



CARBON TRADING

The European Union Emission Trading Scheme (EU ETS)

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Carbon taxation versus cap & trade

□ *Cap & Trade Advantages*

- Cap & Trade directly controls the *emissions* (cap)
- Cost: greater flexibility; greater opportunities
- Backed by Wall Street and most of the private sector

□ *Cap & Trade Drawbacks*

- Data history mandatory to set appropriate cap
- Price volatility
- Vulnerability to market manipulations

□ *Carbon Tax Advantages*

- Carbon Tax directly controls the price: Industry gets a clear price signal
- Constant incentive
- Double dividend (emissions reduction/revenues distribution)
- Enhances public spending on RDD

□ *Carbon Tax Drawbacks*

- Difficult to sell politically
- Difficult to harmonize internationally
- Difficult to define how large a tax for how much reductions

Cap & Trade

- Cap = quantitative targets + timetable
- Trade = installations under the system sell & buy quotas during the period

Carbon Tax

- Tax fossil fuels that produce emissions

EU Climate Policy

GHG Emissions Objective
- 20% by 2020
compared to 1990

Situation in 2005

-6,8% GHG emissions compared to 1990

Remains to be done by 2020 via the Climate and Energy Package

GHG Emissions Objective
-14.2% compared to 2005

EU ETS : -21%
compared to 2005

**Sectors not in
ETS : -10%**
compared to 2005

GHG emission still to reduce from 2007 in EU-27 to achieve the 20% reduction target by 2020:

	GHG emissions in 2007 (Mt CO2 eq)	Emission reduction effort to make from 2007 to 2020 (Mt CO2 eq)	GHG emission targets in 2020 (Mt CO2 eq)
<i>ETS sectors</i>	2165	-445	1720
<i>Non-ETS sectors</i>	2880	-149	2731
<i>Total</i>	5045	-594	4451

What did we learn?

□ ***Lessons to be drawn***

- The cap needs to be realistic
- Free allocation → windfall profits
- Competitive distortions → Carbon leakage
- Economic slowdown → efforts postponed to later

□ ***Some corrections***

- Extension of the market
- 53% quotas to be auctionned
- Visibility up to 2020

□ ***Still, some flaws remain...***

- A cap fixed too far in advance
- Need for a price reserve mechanism?

The Carbon market today

	2007		2008	
	Volume (MtCO ₂ e)	Value (MU\$)	Volume (MtCO ₂ e)	Value (MU\$)
Project-based Transactions				
Primary CDM	552	7,433	389	6,519
JI	41	499	20	294
Voluntary market	43	263	54	397
Sub total	636	8,195	463	7,210
Secondary CDM				
Sub total	240	5,451	1,072	26,277
Allowances Markets				
EU ETS	2,060	49,065	3,093	91,910
New South Wales	25	224	31	183
Chicago Climate Exchange	23	72	69	309
RGGI	na	na	65	246
AAUs	na	na	18	211
Sub total	2,108	49,361	3,276	92,859
TOTAL	2,984	63,007	4,811	126,345

EU ETS:

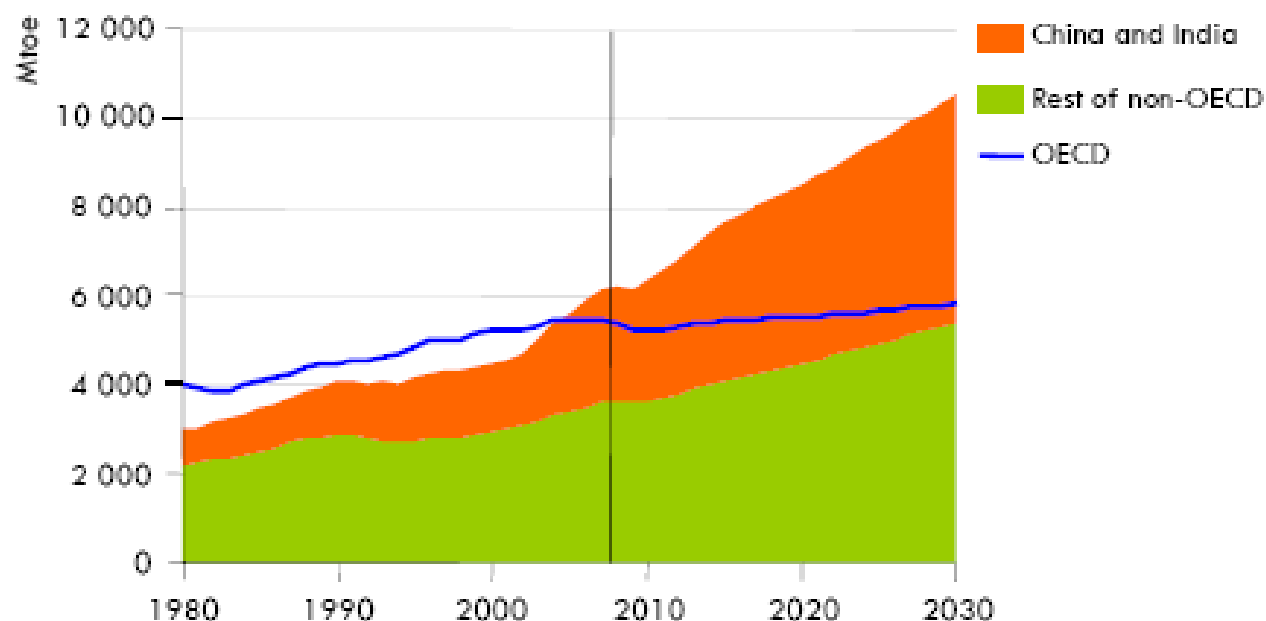
The largest carbon market
Volume of EUAs=64% of global total in 2008;
representing 72% of the total value traded

Second to the EU ETS: CDM Projects

Source: *State and Trends of the Carbon Market 2009*, Karan Capoor, Philippe Ambrosi, World Bank

The latest projections of WEO

World primary energy demand in the reference scenario

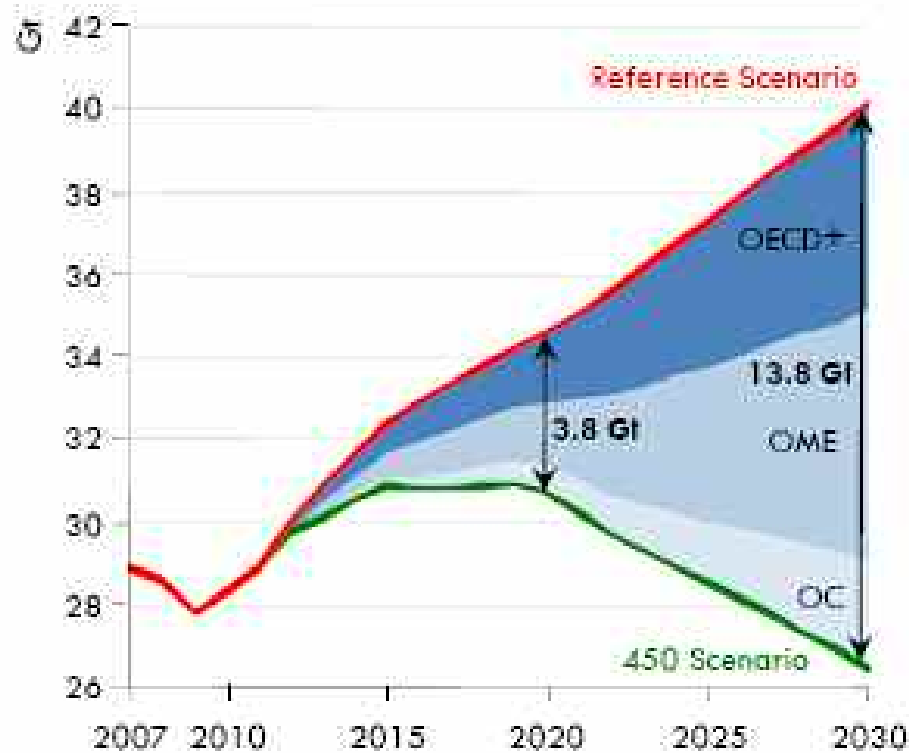


Non-OECD countries account for 93% of the increase in global demand between 2007 & 2030, driven largely by China & India

Source: WEO 2009

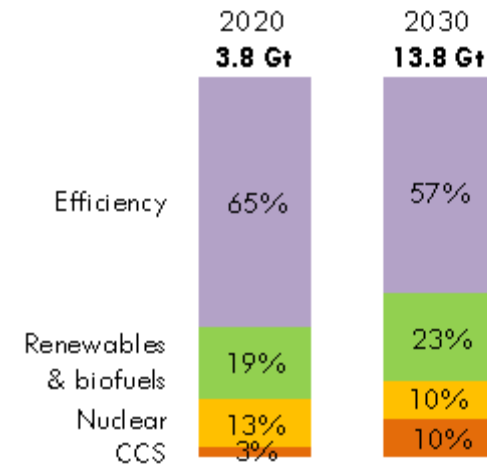
The latest projections of WEO

World Abatement of energy related CO2 emissions in the 450 Scenario



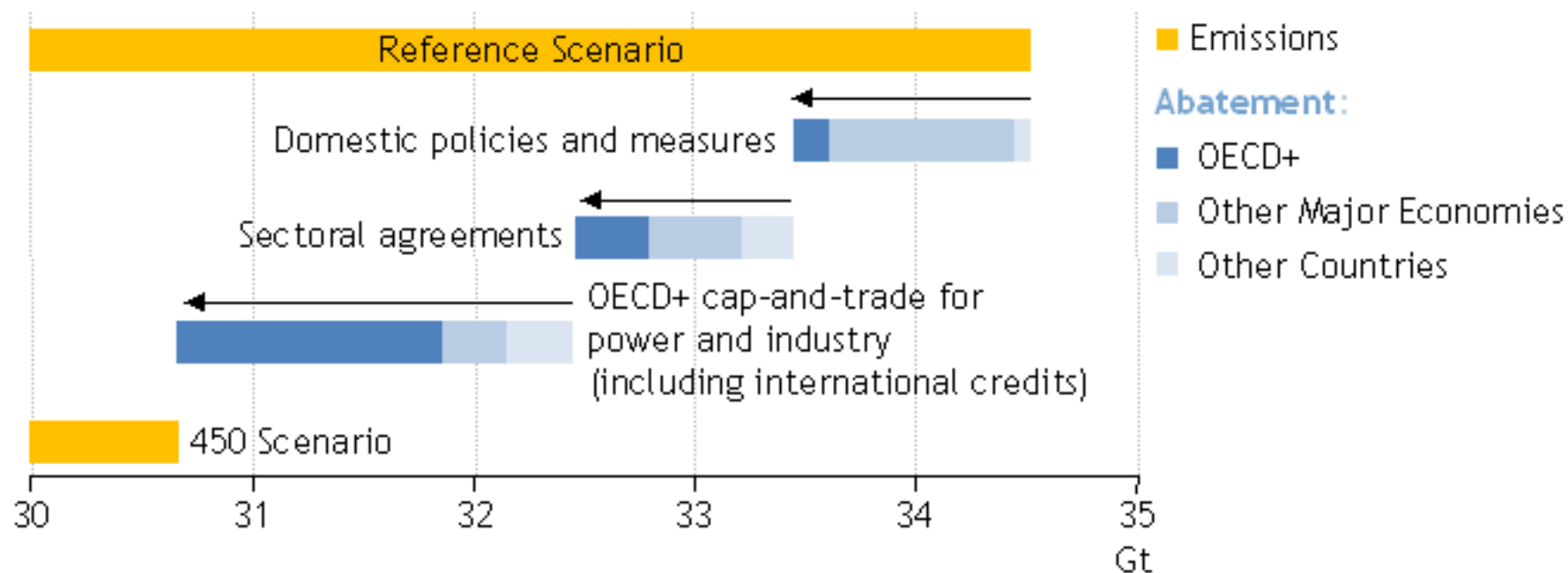
OME=Other Major Economies
OC=Other Countries

World abatement by technology



The latest WEO projections

Abatement by policy type in the 450 scenario relative to reference scenario by 2020



Source: WEO 2009



Thank you for your
attention!