



Conflicting Perspectives in Trade and Environmental Negotiations

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Trade-Environment Linkages

- ✓ Economic growth
- ✓ Transportation
- ✓ Production allocation
- ✓ Changes in prices
- ✓ New markets
- ✓ Environmental competition

Formally...

- ☛ “Sustainable growth” is often mentioned among the objectives of trade policies
- ☛ “Trade impacts” should be considered in the implementation of environmental policies

Actually...

- ✦ Integrated trade-environmental policies are missing
- ✦ Environmental aspects under weighted in the trade debate
- ✦ Trade aspects under weighted in the environmental debate
- ✦ Complex reasons (see Esty (2001))
- ✦ The role of models

Strategic modelling of trade and environmental negotiations

- ✓ Use different model closures to mimic different “perceptions”
- ✓ Use a simple general equilibrium framework to get values for a “payoff matrix”, explaining the negotiators’ choices

Model I (Fantasy)

- ✓ HOS hypotheses
- ✓ Two country, two industries (clean, dirty)
- ✓ One resource, level inversely related to global production in the dirty industry
- ✓ Four instruments: production taxes and tariffs
- ✓ Three closures: FULL, TRADE, ENV

EV elasticities (x100)

	FULL		TRADE		ENV	
	A	B	A	B	A	B
ϵ_A	<u>0.87</u>	-0.40	<u>0.51</u>	-0.76	<u>0.29</u>	0.63
ϵ_E	1.07	<u>-0.53</u>	0.76	<u>-0.85</u>	0.44	<u>0.33</u>
ϵ_A	<u>0.90</u>	-0.98	<u>0.88</u>	-1.00	<u>0.03</u>	0.19
ϵ_E	-0.97	<u>0.93</u>	-0.98	<u>0.92</u>	-0.16	<u>-0.17</u>

Model II (Gtap)

- Two countries (KYO = Kyoto signatory countries, NUS = Rest of the World), two industries (carbon intensive and the rest), one resource
- Rather arbitrary environmental impacts (but differentiated carbon content)
- ENV scenario constructed by fixing the international price of only carbon-intensive commodities
- Production taxes -> Reduced subsidies

EV elasticities (x1000)

	FULL		TRADE		ENV	
	NUS	K YO	NUS	K YO	NUS	K YO
$C_{k,ns}$	-0,55	<u>-0,68</u>	-0,13	<u>-0,22</u>	-5,08	<u>-8,68</u>
$C_{k,os}$	<u>3,33</u>	3,97	<u>-0,14</u>	0,15	<u>6,89</u>	10,81
$T_{k,ns}$	0,49	<u>0,86</u>	-0,16	<u>0,14</u>	-0,09	<u>-0,22</u>
$T_{k,os}$	<u>-0,44</u>	-0,80	<u>0,12</u>	-0,18	<u>0,24</u>	0,43