



COMPARING POLITICAL AND ECONOMIC DETERMINANTS OF COOPERATION IN THE INTERNATIONAL CLIMATE REGIME

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International Political Economy

Introduction

- Climate change is one of the most pressing policy issues on a global scale

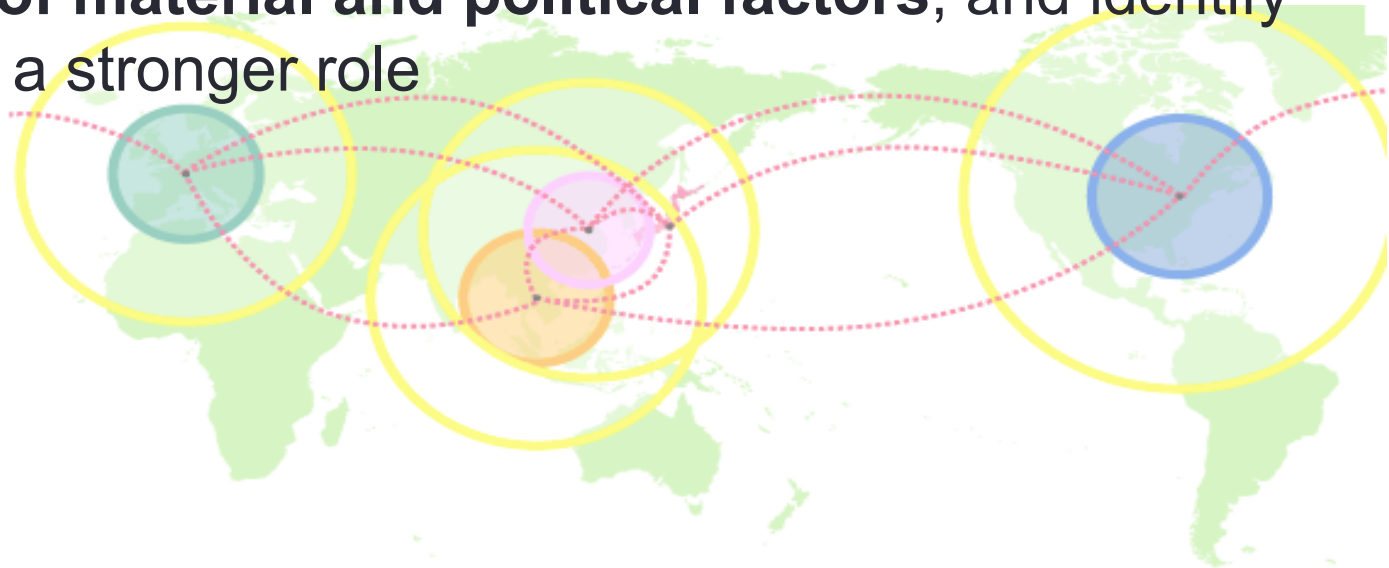


Introduction

- **Often acknowledged that climate change requires a global response for 2 main reasons:**
 - Transnational: states have an incentive to contribute to global CO2 levels without repercussion (“tragedy of the commons”), unless some international governance is instated
 - Intertemporal: benefits of action taken and financed now will not be experienced until the future
- **But global response has been inadequate**
 - States have varied widely in their support for the the UNFCCC treaty produced in 1992, and its principal update, the Kyoto Protocol
- Some states have negotiated **ambitious reduction targets** for developed nations, whereas others have **not ratified**, have **withdrawn** from the Protocol after making commitments, or indicated they **won’t support in the future**

Introduction

- **What explains this variance in states' behavior?**
 - Conventional IR scholarship focuses mostly on material interests
 - But political science/political economy scholarship also looks at importance of political factors
- The goal of my paper is to **compare the relative influence of material and political factors**, and identify which play a stronger role





Methodology

1. Discussion of key material and political determinants of cooperation in the international climate regime
2. Presentation of 3 country pairings
3. Conclusions/Implications

Material Determinants

- States will always consider material interests
- States' international commitments affected by perceptions of costs and benefits of domestic action required



Material Determinants

Factor	Reasons	Data Source
Size of Carbon-Intensive Sector	<ul style="list-style-type: none">• Most national GHG reduction policies target high emitting sectors• States with larger industrial sectors should experience greater opposition• 2010 survey by EBRD found larger industrial sectors correlated with lower levels of domestic CC policy	World Bank % contribution of industrial sector to national GDP, averaged from 1995 to 2012
Dependence on fossil fuels as energy source	<ul style="list-style-type: none">• Expensive structural transitions• Resistance from the energy and transportation sectors	World Bank % fossil fuels in country's primary energy supply, 1995 to 2012 average

Material Determinants

Factor	Reasons	Data Source
Dependence on fossil fuels as exports	<ul style="list-style-type: none">• Climate treaty would hurt exports• Face resistance from business interests	World Bank % fossil fuel products export in GDP, averaged from 1995 to 2012
National investment in clean energy	<ul style="list-style-type: none">• Better prepared to reduce domestic energy emissions• International demand for their products may increase	- World Bank % growth in renewable capacity, 1990 – 2010 - Bloomberg 5 year growth rate of investment, 2005-2010

Material Determinants

Factor	Reasons	Data Source
Opportunity cost of abatement	<ul style="list-style-type: none">• It is easier for some states to abate than others, depending on growth trends, energy efficiency	UNFCCC emissions trends between 1990 and 2010

Political Determinants

- International responses are formulated under the sphere of domestic politics
- Responses are subject to the context of homegrown electoral interests, national discourse, and domestic political institutions



Political Determinants

Factor	Reasons	Data Source
Effective number of political parties / Representation by green parties	<ul style="list-style-type: none">• Greater number of parties means that parties with explicit environmental agendas, such as the green parties, are able to participate in governance	<ul style="list-style-type: none">- Michael Gallagher Effective # of political parties- Center on Democratic Performance % of seats held by green parties Both 1995–2011 average
Concentration of authority	<ul style="list-style-type: none">• Harder to pass legislation when authority highly dispersed (more veto points)• Parliamentary systems more likely to ratify treaties and implement climate policies than presidential systems	Parliamentary or presidential?

Political Determinants

Factor	Reasons	Data Source
European Union Membership	<ul style="list-style-type: none">• Rotating leadership has encouraged member states to leave “imprint”• System of “collective entrepreneurship” where most proactive states have had their agendas promoted	EU member or not
Government orientation	<ul style="list-style-type: none">• Left-wing governments more likely to use tax-based policies• Left-wing voters view government intervention more favorably• Green parties always form coalitions with left-wing parties	Database of Political Institutions 1995–2009 average

Political Determinants

Factor	Reasons	Data Source
Voters' awareness of climate change	<ul style="list-style-type: none">Determines the extent to which policymakers feel compelled to deliver climate-related results	Gallup Poll % of respondents saying they know "something" or "a great deal" about climate change

Measuring Cooperation

- Measure created by Bättig et al, with five indicators that measure:
 1. If and how quickly a state ratified the UNFCCC
 2. If and how quickly a state ratified the Kyoto Protocol
 3. If a state has submitted national communications on time
 4. How timely a state's payments to the UNFCCC have been
 5. State's improvement in per capita emissions

Australia	Canada	France	Germany	Japan	Russia	UK	US
2.54	2.02	4.24	4.85	2.34	2.99	4.92	2.53



Country Pairings



1. Australia vs. Germany

- Germany played a leading role in establishing the agenda for the international climate negotiations and convincing other countries to accept ambitious emissions cuts
 - Agreed to 8% cut from 1990
 - Wants a strong treaty in the future, willing to join second commitment period
- Australia has approached negotiations warily, initially refusing to ratify Protocol
 - Agreed only to limit GHG increase to 8%
 - Wants a legal framework instead of a treaty, to be postponed until 2015, with no mechanism for guaranteeing ambitious cuts

1. Australia vs. Germany

Material Determinants

	Percent of GDP from industry, 1995-2012 average	Fossil fuel energy consumption (% of total), 1995-2012 average	Fuel exports (% of merchandise exports), 1995-2012 average	Percent growth of renewable electricity production, 1995-2012	Five-year growth rate of renewable investment, 2005-2010	Percent change in total GHG emissions, 1990-2010
Australia	25.45	94.09	23.38	457.90	62.5	13.62
Germany	29.92	82.79	1.71	1616.32	75.3	-21.72

Political Determinants

	Effective Number of Parties, 1995-2012 average	Percent of seats held by green parties, 1995-2012 average	Parliamentary/ Presidential	Feder -alist?	EU?	Government orientation, 1995-2009 average (1 – right, 3 - left)	Percentage knowing “something” or “a great deal” about CC
Australia	3.35	5.04	Parliamentary	Yes	No	1.53	97
Germany	4.48	8.8	Parliamentary	Yes	Yes	1.93	96

Cooperation Levels

Australia	Germany
2.54	4.85

1. Australia vs. Germany

- Political Factors

- Similarly conducive to cooperation in both countries
- Green representation in both, although more influence in Germany
 - But climate change not a traditional platform for the green party in Germany, as it was championed by the nuclear lobby
- No real differences in political orientation, issue awareness

- Material Factors

- Provide a clearer picture
- Australia clearly more dependent on fossil fuels, both as energy source and export, government supports coal exports
- Germany more developed renewable energy
- **Most importantly:** Germany emissions naturally decreasing from collapse of industry in the East, so could achieve goals with little disruption to domestic economy



SCORE

Political Factors: 0

Material Factors: 1

2. UK vs. Japan

- UK played a leadership role in negotiations
 - Agreed to 8% reduction from 1990 levels
 - In favor of “almost unilateral” increases in the EU’s target, without any commitments by third party countries
 - Will agree to second commitment period
- Japan much less cooperative
 - Agreed to 6% reduction, but unable to meet it
 - Announced it would not participate in second commitment period

2. UK vs. Japan

Material Determinants

	Percent of GDP from industry, 1995-2012 average	Fossil fuel energy consumption (% of total), 1995-2012 average	Fuel exports (% of merchandise exports), 1995-2012 average	Percent growth of renewable electricity production, 1995-2012	Five-year growth rate of renewable investment, 2005-2010	Percent change in total GHG emissions, 1990-2010
Japan	29.65	81.45	0.83	67.43	51.1	-0.99
UK	25.57	88.03	8.55	841.92	127.4	-23.47

Political Determinants

	Effective Number of Parties, 1995-2012 average	Percent of seats held by green parties, 1995-2012 average	Parliamentary/ Presidential	EU?	Government orientation, 1995-2009 average (1 - right, 3 - left)	Percentage knowing "something" or "a great deal" about CC
Japan	3.68	0	Parliamentary	No	1.27	99
UK	3.45	0	Parliamentary	Yes	2.6	97

Cooperation Levels

Japan	UK
2.34	4.92

2. UK vs. Japan

- Political Factors

- Similar, and not as conducive in both countries (no green parties)
- Awareness high in both countries
- UK political orientation more left than Japan
 - But climate change not necessarily a “left-wing” policy issue in the UK. Right-wing parties have fully supported Kyoto participation and 2008 domestic Climate Change Act law.

- Material Factors

- UK made coal to gas conversion after 1990, accounting for ½ of emissions reductions between 1990-2010, whereas Japan had already made transition in 70s and 80s
- Japan was already more energy efficient than UK by 1990
- UK has done more to realign material interests with climate change action (10 times more renewable energy growth)



SCORE

Political Factors: 0

Material Factors: 2

Canada vs. Russia

- Canada initially ratified the Kyoto Protocol, but withdrew in 2011
 - Originally committed to 6% reduction from 1990 levels
- Russia has remained a party to the Protocol, but will not support it going forward
 - Agreed to a zero percent increase from 1990 levels

Canada vs. Russia

Material Determinants

	Percent of GDP from industry, 1995-2012 average	Fossil fuel energy consumption (% of total), 1995-2012 average	Fuel exports (% of merchandise exports), 1995-2012 average	Percent growth of renewable electricity production, 1995-2012	Five-year growth rate of renewable investment, 2005-2010	Percent change in total GHG emissions, 1990-2010
Canada	31.46	75.65	16.73	111.63	70.2	46.35
Russia	36.37	91.16	53.5	636.78	0	-54.82

Political Determinants

	Effective Number of Parties, 1995-2012 average	Percent of seats held by green parties, 1995-2012 average	Parliamentary/ Presidential	EU?	Government orientation, 1995-2009 average (1 – right, 3 – left)	Percentage knowing “something” or “a great deal” about CC
Canada	3.78	0.32	Parliamentary	No	2.6	95
Russia	7.72	0	Semi- Presidential	No	1	85

States' Cooperation Levels

Canada	Russia
2.02	2.99

Canada vs. Russia

- Political Factors

- With a more liberal, parliamentary government with green party representation and a higher awareness of climate change, political factors would indicate that Canada has a higher level of cooperation

- Material Factors

- Clearly material factors dominate
- Russia's emissions trajectory, a result of collapse of industry following the fall of the Soviet Union, means that it had absolutely nothing to lose from its zero reduction pledge ("hot air")
- No way Canada could meet its commitments given its economy
- Now, Russia is growing quickly, so it is cautious about future commitments



SCORE

Political Factors: 0

Material Factors: 3

Conclusion

- Material factors play a greater role in determining international cooperation in the three country pairings in my study

Implications

- In particular, the relationship between emissions trajectories and reduction commitments is meaningful
 - Should future agreements take countries' differing opportunity costs for abatement more into account when determining reduction commitments?
- Could be taken cynically, in that states will only act in their own interests
- But also means that states that successfully align political will to address climate change with material interests will be more supportive of international agreement in the future
 - States should encourage investments in renewable energy and clean technology