Lecture 3.b: Instrument choice: public support

Thomas Douenne – University of Amsterdam

September 21, 2022

Where we stand

- So far, we have discussed the relative merit of policy instruments through two dimensions:
  - efficiency;
  - equity.

- If people were fully rational, these two dimensions should suffice: society would favor the policies that yield the highest social benefit, based on these two criteria.

Where we stand

- So far, we have discussed the relative merit of policy instruments through two dimensions:
  - efficiency;
  - equity.

- If people were fully rational, these two dimensions should suffice: society would favor the policies that yield the highest social benefit, based on these two criteria.

- However, as seen yesterday, things are not that simple: people are influenced by many factors and have only a limited rationality. In particular:
  - they may not fully grasp the importance of climate change;
  - they may not fully understand the consequences of certain climate policies.

Where we stand

- So far, we have discussed the relative merit of policy instruments through two dimensions:
  - efficiency;
  - equity.

- If people were fully rational, these two dimensions should suffice: society would favor the policies that yield the highest social benefit, based on these two criteria.

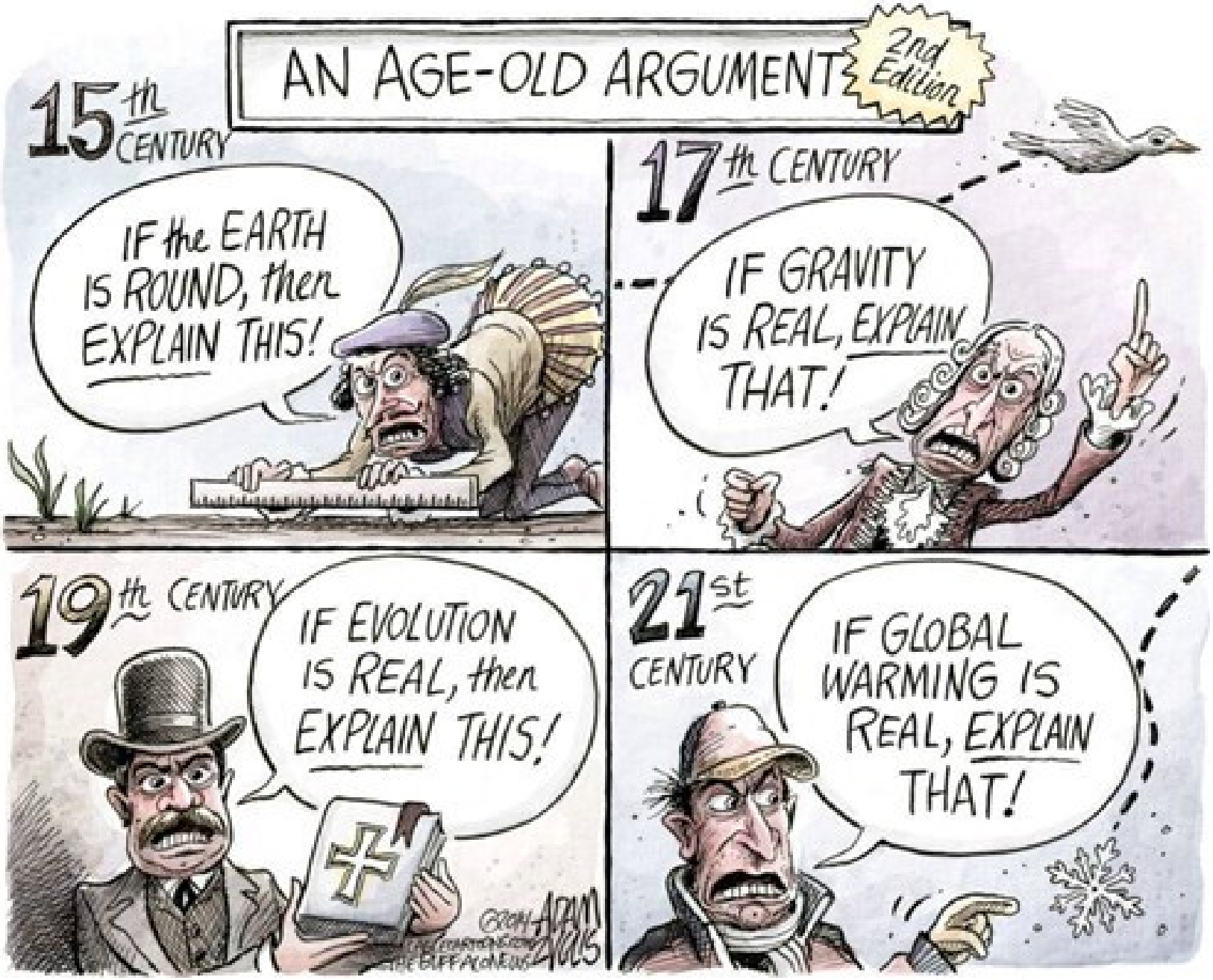
- However, as seen yesterday, things are not that simple: people are influenced by many factors and have only a limited rationality. In particular:
  - they may not fully grasp the importance of climate change;
  - they may not fully understand the consequences of certain climate policies.

$\rightarrow$ Question: how do these factors affect the support for climate policies?

Road map

1. Beliefs about climate change
2. Support for carbon taxation
3. Support for other climate policies

Table of Contents


AN AGE-OLD ARGUMENT
2nd Edition
15th CENTURY
IF the EARTH IS ROUND, then EXPLAIN THIS!
17th CENTURY
IF GRAVITY IS REAL, EXPLAIN THAT!
19th CENTURY
IF EVOLUTION IS REAL, then EXPLAIN THIS!
21st CENTURY
IF GLOBAL WARMING IS REAL, EXPLAIN THAT!

Scientific facts and citizens' beliefs

Millner & Ollivier (2016): "The beliefs of the general public are "ground zero" for the battle to implement environmental policies."

Scientific facts and citizens' beliefs

Millner & Ollivier (2016): "The beliefs of the general public are "ground zero" for the battle to implement environmental policies." $\rightarrow$ Yet, people's beliefs about major environmental problems usually appear inconsistent with scientific evidence. A few examples:

- in 2019, 66% of U.S. citizens believe global warming is caused by human activities (Gallup);
- 65% of them say most scientists believe global warming is occurring (Gallup);
- these beliefs are also very unstable: in 2006, 78% of U.S. citizens believed that the global climate has been warming over the past few decades, against 57% in 2009 (Shapiro, 2016).

Scientific facts and citizens' beliefs

Millner & Ollivier (2016): "The beliefs of the general public are "ground zero" for the battle to implement environmental policies." $\rightarrow$ Yet, people's beliefs about major environmental problems usually appear inconsistent with scientific evidence. A few examples:

- in 2019, 66% of U.S. citizens believe global warming is caused by human activities (Gallup);
- 65% of them say most scientists believe global warming is occurring (Gallup);
- these beliefs are also very unstable: in 2006, 78% of U.S. citizens believed that the global climate has been warming over the past few decades, against 57% in 2009 (Shapiro, 2016).

Question: how do people form their beliefs about major environmental problems, and should we expect this process to eventually converge towards a view consistent with the current state of scientific knowledge?

Mis-understanding of a complex problem

Millner & Ollivier (2016): several characteristics make major environmental problems difficult to grasp:

Mis-understanding of a complex problem

Millner & Ollivier (2016): several characteristics make major environmental problems difficult to grasp:

- they are long term trends whose consequences are often not fully salient;
  - people do not see the climate changing. At best, they receive pieces of noisy information (such as weather fluctuations) that they have to process;
- the sources being so diffuse, and the consequences so largely spread, there are no well identified victims and villains;
- understanding these problems requires to follow a long chain of causal reasoning;
  - e.g. from driving a car in the Netherlands to increasing number of conflicts in Sub-Saharan Africa.

Mis-understanding of a complex problem

Millner & Ollivier (2016): several characteristics make major environmental problems difficult to grasp:

- they are long term trends whose consequences are often not fully salient;
  - people do not see the climate changing. At best, they receive pieces of noisy information (such as weather fluctuations) that they have to process;
- the sources being so diffuse, and the consequences so largely spread, there are no well identified victims and villains;
- understanding these problems requires to follow a long chain of causal reasoning;
  - e.g. from driving a car in the Netherlands to increasing number of conflicts in Sub-Saharan Africa.

$\rightarrow$ Requires significant cognitive efforts that people may avoid, especially if they think it will not make a big difference whether they are well-informed or not (rational inattention), or if knowing the truth imposes a toll on them (motivated reasoning).

Biased beliefs about climate change

Several behavioral biases, or partly intentional judgment errors can lead to incorrect beliefs about the causes or consequences of climate change:

Biased beliefs about climate change

Several behavioral biases, or partly intentional judgment errors can lead to incorrect beliefs about the causes or consequences of climate change:

- Bayesians errors, such as base-rate neglect, or over-reaction to new information;

Biased beliefs about climate change

Several behavioral biases, or partly intentional judgment errors can lead to incorrect beliefs about the causes or consequences of climate change:

- Bayesians errors, such as base-rate neglect, or over-reaction to new information;
  - Ex: people are more likely to think that climate change is happening in warmer days (see Zaval et al, 2014);

Biased beliefs about climate change

Several behavioral biases, or partly intentional judgment errors can lead to incorrect beliefs about the causes or consequences of climate change:

- Bayesians errors, such as base-rate neglect, or over-reaction to new information;
  - Ex: people are more likely to think that climate change is happening in warmer days (see Zaval et al, 2014);
- motivated reasoning, *i.e.* people's tendency to distort their beliefs to make them consistent with their worldviews, or avoid conclusions that make them uncomfortable;

Biased beliefs about climate change

Several behavioral biases, or partly intentional judgment errors can lead to incorrect beliefs about the causes or consequences of climate change:

- Bayesians errors, such as base-rate neglect, or over-reaction to new information;
  - Ex: people are more likely to think that climate change is happening in warmer days (see Zaval et al, 2014);
- motivated reasoning, *i.e.* people's tendency to distort their beliefs to make them consistent with their worldviews, or avoid conclusions that make them uncomfortable;
  - Ex: if I love traveling by plane, I would rather convince myself that air-travel is not so polluting.

Biased beliefs about climate change

Several behavioral biases, or partly intentional judgment errors can lead to incorrect beliefs about the causes or consequences of climate change:

- Bayesians errors, such as base-rate neglect, or over-reaction to new information;
  - Ex: people are more likely to think that climate change is happening in warmer days (see Zaval et al, 2014);
- motivated reasoning, *i.e.* people's tendency to distort their beliefs to make them consistent with their worldviews, or avoid conclusions that make them uncomfortable;
  - Ex: if I love traveling by plane, I would rather convince myself that air-travel is not so polluting.
- imperfect social learning, such as correlation neglect:

Biased beliefs about climate change

Several behavioral biases, or partly intentional judgment errors can lead to incorrect beliefs about the causes or consequences of climate change:

- Bayesians errors, such as base-rate neglect, or over-reaction to new information;
  - Ex: people are more likely to think that climate change is happening in warmer days (see Zaval et al, 2014);
- motivated reasoning, *i.e.* people's tendency to distort their beliefs to make them consistent with their worldviews, or avoid conclusions that make them uncomfortable;
  - Ex: if I love traveling by plane, I would rather convince myself that air-travel is not so polluting.
- imperfect social learning, such as correlation neglect:
  - Ex: most people in your social network have an opinion close to yours, so you incorrectly infer that society as a whole has an opinion close to yours.

Biased beliefs about climate change

Several behavioral biases, or partly intentional judgment errors can lead to incorrect beliefs about the causes or consequences of climate change:

- Bayesians errors, such as base-rate neglect, or over-reaction to new information;
  - Ex: people are more likely to think that climate change is happening in warmer days (see Zaval et al, 2014);
- motivated reasoning, *i.e.* people's tendency to distort their beliefs to make them consistent with their worldviews, or avoid conclusions that make them uncomfortable;
  - Ex: if I love traveling by plane, I would rather convince myself that air-travel is not so polluting.
- imperfect social learning, such as correlation neglect:
  - Ex: most people in your social network have an opinion close to yours, so you incorrectly infer that society as a whole has an opinion close to yours.
- biased supply of information:

Biased beliefs about climate change

Several behavioral biases, or partly intentional judgment errors can lead to incorrect beliefs about the causes or consequences of climate change:

- Bayesians errors, such as base-rate neglect, or over-reaction to new information;
  - Ex: people are more likely to think that climate change is happening in warmer days (see Zaval et al, 2014);
- motivated reasoning, *i.e.* people's tendency to distort their beliefs to make them consistent with their worldviews, or avoid conclusions that make them uncomfortable;
  - Ex: if I love traveling by plane, I would rather convince myself that air-travel is not so polluting.
- imperfect social learning, such as correlation neglect:
  - Ex: most people in your social network have an opinion close to yours, so you incorrectly infer that society as a whole has an opinion close to yours.
- biased supply of information:
  - Ex: people seek for the media that confirm their prior beliefs, hence some medias select information to attract more people $\rightarrow$ results in inaccurate or biased information provision.

Base-rate neglect combined with motivated reasoning

"It's really cold outside, they are calling it a major freeze, weeks ahead of normal. Man, we could use a big fat dose of global warming!"

"Wow, 25 degrees below zero, record cold and snow spell. Global warming anyone?"

"Ice storm rolls from Texas to Tennessee - I'm in Los Angeles and it's freezing. Global warming is a total, and very expensive, hoax!"

Figure: A few basic illustrations.

Motivated beliefs about past summer's temperature (Howe & Leiseirowitz, 2013)

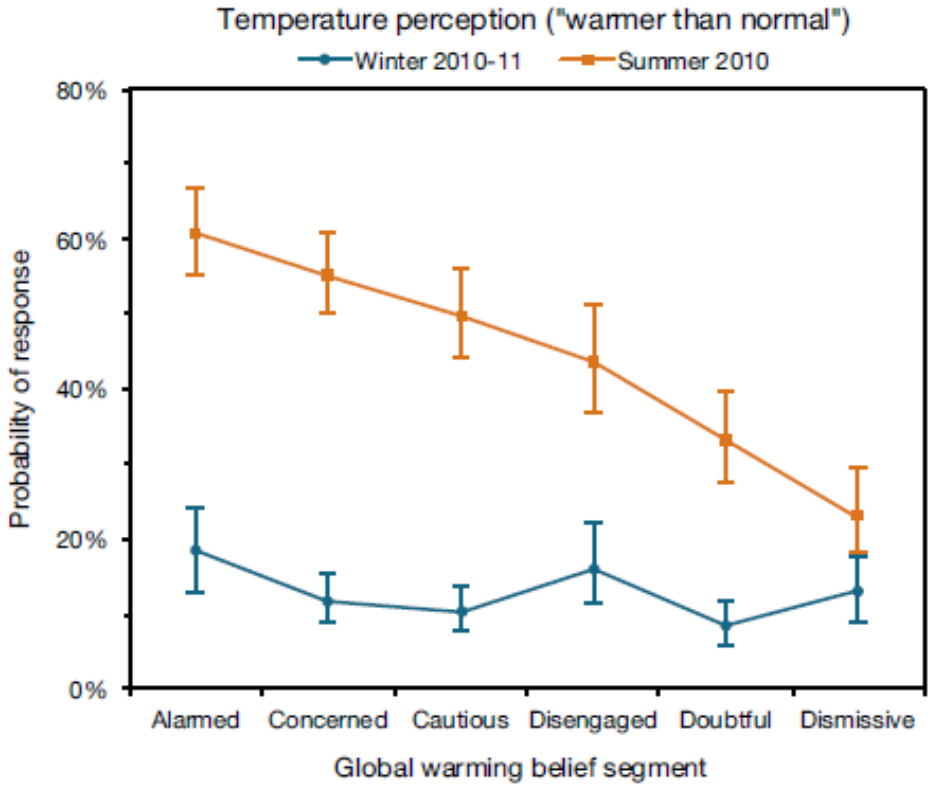


Fig. 4. Predicted probability of responding that winter 2010–2011 and summer 2010 were warmer than normal, by global warming belief segment and holding all other variables constant at their sample medians. Based on model A2 (winter 2010–2011) and model B2 (summer 2010). Error bars represent 95% confidence intervals.

Motivated beliefs about past summer's temperature (Howe & Leiseirowitz, 2013)

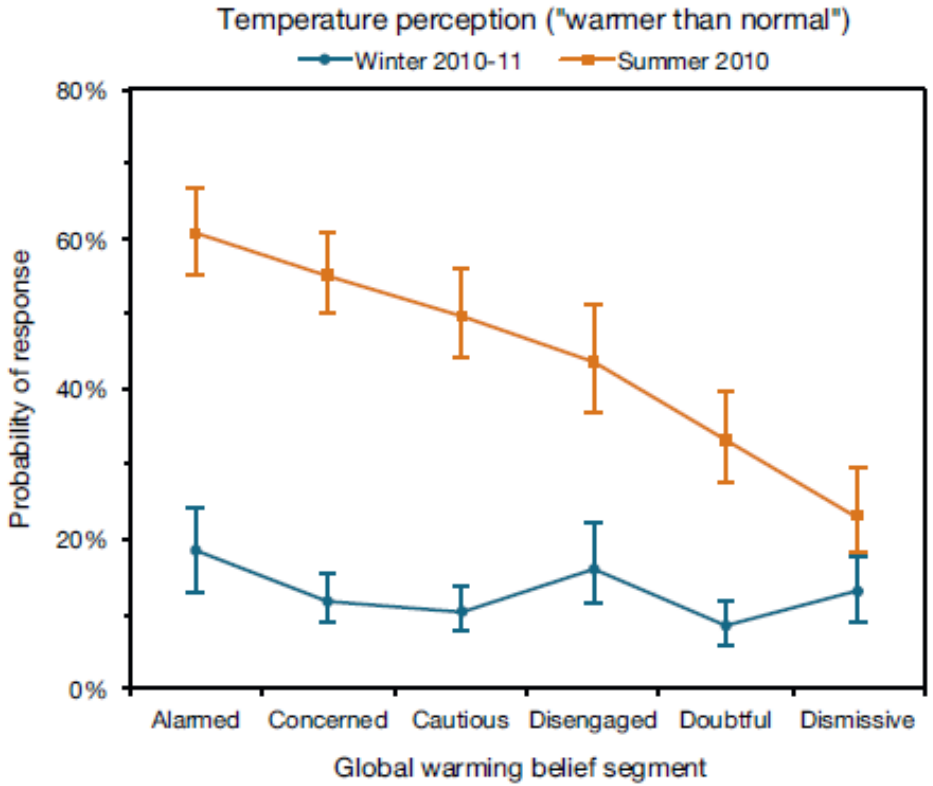
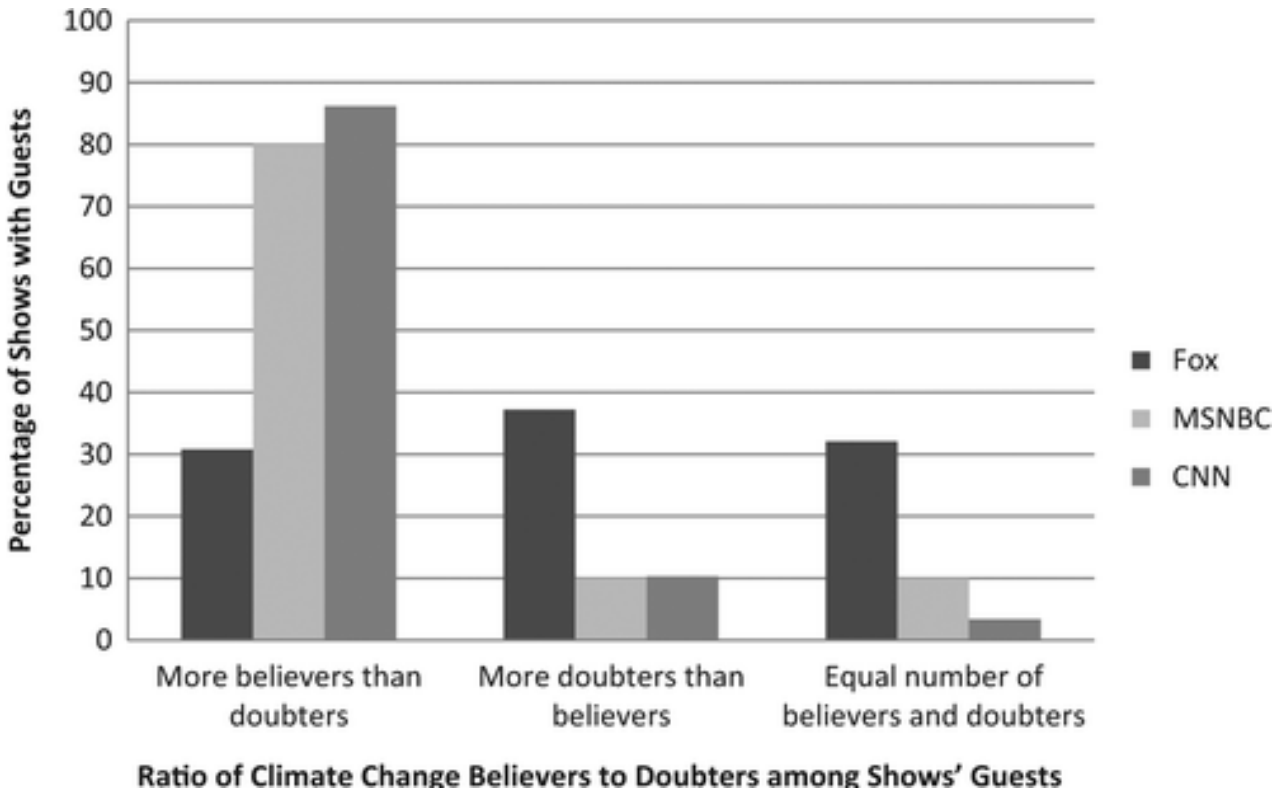


Fig. 4. Predicted probability of responding that winter 2010–2011 and summer 2010 were warmer than normal, by global warming belief segment and holding all other variables constant at their sample medians. Based on model A2 (winter 2010–2011) and model B2 (summer 2010). Error bars represent 95% confidence intervals.

$\rightarrow$ Different views about climate change, different memories about last summer's temperatures.

Heterogeneity in media coverage about climate change (Feldman et al, 2011)



Over 117 shows that featured at least one guest with a determinate stance on climate change, again very heterogeneous positions on the issue.

Table of Contents

The French carbon tax

- **Economists**: carbon tax is the most efficient tool to deal with climate change.
- **Citizens**:

The French carbon tax

- **Economists**: carbon tax is the most efficient tool to deal with climate change.
- **Citizens**:

Figure: Yellow Vests protesting against taxes in France

What's wrong?

In 2014, France has implemented a carbon tax on fossil fuels. In 2018 the tax was at 44,6€/tCO_2, and was scheduled to reach 86.2€/tCO_2 by 2022, and above 150€/tCO_2 by 2030.

What's wrong?

In 2014, France has implemented a carbon tax on fossil fuels. In 2018 the tax was at 44,6€/tCO_2, and was scheduled to reach 86.2€/tCO_2 by 2022, and above 150€/tCO_2 by 2030. But in November 2018, the Yellow Vests movement started, and led the government to abandon its plans.

Why?

What's wrong?

In 2014, France has implemented a carbon tax on fossil fuels. In 2018 the tax was at 44,6€/tCO_2, and was scheduled to reach 86.2€/tCO_2 by 2022, and above 150€/tCO_2 by 2030. But in November 2018, the Yellow Vests movement started, and led the government to abandon its plans.

Why?

- Carbon taxes have distributional effects: they create winners and losers.
- Distributional effects can be partly addressed by recycling the revenue of the tax.
- French context: tax revenue mostly used to finance tax cuts on capital and labor $\rightarrow$ mostly beneficial to richer households.

What's wrong?

In 2014, France has implemented a carbon tax on fossil fuels. In 2018 the tax was at 44,6€/tCO_2, and was scheduled to reach 86.2€/tCO_2 by 2022, and above 150€/tCO_2 by 2030. But in November 2018, the Yellow Vests movement started, and led the government to abandon its plans.

Why?

- Carbon taxes have distributional effects: they create winners and losers.
- Distributional effects can be partly addressed by recycling the revenue of the tax.
- French context: tax revenue mostly used to finance tax cuts on capital and labor $\rightarrow$ mostly beneficial to richer households.

$\rightarrow$ Question: did people oppose this specific reform, or the carbon tax in general? Would people have opposed if another design had been proposed?

Eliciting beliefs about carbon taxation: Method.

Douenne & Fabre (2022):

- survey large sample (3,000 respondents) representative of the French population;
- present them a carbon tax and dividend policy: the carbon tax on energies increases, and the money is transferred back to households uniformly;

Eliciting beliefs about carbon taxation: Method.

Douenne & Fabre (2022):

- survey large sample (3,000 respondents) representative of the French population;
- present them a carbon tax and dividend policy: the carbon tax on energies increases, and the money is transferred back to households uniformly;
- ask households:
  - whether they would approve this reform;
  - whether they think they would gain or lose, and about how much;
  - whether they think the policy is effective;
  - whether they think the policy is progressive.
  - Also, ask many other questions to better characterize them (socio-demographics, political leaning, etc.).
- use randomized informational treatment (*i.e.* information randomly given or not to respondents) to obtain causal effect of people's beliefs on their support.

Eliciting beliefs about carbon taxation: Results.

Eliciting beliefs about carbon taxation: Results.

1. After the Yellow Vests movement, French people largely oppose a carbon tax & dividend:
   - 10% approve of the reform, 70% oppose it, 20% indifferent or hesitant.

Eliciting beliefs about carbon taxation: Results.

1. After the Yellow Vests movement, French people largely oppose a carbon tax & dividend:
   - 10% approve of the reform, 70% oppose it, 20% indifferent or hesitant.
2. They hold pessimistic beliefs about it:
   - e.g. 70% expected to win, only 14% think they would;
   - similar underestimation of the policy's progressivity and effectiveness.

Eliciting beliefs about carbon taxation: Results.

1. After the Yellow Vests movement, French people largely oppose a carbon tax & dividend:
   - 10% approve of the reform, 70% oppose it, 20% indifferent or hesitant.
2. They hold pessimistic beliefs about it:
   - e.g. 70% expected to win, only 14% think they would;
   - similar underestimation of the policy's progressivity and effectiveness.
3. These beliefs are endogenous to people's political views:
   - the more people initially dislike the policy, the less they are willing to accept objective information that supports it;
   - observations consistent with motivated reasoning: people discard arguments that go against their prior beliefs.

Eliciting beliefs about carbon taxation: Results.

1. After the Yellow Vests movement, French people largely oppose a carbon tax & dividend:
   - 10% approve of the reform, 70% oppose it, 20% indifferent or hesitant.
2. They hold pessimistic beliefs about it:
   - e.g. 70% expected to win, only 14% think they would;
   - similar underestimation of the policy's progressivity and effectiveness.
3. These beliefs are endogenous to people's political views:
   - the more people initially dislike the policy, the less they are willing to accept objective information that supports it;
   - observations consistent with motivated reasoning: people discard arguments that go against their prior beliefs.
4. Rejection does not come from intrinsic preferences, but from biased beliefs:
   - when people learn that they would financially gain, their support increases by 50 p.p.;
   - when we simulate public support if all winners knew they were expected to win, and everyone believe in the policy's effectiveness and progressivity: expected support above 90%.

Pessimistic beliefs about self-gains

PDF of subjective vs. objective net gains from Tax & Dividend (in € per year per consumption unit).

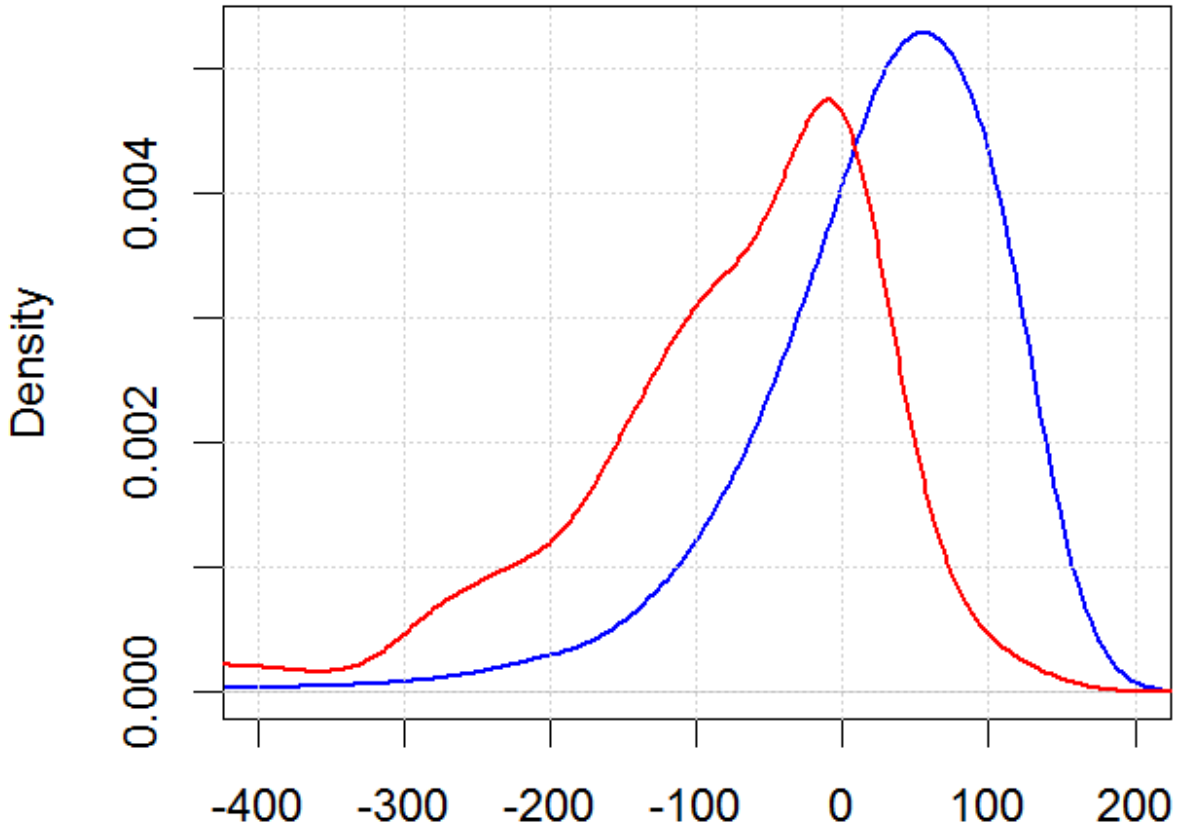


Figure: Net gain. Mean: -89/+24

Heterogeneity in bias

Table: Determinants of a large bias in subjective gains.

	Large bias ($\lvert\hat{\gamma} - g\rvert > 110$)		
	OLS	*logit*	*OLS*
Initial tax: PNR (I don't know)			-0.179^{***}
			(0.023)
Initial tax: Approves			**-0.284^{***}**
			(0.031)
Sex: Female	0.036^{*}	0.030	0.042^{**}
	(0.020)	(0.020)	(0.019)
Ecologist	**-0.064^{**}**	-0.061^{**}	-0.025
	(0.026)	(0.026)	(0.026)
Yellow Vests: PNR	0.039	0.035	0.024
	(0.036)	(0.035)	(0.036)
Yellow Vests: understands	0.081^{***}	0.062^{***}	0.041^{*}
	(0.025)	(0.024)	(0.025)
Yellow Vests: supports	0.108^{***}	0.103^{***}	0.051^{*}
	(0.026)	(0.025)	(0.026)
Yellow Vests: is part	**0.202^{***}**	0.193^{***}	**0.147^{***}**
	(0.048)	(0.040)	**(0.047)**
Controls: Socio-demo, political leaning	✓	✓	✓
Observations	3,002	3,002	3,002
R^2	0.061		0.098

*p<0.1; **p<0.05; ***p<0.01

From official statistics, we can impute to each survey respondent an estimate of its net gain from the policy and compare with its own estimation to assess the "bias".

Heterogeneity in bias

Table: Determinants of a large bias in subjective gains.

	Large bias ($\lvert\hat{\gamma} - g\rvert > 110$)		
	OLS	*logit*	*OLS*
Initial tax: PNR (I don't know)			-0.179^{***}
			(0.023)
Initial tax: Approves			**-0.284^{***}**
			(0.031)
Sex: Female	0.036^{*}	0.030	0.042^{**}
	(0.020)	(0.020)	(0.019)
Ecologist	**-0.064^{**}**	-0.061^{**}	-0.025
	(0.026)	(0.026)	(0.026)
Yellow Vests: PNR	0.039	0.035	0.024
	(0.036)	(0.035)	(0.036)
Yellow Vests: understands	0.081^{***}	0.062^{***}	0.041^{*}
	(0.025)	(0.024)	(0.025)
Yellow Vests: supports	0.108^{***}	0.103^{***}	0.051^{*}
	(0.026)	(0.025)	(0.026)
Yellow Vests: is part	**0.202^{***}**	0.193^{***}	**0.147^{***}**
	(0.048)	(0.040)	**(0.047)**
Controls: Socio-demo, political leaning	✓	✓	✓
Observations	3,002	3,002	3,002
R^2	0.061		0.098

*p<0.1; **p<0.05; ***p<0.01

From official statistics, we can impute to each survey respondent an estimate of its net gain from the policy and compare with its own estimation to assess the "bias". $\rightarrow$ **The more opposed to the tax, the more biased? Or opposite direction of causality?**

Asymmetric beliefs' revision

Using official statistics, we can correctly predict in 5 cases out of 6 whether a given individual would win or lose from the policy. After people told us what they think, we give them this feedback and look whether they update their beliefs:

Asymmetric beliefs' revision

Using official statistics, we can correctly predict in 5 cases out of 6 whether a given individual would win or lose from the policy. After people told us what they think, we give them this feedback and look whether they update their beliefs:

Table: Share of respondents with new beliefs aligned with feedback

	Aligned with feedback: $G^F = \widehat{\Gamma}$	
	Feedback:	
	win $(\widehat{\Gamma} = 1)$ (75.8%)	lose $(\widehat{\Gamma} = 0)$ (24.2%)
Initial belief winner $(g^0 > 0)$ (14.0%)	78.8% $[73.2\%; 83.4\%]$	**81.5%** $[65.0\%; 91.3\%]$
Initial belief unaffected $(g^0 = 0)$ (21.7%)	21.6% $[17.6\%; 26.2\%]$	44.9% $[33.5\%; 56.8\%]$
Initial belief loser $(g^0 < 0)$ (64.3%)	**12.2%** $[10.3\%; 14.5\%]$	93.9% $[90.9\%; 96.0\%]$
Initial belief affected $(g^0 \neq 0)$ (78.3%)	26.1% $[23.7\%; 28.7\%]$	92.9% $[89.8\%; 95.1\%]$
All (100%)	25.1% $[23.0\%; 27.3\%]$	85.7% $[82.2\%; 88.7\%]$

NOTE: The 95% confidence intervals for binomial probabilities is given in brackets.

Beyond the French carbon tax

The rejection of the carbon tax observed in France is one example, but in many other countries policymakers have tried and failed to implement it (e.g. Australia, Washington State).

Carattini et al (2018): "In 2016, 18 countries and two Canadian provinces have implemented a carbon tax (...). In comparison, 176 countries had policy targets for renewable energy and/or energy efficiency".

Beyond the French carbon tax

The rejection of the carbon tax observed in France is one example, but in many other countries policymakers have tried and failed to implement it (e.g. Australia, Washington State).

Carattini et al (2018): "In 2016, 18 countries and two Canadian provinces have implemented a carbon tax (...). In comparison, 176 countries had policy targets for renewable energy and/or energy efficiency".

Thus, one may wonder:

- whether there exists specific designs of the carbon tax more likely to succeed than others;
- whether there are other environmental and climate policies that gather a larger public support;
- whether public opinion about environmental policies is homogeneous, or instead polarized within society;
- whether the lack of public support is associated to specific beliefs about climate change.

Table of Contents

Support for climate policies over the world: a survey

- What do people think of climate change around the world?
- Which policies people tend to support?
- What are the political or sociodemographic determinants of people's support?

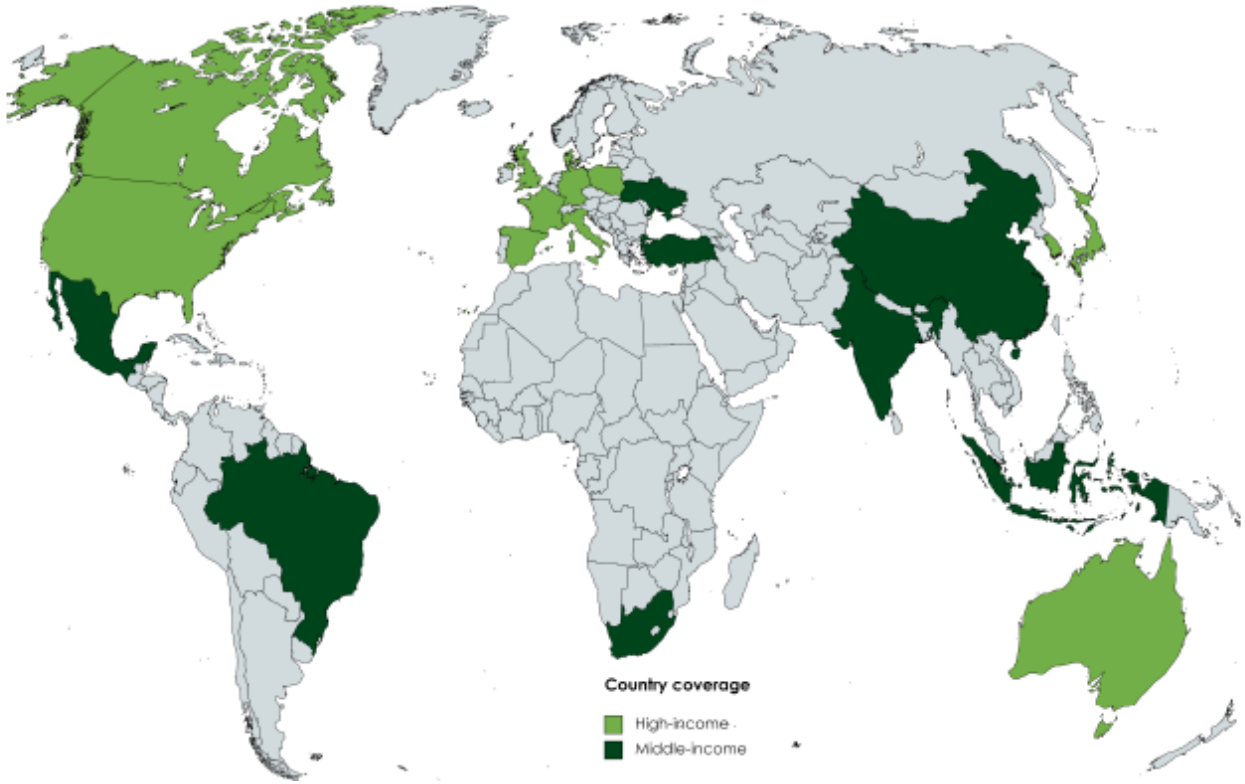
Support for climate policies over the world: a survey

- What do people think of climate change around the world?
- Which policies people tend to support?
- What are the political or sociodemographic determinants of people's support?

$\rightarrow$ Dechezleprêtre et al (2022) run an international survey for the OECD. Include both developed and developing countries: heterogeneous incomes, heterogeneous exposure to climate change, heterogeneous political views, etc.

The survey map

20 countries in all world regions, middle-income as well as high-income,
covering 72% of global CO_2 emissions, including 18 out of the 21 largest polluters.

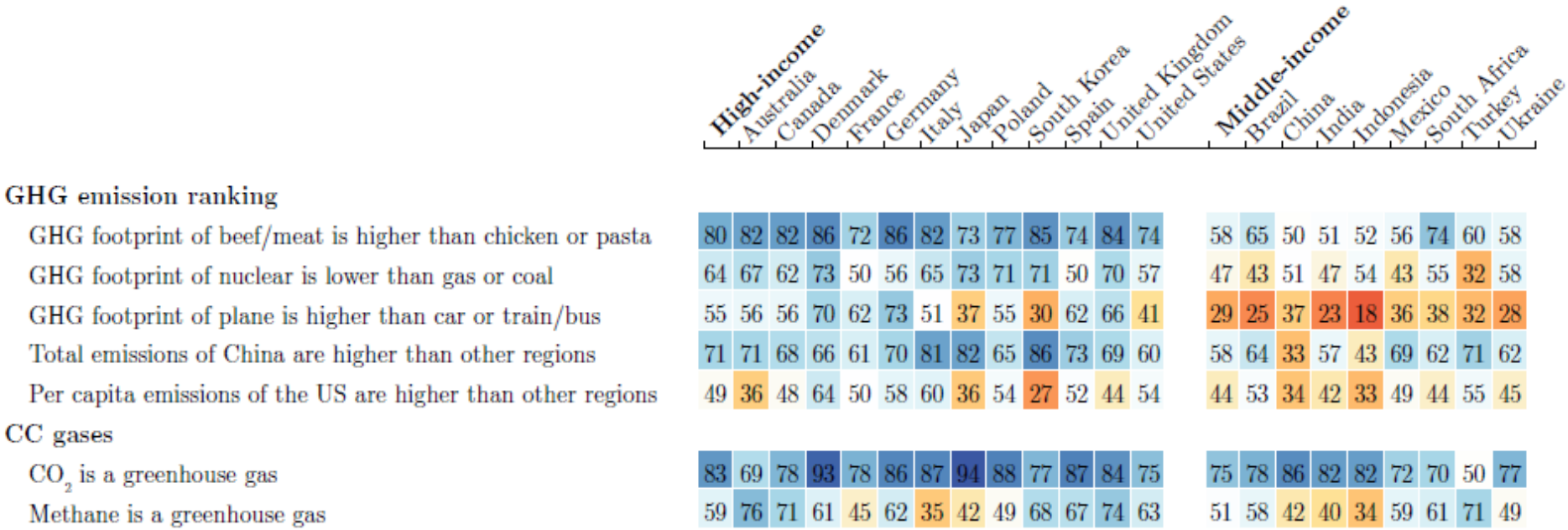


Source: Dechezleprêtre et al (2022).

Knowledge about climate change

Mixed knowledge

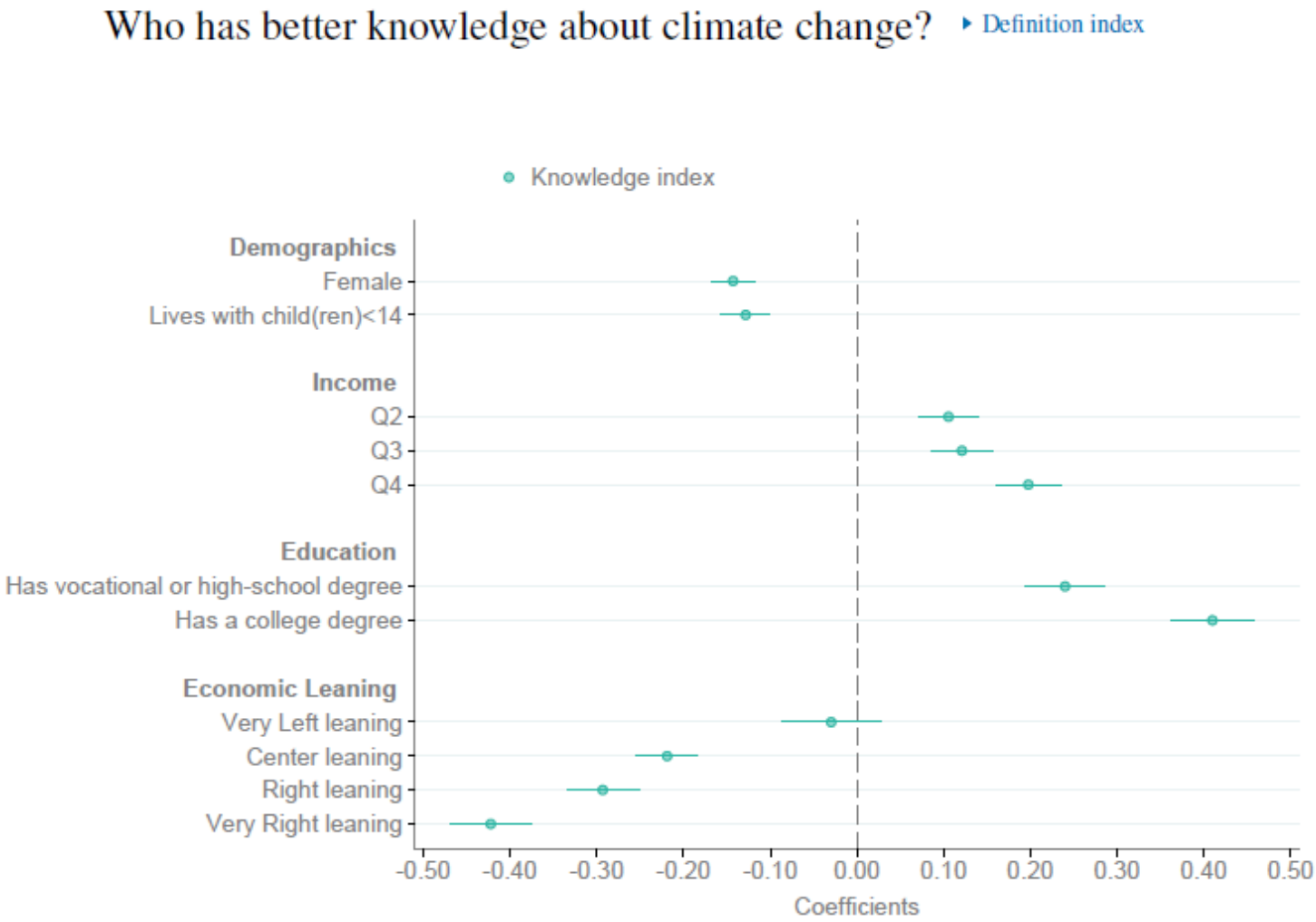
% of respondents who agree with the following statements: ▸ Detailed results



	High-income													Middle-income							
	Australia	Canada	Denmark	France	Germany	Italy	Japan	Poland	South Korea	Spain	United Kingdom	United States		Brazil	China	India	Indonesia	Mexico	South Africa	Turkey	Ukraine
GHG emission ranking																					
GHG footprint of beef/meat is higher than chicken or pasta	80	82	82	86	72	86	82	73	77	85	74	84	74	58	65	50	51	52	56	74	60	58
GHG footprint of nuclear is lower than gas or coal	64	67	62	73	50	56	65	73	71	71	50	70	57	47	43	51	47	54	43	55	32	58
GHG footprint of plane is higher than car or train/bus	55	56	56	70	62	73	51	37	55	30	62	66	41	29	25	37	23	18	36	38	32	28
Total emissions of China are higher than other regions	71	71	68	66	61	70	81	82	65	86	73	69	60	58	64	33	57	43	69	62	71	62
Per capita emissions of the US are higher than other regions	49	36	48	64	50	58	60	36	54	27	52	44	54	44	53	34	42	33	49	44	55	45
CC gases																					
CO_2 is a greenhouse gas	83	69	78	93	78	86	87	94	88	77	87	84	75	75	78	86	82	82	72	70	50	77
Methane is a greenhouse gas	59	76	71	61	45	62	35	42	49	68	67	74	63	51	58	42	40	34	59	61	71	49

Source: Dechezleprêtre et al (2022).

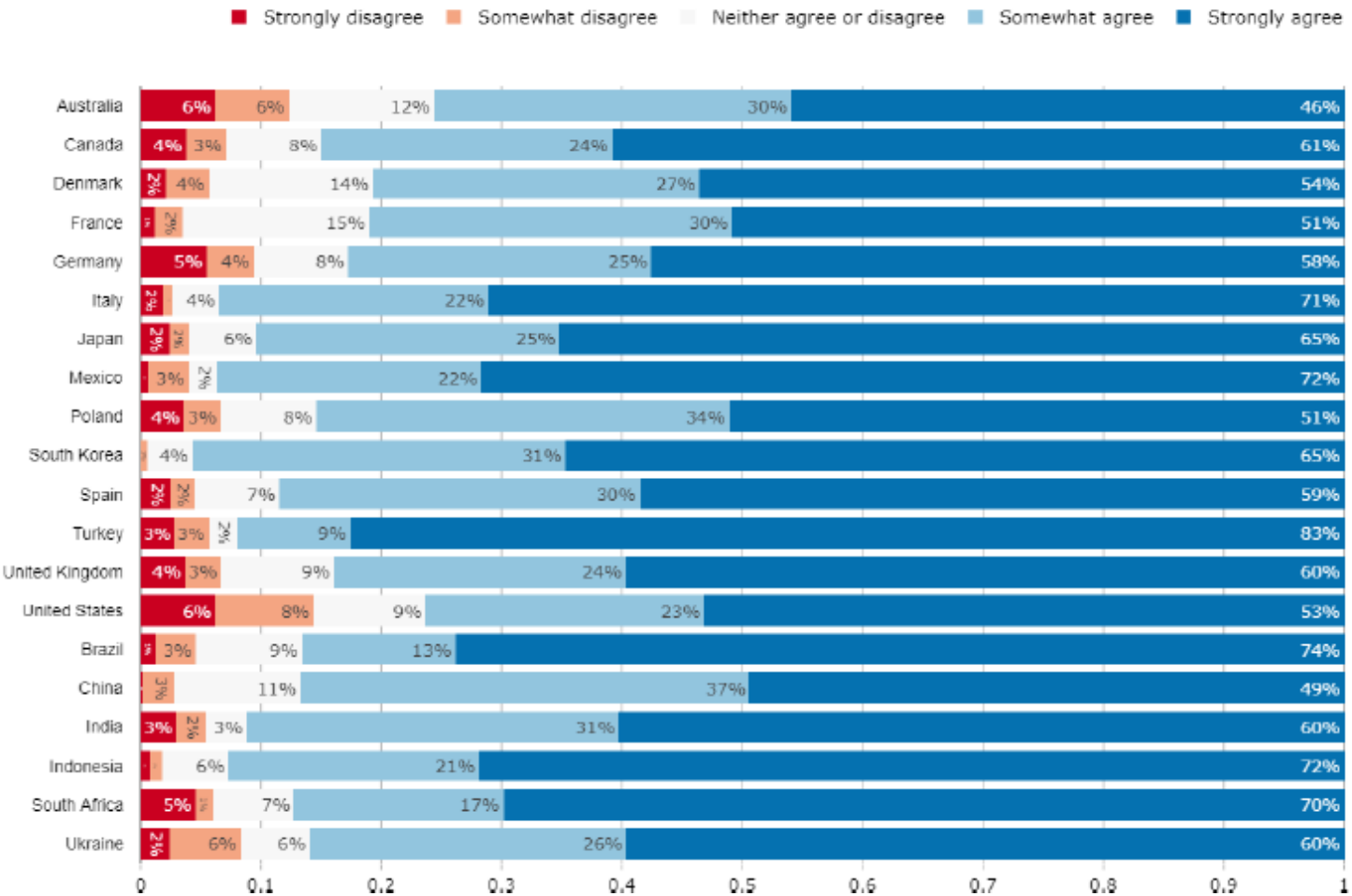
Determinants of knowledge about climate change



Source: Dechezleprêtre et al (2022).

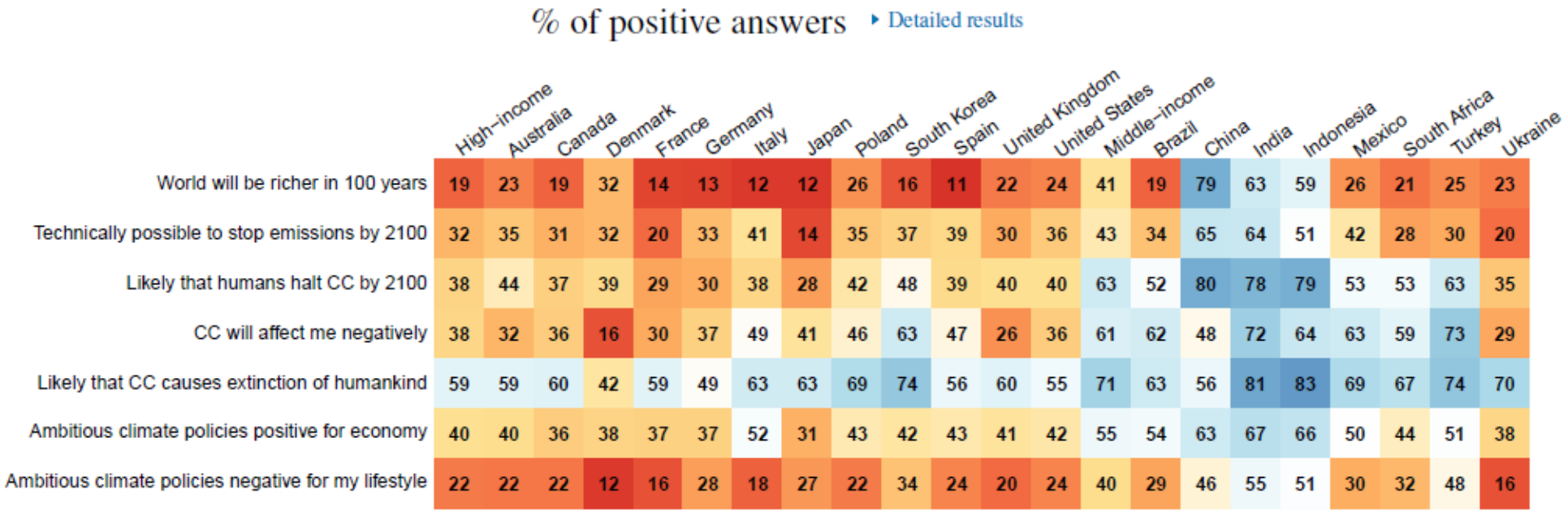
Concerns about climate change over the world (1/3)

Do you agree or disagree with the following statement: “Climate change is an important problem."?



Source: Dechezleprêtre et al (2022).

Concerns about climate change over the world (2/3)



Source: Dechezleprêtre et al (2022).

Concerns about climate change over the world (3/3)

- Citizens do not have a very good knowledge of the drivers of climate change: strongly correlates with education and political leaning.
- Still, citizens over the world appear aware and concerned about climate change.

Concerns about climate change over the world (3/3)

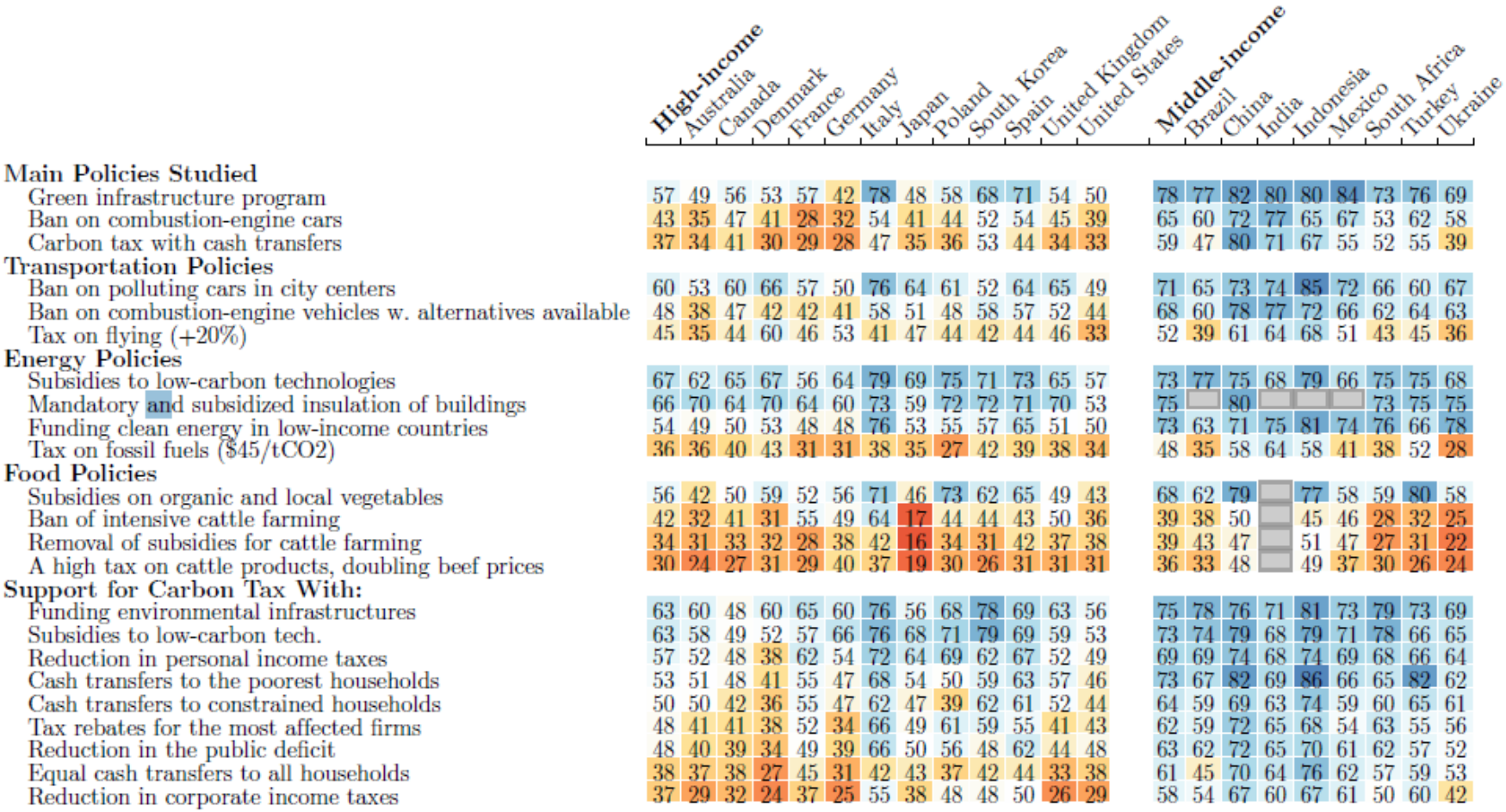
- Citizens do not have a very good knowledge of the drivers of climate change: strongly correlates with education and political leaning.
- Still, citizens over the world appear aware and concerned about climate change.
- Yet, policymakers often struggle to enact ambitious climate policies.
- Citizens want something to be done about climate change, but they don't seem to agree on "what" to do or "how" to do it.

Concerns about climate change over the world (3/3)

- Citizens do not have a very good knowledge of the drivers of climate change: strongly correlates with education and political leaning.
- Still, citizens over the world appear aware and concerned about climate change.
- Yet, policymakers often struggle to enact ambitious climate policies.
- Citizens want something to be done about climate change, but they don't seem to agree on "what" to do or "how" to do it.

Are there policies more likely to be supported by a majority than others?

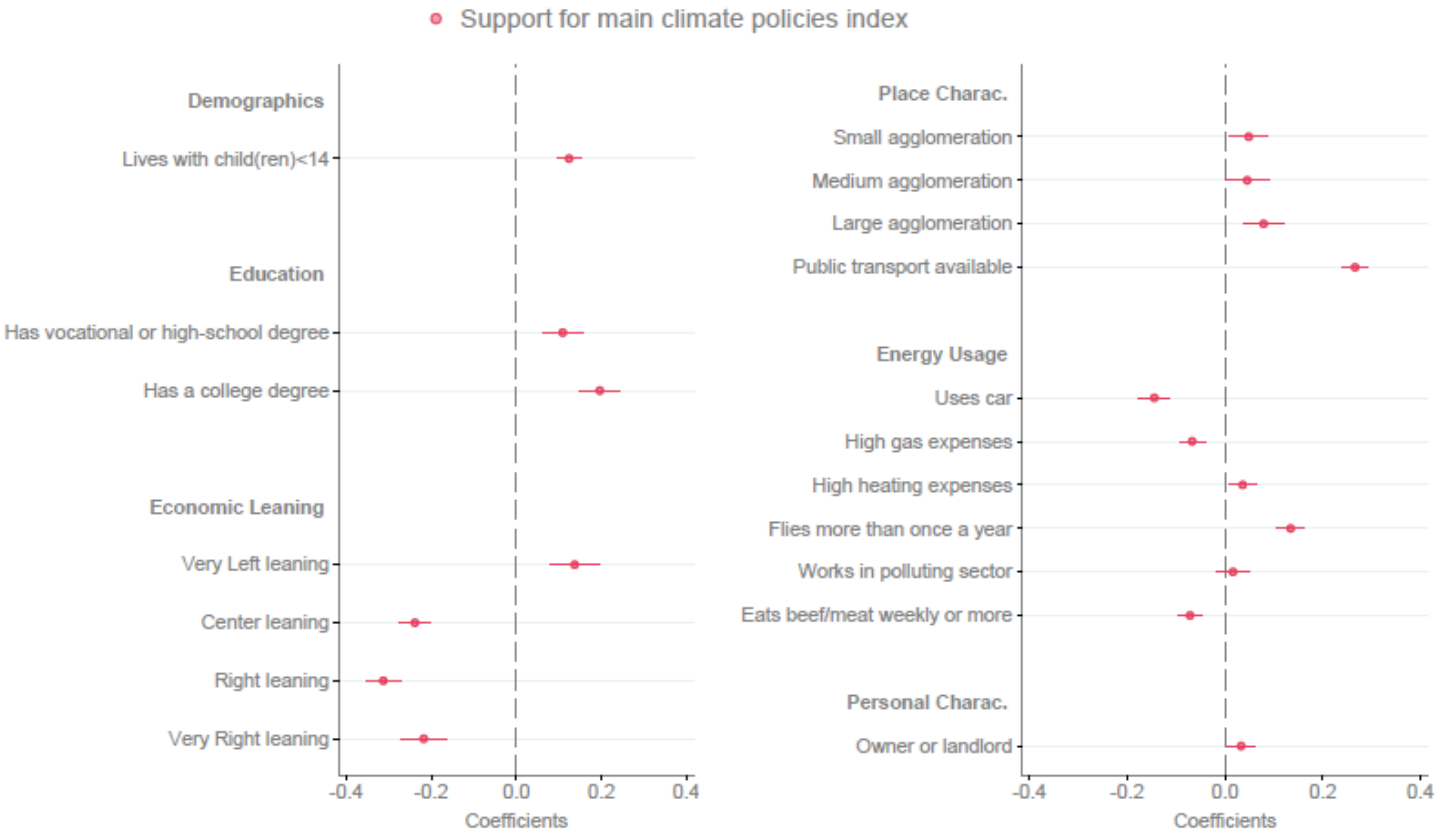
Support for climate policies: cross-country analysis (1/3)



Source: Dechezleprêtre et al (2022).

Support for climate policies: cross-country analysis (2/3)

Support for main policies regressed on social, political, and energy characteristics. ▸ See heterogeneity



Source: Dechezleprêtre et al (2022).

Support for climate policies: cross-country analysis (3/3)

- Citizens support more climate policies in middle-income countries:
  - sample selection bias?
  - Different expectations about how climate change would impact them?

Support for climate policies: cross-country analysis (3/3)

- Citizens support more climate policies in middle-income countries:
  - sample selection bias?
  - Different expectations about how climate change would impact them?
- Political leaning strongly correlates with support:
  - people at the left of the political spectrum are overall more supportive of climate policies.

Support for climate policies: cross-country analysis (3/3)

- Citizens support more climate policies in middle-income countries:
  - sample selection bias?
  - Different expectations about how climate change would impact them?
- Political leaning strongly correlates with support:
  - people at the left of the political spectrum are overall more supportive of climate policies.
- People tend to prefer subsidies to taxes:
  - taxes have very salient costs, and their incentive purpose is not always well-understood;
  - subsidies have hidden (fiscal) costs.
- Bans also tend to be preferred over taxes:
  - their environmental outcome may be more salient;
  - they may also seem more fair.
- The carbon tax receives more support when revenues are used to finance green spending:
  - again, might be necessary for people to consider this an environmental measure.

Concluding remarks

- Many citizens aware and concerned about climate change. Still, significant disagreements about the best way to proceed.
- Economists have mostly focused on the design of effective instruments without overly undesirable distributive properties.

Concluding remarks

- Many citizens aware and concerned about climate change. Still, significant disagreements about the best way to proceed.
- Economists have mostly focused on the design of effective instruments without overly undesirable distributive properties.
- However, a second challenge faced by policymakers is how these instruments are perceived by the public.
  - If beliefs over the source of environmental problems and the nature of the solutions proposed to tackle them are biased, designing efficient and fair policies is not sufficient to guarantee an effective transition.
- How to overcome this challenge?

Concluding remarks

- Many citizens aware and concerned about climate change. Still, significant disagreements about the best way to proceed.
- Economists have mostly focused on the design of effective instruments without overly undesirable distributive properties.
- However, a second challenge faced by policymakers is how these instruments are perceived by the public.
  - If beliefs over the source of environmental problems and the nature of the solutions proposed to tackle them are biased, designing efficient and fair policies is not sufficient to guarantee an effective transition.
- How to overcome this challenge?
  - Remain critical about our own assessment of equity and efficiency.
  - Improving communication about climate change and climate policies.
  - Accept compromises in terms of efficiency and equity.