Is Corporate Environmentalism Profitable? Experimental Investigations of the Effects of Environmental Corporate Social Responsibility on Political Activity

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Abstract

We investigate how environmental corporate social responsibility (ECSR) affects the willingness of citizens to mobilize politically and pressure governments to regulate firms. We conducted a series of experiments that we fielded to members of the Audubon Society, the second largest environmental organization in the United States. We provided respondents information about different forms of ECSR undertaken by firms and assessed how these actions changed their support for regulation. Our experiments reveal that ECSR can indeed demobilize environmentalists by dissuading them from calling for stiffer government regulations. To achieve this effect, however, nearly all companies within an industry must join the voluntary effort. If only some firms take voluntary action, environmentalists typically will not back down. Our experiments also show that deep reforms disarm environmentalists to a greater degree than shallow reforms, but only if all firms in the industry participate. Even so, the demobilizing effect of broad participation is substantially larger than the effect of deep reforms. Hence, our study reveals that the breadth of the participation by companies is more important that the depth of measures taken by firms.

Firms engage in environmental corporate social responsibility (ECSR) when they go beyond the requirements of current environmental law. ECSR can take many forms. For instance, in recent years firms have been changing their business operations by cutting back on pollution and developing green products, even though such steps are not mandated by regulations. Firms have also started donating money to environmental non-governmental organizations (NGOs) and partnering with them on green initiatives. In addition to engaging in ECSR unilaterally, firms have also coordinated with competitors within their own industry (Prakash and Potoski 2006). Academic research has explored the emergence of ECSR as well as its efficacy in achieving environmental results (for an overview, see Potoski and Prakash 2013).

Why do firms engage in ECSR? Traditional hypotheses contend that ECSR is attractive to key stakeholders such as consumers and employees (e.g., Torelli et al. 2011; Bhattacharya et al. 2008). Another theory is that firms use ECSR as a strategy for averting political conflict; they over-comply with existing regulations in an effort to preempt new legislation, stiffer enforcement, interest group pressure, and public protests (Werner 2012; Maxwell, Lyon, and Hacket 2000; Lyon and Maxwell 2004a,b; Manzini and Mariotti 2003). To date, however, there has been no systematic experimental research about whether and under what conditions ECSR forestalls political action against firms.

In this paper we investigate how ECSR affects the willingness of citizens to mobilize politically and pressure governments to regulate firms. Our study involves a series of experiments that we fielded to members of the Audubon Society, the second largest environmental organization in the United States. Our experiments reveal that ECSR can indeed demobilize environmentalists by dissuading them from calling for stiffer government regulations. To achieve this effect, however, nearly all companies within an industry must join

the voluntary effort. If only some firms take voluntary action, environmentalists typically will not back down. Our experiments also show that deep reforms disarm environmentalists to a greater degree than shallow reforms, but only if all firms in the industry participate. Even so, the demobilizing effect of broad participation is substantially larger than the effect of deep reforms. Hence, our study reveals that the *breadth* of the participation by companies is more important that the *depth* of measures taken by firms.

The paper is organized as follows. We first present a series of competing theoretical predictions from the literature, motivating our empirical inquiry. We then describe the survey and experimental design. Finally, we present the results and discuss their implications for understanding the financial returns to CSR.

Hypotheses

How does ECSR affect the political preferences, beliefs, and behaviors of citizens in a democracy, particularly those who are passionate about protecting the environment? A longstanding research tradition in political science has argued that government officials are responsive to public opinion (e.g. Stimson, Mackuen, and Erikson 1995), suggesting that mass opinion consequentially affects the regulatory environment firms face. Further, political elites may be most attentive to members of "issue publics" (Krosnick 1990), or groups of citizens passionate about given issues for which they have well-structured preferences and the motivation to engage in political activity. Members of issue publics may also serve as opinion leaders within their social networks, influencing the beliefs of citizens who may not be as passionate as them (Berelson et al. 1954; Huckfeldt and Sprague 1987). Hence, we contend that understanding how

environmental activists respond to ECSR is especially important to understanding the efficacy of regulatory preemption strategies undertaken by firms.

It is not obvious how ECSR would affect the willingness of citizens to protest and demand environmental regulations. On the one hand, ECSR could reduce political mobilization, as sometimes assumed in the literature. ECSR could, for example, demobilize the public by persuading it that environmental problems have been solved, or at least reduced to the point that the marginal costs of lobbying, protesting, and regulating exceed the marginal benefits (Maxwell, Lyon, and Hacket 2000; Lyon and Maxwell 2004a,b). This could be because the reforms are meaningful, or simply because they provide the impression that action has been taken (i.e., "greenwashing"). ECSR could also reduce public support for spending on monitoring and enforcement of existing regulations (Maxwell and Decker 2006). Finally, ECSR could lead to technological lock-in. Once firms have invested in technologies that partially solve an environmental problem, citizens may be reluctant to demand stiffer standards that would destroy the value of the firms' investments.

On the other hand, ECSR could mobilize the mass public. Citizens could interpret ECSR as proof that firms acknowledge environmental problems, and therefore believe the problems are real. Psychologists have shown that messages are most persuasive when they are against the interests of the source (e.g., Eagly and Chaiken 1975). For instance, people were more likely to believe that smoking caused lung cancer when tobacco companies said it was so (Krosnick et al. 2014). Self-regulation could also signal that firms can afford to act and are willing to accept limits on their freedom, and that regulations would not significantly affect profitability. Highly efficient firms or market leaders might strategically employ ECSR, and then lobby for new regulations that would apply those same standards to the rest of the industry. In this way, the

voluntary environmental actions of leaders could lead to involuntary regulations against laggards (Denicolò 2008; Urpelainen 2011). Finally, instead of satisfying the environmental demands of citizens, ECSR might actually raise their environmental aspirations, leading them to demand more action (Bendor et al. 2011).

The direction of the effect of ECSR on political activity has important implications for corporate strategy. Suppose that market leaders introduce ECSR initiatives or technologies in order to make their practices legally required and shift the playing field in their favor. Their lobbying efforts depend on whether citizens react to ECSR by demanding that government require all firms in the industry to implement those same initiatives, or whether they are content that the market leader is doing something to address the environmental problem.

Because we do not have clear theoretical predictions, we take the issue to data. We identified a group of environmental activists (i.e., members of the "issue public") and conducted a series of experiments measuring their preferences for regulations on firms. We manipulated various aspects of ECSR to see how it would affect support for regulations.

The Survey

To investigate these questions we administered a series of experiments to affiliates of the Audubon Society, the second largest environmental organization in the United States. The experiments were embedded in a survey that was conducted over the Internet in partnership with Audubon between October 25 and December 9, 2013. Audubon sent email invitations to a random sample of people who satisfied at least one of the following criteria: (1) they were dues-paying members of Audubon and subscribers to *Audubon* magazine; (2) they had donated money to Audubon in the past; or (3) they had signed up to receive emails alerting them to take political

action—such as signing petitions and contacting politicians—on environmental issues. A total of 2,368 Audubon affiliates completed the survey.

Our goal in targeting Audubon affiliates was to obtain a sample of people who are extremely active on environmental political issues. We were successful. We asked respondents which of the following seven actions (if any) they had taken on an environmental or conservation issue: attended a rally, boycotted a product, contacted a politician, donated money, organized a protest, signed a petition, or volunteered time. As shown in Table 1a, a majority of the sample (52%) had engaged in at least four of the seven activities, and over a quarter had engaged in at least five. Practically the entire sample (94%) had taken at least one concrete action in support of an environmental cause.

We also measured willingness to express environmental preferences during elections. We asked, "About how often do you vote in national elections—that is, for President, Senator, or Representative?" As Table 1b shows, 86% of the sample reported voting "every time," and an additional 8% said "most of the time." Finally, we asked, "Generally speaking, when deciding whom to vote for in a national election, how important to you is the candidate's position on environmental issues?" 52% said that environmental issues were "essential," and an additional 37% said the environment was a "very important" voting criterion (Table 1c).

On many demographic dimensions, our sample of environmental activists differs from the national population. Table 2 shows that our sample is predominantly female, relatively old, highly educated, and primarily white. As expected, the political views of our respondents are fairly liberal: approximately 47% are Democrats, whereas only 10% are Republicans. Likewise, 56% of our respondents profess to be somewhat or very liberal, but only 18% regard themselves as somewhat or very conservative.

Experimental Design

Our experiments asked people whether they were willing to support a policy (q') that would be substantial increase in corporate regulation over the status quo (q). We then provided information that the firms were engaging in a less intense form of self-regulation (q''), where $q < q'' < q'$, to see if it reduced support for q'.

Our experiments focused on six environmental issues: plastic packing for foods and beverages; labels for genetically modified foods (GMOs); new-generation insecticides called neonicotinoids; bird deaths due to wind turbines; overfishing of bluefin tuna; and fuel efficiency standards for automobiles. Each participant was randomly assigned to consider three of the six issues.

We selected issues on which environmentalists might feel ambivalent: favoring regulations for some reasons, but opposing regulations for other reasons. We made these conflicting considerations salient by mentioning the pros and cons of government regulation. For instance, we explained how regulations on wind turbines could reduce bird mortality, but could also increase reliance on fossil fuels. On other issues we noted that regulations to ameliorate environmental problems could hurt businesses, make products more expensive, or undermine other humanitarian goals.

For each issue, we described the environmental problem—*without mentioning ECSR*—and measured support for stiffer government regulations. We then presented hypothetical scenarios in which firms were engaging in ECSR, and we re-measured the same respondents' support for government regulations. The scenarios varied on two dimensions, each with two levels: the breadth of participation by companies within the industry (broad versus narrow), and the depth of the measures that participating firms were taking to protect the environment (deep

versus shallow). We randomized these dimensions independently, resulting in in four types of ECSR:

- Broad and deep
- Broad and shallow
- Narrow and deep
- Narrow and shallow

Each respondent considered two of the four ECSR scenarios. Thus, each respondent expressed their preferences under three conditions: a baseline scenario that did not mention voluntary action, and two of the four conditions in which firms were voluntarily protecting the environment. Figure 1 displays our randomization scheme and measures it elicited.

We now illustrate our procedures by presenting our protocol for one issue, plastic packaging (the full question wordings for all six issues can be found in Appendix 1). We introduced the issue by explaining, "Some people think the U.S. government should ban plastic containers for prepackaged foods and drinks. They say the production and disposal of plastic containers hurts the environment. Other people think the government should not ban plastic containers for prepackaged foods and drinks. They say a ban would impose high costs on businesses and consumers by significantly increasing the price of food."

We then asked "Do you think the government should or should not ban plastic containers for prepackaged foods and drinks?" The response options were should ban, should not ban, or don't know. We also administered a follow-up question that measured how strongly respondents felt about their answer: very strongly, somewhat strongly, or not strongly at all.[1] These questions revealed the respondent's baseline level of support for government regulation. We used the

[1] Malhotra et al. (2009) have shown that for bipolar constructs it is better to branch people at the endpoints of a survey question than the midpoint, since people had the midpoint have less well-developed attitudes and therefore any discernment likely contributes measurement error.

answers to construct a seven-point scale that ranged from 1 (very strongly opposed a ban) to 7 (very strongly supported a ban). Respondents who said "don't know" were scored at the midpoint, 4.

Next, we randomly presented one of four scenarios in which companies were taking voluntary action to recycle plastic. Thus, respondents read about a situation in which ECSR was either deep or shallow, and participation was either broad or narrow. We operationalized ECSR as deep if companies committed to use containers with at least 70 percent recycled content, and operationalized ECSR as shallow if they committed to only 30 percent recycled content. In scenarios with broad ECSR, all food and beverage manufacturers changed their practices. In scenarios with narrow ECSR, only half of the manufacturers made the shift.

For example, the deep and broad scenario read: "Companies sometimes take voluntary steps to protect the environment; they do more than what the government requires. Suppose that all food and beverage manufacturers voluntarily increase their efforts to recycle plastic, by making sure their plastic containers have at least 70 percent recycled content. If all food and beverage manufacturers make this change without being required by the government, do you think the government should or should not ban plastic containers for prepackaged foods and drinks?" The other scenarios were similar, but we substituted 30 percent for 70 percent, and/or replaced "all manufacturers" with "half of the manufacturers."

Statistical Model

In order to analyze the experiment, we estimated parameters from the following OLS regression model:

$$Y_i = \alpha + \beta_1 BD_i + \beta_2 BS_i + \beta_3 ND_i + \beta_4 NS_i + \varepsilon_i \quad (1)$$

where i indexes respondent-issue observations, Y_i represents support for environmental regulation (where the original seven-point scale is re-coded to lie between 0 and 100), BD_i is a dummy variable representing the condition of broad and deep ECSR, BS_i is a dummy variable representing the condition of broad and shallow ECSR, ND_i is a dummy variable representing the condition of narrow and deep ECSR, NS_i is a dummy variable representing the condition of narrow and shallow ECSR, and ε_i represents normally distributed stochastic error. The constant (α) therefore represents policy support in the baseline condition. Because respondents were exposed to both broad and narrow ECSR as well as the baseline condition (and therefore provided three observations each), we cluster the standard errors by respondent to account for within-respondent intercorrelation. We also estimated versions of equation (1) separately for each of the six issues. We also estimated version of equation (1) including issue fixed effects and obtained nearly identical estimates of the treatment effects.

Based on the estimates from equation (1), we can make various treatment comparisons and assess the uncertainty in those comparisons. For example, β_1 represents the effect of broad and deep ECSR compared to the baseline control condition, $\beta_1 - \beta_3$ represents the effect of broad ECSR when ECSR is deep, and $\beta_3 - \beta_4$ represents the effect of deep ECSR when ECSR is broad.

Results

We first report the results pooling across issues. In each figure, the top panel illustrates the treatment effects relative to the baseline condition. The middle panel plots the difference between the broad and narrow treatments separately conditioning on the depth of ECSR. The bottom panel plots the difference between the deep and shallow treatment separately conditioning on the breadth of ECSR.

Respondents became much less supportive of environmental regulations on firms when they learned that participation in an industry was broad. As shown in the top row of Figure 2, broad and deep ECSR reduced support for the regulations by 20 points ($p < .001$, two-tailed), a substantively large reduction from the baseline of 69 points. Even when ECSR was shallow, broad participation reduced support for regulations by 14 points ($p < .001$).

ECSR had much more modest effects when only half the firms in the industry were participating. When ECSR was narrow and deep, it reduced support for the plastic packaging ban by only 3 percentage points. While this effect is statistically significant owing to the large sample size ($p < .001$), it is not substantively large. Similarly, when ECSR was narrow and shallow, it reduced support for regulations by only 2 percentage points ($p < .001$) on the 100-point scale.

To further demonstrate the importance of breadth, we compare the broad vs. narrow scenarios while holding the depth of ECSR constant. As shown in the middle panel of Figure 2, when ECSR was deep, broad participation reduced support for regulations by 17 percentage points relative to an otherwise identical scenario in which participation was narrow ($p < .001$). Even when ECSR was shallow, broad participation reduced enthusiasm for regulation by 12 points ($p < .001$).

The effects of deep ECSR were more modest. As shown in the bottom panel of Figure 2, the effect of deep (compared to shallow) ECSR was 6 points ($p < .001$) when all firms in an industry were participating, and only 1 point (not statistically nor substantively significant) when half of the firms were participating.

As shown in Figure 3, the results for the six individual issues follow very similar patterns as the pooled results.[2] Broad and deep ECSR has the strongest effect at reducing support for environmental regulations on firms, followed by broad and shallow ECSR. Although some issues

[2] Detailed results for each issue are presented in Appendix 2.

exhibit stronger effects for the "broad and deep ECSR" category (likely reflecting heterogeneity in the treatment information across issues), all issues exhibit treatment effects of at least 10 points. The effects of narrow and deep ECSR are slightly negative, and the effects of narrow and shallow ECSR are close to zero. For one issue (wind turbines), the effect of narrow and shallow ECSR is actually positive and significant, but we would expect to observe one positive result (out of 24) by chance alone. These patterns underscore the importance of breadth over depth.

Heterogeneity in Treatment Effects

We also tested for heterogeneity in the treatment effects according to three moderating variables.

First, we assessed whether people who reported engaging in more environmental activist behaviors exhibited larger responses to the ECSR treatments. Using the question on activist behavior described above, we bifurcated respondents into those who engaged in four or more activities, and those who engaged in less than four actions. This splits the data at the median. As shown in Figure 4, the treatment effects were extreme similar between these two groups.

Second, we tested whether people for whom environmental issues were important to their votes were more sensitive to ECSR activities. Using the question on the importance of environmentalism described above, we split respondents into three categories: those who said that a candidate's position on environmental issues was "essential," those who said that it was "very important," and all others. As shown in Figure 5, the treatment effects are fairly constant across the three groups.

Finally, we tested whether Democrats were more likely to change their attitudes in response to ECSR compared to Republicans and Independents. As shown in Figure 6, the treatment effects are very similar across partisan subgroups.

Conclusions

Our results have important implications for corporate strategy and our understanding of private politics. Most broadly, we find that ECSR can generate profits by mitigating regulatory risk. Companies are able to reduce support for environmental regulations—even among passionate members of an issue public—if they self-regulate below the point of the regulation. Therefore, one important mechanism behind "doing well by doing good" may not just be an improved reputation for consumers and employees, but also benefits in the arena of private politics.

Our findings also demonstrate important nuance in optimal methods of implementing ECSR. Our activist respondents were more positively disposed toward broad CSR as opposed to deep CSR. This implies that industry-wide initiatives may be the most efficient ways for companies to engage in corporate citizenship. These initiatives not only have the benefits of cooperative equilibria in collective actions problems (as all companies compete on a level playing field) but also seem to defray potential losses from intense lobbying from activist groups. Further, it appears that engaging in deep ECSR close to the point of government regulation—an expensive practice—does not yield much return, and therefore would be a highly inefficient means of improving profitability.

Finally, we find basically no evidence that ECSR can mobilize activists by raising their aspiration levels. Therefore, ECSR as a tool of corporate strategy for market leaders to force competitors to adopt costly business practices does not seem to work well in general. If some firms decide to unilaterally implement ECSR, activists do not seem to respond by requiring that the entire industry be forced to adopt those same (or more rigid) practices.

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Table 1: Environmental Activism among Respondents

(a) Number of environmental actions

	Frequency	Cumulative
All seven	3 %	3 %
Six	10	13
Five	15	28
Four	24	52
Three	20	72
Two	14	86
One	9	94
None	5	99
Not reported	1	100

(b) Frequency of voter turnout

	Frequency	Cumulative
Every time	86 %	86 %
Most of the time	8	93
About half of the time	1	94
Less than half the time	0	95
Rarely or never	3	98
Not sure/not reported	2	100

(c) Importance of environment when voting

	Percent	Cumulative
Essential	51 %	52 %
Very important	37	90
Somewhat important	8	98
Slightly important	1	99
Not important at all	0	99
Not sure/not reported	2	100

Note: Panel (a) shows how many of the following things a respondent had done on a conservation or environmental issue: attended a rally, boycotted a product, contacted a politician, donated money, organized a protest, signed a petition, or volunteered time. Panel (b) presents answers to the question, "About how often do you vote in national elections – that is, for President, Senator, or Representative?" Panel (c) shows answers to the question, "Generally speaking, when deciding whom to vote for in a national election, how important to you is the candidate's position on environmental issues?" Sample size for each panel was 2,368.

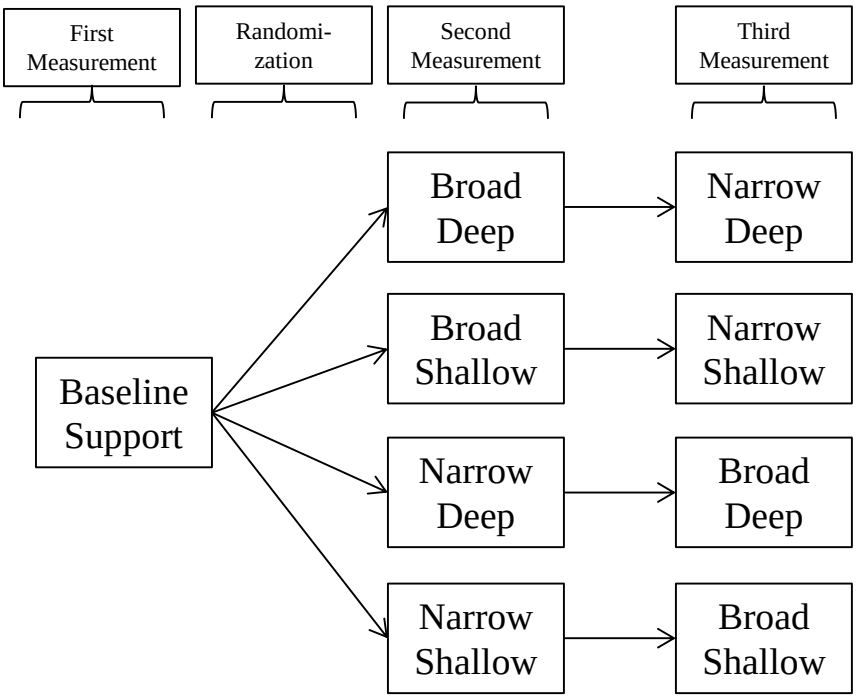
Table 2: Demographic Characteristics of Respondents

	Frequency
Gender	
Female	63 %
Male	35
Not reported	1
Age	
18-44 years	10 %
45-64 years	42
65 and over	38
Not reported	10
Education	
High school or less	7 %
Technical/trade	3
Some college	17
College degree	29
Some graduate school	10
Graduate degree	34
Not reported	1
Race	
White	91 %
Black	1
Latino	2
Asian	1
Native american	3
Other	3
Not reported	4

	Frequency
Political Party	
Democrat	47 %
Independent	31
Republican	10
Other	7
Not reported	4
Ideology	
Very liberal	26 %
Somewhat liberal	30
Moderate, middle road	21
Somewhat conservative	13
Very conservative	5
Not sure	3
Not reported	2

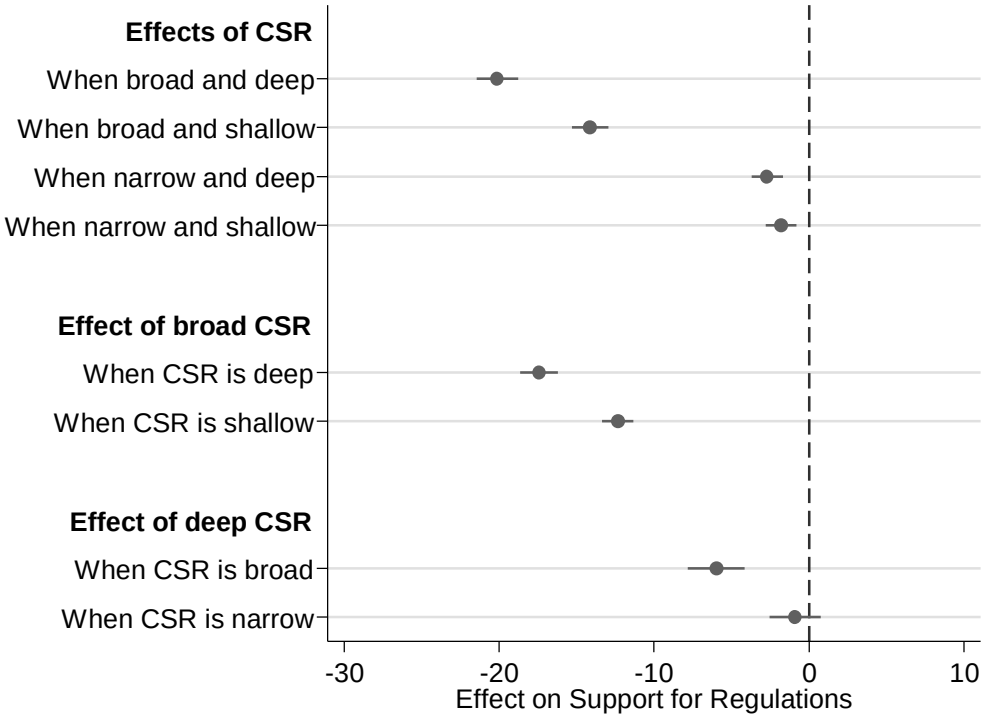
Note: Sample size is 2,368.

Figure 1: Randomization Protocol



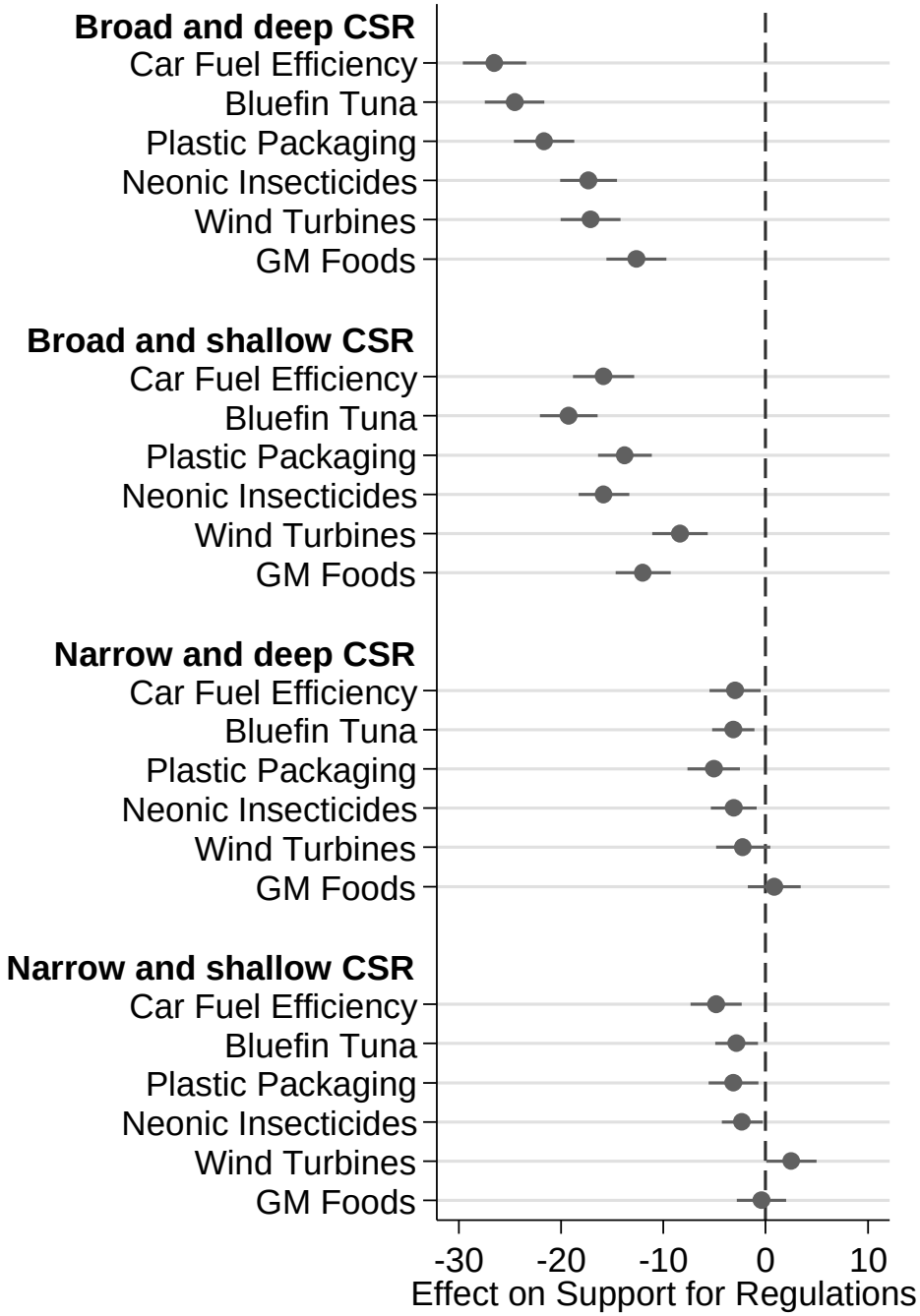
Note: After introducing an issue, we measured support for regulation under a baseline scenario that did not mention ECSR. We then assigned the respondent to one of four tracks. Each track measured support for regulation under two distinct scenarios in which firms were engaging in ECSR.

Figure 2: Effects of CSR



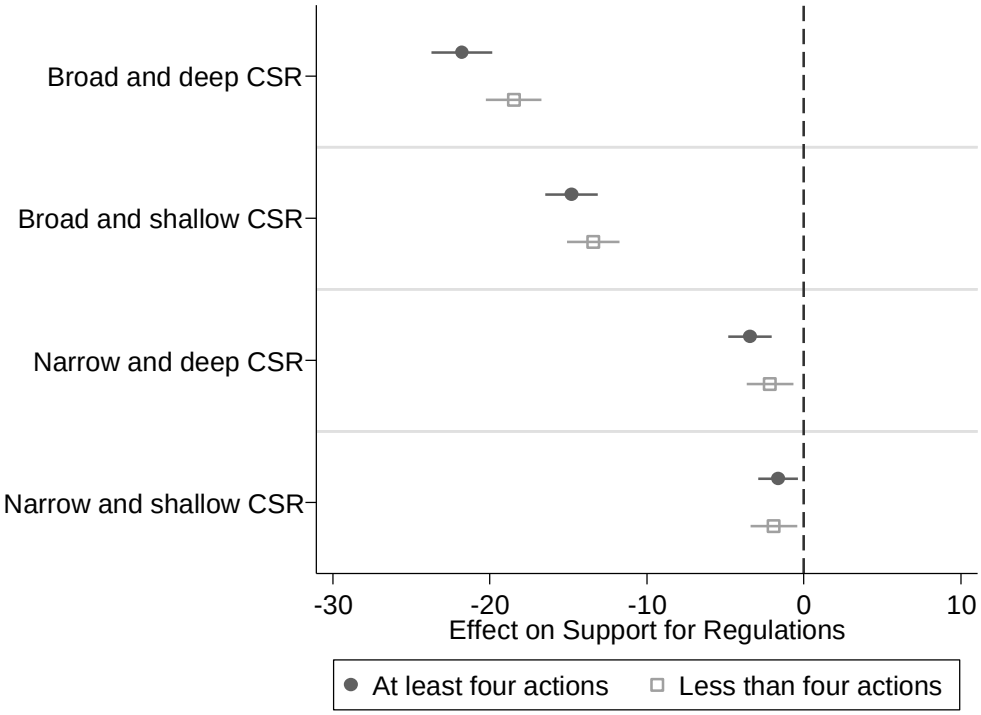
Note: Effects are defined as changes in the level of support for regulations, relative to a baseline score of 69 when no CSR was mentioned. Estimates are based on 21,161 observations, distributed equally across six issues: car fuel efficiency, Bluefin tuna, plastic packaging, neonic insecticides, wind turbines, and genetically modified foods.

Figure 3: Effects of CSR, by issue



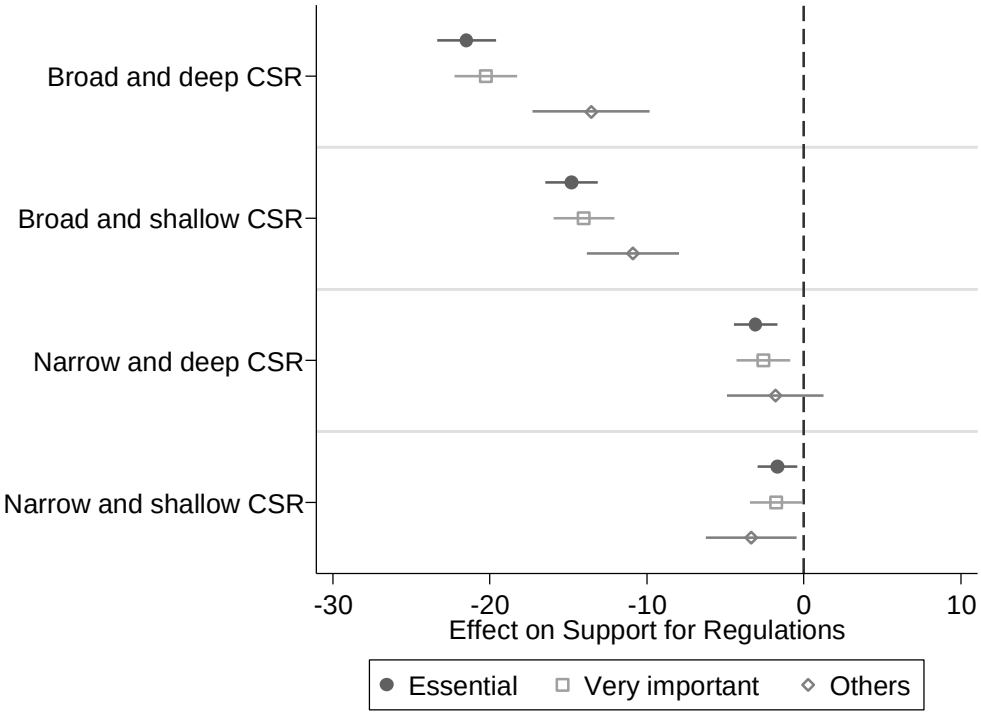
Note: Effects are calculated relative to a baseline in which no CSR was mentioned. Baseline levels of support for regulations were 70 car fuel efficiency (N=3,484); 77 for Bluefin tuna (N=3,591); 64 for plastic packaging (N=3,625); 76 for neonic insecticides (N=3,497); 60 for wind turbines (N=3,551), and 65 for genetically modified foods (N=3,413).

Figure 4: Effects of CSR, by number of environmental actions



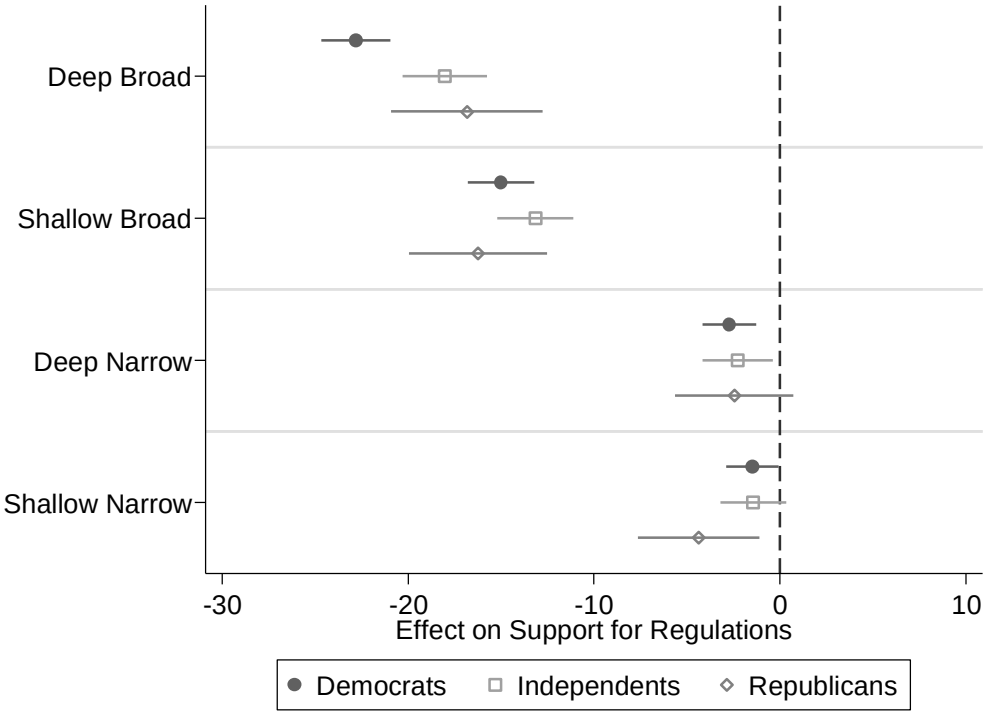
Note: Respondents were asked how many of the following things they had done on a conservation or environmental issue: attended a rally, boycotted a product, contacted a politician, donated money, organized a protest, signed a petition, or volunteered time. The figure compares people who did at least four types of actions (11,038 observations), with people who did less than four types of actions (9,985 observations). Baseline levels of support for regulation in these two groups were 76 and 62, respectively.

Figure 5: Effects of CSR, by importance of environment when voting



Note: Respondents were asked: "Generally speaking, when deciding whom to vote for in a national election, how important to you is the candidate's position on environmental issues?" The graph compares people who answered "essential" (10,889 observations) with those who answered "very important" (7,772 observations) and "others" who answered somewhat important, slightly important, or not important at all (2,023 observations). Baseline levels of support for regulation in these three groups were 78, 63, and 45, respectively.

Figure 6: Effects of CSR, by political party



Note: The graph compares the effect of CSR on Democrats (9,868 observations), Independents (6,615 observations), and Republicans (2,205 observations). Baseline levels of support for regulation in these three groups were 73, 66, and 55, respectively. The figure omits people who answered "other party" or refused to give a party affiliation.

Appendix 1: Question Wording

Car Fuel Efficiency:

- Baseline (no CSR mentioned): Some people think the U.S. government should require all new cars to get at least 60 miles per gallon by the year 2020. They say that emissions from cars contribute to climate change. Other people say the government should not require all new cars to get at least 60 miles per gallon by the year 2020. They say these requirements would make cars much more expensive, hurting consumers and businesses. Do you think the government should or should not require all new cars to get at least 60 miles per gallon by 2020? {Should require, should not require, Don't know}

- Broad CSR (with deep versus shallow CSR in square brackets): Companies sometimes take voluntary steps to combat climate change; they do more than what the government requires. Suppose that all car companies voluntarily agree that every new car they produce will get at least [50 OR 40] miles per gallon by the year 2020. If all car companies take these steps without being required by the government, do you think the government should or should not require all new cars to get at least 60 miles per gallon by 2020? {Should require, should not require, Don't know}

- Narrow CSR (with deep versus shallow CSR in square brackets): Here is a different scenario. Suppose that half of the car companies voluntarily agree that every new car they produce will get at least [50 OR 40] miles per gallon by 2020. The other car companies do not agree to make those improvements in fuel efficiency. In this scenario, do you think the government should or should not require all new cars to get at least 60 miles per gallon by 2020? {Should require, should not require, Don't know}

Bluefin Tuna:

- Baseline (no CSR mentioned): Some people think the U.S. government should ban the sale of bluefin tuna in the United States, because bluefin tuna populations are at very low levels. Other people think the government should not ban the sale of bluefin tuna in the United States, because a ban would cause many people in the fishing and restaurant industries to lose their jobs. Do you think the government should or should not ban the sale of bluefin tuna in the United States? {Should ban, Should not ban, Don't know}

- Broad CSR (with deep versus shallow CSR in square brackets): Companies sometimes take voluntary steps to combat overfishing; they do more than what the government requires. Suppose that all tuna fishing companies voluntarily agree not to fish in [40 OR 20] percent of the waters where bluefin tuna live. If all tuna fishing companies take these steps without being required by the government, do you think the government should or should not ban the sale of bluefin tuna in the United States? {Should ban, Should not ban, Don't know}

- Narrow CSR (with deep versus shallow CSR in square brackets): Here is a different scenario. Suppose that half of the tuna fishing companies voluntarily agree not to fish in

[40 OR 20] percent of the waters where bluefin tuna live. The other companies take no voluntary action to reduce their bluefin tuna fishing. In this scenario, do you think the government should or should not ban the sale of bluefin tuna in the United States? {Should ban, Should not ban, Don't know}

Plastic Packaging:

- Baseline (no CSR mentioned): Some people think the U.S. government should ban plastic containers for prepackaged foods and drinks. They say the production and disposal of plastic containers hurts the environment. Other people think the government should not ban plastic containers for prepackaged foods and drinks. They say a ban would impose high costs on businesses and consumers by significantly increasing the price of food. Do you think the government should or should not ban plastic containers for prepackaged foods and drinks? {Should ban, Should not ban, Don't know}

- Broad CSR (with deep versus shallow CSR in square brackets): Companies sometimes take voluntary steps to protect the environment; they do more than what the government requires. Suppose that all food and beverage manufacturers voluntarily increase their efforts to recycle plastic, by making sure their plastic containers have at least [70 OR 30] percent recycled content. If all food and beverage manufacturers make this change without being required by the government, do you think the government should or should not ban plastic containers for prepackaged foods and drinks? {Should ban, Should not ban, Don't know}

- Narrow CSR (with deep versus shallow CSR in square brackets): Here is a different scenario. Suppose that half of the food and beverage manufacturers voluntarily increase their efforts to recycle plastic, by making sure their plastic containers have at least [70 OR 30] percent recycled content. The other food and beverage manufacturers do not increase their efforts to recycle plastics. In this scenario, do you think the government should or should not ban plastic containers for prepackaged foods and drinks? {Should ban, Should not ban, Don't know}

Neonic Insecticides:

- Baseline (no CSR mentioned): In the 1990s, agrochemical companies developed a new generation of insecticides called neonicotinoids, also known as neonics. These chemicals protect crops against damage by aphids, beetles, and other insects. Some people say the U.S. government should ban neonics. They say that neonics are killing the bees that pollinate crops, and are poisoning birds and other wildlife. Other people say the government should not ban neonics. They say that neonics are safe for bees, birds, and other wildlife when properly used. They also warn that banning neonics would cause crop yields to fall by around 20 percent, hurting farmers and raising food prices. Do you think the U.S. government should or should not ban neonics? {Should ban, Should not ban, Don't know}

- Broad CSR (with deep CSR in square brackets): Companies sometimes take voluntary steps to protect the environment; they do more than what the government requires. Suppose that all neonics manufacturers voluntarily take the following steps: They offer free training for all farmers, to teach safe application methods that will not hurt bees, birds, and other wildlife [; and they voluntarily agree not to sell neonics to farmers who grow the kinds of crops that attract bees]. If all neonics manufacturers take these steps without being required by the government, do you think the government should or should not ban neonics? {Should ban, Should not ban, Don't know}

- Narrow CSR (with deep CSR in square brackets): Here is a different scenario. Suppose that half of the neonics manufacturers voluntarily start offering free training for farmers, to teach safe application methods that will not hurt bees, birds, and other wildlife [; and they voluntarily agree not to sell neonics to farmers who grow the kinds of crops that attract bees]. The other neonics manufacturers do not take these voluntary steps to train farmers [and avoid selling to farmers who grow crops that attract bees]. In this scenario, do you think the government should or should not ban neonics? {Should ban, Should not ban, Don't know}

Wind Turbines:

- Baseline (no CSR mentioned): Some people think the U.S. government should ban wind turbines in areas where birds might be at risk. They say that wind turbines kill hundreds of thousands of birds each year. Other people say the government should not ban wind turbines in areas where birds might be at risk. They say such restrictions would greatly reduce the ability to generate wind power, which is cleaner than fossil fuels and does not contribute to climate change. Do you think the government should or should not ban wind turbines in areas where birds might be at risk? {Should ban, Should not ban, Don't know}

- Broad CSR (with deep versus shallow CSR in square brackets): Companies sometimes take voluntary steps to protect wildlife; they do more than what the government requires. Suppose that all wind power companies voluntarily change where they locate and how they operate turbines, and these changes reduce bird deaths from wind turbines by [60 OR 25] percent. If all wind power companies take these steps without being required by the government, do you think the government should or should not ban wind turbines in areas where birds might be at risk? {Should ban, Should not ban, Don't know}

- Narrow CSR (with deep versus shallow CSR in square brackets): Here is a different scenario. Suppose that half of the wind power companies voluntarily make changes that reduce bird deaths by [60 OR 25] percent on their wind farms. The other companies take no voluntary action to reduce bird mortality on their wind farms. In this scenario, do you think the government should or should not ban wind turbines in areas where birds might be at risk? {Should ban, Should not ban, Don't know}

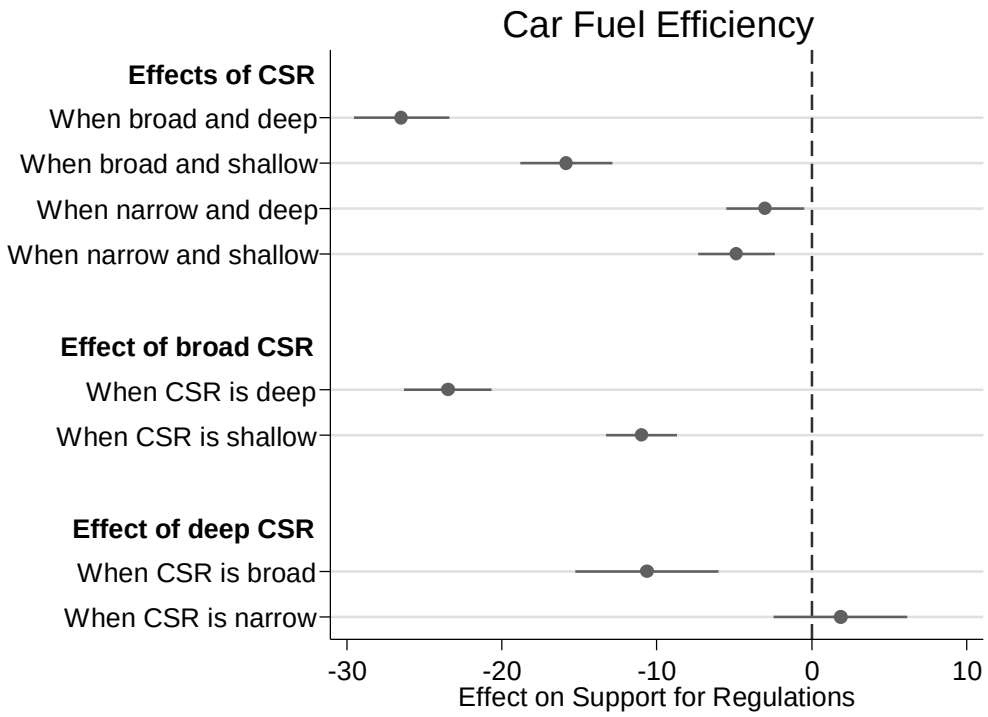
Genetically Modified Foods

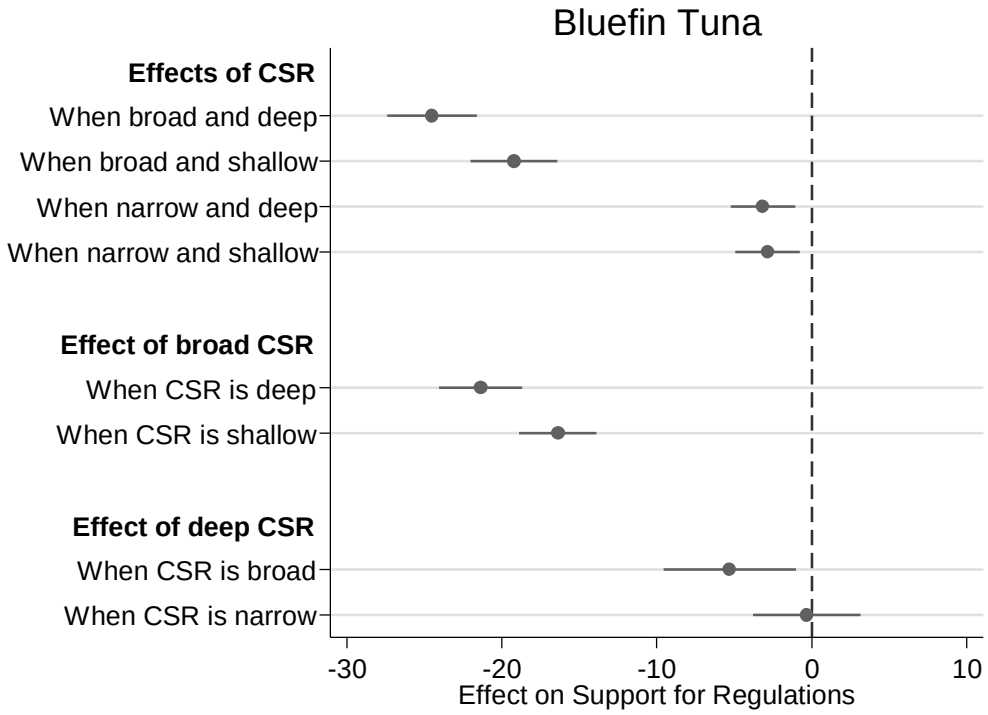
- Baseline (no CSR mentioned): Scientists can change the genes in some food crops and farm animals to make them grow faster and resist pests, drought, and disease. Foods that rely on this process are called "genetically modified foods." Some people think the U.S. government should ban genetically modified foods. They say that genetically modified foods are unsafe for humans and could disrupt the environment by introducing species that did not arise naturally. Other people think the government should not ban genetically modified foods. They say that genetically modified foods are safe for humans, and they help the environment by significantly reducing the use of water, pesticides, and fertilizers. Do you think the government should or should not ban genetically modified foods? {Should ban, Should not ban, Don't know}

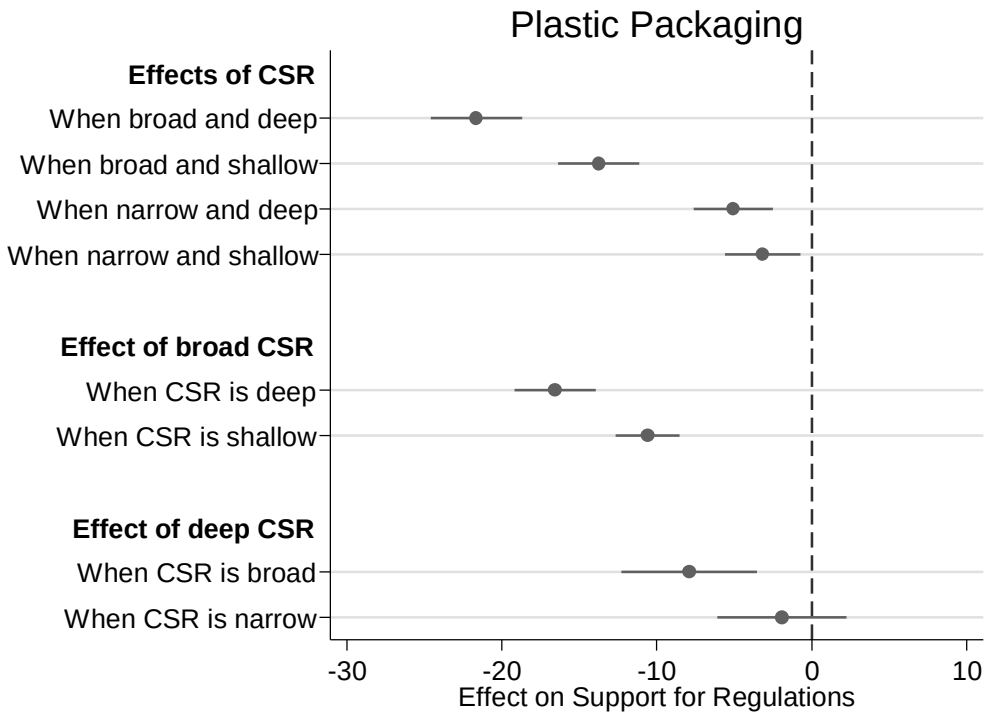
- Broad CSR (with deep versus shallow CSR in square brackets): Companies sometimes take voluntary steps to protect humans and the environment; they do more than what the government requires. Suppose that all food companies voluntarily agree to label all genetically modified foods beginning in the year [2014 OR 2020], so consumers can make informed decisions. If all food companies take these steps without being required by the government, do you think the government should or should not ban genetically modified foods? {Should ban, Should not ban, Don't know}

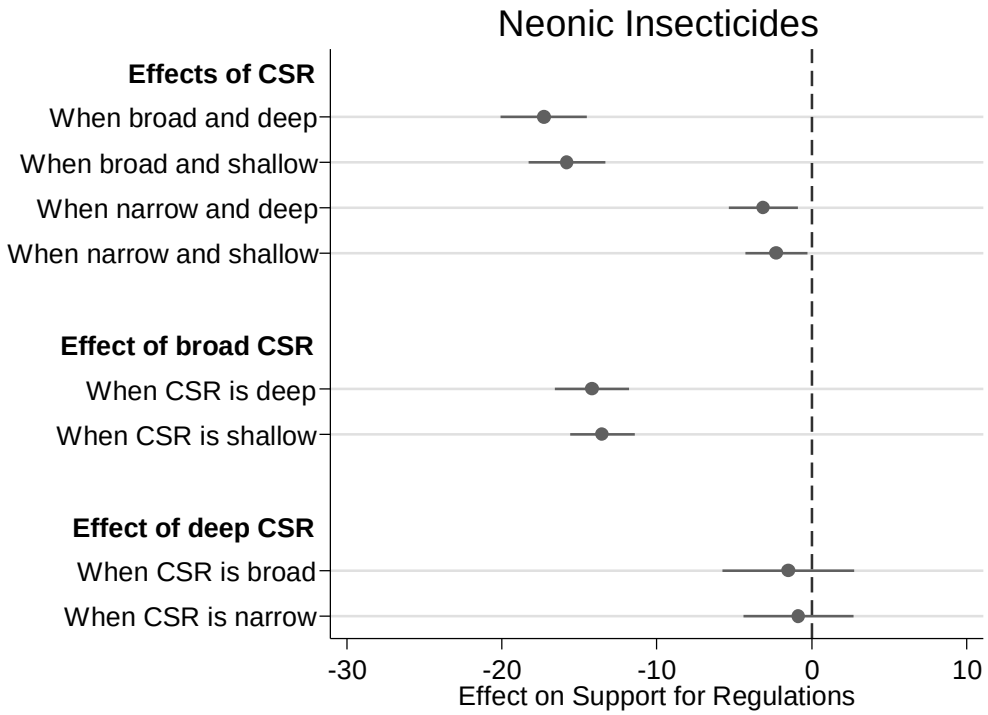
- Narrow CSR (with deep versus shallow CSR in square brackets): Here is a different scenario. Suppose that half of the food companies voluntarily agree to label all their genetically modified foods beginning in the year [2014 OR 2020]. The other food companies do not agree to label their genetically modified foods. In this scenario, do you think the government should or should not ban genetically modified foods? {Should ban, Should not ban, Don't know}

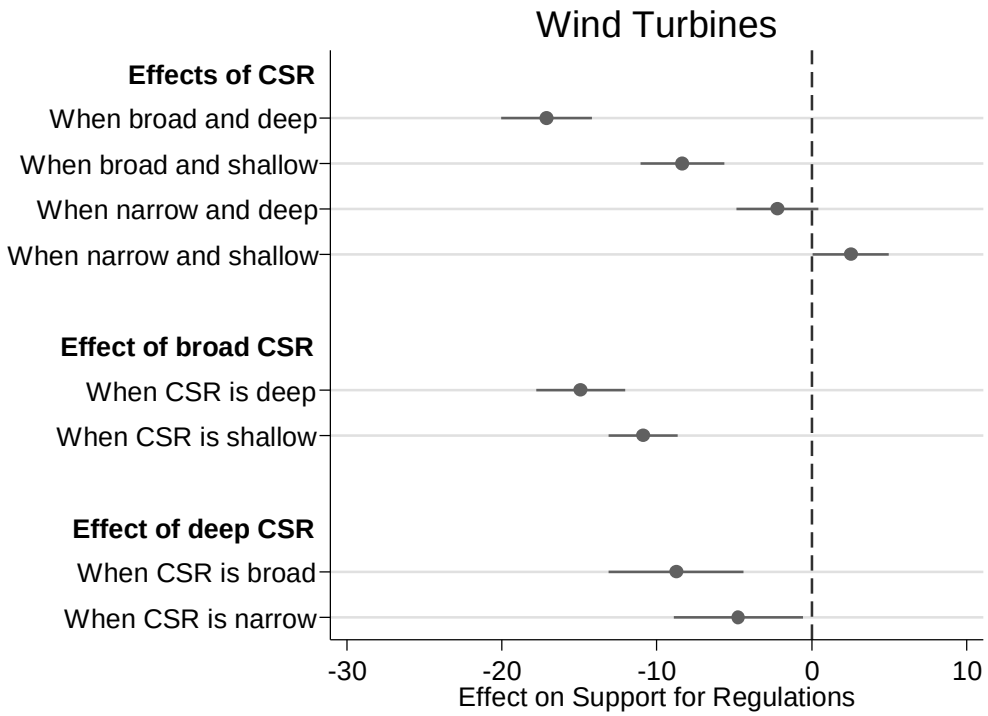
Appendix 2: Detailed effects of CSR, by issue

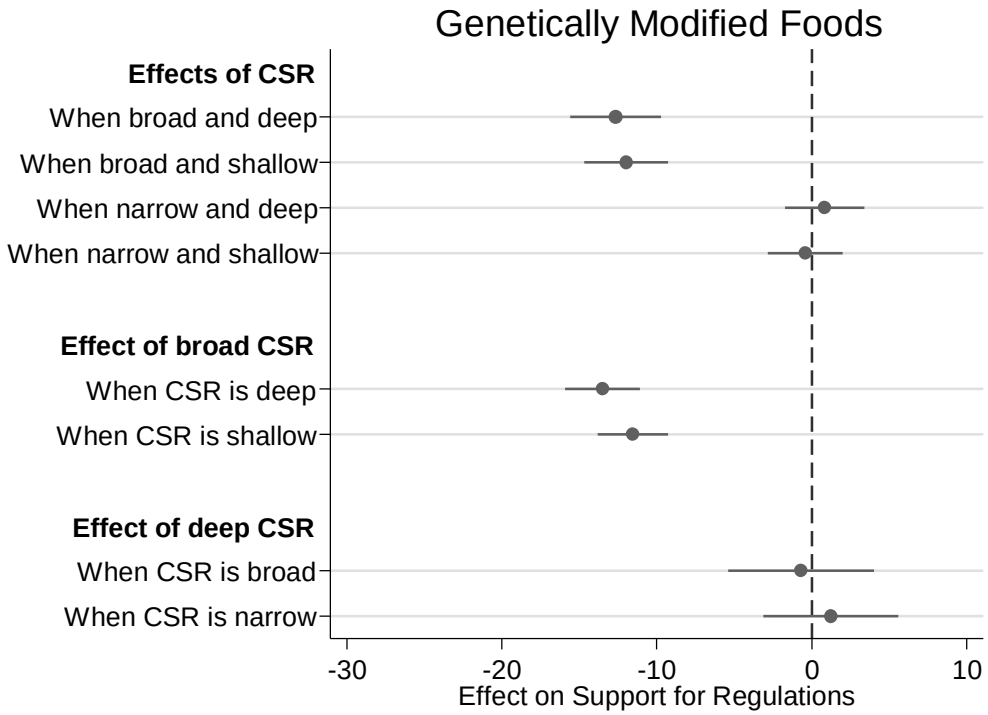





Plastic Packaging
Effects of CSR
When broad and deep
When broad and shallow
When narrow and deep
When narrow and shallow
Effect of broad CSR
When CSR is deep
When CSR is shallow
Effect of deep CSR
When CSR is broad
When CSR is narrow
-30
-20
-10
0
10
Effect on Support for Regulations


Neonic Insecticides
Effects of CSR
When broad and deep
When broad and shallow
When narrow and deep
When narrow and shallow
Effect of broad CSR
When CSR is deep
When CSR is shallow
Effect of deep CSR
When CSR is broad
When CSR is narrow
-30
-20
-10
0
10
Effect on Support for Regulations


Wind Turbines
Effects of CSR
When broad and deep
When broad and shallow
When narrow and deep
When narrow and shallow
Effect of broad CSR
When CSR is deep
When CSR is shallow
Effect of deep CSR
When CSR is broad
When CSR is narrow
-30
-20
-10
0
10
Effect on Support for Regulations


Genetically Modified Foods
Effects of CSR
When broad and deep
When broad and shallow
When narrow and deep
When narrow and shallow
Effect of broad CSR
When CSR is deep
When CSR is shallow
Effect of deep CSR
When CSR is broad
When CSR is narrow
-30
-20
-10
0
10
Effect on Support for Regulations