Here we consider six potential counterarguments to our paper, “Regulating Internalities.” This is a general rebuttal, not a specific counterargument against Dudley and Mannix (2015), which appears in this same edition; but we believe that the arguments that we rebut include the major claims set out in that paper.

**Argument 1: Internalities do not exist.**

Such an argument is difficult to square with a large and growing body of research showing that consumers can be present-biased, overoptimistic, inattentive, and misinformed in some settings; see DellaVigna (2009) for a review. Of course, there are...
many other settings where we do not make systematic mistakes, so policymakers need contextually relevant empirical evidence. And it is important to note that the magnitude of the internalities, when they exist, may be either small or large.

**Argument 2:** *As a general principle, governments should never interfere in individual decisions unless there is harm to others.*

This idea raises deep philosophical questions (see Conly, 2012; Rebonato, 2011; Sunstein, 2013), which we cannot engage here. Many policies (seat belt laws, product safety regulations, etc.) enjoy broad support even though a paternalistic justification is hard to avoid, which suggests that most people do not think that the government should *never* act paternalistically (Conly, 2012; Sunstein, 2013). In markets where there are internalities, numerous papers have shown theoretically that taxes or other forms of government intervention can increase welfare (Allcott, Mullainathan, & Taubinsky, 2014; Heutel, 2011; O'Donoghue & Rabin, 2006, etc.), and our simple model (shown earlier in our Point article for this section) gives the basic intuition for this result. Of course, the fact that policy *can* increase welfare does not mean that *any* policy will increase welfare—each specific proposal requires cost-benefit analysis.

**Argument 3:** *Policymakers should not impose their preferences on constituents.*

We agree with this argument. The central feature of the approach we advocate is that policymakers are not imposing their own preferences on constituents. Instead, policymakers should set and evaluate policy to match individuals’ own preferences from the subset of contexts when they are fully informed, making active choices, and fully considering present and future costs and benefits.

**Argument 4:** *Policymakers should maximize behavior change instead of maximizing welfare.*

While economists hardly ever make this argument, it frequently arises in environmental and health policy debates. For example, one reading of some provisions of the Clean Air Act is that the EPA must impose economically and technically feasible requirements instead of maximizing net benefits. In the health context, one might argue that some foods be taxed or banned because they are unhealthy, without regard for how sugar, salt, and fat can make food taste better. We think that welfare maximization is the right criterion (for one explanation, see Sunstein, 2014; on the notion of welfare, see Adler, 2011). Energy conservation and healthy eating can produce large gains, but their socially optimal quantities are not infinite, so we must use cost-benefit analysis to determine the social optimum.

**Argument 5:** *Policymakers should not regulate internalities without solid evidence that consumers are biased.*

Taken in one sense, this statement is important and unobjectionable; policies should always be supported by solid evidence. Taken in another sense, however, the statement is more provocative; it suggests a strong presumption against regulation based on internalities. We believe that policymakers should use the best available evidence, and should not adopt any such presumption.

Indeed, key features of the rational model such as the discounted utility model originated as mathematically convenient modeling tools, not as accurate descriptions of human behavior (Frederick, Loewenstein, & O'Donoghue, 2002). Even as he formalized the discounted utility model, Samuelson (1937) wrote that “any connection between utility as discussed here and any welfare concept is disavowed,” adding that “it is completely arbitrary to assume that the individual behaves so as to maximize an integral of the form envisaged.” It is not clear why a model introduced for mathematical convenience should become the “null hypothesis” if a modified version could be more descriptively accurate in a given situation.
If a policymaker is risk neutral and uncertain about the average marginal bias, uncertainty about internalities enters the optimal subsidy formula just like heterogeneity in bias. For example, imagine that the policymaker believes that there is a 50 percent chance that there is no bias and a 50 percent chance that the average marginal bias is $2b_1$. The optimal subsidy is still $(2b_1 + 0)/2 = b_1$, just as in the case with heterogeneous bias when the policymaker knows with certainty that the average is $b_1$. Thus, being uncertain about bias is not a reason to avoid regulation. Of course, being uncertain about whether there is a bias at all (e.g., suggesting that the average marginal bias is 0 when it was previously thought to be $b_1$) does imply that the optimal corrective policy is less stringent, or even that the optimal policy is to do nothing.

This is just a special case of a broader issue: policymakers almost always act with imperfect information, whether regulating internalities, providing public goods, or acting in any other traditional function. When maximizing expected welfare under uncertainty, uncertainty does not generically imply that the optimal policy is to do nothing.

**Argument 6: Regulators make mistakes, so they should not regulate in response to consumer mistakes.**

Glaeser (2006) provides three models under which bounded rationality reduces the quality of government decisionmaking more than it reduces the quality of private decisionmaking, implying that bounded rationality strengthens the case for limited government. His three models show that (1) regulators have less incentive to make the right decisions for consumers than consumers do for themselves; (2) if errors come from the influence of firms or interest groups, it is easier to “buy” a small number of regulators than a large number of consumers; and (3) individuals have more incentives when making private decisions than they do when voting, so elected politicians are less likely to have the right views on how to interfere.

We would make two notes about Glaeser’s argument. First, while the models focus on paternalistic policies, the results would also generalize to regulation in traditional spheres such as regulating externalities or providing public goods. Thus, while bounded rationality strengthens the case for limited regulation in these models, this is true for all kinds of regulation, not just paternalistic regulation.

Second, and more importantly, these are not the only three models, and it is easy to formulate alternative models that strengthen the case for intervention. Glaeser (2006, p. 144) proposes one such model that could reverse his main results, under which there are returns to scale in information acquisition and decisionmaking. In this case, it is more likely to be optimal to centralize decisionmaking. This model is broadly relevant to our consumer protection and energy efficiency examples, where it can be difficult to gather and weigh information about chemical composition, future energy use, and obscure but relevant safety risks. Turrentine and Kurani (2007) document how calculating the present discounted value of energy costs can be difficult, even for accountants, bankers, and financial analysts.

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Employing the Kaldor–Hicks criterion (Boardman et al., 2011, p. 32), benefit-cost analysis poses the question: Would the people who support a particular policy be willing to pay an amount of money sufficient to induce all of those people who oppose that policy to change their votes and thereby achieve unanimous consent? The compensation is hypothetical, of course, as is the voting; but this thought-experiment provides a framework in which to weigh the net welfare effects of government decisions on real people. In the context of a standard economic analysis of externalities, the hypothetical question—could the winners compensate the losers—makes eminent sense. In the context of ill-defined “internalities,” however, its meaning is far