

Supplementary material:

1. Coding of demand data (*parts adopted from Oehl 2015 and Oehl et al. 2017*)

a) Selection of newspapers

The countries were also selected to represent the different media systems: The USA and Canada representing the liberal model, Italy and Spain the polarized pluralist model, and Germany and Switzerland for the democratic corporatist model. In each of the countries, a conservative and a liberal newspaper were selected (see Table A-1). Newspapers of record were chosen given their distinct agenda setting power for other media fields. For example, newspapers have been shown to set the agenda for other media outlets like TV news, etc. (Vliegenthart and Walgrave 2008).

Table A-1 Selection of newspaper sources

Country	Newspaper	Source	Years
Canada	National Post	Lexis Nexis	1999-2010
	The Globe and Mail	Lexis Nexis	1995-2010
Germany	Süddeutsche Zeitung	Factiva, ProQuest	1995-2010
	Frankfurter Allgemeine Zeitung	Biblionet	1995-2010
Italy	La Stampa	Lexis Nexis	1995-2010
	Corriere della Sierra	Factiva, ProQuest	1997-2010
Spain	El Pais	Lexis Nexis	1996-2010
	El Mundo	Lexis Nexis	2002-2010
Switzerland	Neue Zürcher Zeitung	wiso	1995-2010
	Tages-Anzeiger	wiso	1997-2010
United States	USA Today	Lexis Nexis	1995-2010
	New York Times	Lexis Nexis	1995-2010

b) Coding

We used online archives to download all articles relevant to the climate change issue from 1995 to 2010 (see Oehl et al. 2017 for more information on the search terms and download procedure). We covered the full reporting of each newspaper. First, we developed an English search string. The construction was based on the list of policies from the policy output data set by Schaffer and Bernauer (2014), and the three main keywords of the topic “climate”, “global warming” and “greenhouse”. It was then translated into the respective other languages by native speakers and translated back into English by another native speaker to ensure the quality of the translation. All search strings were additionally optimized for their efficiency, meaning to get as few irrelevant articles as possible when using them for the download process. This and differences in the structure of the languages explain slight differences between the different language versions. The search strings are listed below.

English (climat! OR greenhouse! OR global warming) AND (renewable energ! OR energy polic! OR refining OR feed-in! OR emissio! OR emissions trading OR certificate trading OR ((green OR white) AND certificate) OR combined heat OR cogeneration OR power solutio! OR energy solutio! OR CO2 OR carbon OR energy efficiency OR energy saving OR extraction OR exploitation OR geotherm! OR (solar w/5 (power OR energy)) OR (wind w/5(energy OR power)) OR hydro! OR agricultu! OR waste management OR forest OR wood!)

German (klima! OR treibhaus! OR globale erwärmung) AND (erneuerbare energie OR energiepolitik OR raffination OR raffinierung OR einspeisungs! OR feed-in! OR !emission! OR emissionshand! OR zertifikathandel OR ((günes OR weisses) AND zertifikat) OR !heizkraft! OR CO2 OR kohlenstoff OR kohlendioxid OR energieeffizienz OR energiespar! OR förderung OR gewinnung OR extraktion OR geotherm! OR wasserkraft OR wasserenergie OR hydro! OR sonnenkraft OR sonnenenergie OR solar! OR windkraft OR windenergie OR abfall! OR agrar! OR abfallwirtschaft OR müllentsorgung! OR wald! AND NOT klimaanlage)

Spanish (clima! OR efecto invernadero OR calentamiento global) AND (energ! removable OR polit! energ! OR refina! OR tarifa de alimentacin OR sistema tradicional de prima OR tarifa de entrada OR ((tarifa OR prima) AND regulada) OR emisio! OR emiso! OR (comercio AND (derecho OR bono OR crdito) AND emisio!) OR comercio de certifica! OR (certificado AND (verde OR blanco)) OR cogeneracin OR solucio! energ! OR CO2 OR carbono OR eficiencia energtica OR ahorro energ! OR extrac! OR geoterm! OR (energ! AND (hidrulica OR hidrica)) OR energia solar OR energia elica OR hidro! OR agricult! OR gestin OR eliminacin OR residu! OR basura OR desperdicio OR resto OR forest! OR bosque)

Italian (clima! OR effetto serra OR riscaldamento globale) AND (energ! rinnovabil! OR politic! energetic! OR font! rinnovabil! OR risors! rinnovabil! OR ra_nazione OR combustibil! fossil! OR conto energia OR emission! OR mercato del carbonio OR crediti di carbonio OR (certifica! di inquinamento) OR certificai verdi OR certifica! energetic! OR cogenera! OR soluzione energ! OR CO2 OR carbonio OR bioossido OR efficienza energ! OR sostenibil! OR ecosostenibil! OR risparmio energ! OR estrazione OR geoterm! OR energia idroelettrica OR (solare w/5 energia) OR fotovoltaic! OR ((eolic! OR vento) w/5 energia) OR idro! OR agric! OR gestione rifiuti OR forest! OR allocazione di CO2 OR biomass! OR impronta di carbonio))

c) Magnitude of coding effort

Only hits in the body of the text were considered. We excluded the equivalents of sections on “Sports”, “Gardening” or “Automobile/Cars”. To increase the share of relevant articles, the downloaded articles were sampled: at least five words of the search string had to be present to make it into the actual sample. This margin was set based on the results from the pre-tests. The share of relevant articles increased drastically when at least five compared to a lower threshold of words were present.

The coders used the software MaxQDA. Relying on such software increases the quality of the data with respect to replicability as the particular coding decisions can be easily reconstructed. The articles were

loaded into MaxQDA and then analyzed by the coders within the software.¹ This simplifies the coding compared to approaches when text is read in one program and data is gathered in another. MaxQDA allows assigning codes to words, sentences or paragraphs and to code variables which refer to the whole article. The codebook reflects this distinction. Before the actual coding starts, irrelevant articles were eliminated. **An article is coded as relevant if it either discusses one or several climate policies or it covers the phenomenon of climate change in general.** This includes articles on new technologies (that might help to reduce emissions) when they make a clear connection to the topic climate change and also articles on nuclear energy with a clear connection to the (low) climate impact of nuclear energy. However, **when climate change is not the main focus and is mentioned just once in an article, e.g. in a metaphoric sense or as a reference (e.g. in an electoral campaign) the article is irrelevant.**

Downloaded articles	80015
Relevant articles	23840
Codes in articles	35193

In total, we gathered data on 14 variables. Five of these variables cover characteristics like “Date”, “Length”, “Page”, “Part” and “Section” which are provided with each article. Details on the format of these variables can be found in the codebook. The substantial variables are “Relevance”, “Policy”, “Subnational Level”, “Nuclear energy”, “Opinion piece”, “Diffusion”, “Theme 1”, “Theme 2” and “Claim”. The code “Policy” was assigned to every policy discussed in an article. Thus, we know how many and which policies have been discussed. “Subnational Level” is a dummy variable indicating the presence of a subnational policy or political debate. “Nuclear energy” is a dummy that has been coded when climate change was discussed jointly with nuclear energy. “Opinion piece” is a dummy for editorials, columns, op-eds, comments or letters to the editor. “Diffusion” records the names of foreign countries, if one of their national climate policies has been discussed in the article. The two (where applicable) main “Themes” are coded. These themes are domestic arena, international relations, scientific background, current weather and uncertainty (Brossard, Shanahan, and McComas 2004, 368).

d) Coding of Claims

In general, **claims are statements, demands, or opinions** given by an **individual or an organization or summaries of position papers, press statements, comments, and so on.** In addition, a claim is always directed towards the future and at something that lies beyond the sphere of influence of the claim maker. This means that claims by government officials have not been recorded. To the contrary, a major share of our claims stem from letters to the editor written by ordinary citizens, as we do not differentiate by claim maker. With regard to our definition of claims, we deviate from the classical claims analysis approach by Koopmans & Statham (1999). This adaptation is necessary, as we pursue a different goal with our claims data. In fact, for our purpose, claims are an intermediate and only their direction and frequency is examined.

¹ We considered using computer assisted text analysis. However, after studying several approaches and also comparisons of human vs. automated coding (Conway 2006), it turned out that the issue at hand has too many dimensions to be accounted for by the software that is currently available.

e) Reliability scores

To ensure replicability, the coding was based on a project language approach. Thus, all articles were mostly read and coded by native speakers, although the codebook was written in the project language (English). All reliability tests and training were also conducted in English. In total, nine research assistants were involved during the coding process.

For the reliability tests several test scores have been estimated. The values for Krippendorfs Alpha, a measure for intercoder reliability, were obtained by a comparison of the research assistants coding with the master coding of 63 articles, giving the following value ranges. Policy: 0.8-0.89, Subnational: 0.57-0.82, Opinion Piece: 0.89-0.95, Claim: 0.55-0.7, Relevance: 0.92-0.96, Theme: 0.81-0.85. After the reliability coding, the research assistants were again trained on the values with less than 0.7. Two research assistants, who failed the absolute minimum threshold of 0.5, received further individual training and reached the same levels with a second reliability test. These scores are in line with reliability scores reported in other content analysis studies (Brossard, Shanahan, and McComas 2004; Howland, Becker, and Prelli 2006).

f) Search strings for **target specific demand**

To identify which targets are covered in an article, we used an additional set of search strings that contain keywords related to the respective target in each language. At least two of these keywords (or twice the same) had to be present that the respective article got assigned a target.

Table A-2 Translations of search string to identify policy targets

English	Target 1.1	renewable* solar* photovoltaic* biomass* biofuel* wind energy wind power geothermal* tidal wind turbine* hydro* wave power wave energy biodiesel bio*ethanol feed-in* green certifica* tide
	Target 1.2	co2 tax fossil fuel* coal petrol* gas* <(oil) fuel* (diesel)> carbon tax
	Target 2.1	cars exhaust* flue gas waste gas gaseous waste off-gas* vehicle* personal transport motor bike* scrappage* car
	Target 2.2	public trans* bus train tram rail* metro ferry ferries trains buses busses
	Target 3.	buildings heating insulat* retrofitting building regulations renovation residential heat transfer coefficient thermal transmittance u-value glazed window* roof* walls construction* boiler*
	Target 4	fridg* refrigerat* air conditio* light* bulb* food processor* toaster* coffee maker* dish washer* microwave* washing machine* stove* dishwasher* water heater* vacuum* water cooker* energy star TV* applianc* screen* computer* laptop* pc* television* monitor*
German	Target 1.1	Erneuerbar* Solar* Photovolt* Biomass* Biokraftstoff* Biodiesel Bioethanol Feed-in* Einspeisevergütung* Windkraft* Windenergie* Geotherm* Gezeitenkraftwerk* Wasserkraft* Hydro* Wellenkraft* Grünstromzertifikat* Grüne* Zertifikat* Regenerativ*

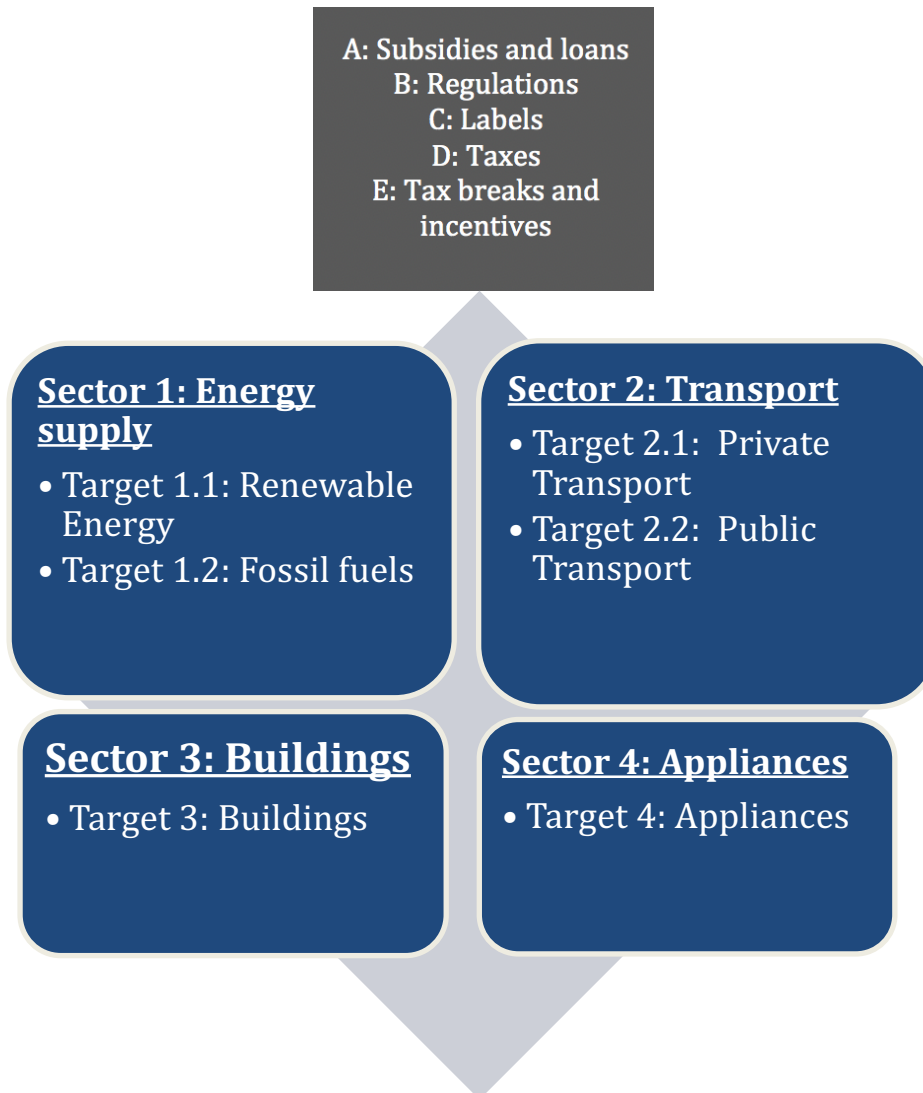
	Target 1.2	CO*Steuer CO*Abgabe Carbon tax Fossil* Kohle Benzin* Erdgas* Öl Erdöl* Diesel* Sprit* Nicht-erneuerbar* Kohlendioxid*steuer Kohlekraftwerk Kohlestrom
	Target 2.1	Auto Kraftfahrzeug* Fahrzeug* KFZ* Personenwagen* Autoabgas* Kraftstoffaussto* Motor*?d* PKW Autos Abgasnorm* Abgasvorschrift* Abgaswert* Abgasarm* Abgasausstoß Abgas-grenzwert
	Target 2.2	Öffentlicher Verkehr* Omnibus* Bus Busse Autobus* Trolley* Zug Schienen* Tram* Straßenbahn* Straßenbahn* Eisenbahn* Bahn* Fähr* ÖPNV ÖV Öffentlicher Personennahverkehr
	Target 3	Gebäude Haus Häuser Heizung Renov* Dämm* Wärmedämm* Isol* Bauvorschrift* Gebäudevorschrift* Wärmeschutzverordn* Enev Energieeinsparverordnung* Heizungsanlagenverordnung Wohn* Wärmedurchgang* U-Wert Fenster Doppelverglas* Doppeltverglas* Dreifachverglas* Boiler Durchlauferhitzer Altbau* Neubau*
	Target 4	Gerät* Haushaltger* Kühlschr* Klimaanlage* Glühbirn* Birne* Glühlampe* Küchenmaschine* Toaster* Fernseher* Spülmaschine* Geschirrspül* Mikrowell* Waschmaschine* Herd* Induktionsherd Staubsauger Wasserkocher Energy star Energieverbrauchskennzeichnung Energieeffizienzklasse Bildschirm* Laptop Computer PC
Italian	Target 1.1	Rinnovab* Solar* Cinetic* Pannell* Fotovoltaic* Biomass* Eolic* Vento* Geotermic* Turbin* Idro* Biodiesel Etanol* Licenz* verd* Certificato* verd*
	Target 1.2	Carbon tax Tassa sul carbon* Tassa verde Diesel Carbone Petrolio Olio Carburant* Gas naturale Combustibili fossi* combustibile fossile
	Target 2.1	Auto autovettura Automobil* Gas di scarico Motor* Motociclett* Veicol* Rottamazion*
	Target 2.2	Trasport* pubblico* Autobus Pullman Bus Treno Tram Ferrovie* metrò Metropolitan* Traghet* treni
	Target 3	Edific* Isolazion* Isolament* Rinnov* Trasmittenz* energ* Tetto Residenzial* Mura vetrocamera impianto di riscaldamento radiator*
	Target 4	Frigo* Freezer Apparecch* Televisor* Lampadin* Processor* Lavastoviglie Lavapiatti Fornello Lavatric* Classe di consumo energetico Aria condizionata Computer Desktop Portatil* Bollitor* congelatori etichetta energetica forno
Spanish	Target 1.1	renovable* solar* fotovoltaic* biomasa biocombustible* bio*combustible* bio diesel bio*diesel eólic* eolic* térmic* termic* geotermic* geotérmic* (hidr)-> (hidr) maremotriz mare?motriz energía del turbina de viento turbinas de viento molino de viento molinos de viento aerogenerador* marea* corriente oce?nica corrientes oce?nicas bioetanol bio?etanol feed-in* tarifa* regulada* tarifas reguladas de alimentaci* certificado* verde* certificados verdes certificado* ecol* certificados ecol*
	Target 1.2	impuesto de carbono impuesto sobre el carbono impuesto al carbono impuesto de co2 impuesto sobre el co2 impuesto al co2 carb?n combustible f?sil combustibles f?siles fuente f?sil fuentes f?siles hidrocarbur* petr?leo petrolífer* petrolifer* gas natural combustible* gasolin* diesel

Target 2.1	autos autom?vil autom?viles coche* escape* mofle* gas de combusti* gases de combusti* efluente gaseoso efluentes gaseosos residuo gaseoso residuos gaseosos gas residual gases residuales emisiones vehiculares emisi?n vehicular emisiones de auto* veh?culo veh?culos transporte privado motocicleta* plan renove plan vive
Target 2.2	transporte p?blico autob* tren* tranvia* ferrocarril* f?rrea f?rreas ferroviari* metro*
Target 3	edificio* calefacci?n aislamiento* aislante* renovaci?n renovaci?nes rehabilitaci* reacondicionamiento* coeficiente de transferencia techo* pared* calentador* boiler* caldera* transmitancia t?rmica transmisión t?rmica transmision t?rmica valor-u u-value baja emisividad glasead* acristalad* normas de urbanismo normas de edificaci* normas de construcci* código de construcci* codigo de construcci* normativa de construcci* código técnico de la edificación Search string 34 eficiencia energ?tica de los norma de edificaci* norma de urbanismo norma de construcci*
Target 4	aparato* nevera* refrigerador* aire acondicionado bulbo* luminaria* procesador de comida tostador* cafetera* televis* lavatrastes lava trastes lavaplatos lava platos microonda* lavadora* estufa* horno* computador* pc* laptop* port?til port?tiles aspirador* energy star iluminación*

2. Descriptives

a) *Dependent variable: Policy output*

Figure A-1. Consumer-centered policy sectors, targets, and instruments



b) Policy stock in 6 countries over time

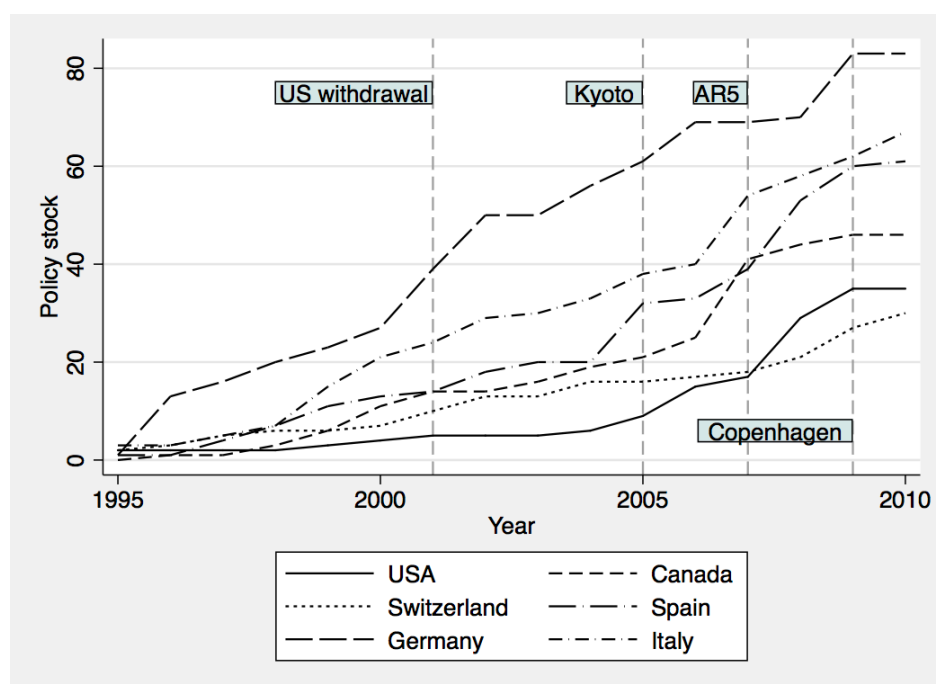


Figure A-2. Policy stock compared

c) Descriptive statistics

Table A-3 Variables and summary statistics

Variable	Observations	Mean	Std. Dev.	Min	Max	Description
Δ Stock	102	3.16	3.66	0.00	16.00	Number of new policies per year
Adoption	108	0.31	0.47	0.00	1.00	Dummy indicating whether any policy adoption took place during the year
Published opinion	95	0.62	0.19	0.09	1.00	Pro minus con claims divided by the total number of claims
Salience	95	0.20	0.21	0.02	1.12	Share of articles (%) that cover climate change in relation to total number of articles of the newspaper(s)
Share of left parties	119	25.49	35.12	0.00	100.00	Cabinet composition: social democratic and other left-wing parties as a percentage of total cabinet posts, weighted by the number of days the government was in office in a given year. Name in source: gov_left1
Debt	120	77.14	26.18	42.27	142.18	Gross government debt (financial liabilities) as a percentage of GDP.
Growth	114	1.94	2.01	-5.49	5.53	GDP growth (annual %) Name in source: gdp_gr_pa
CO2 Emissions	96	11.12	5.11	5.03	20.18	CO2 emissions (metric tons per capita). Name in source: co2_em_pc

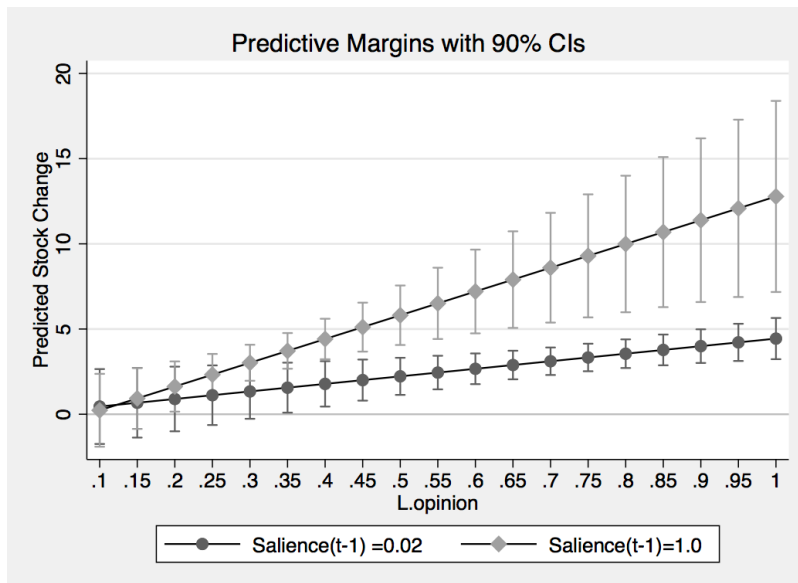


Figure A-3a Predictive Margins for different levels of salience (t-1) over opinion (t-1)

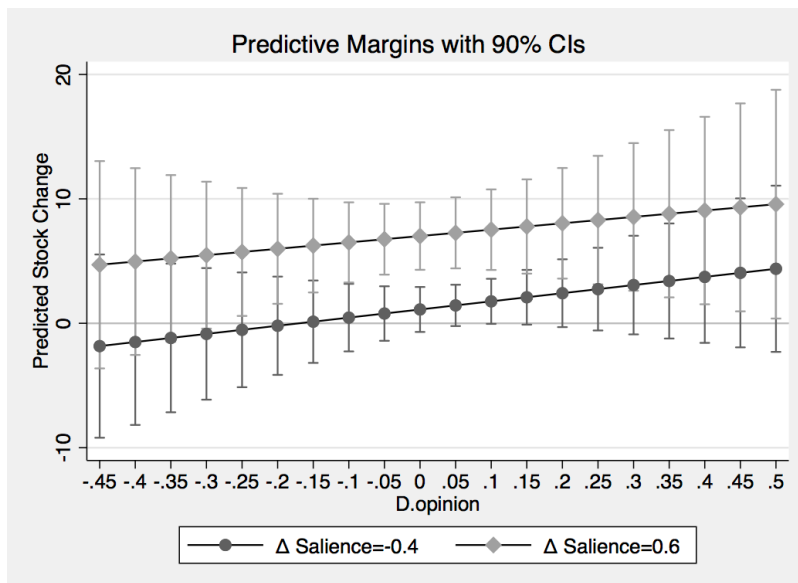


Figure A-3b Predictive Margins for different levels of Δ salience over Δ opinion

2. Further results

Table A-4 Interaction effects (Scope for Action)

	(1) Stock	(2) Stock	(3) Stock	(4) Stock	(5) Stock	(6) Stock
Target Stock, t-1	0.05*** (6.51)	0.05*** (6.07)	0.05*** (6.58)	0.05*** (6.54)	0.05*** (6.54)	0.05*** (6.48)
Target Salienc, t-1	-0.25*** (-2.80)	-0.28*** (-3.64)	-0.67** (-2.13)	-0.19** (-2.12)	-0.24*** (-2.82)	-0.25*** (-3.07)
Δ Target Salienc	-0.21 (-0.24)	-0.15 (-0.24)	-0.17 (-0.27)	-0.19 (-0.30)	0.45 (0.42)	-0.18 (-0.30)
Target Opinion, t-1	0.45*** (2.72)	0.42** (2.48)	0.35** (2.22)	0.46*** (2.95)	0.45*** (2.78)	0.45*** (2.71)

Table A-5 Interaction effects with institutional context

	(1) Δ Stock	(2) Δ Stock
Target Stock, t-1	0.05*** (5.92)	0.05*** (4.69)
Target Saliency, t-1	-0.20 (-1.44)	-0.27*** (-7.57)
Δ Target Saliency	-0.13 (-0.22)	0.38 (0.37)
Δ Target Opinion	0.57*** (10.40)	0.38*** (4.74)
Target Opinion, t-1	1.08*** (31.11)	0.42** (2.10)
Proportional representation	0.48*** (2.90)	0.01 (0.13)
... x Δ Target Opinion	-0.24* (-1.95)	
... x Target Opinion, t-1	-0.88*** (-6.62)	
... x Δ Target Saliency		-0.69 (-0.59)
... x Target Saliency, t-1		0.21 (0.43)
Share of left parties		
... x Target Opinion, t-1		
... x Δ Target Opinion		
... x Target Saliency, t-1		
... x Δ Target Saliency		
Constant	-0.14*** (-3.91)	0.19* (1.69)
Observations	534	534
r ² _w	0.01	0.00
r ² _b	0.68	0.70
r ² _o	0.08	0.07
rmse	0.99	1.00