

**Yale**

# **New Challenges to International Cooperation: Automation and Climate Change**

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MacMillan Center

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## Last class: climate change and migration

- ▶ Climate change affects cost/benefit ratio of climate migration.
- ▶ Climate change migration creates stress in local resources; can lead to conflict.
- ▶ Circular migration and remittances could help with adaptation.
- ▶ Hardening borders can backfire by creating vulnerability traps.
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- ▶ Policy generated by market competition may be insufficient.

# The redistributive effect of adaptation



- ▶ Adaptation creates winners (e.g., solar) and losers (e.g., coal)!
- ▶ Losers oppose transition if transition benefits are low.
- ▶ Compensate losers  $\Rightarrow \uparrow \Pr(\text{coalitions for climate})?$

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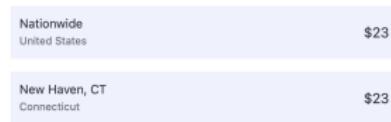


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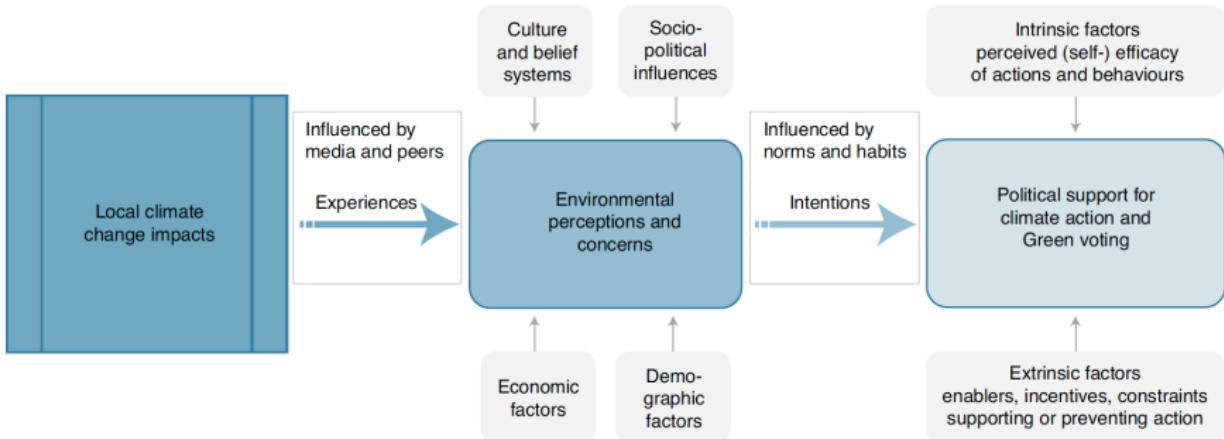


Solar Panel Salary Comparison by Location



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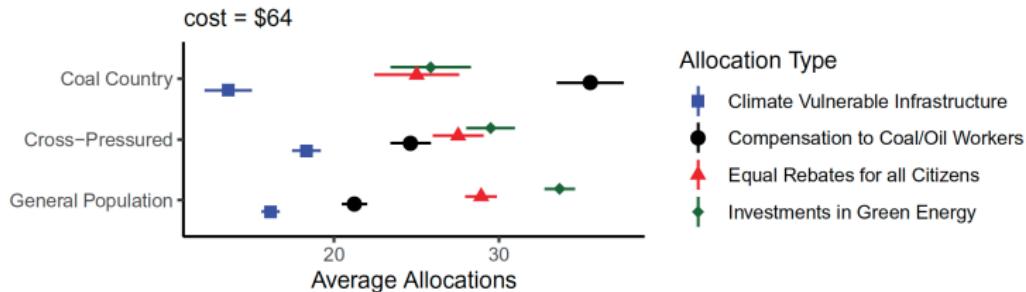
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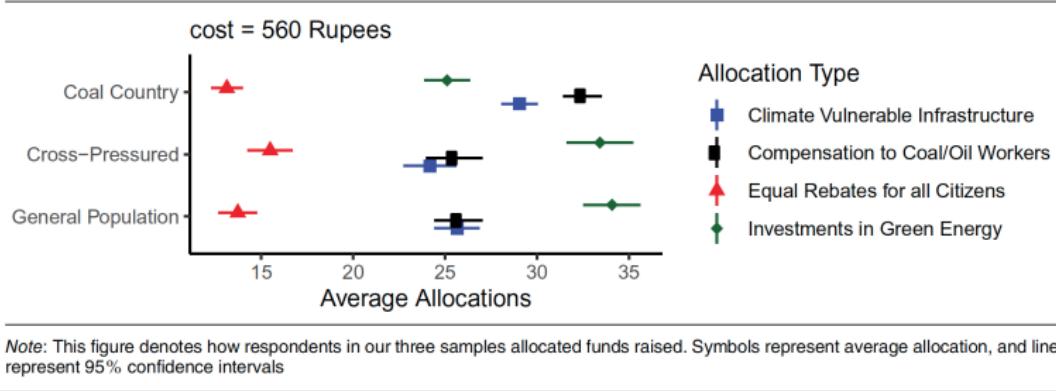
FIGURE 2. US Preferences for Allocation Purposes of Climate Policy Funds, by Sample



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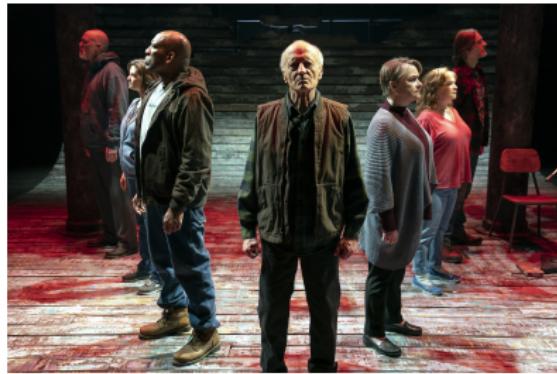
- ▶ Not only economic opportunity cost (relative wages).
- ▶ Effect on the local social structure (e.g., identity, community).
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- ▶ Economic policies can be myopic; only money incentives.

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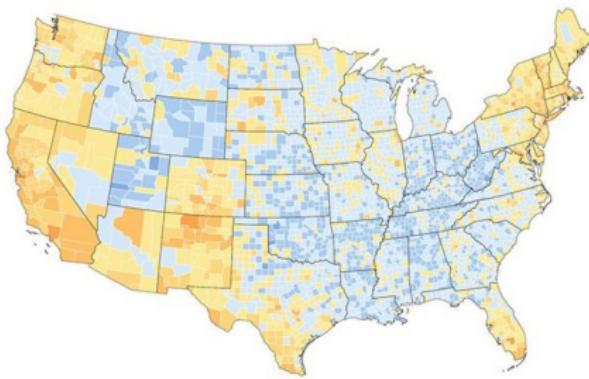
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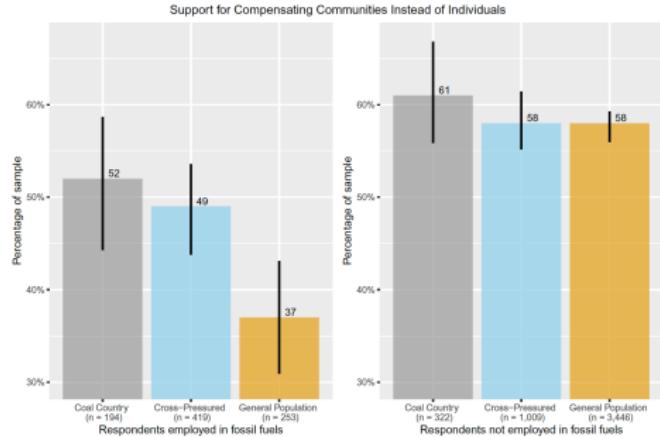
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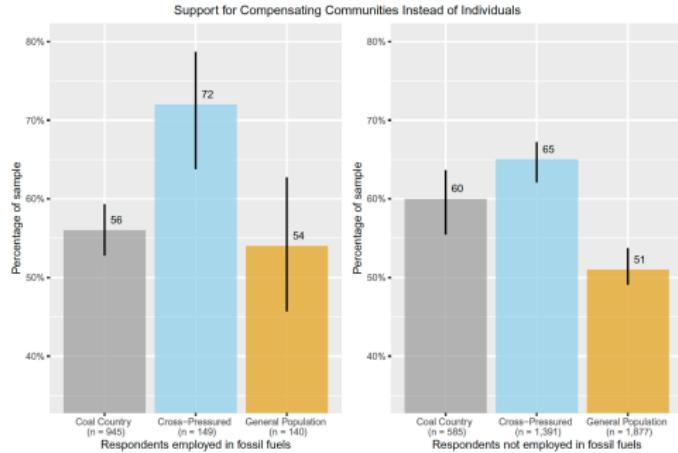
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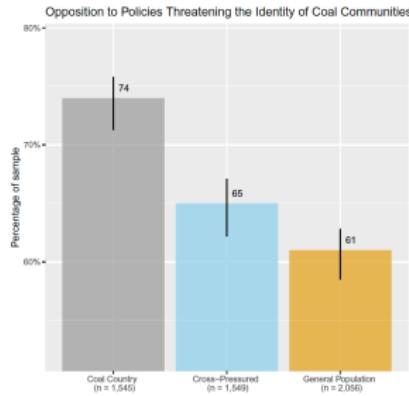
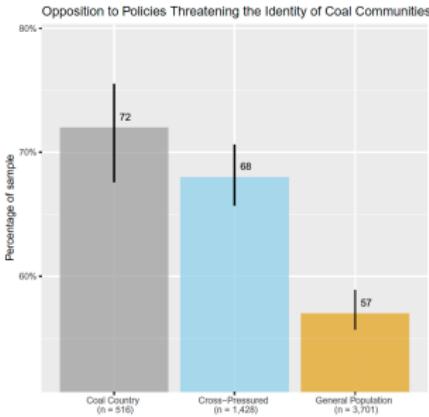
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## Redistribution is easier said than done

- ▶ Programs can have implementation issues; scratched off; lose funding.
- ▶ Effective programs should be credible - absence of third party enforcement.
- ▶ Effective programs should be self-enforcing - incentive compatible.
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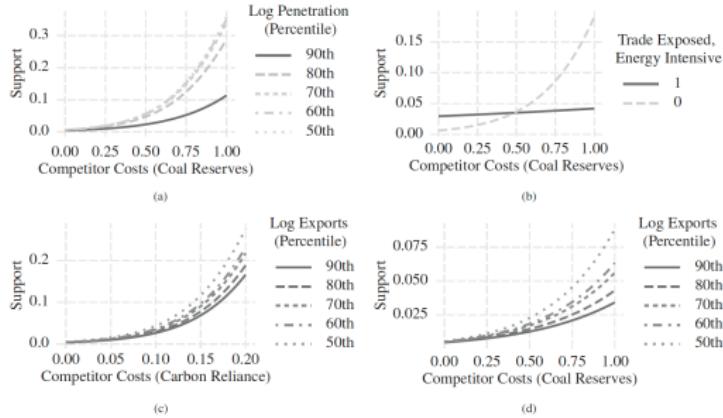
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## Class exercise: How can we generate hands-tying commitments?

1. Make groups of 2/3 people.
2. What do you think about the prescriptions covered by the readings?
3. How a hands-tying commitment should look like? Are they feasible?
4. 10 minutes.
  - ▶ Feel free to use the Internet.

reset

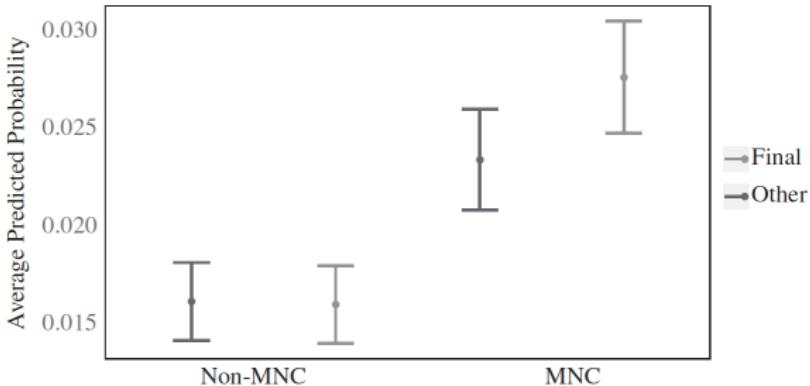
# Can market competition address the problem



Notes: Estimated effect of competitor costs, conditional on levels of import penetration with all other variables mean centered.

- ▶ Domestic competition  $\Rightarrow$  support climate policy.
- ▶ Support for early stages regulation can limit further regulation.
  - ▶ Affects stakeholders.
- ▶ Firm support may depend on preference alignment.
  - ▶ Creating winners and losers within coalitions.

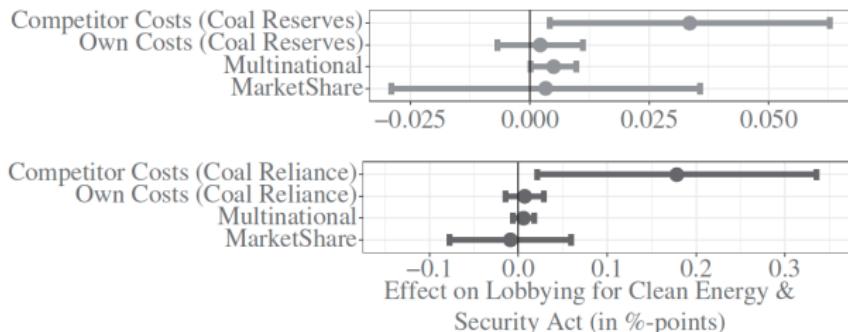
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*Notes:* Mean predicted probability of lobbying for nonmultinationals versus multinationals as moderated by production stage. The difference in means between multinationals engaged in final goods production

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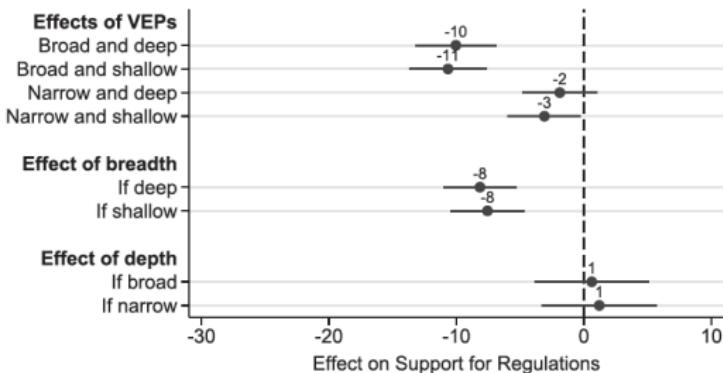
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*Notes:* Marginal (partial) effects for the average firm in the sample, including 95% confidence intervals.  
Logistic regression with standard errors clustered by industry. Dependent variable is support for H.R.5424,

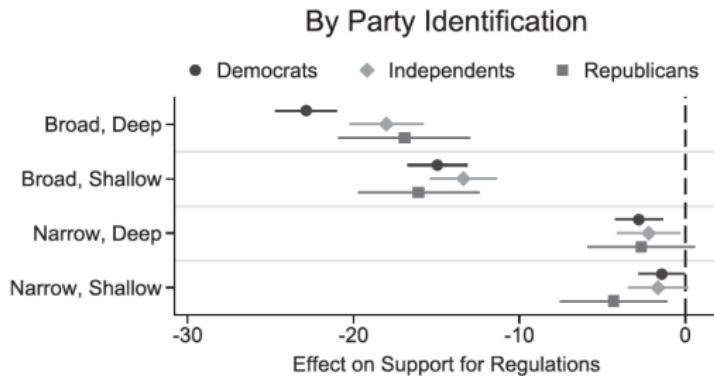
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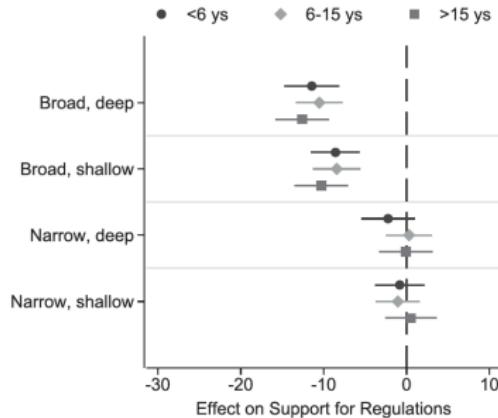
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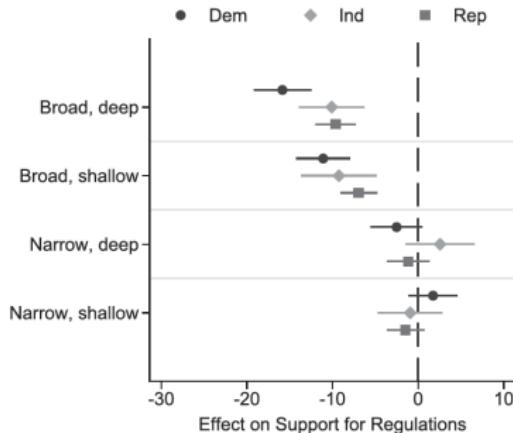
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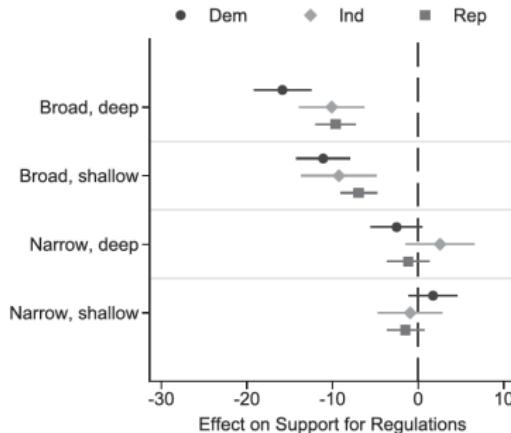
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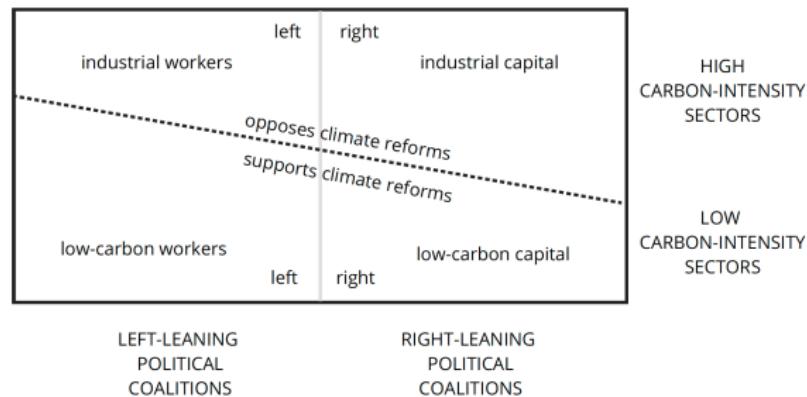
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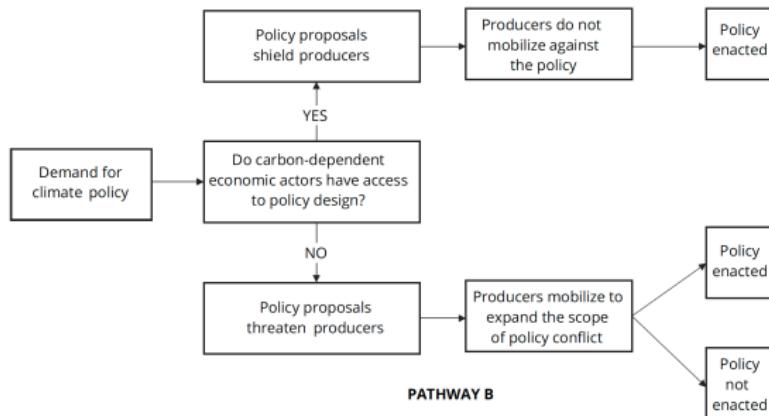
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# Double representation lowers chances of policy adjustment



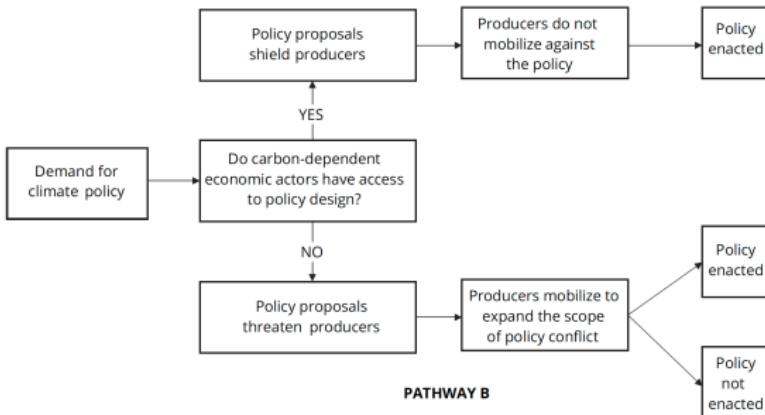
- ▶  $\{\text{Winners v. losers}\} \times \{\text{ Left v. right }\}$ 
  - ▶ Free market + redistributive forces  $\Rightarrow$  deadlock.
  - ▶ Access policy design  $\Rightarrow$  veto + subsidies.
  - ▶ No access policy design  $\Rightarrow$  conflict.
  - ▶ Timing, content and country-level institutions matter.

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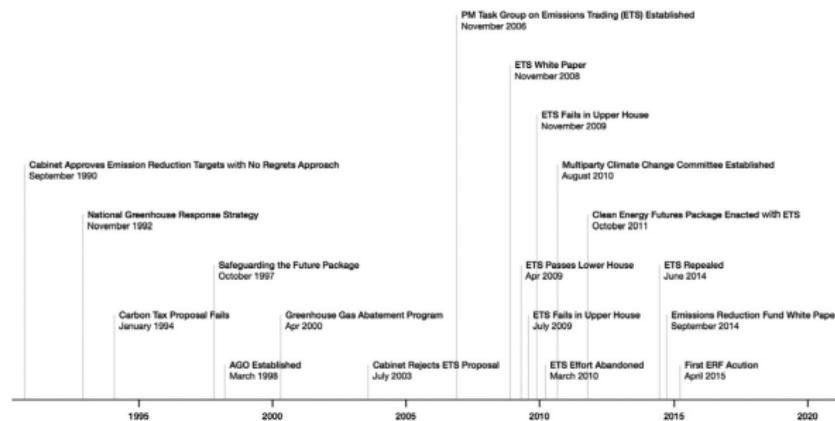
# Double representation lowers chances of policy adjustment

TABLE 1. Extreme Proposals ( $p$ ) and VEPs ( $v$ )

Issue	Extreme proposal ( $p$ )	Voluntary environmental program ( $v$ )
Plastic packaging	Ban plastic packaging for foods and beverages	[Half or All] companies voluntarily agree that their plastic containers will have at least [30 or 70] % recycled content
GM foods	Ban genetically modified foods	[Half or All] companies voluntarily agree to label all genetically modified foods beginning in the year [2014 or 2020]
Neonic insecticides	Ban neonic insecticides	[Half or All] companies voluntarily agree to train farmers [and not sell neonics to farmers who grow crops that attract bees]
Wind turbines	Ban wind turbines in areas where birds might be at risk	[Half or All] companies voluntarily change location and operation to reduce bird deaths from wind turbines by [25 or 60] %
Bluefin tuna	Ban the sale of bluefin tuna in the United States	[Half or All] companies voluntarily agree not to fish in [20 or 40] % of the waters where bluefin tuna live
Car fuel efficiency	Require that all new cars get at least 60 MPG by 2020	[Half or All] companies voluntarily agree that every new car will get at least [40 or 50] miles per gallon by the year 2020

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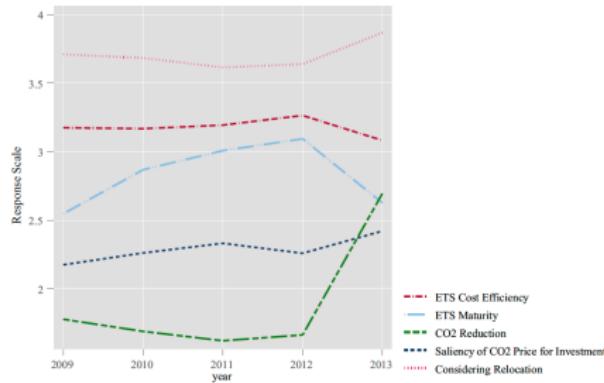
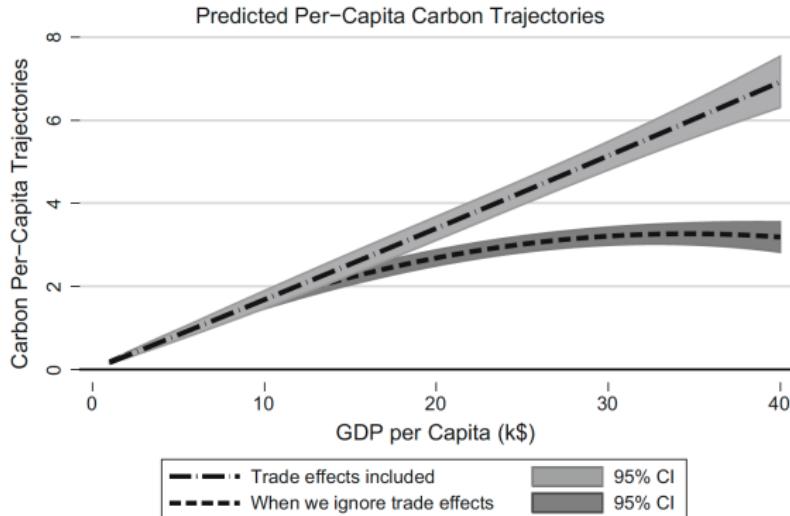


Fig. 1 Average opinions on the EU ETS: time trends across five main survey items. This figure shows the yearly trends of our five survey responses. Values are average responses measured in the original scales

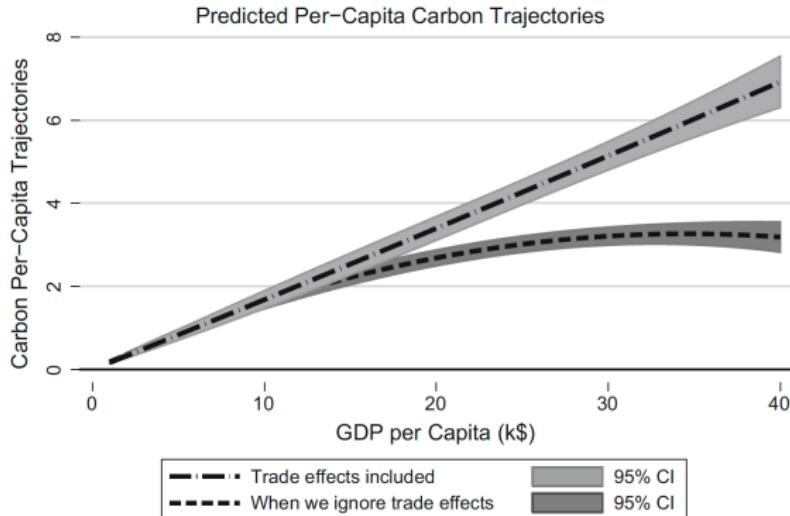
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# Is there an environmental Kuznets curve?



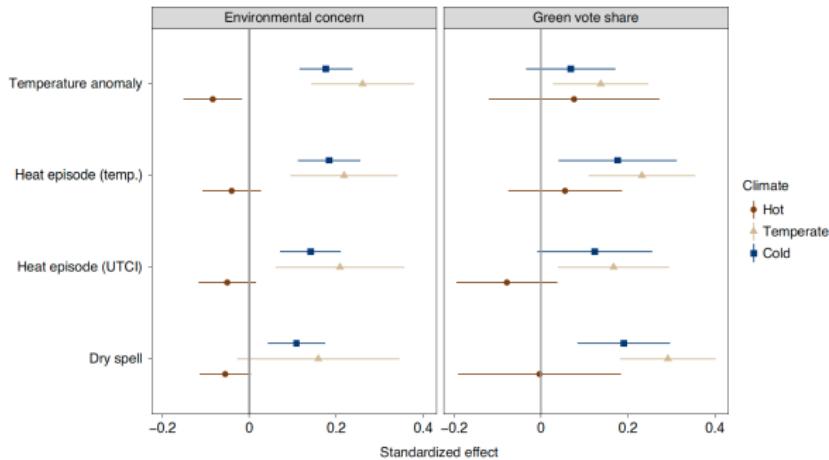
- ▶ Development  $\Rightarrow \uparrow$  Pollution; + development  $\Rightarrow \downarrow$  Pollution.
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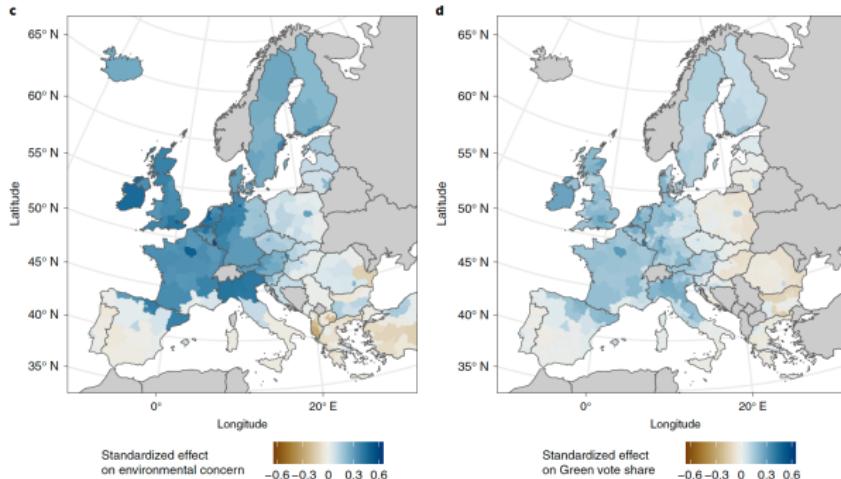
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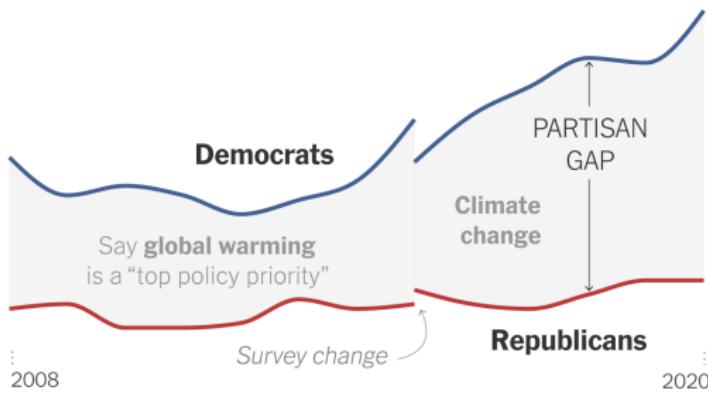
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## Class exercise: Can corporatism address opposition?

1. Make groups of 2/3 people.
2. Does corporatism addresses the problem of credibility? Does it tie the hands of government?
3. Can any other system of government address opposition? Or political conflict if it ensues?
4. 10 minutes.
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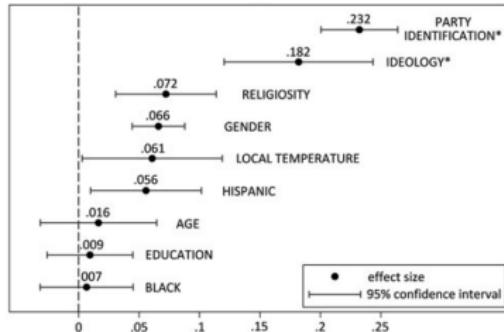
# Ideology and other regarding preferences



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- ▶ Consistent with strong apprehension towards scientific evidence.
- ▶ Given low knowledge/concern, elites cues are especially important
- ▶ Citizens may not internalize the negative externalities on others.

# Ideology and other regarding preferences

FIGURE 2 Effects of Variables on Americans' Beliefs about the Evidence for Global Warming

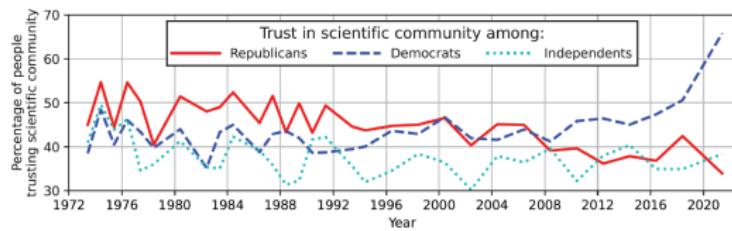


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# Ideology and other regarding preferences

Figure 1

Level of Confidence in Science by Political Party, 1974 – 2022



Source : The General Social Survey, the latest conducted from December 1, 2020 – May 3, 2021. Auditors asked, "I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?" Figure by Alexander Kaurov.

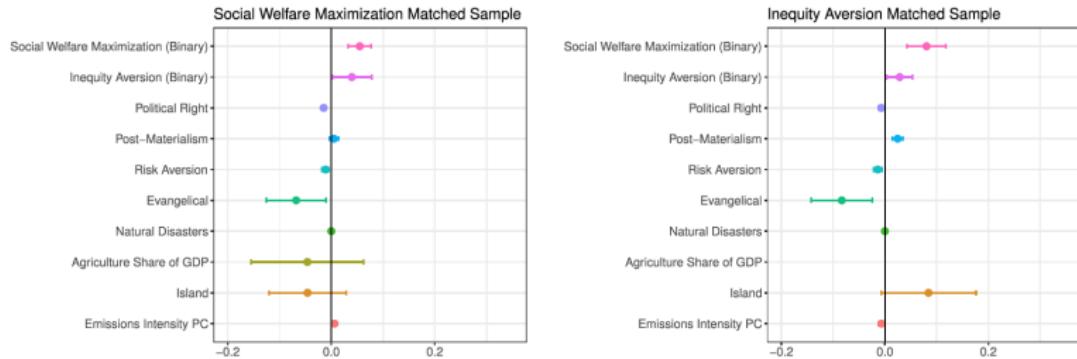
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**Fig. 2** Marginal Effects of Main Independent Variables. Marginal effects of social preference variables

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## Class exercise: how can we generate other regarding preferences?

1. Make groups of 2/3 people.
2. How can we help citizens internalize negative externalities?
3. Are other regarding preferences enough to address the climate impasse?
4. 5 minutes.
  - ▶ Feel free to use the Internet.

reset

Next class...

**How can we generate international coalitions for  
climate change?!**