43, 66-67.

capita basis—is almost certainly closer to reality than the assumption that deadweight loss disappears from the social welfare function.

#### CONCLUSION

The analysis so far has narrowed the field of CBA standards from four to two: wealth and schmelfare are easy enough to exclude, leaving schmealth and welfare as our finalists. Between the latter two, the Article's analysis not only fails to identify a clear winner but resoundingly rejects the idea of a one-size-fits-all solution. The key lesson from Part II is that the choice between the schmealth and welfare standards depends on political conditions and political values—factors that will change across time, across jurisdictions, and potentially across agencies. Rather than asking which standard to apply, we ought to ask: Under what circumstances will the welfare standard be preferable to the schmealth standard or vice versa?

The best-case scenario for the welfare standard might look something like the following: Imagine that the President's distributional preferences diverge markedly from the preferences of the median legislator. For example, a progressive President might support significantly more redistribution than a centrist or conservative congressional majority will countenance. Imagine, furthermore, that the President believes that her distributional preferences are broadly consistent with the electorate's and that Congress's democratic legitimacy is compromised by Senate malapportionment and House district gerrymandering. Suppose that the President believes—as then-President Obama declared in 2013 that economic inequality is "the defining challenge of our time," 200 potentially justifying extraordinary measures to narrow the income and wealth gaps. And imagine that the President enjoys sufficient support from a minority in the House or Senate such that if Congress seeks to countermand the President's redistributive efforts, the President can veto the counter-redistributive legislation and defeat a veto override.<sup>201</sup>

Under these circumstances, the President might reasonably choose to instruct agencies under her aegis to apply the welfare standard in their CBAs, with distributional weights and an elasticity-of-taxable-income value that favor further redistribution from rich to poor. To be sure, the President still might be concerned that her choice will lead to policy instability in the long run and might trigger a tit-for-tat response from more conservative administrations in the future. Furthermore, the President might worry that the analytical burdens of the welfare standard will consume agency resources that

<sup>200.</sup> Barack Obama, Remarks by the President on Economic Mobility (Dec. 4, 2013), https://perma.cc/PHT3-53VA.

<sup>201.</sup> See U.S. Const. art. I, § 7, cl. 2 (two-thirds of each house required for veto override).

could be better devoted to other endeavors and might cause agencies to issue fewer rules overall. Still, the President might reasonably conclude that the short-term welfare gains from regulatory redistribution justify the uncertain long-run consequences and the possible chilling effect on rulemaking activity (though she might reasonably reach the opposite conclusion too).

But the case for the welfare standard is fragile. For example, if the President enjoys the support of a decisive majority in Congress, then she may be able to achieve her optimal amount of redistribution through tax-and-transfer legislation, largely obviating the argument for redistribution via regulation.<sup>202</sup> At the other end of the spectrum, if the President lacks sufficient support in Congress to defeat a veto override, then she may not be able to move the distributional dial at all because a legislative supermajority will countermand her redistributive efforts. In that case, the welfare standard would saddle agencies with additional analytical burdens for little social benefit. And if we shift our focus from the President to other regulatory policymakers—in particular, the heads of independent agencies within the executive branch—then the case for the welfare standard becomes weaker still. For example, the Chair of the Federal Trade Commission—who is removable by the President only for cause<sup>203</sup> cannot easily argue that she enjoys an electoral mandate to impose her distributional preferences on the nation. And if the FTC Chair takes seriously the notion that Congress created independent agencies with partisan balance requirements and for-cause removal protections in order to sustain policy stability in areas where regulatory certainty is especially valuable, then the FTC Chair should be especially wary of choosing a CBA standard that is likely to lead to inter-administration swings that undermine Congress's plan.

Across all of these scenarios, economic analysis proves useful in clarifying what exactly each CBA standard measures. But economic analysis cannot tell any regulatory policymaker—whether a President, an OMB Director, or an FTC Chair—what standard to choose. Ultimately, each regulatory policymaker must reflect on her position within a larger constitutional scheme to decide whether she should seek to impose her own distributional preferences or defer to the judgments of other actors. And at a tactical level, regulatory policymakers who are inclined toward the former approach must survey the political environment to determine whether—even if they want to implement their own distributional preferences—they are likely to succeed, and if so, at what cost.

<sup>202.</sup> See supra Section II.A.1. Similarly, the head of government in a parliamentary democracy will often enjoy a parliamentary majority that allows her to achieve her redistributive priorities through tax-and-transfer measures.

<sup>203. 15</sup> U.S.C. § 41; Humphrey's Ex'r v. United States, 295 U.S. 602, 629 (1935) (interpreting 15 U.S.C. § 41 to forbid removal of the Federal Trade Commission chair without cause).

By excavating the economic foundations of conflicting CBA standards—and by translating those substrata into terms that noneconomists can comprehend—the Article encourages a wider range of scholars and commentators to participate in CBA debates. The choice among CBA standards implicates not only the shape of specific regulations but also the design of our republican government including the separation of powers between the executive and legislature, the role of independent agencies, and the relationship between one presidential administration and the next. More than a matter of microeconomics, these are matters of the macro-structure of American public law. "Schmealth" and "schmelfare" may be whimsical neologisms, but by allowing us to understand how the traditional and distributionally weighted forms of CBA relate to the more familiar concepts of wealth and welfare, these new words direct our attention back to some of the oldest and hardest questions facing the administrative state.