

The Rise of Emissions Trading in Global Climate Politics

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**Why cap and trade?
For every earthly reason.?**



The Puzzle

- Kyoto Protocol is a partial agreement, yet emissions trading sees wide-spread take up in so-called “son-of-Kyoto” bills, including in the United States.
 - EU rejected flexible mechanisms, yet was the first to implement emissions trading.
- ⇒ *What drives the diffusion of emissions trading?*

1. Emissions Trading: Theory and Practice
2. NGO-Business Coalitions and Regulatory Diffusion
3. Business, NGOs and the Rise of Emissions Trading: Kyoto, the EU and the US

I. Emissions Trading: Theory and Practice

*“A cap-and-trade system places a cap, or ceiling, on the aggregate emissions of a group of regulated sources by creating a limited number of **tradable emissions allowances** for a given period and requiring firms to surrender a quantity of allowances equal to their emissions during that period.” (Stavins 2007: 8)*

- ⇒ Commodification through creation of property rights.
- ⇒ US regulatory approach embedded in a liberal market economy.

I. Emissions Trading: Theory and Practice

	Market-based instruments			
	Cap-and-trade		Carbon tax	
	+	-	+	-
Environmental effectiveness	Quantity certainty ensures reduction of GHGs within a set timeframe	Price volatility reduces the investment incentive	Price certainty provides clear investment signal	Lack of quantitative targets requires continuous adjustment of tax; risk of “overshooting”
Economic efficiency	(International) trading lowers overall abatement costs	High transaction costs due to complexity	Low transaction costs due to simplicity	“Double burden” of abatement costs plus tax payments
Distributional equity	Internationally: creates clean development opportunities in developing countries	Domestically: many entry points for rent-seeking in allowance allocation, manipulation, fraud	Domestically: “double burden” creates revenue to compensate low-income consumers	Domestically: may result in tax exemptions for industries and companies
Political feasibility	Broad-based support from states, ENGOs and business			Aversion to new taxes in the US and other countries; international harmonization of taxes very unlikely

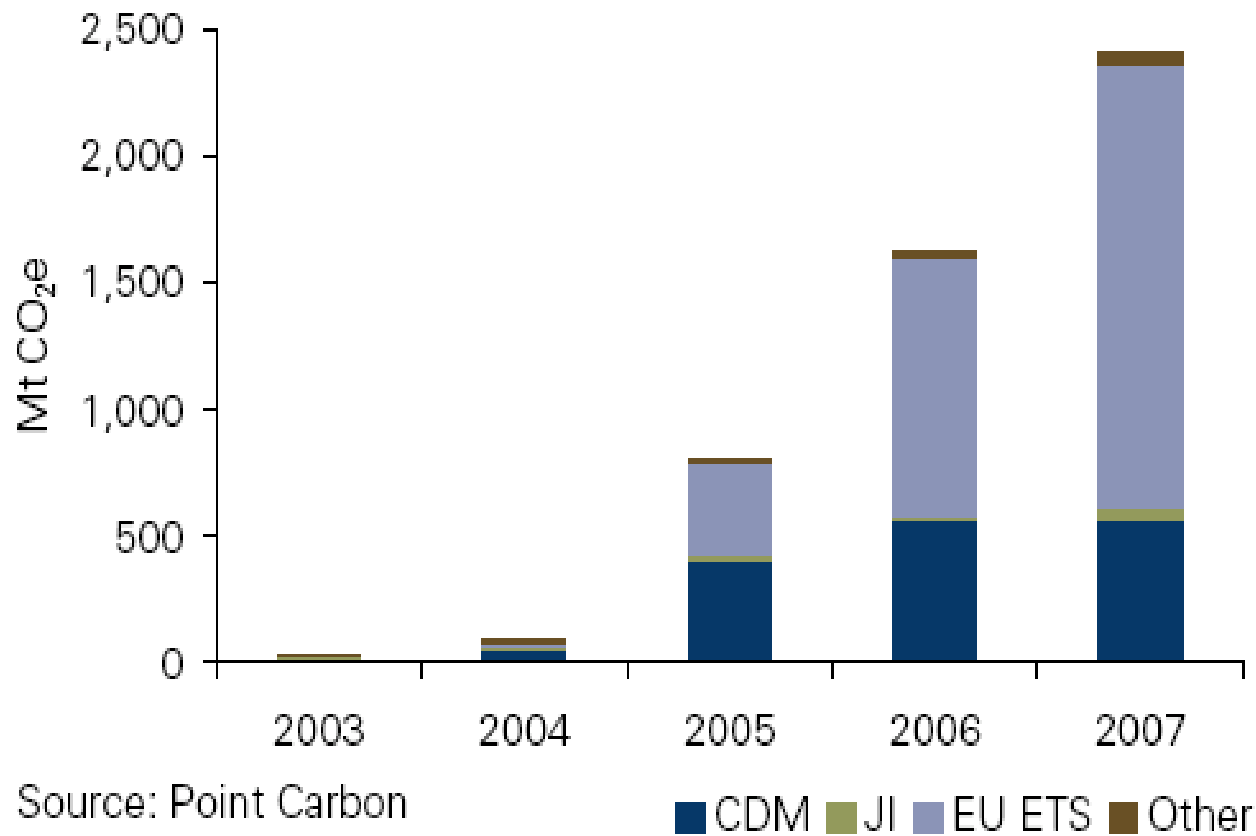
Sources: Chameides and Oppenheimer 2007, Metcalf 2007, Nordhaus 2005, Parry and Pizer 2007, Shapiro 2007, Stavins 2007.

I. Emissions Trading: Theory and Practice

The EU ETS remains the backbone of the carbon market.

Figure 3.1 Stairway to 07

Reported and estimated contracts 2003-2006, forecast for 2007, Mt CO₂e.

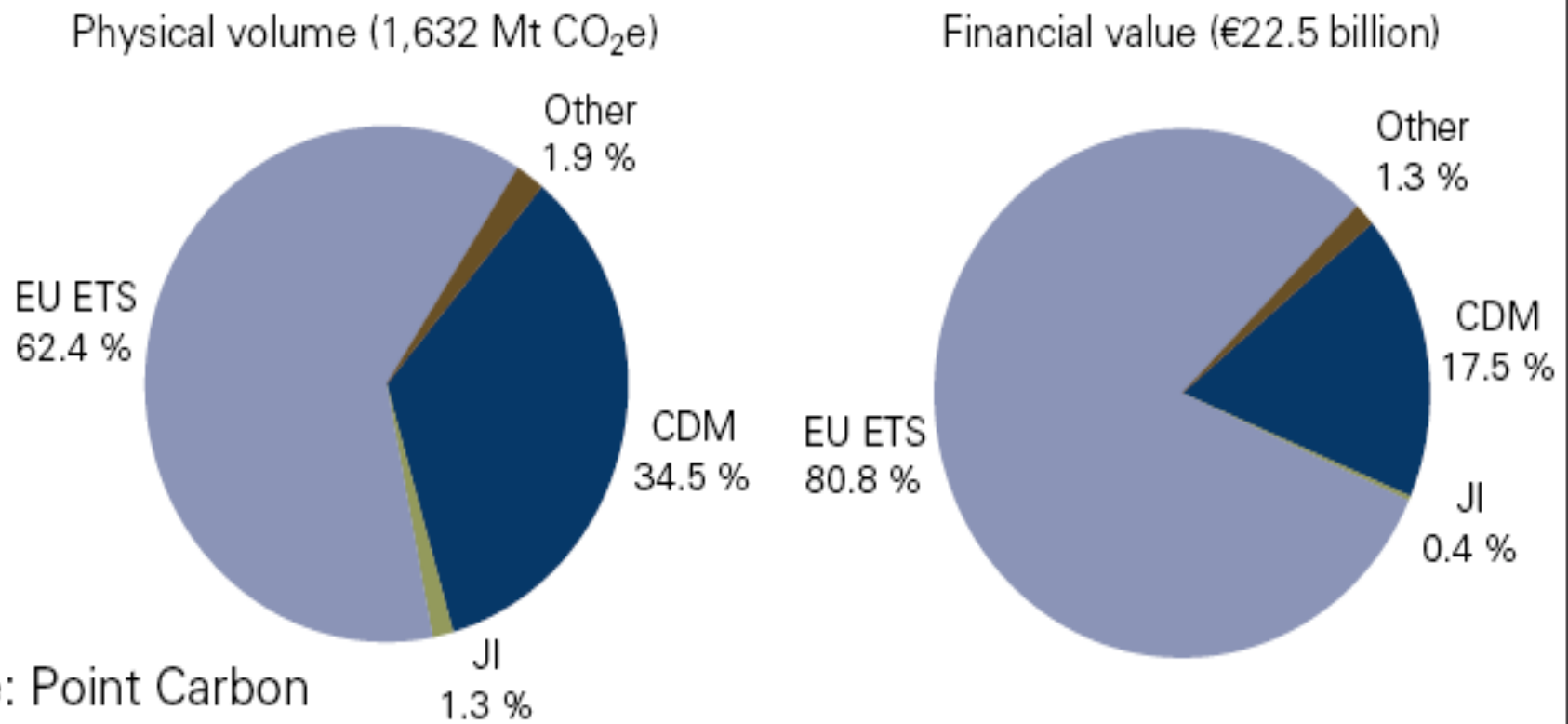


I. Emissions Trading: Theory and Practice

In 2006, the carbon market reached a total value of \$30 billion.

Figure 3.2: Still dominated by the EU ETS

Distribution of the different market segments for physical volumes and financial value in 2006.

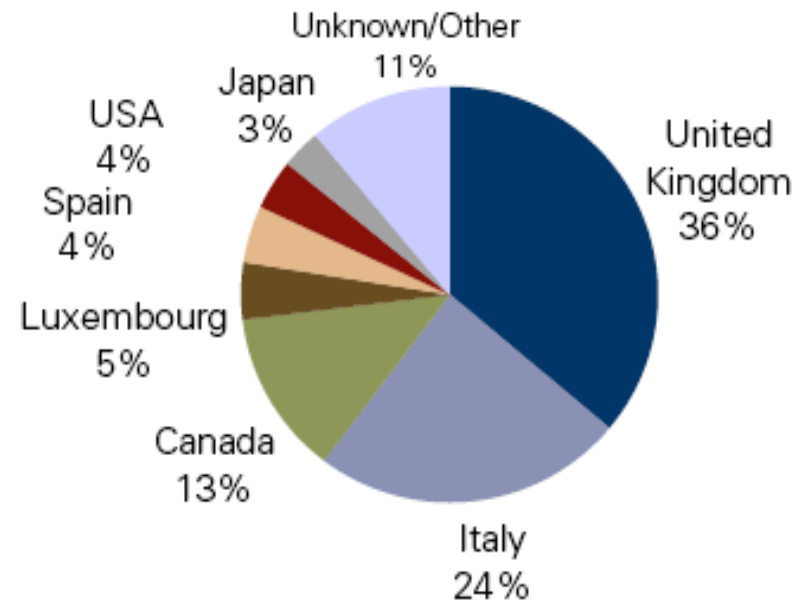
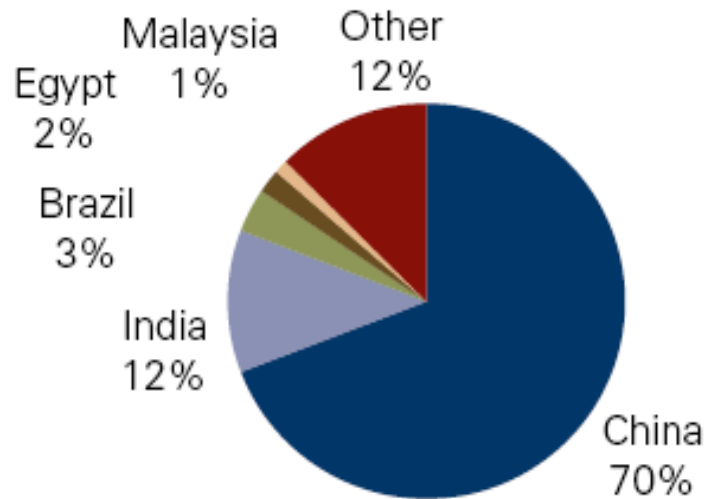


I. Emissions Trading: Theory and Practice

China and India account for more than 80% of the CDM market.

Figure 3.18: Made in China

The relative share of CDM country sellers (left) and buyers (right) in 2006.



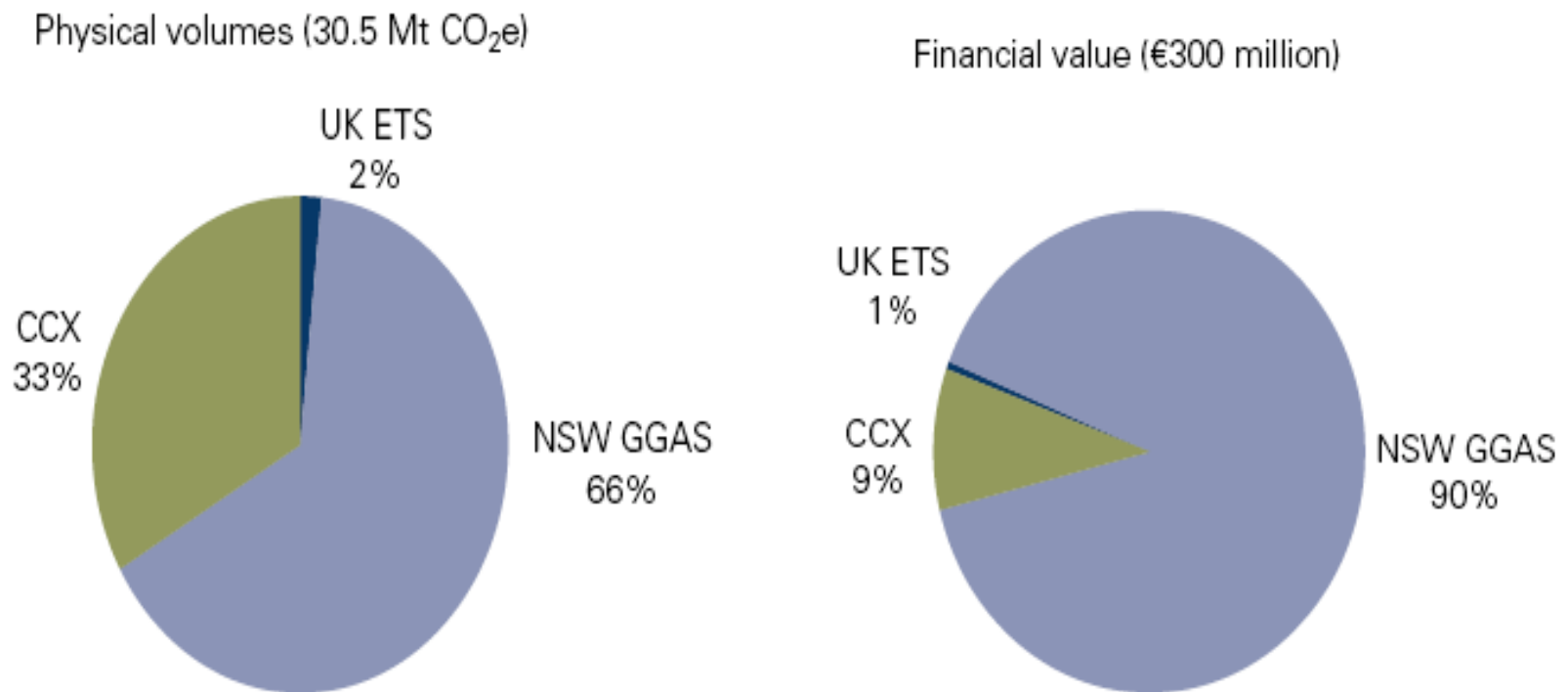
Source: Point Carbon

I. Emissions Trading: Theory and Practice

Other carbon markets play a marginal financial role, but are politically important.

Figure 3.24: And now for something completely different...

The relative share of other carbon markets, physical volume and financial value.



Source: Point Carbon

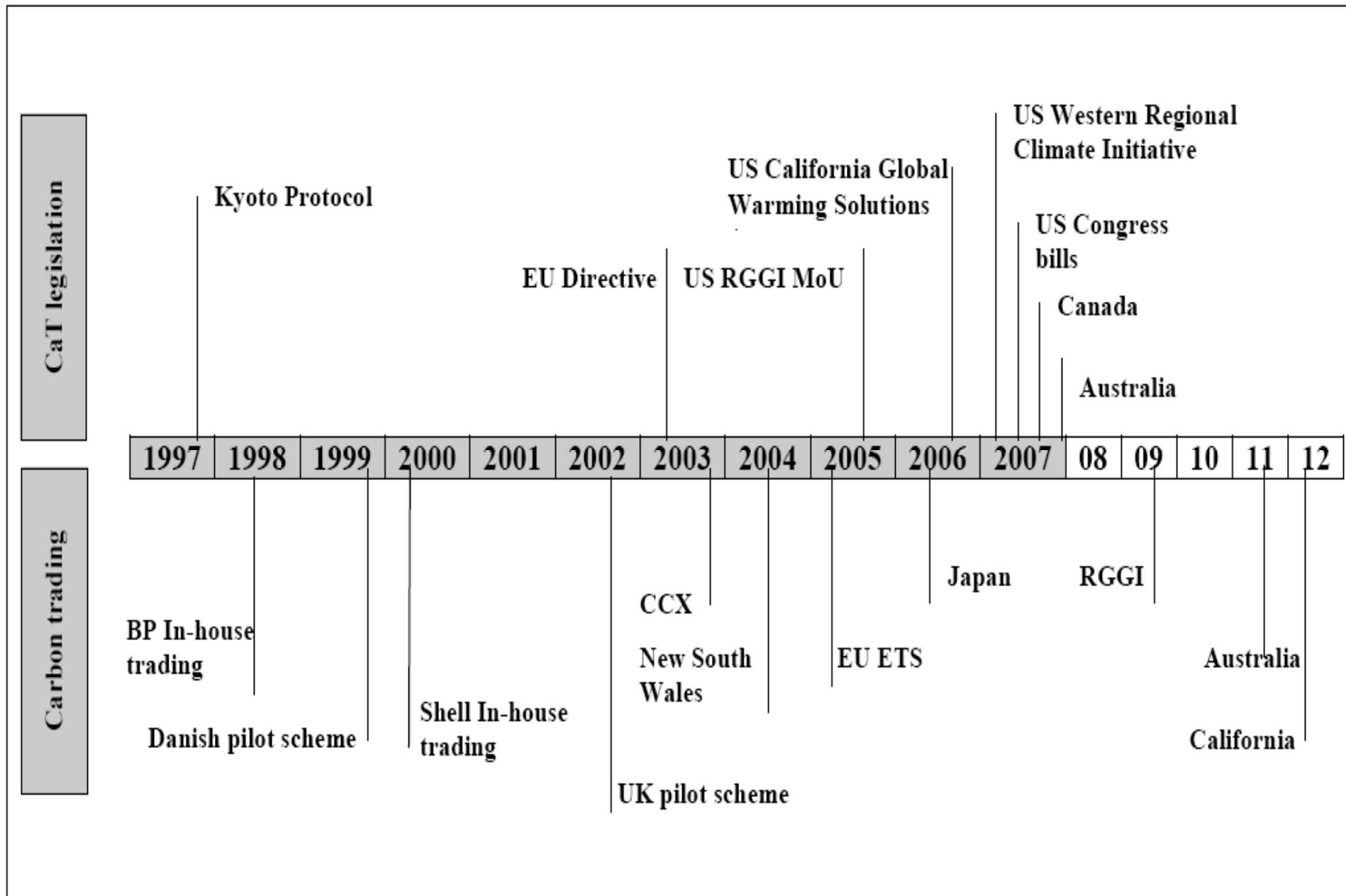
I. Emissions Trading: Theory and Practice

The market potential partly explains the hype around emissions trading.

Actual market size 2006	Projected market size under Kyoto Protocol
\$30 billion	\$2.3 trillion (\$14 per ton of carbon dioxide)

Sources: Point Carbon 2007, Victor 2001.

I. Emissions Trading: Theory and Practice



I. Emissions Trading: Theory and Practice

International Carbon Action Partnership



- Members: **Arizona**, British Columbia, **California**, European Commission, France, Germany, Greece, Ireland, **Maine**, Manitoba, **Maryland**, **Massachusetts**, **New Jersey**, **New Mexico**, **New York**, New Zealand, Norway, Netherlands, **Oregon**, Portugal, Spain, United Kingdom, **Washington**.
- *“The International Carbon Action Partnership (ICAP) will create an international forum of governments and public authorities that are engaged in the process of designing or implementing carbon markets. ICAP will establish an expert forum to discuss relevant questions on the design, compatibility and potential linkage of regional carbon markets.” (ICAP 2007: Declaration)*

II. NGO-Business Coalitions and Regulatory Diffusion

What is driving the global diffusion of environmental policy?

II. NGO-Business Coalitions and Regulatory Diffusion

A transnational “**baptist-and-bootlegger**” coalition exists when two interest groups that are unlikely to co-operate find themselves working for the same goal. These sets of actors are linked across country boundaries and coordinate shared strategies or sets of tactics to publicly influence social change. (cf. Yandle 1983)

II. NGO-Business Coalitions and Regulatory Diffusion

Reasons for Globalizing Environmental Regulation

NGOs: Environmental externalities

- Dealing with a transboundary problem
- Supporting a policy that has the potential for global diffusion and international agreement
- Supporting an environmentally effective policy (quantity certainty)

II. NGO-Business Coalitions and Regulatory Diffusion

Reasons for Globalizing Environmental Regulation

Business: Economic externalities

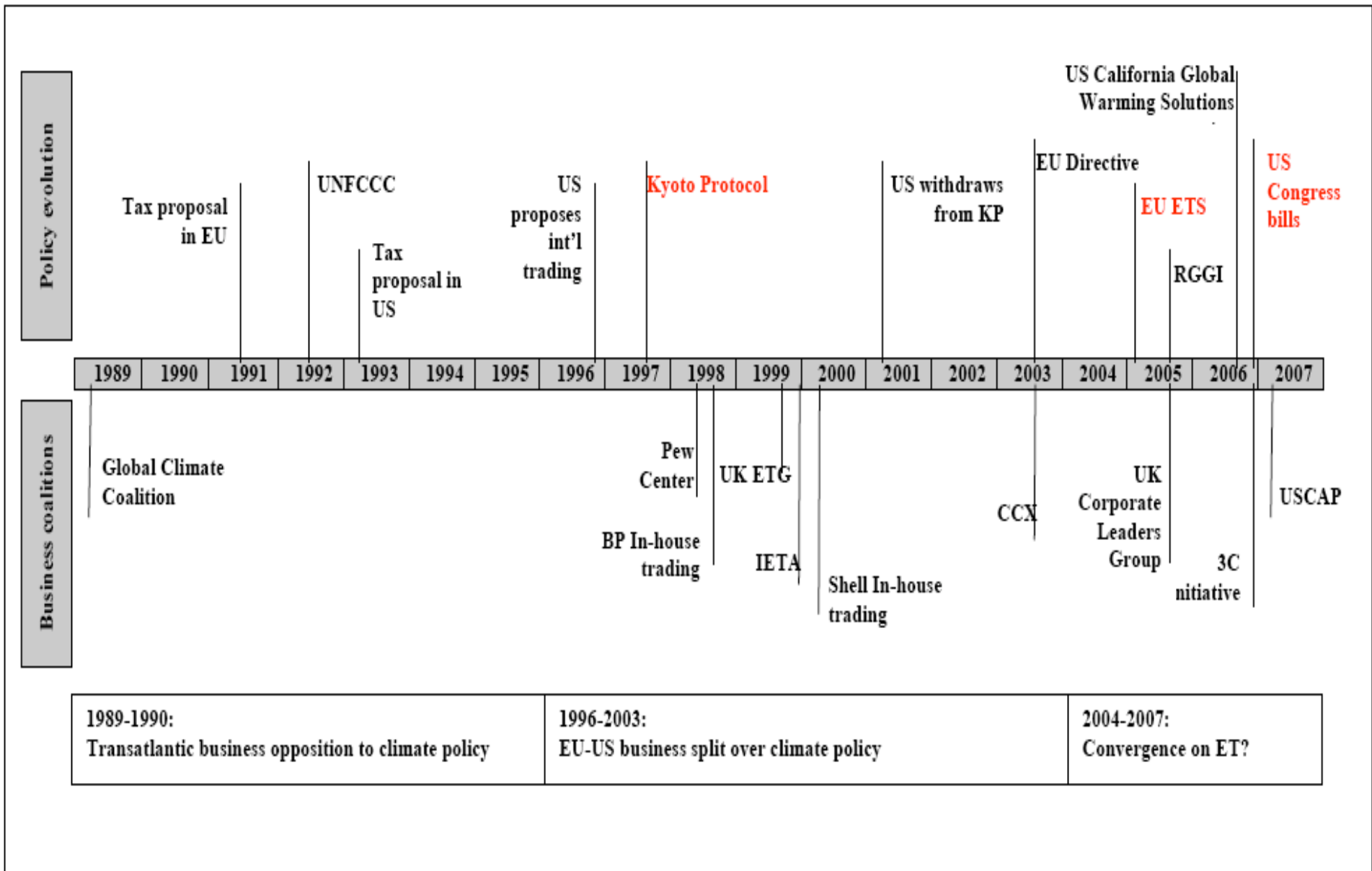
- Avoiding negative externalities
 - International competitiveness: creating a level playing field (European firms)
 - Avoiding the perceived greater evil of a carbon tax (European and US firms)
- Realizing positive externalities
 - Realizing profits from global carbon trading (financial intermediaries; early reducers; free allocation)
 - Realizing profits from regulation-induced increase in demand for products (e.g. technology sector)

II. NGO-Business Coalitions and Regulatory Diffusion

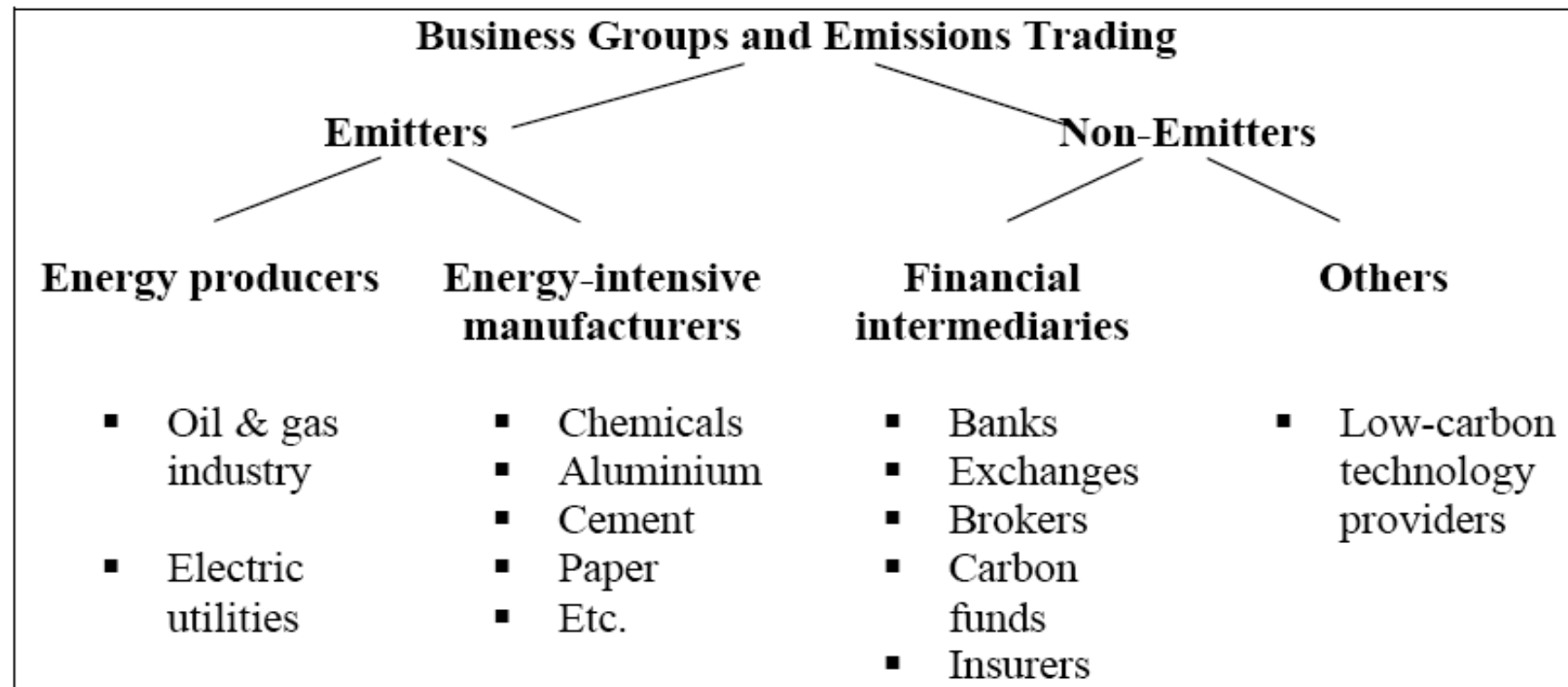
Activities of “B&B” Coalitions

Lobbying	<ul style="list-style-type: none">• Domestically• Internationally
Supplying market-facilitating institutions	<ul style="list-style-type: none">• Contracts• Standards
Discursive activities	<ul style="list-style-type: none">• Providing expertise to policymakers• ET as a business opportunity
Investment	<ul style="list-style-type: none">• In-house trading• CDM projects• Carbon funds

III. Business and the Rise of Emissions Trading: Kyoto, the EU and the US



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- Emissions trading as the most cost-effective solution
- Emissions trading can be designed in a business-friendly way (targets; grandfathering)



- Emissions trading is market-creating
 - Primary market: carbon market
 - Secondary markets: low-carbon tech markets

III. Business and the Rise of Emissions Trading: Kyoto, the EU and the US

The Kyoto Protocol: Why Flexible Mechanisms?

- Loose and small coalition influences US foreign policy.
- Main actors:
 - British Petroleum
 - International Climate Change Partnership (ICCP)
 - Environmental Defense
 - Others
- Administration had a clear pre-disposition for trading due to its experience with the acid rain program.
- Post-Kyoto: Pro-trading coalition takes organizational shape.

III. Business and the Rise of Emissions Trading: Kyoto, the EU and the US

The European Union:

Why the EU Emissions Trading Scheme?

- Pioneers:
 - UK Emissions Trading Group
 - UK government
 - European Commission followed suit to prevent a myriad of national systems and for foreign policy reasons.
- Design of the EU ETS:
 - Leaders: Oil majors and electric utilities
 - UNICE
 - Almost the entire environmental community
 - Opponents: German industry in particular
- Implementation of the EU ETS:
 - New business groups have been emerging that advocate an extension of the EU ETS and a global carbon market.

III. Business and the Rise of Emissions Trading: Kyoto, the EU and the US

EMPTY WORDS JUST ADD CARBON DIOXIDE.

Our Climate Map is all about reducing it.
Feel free to use the map at vattenfall.com/climatemap



We are committed to combat climate change.

No issue today is more important than the threat of global warming. That is why we, more than 40 global companies, have joined the 3C Initiative and agreed on 9 principles that are required to combat climate change. The 3C Initiative aims at forming a global opinion group consisting of companies showing leadership by demanding an integration of climate issues into the world of markets and trade facilitated by means of a global framework coming into force in 2013. For more information and to join forces with us, visit www.combatclimatechange.org

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3C PARTNERS: ABB, ALCAN INC, ALSTOM, AREVA, BAYER, BRITISH PETROLEUM, BRITISH SKY BROADCASTING LTD, CENTRICA, CEZ GROUP, CHINA NATIONAL OFFSHORE OIL CORP, CITICGROUP INC, DEUTSCHE BAHN, DEUTSCHE POST, DONG ENERGY, DUKE ENERGY CORPORATION, E.ON AG, ENBW AG, ENDESA S.A, ENEL, ESKOM, FORTUM, GENERAL ELECTRIC CO, HITACHI LTD, IBERDROLA, LUFTHANSA, MUNICH RE GROUP, NORSKE SKOG, NRG ENERGY, NUON, OTTO GROUP, PG & E CORP, PNM RESOURCES, RAO UESR, REUTERS, SAP AG, SAS, SIEMENS, SUEZ, THE TATA POWER COMPANY LTD, WALLENIUS LINES, VATTENFALL.

III. Business and the Rise of Emissions Trading: Kyoto, the EU and the US

The United States: Moving Towards a Federal Cap-and-Trade Scheme?

- Political parameters are changing
 - Market-based climate bills in Congress
 - State action
- Early movers in the business community
 - Cinergy, DuPont, General Electric and others
- 2007: Business conflict over climate policy
 - Pro-trading lobby takes organizational shape in domestic politics

III. Business and the Rise of Emissions Trading: Kyoto, the EU and the US

Business conflict is emerging.

	Proponents	Neutral/Re-positioning	Opponents
Business groups	<ul style="list-style-type: none"> ▪ International Climate Change Partnership ▪ US Climate Action Partnership 	<ul style="list-style-type: none"> ▪ Business Roundtable ▪ Edison Electric Institute ▪ Global Roundtable on Climate Change 	<ul style="list-style-type: none"> ▪ American Petroleum Institute ▪ Industrial Energy Consumers of America ▪ National Association of Manufacturers ▪ US Council on International Business
NGOs	<ul style="list-style-type: none"> ▪ Environmental Defense ▪ Natural Resources Defense Council 		<ul style="list-style-type: none"> ▪ Sierra Club
Think tanks	<ul style="list-style-type: none"> ▪ Center for Clean Air Policy ▪ National Commission on Energy Policy ▪ Pew Center on Global Climate Change ▪ Resources for the Future ▪ World Resources Institute 		<ul style="list-style-type: none"> ▪ American Council for Capital Formation ▪ American Enterprise Institute ▪ Competitive Enterprise Institute ▪ George Marshall Institute



III. Business and the Rise of Emissions Trading: Kyoto, the EU and the US



**Why cap and trade?
For every earthly reason.**

USCAP's membership has doubled to include 6 environmental NGOs (representing over 2 million people) and 27 of the world's largest corporations (with more than \$2.2 trillion market capitalization). Learn more about our unprecedented coalition, our viewpoint and our principles at us-cap.org.

We must take prompt action to establish a comprehensive, market-driven approach to reducing greenhouse-gas emissions. We recommend a cap-and-trade program that achieves emission reductions at the lowest possible cost. Congress also needs to enact other key elements of climate protection legislation— including the establishment of an emissions inventory and registry, credit for early action, and policies to accelerate the development of low- and zero-emitting technologies, such as carbon sequestration.

Alcoa Inc.
Alicia
American International Group, Inc. (AIG)
Boston Scientific Corporation
BP America Inc.
Caterpillar Inc.
Chrysler LLC
CincoPharma
Dresser Industries
Environmental Defense
The Dow Chemical Company
Duke Energy
DuPont
Emblem Corporation
Ford Motor Company
FPL Group, Inc.
General Electric
General Motors Corp.
Johnson & Johnson
Meredith, Inc.
National Wildlife Federation
Natural Resources Defense Council
The Nature Conservancy
NRG Energy, Inc.
PepsiCo
Pew Center on Global Climate Change
PG&E Corporation
PGW Resources
Rio Tinto
Shell
Siemens Corporation
World Resources Institute
Xerox Corporation



US Climate Action Partnership

„Our environmental goals and economic objectives can best be accomplished through an economy-wide, market-driven approach that includes a cap and trade program that places specified limits on GHG emissions. (...) The U.S. climate protection program should create a domestic market that will establish a uniform price for GHG emissions for all sectors and should promote the creation of a global market.“

(USCAP 2007: Call for Action)

III. Business and the Rise of Emissions Trading: Kyoto, the EU and the US

Why will the US adopt a federal cap-and-trade scheme?

Strong business support because of ...

- Cost effectiveness
- Free allowances
- Credits for early action
- Creates primary and secondary markets
- Prior experience with emissions trading

Strong NGO support because of ...

- Environmental effectiveness

Other factors

- Advocates have invested heavily into this political project.
- International buy-in to emissions trading.

III. Business and the Rise of Emissions Trading: Kyoto, the EU and the US

Why will the US not adopt a carbon tax?

Weak business support because of ...

- No free allowances (only sectoral exemptions possible)
- No trading opportunities

Weak NGO support because of ...

- Lack of quantity certainty

Other factors

- Historical legacy of BTU tax
- Compatibility issues with international policy development
- Carbon tax proposals as tactical moves?
 - Delaying the process
 - Support for a hybrid system with increased price stability

Conclusions

- Emissions trading is unlike other environmental policies because it assigns property rights and is market-creating.
- It lends itself to gaining support from both business and environmental groups.
- The pro-trading coalition is well-organised.
- If emission controls are enacted, some form of cap-and-trade is very likely to be an element of the policy.



Thank you!

Please, send comments and questions to
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