



State and Trends of the Carbon Market

Latin American Carbon Forum



November 4, 2008
Santiago, Chile

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The World Bank Group

Today's discussion

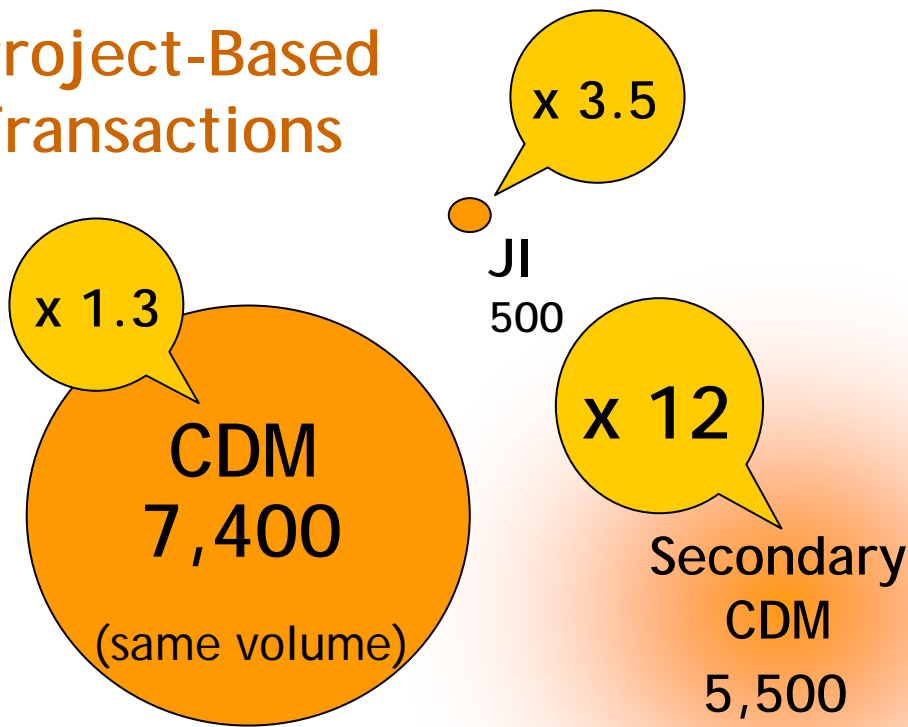
The Carbon Market 2007

The CF in 2008 onwards (within Kyoto)

And beyond: mainstream to the CC Agenda

Carbon markets surpassed US\$100 billion by the end of 2007...

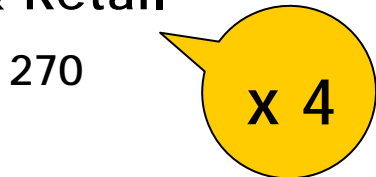
Project-Based Transactions



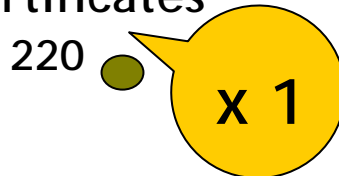
Allowance Markets



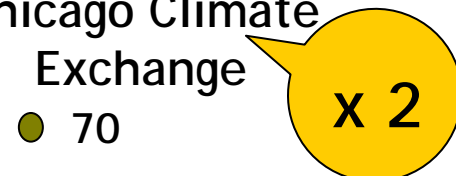
Voluntary & Retail



New South Wales Certificates

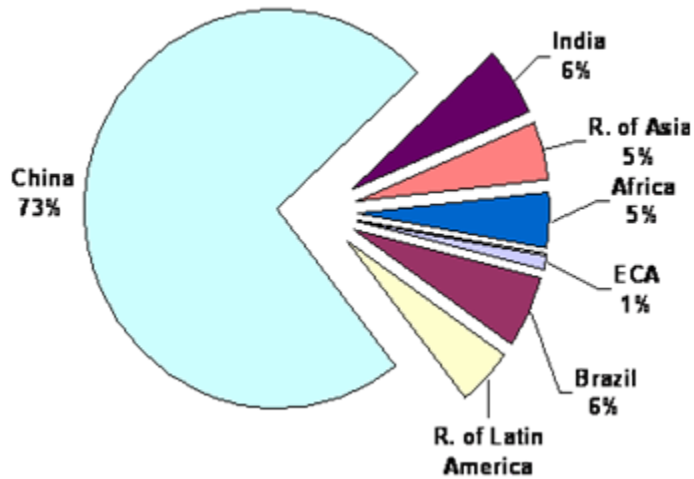


Chicago Climate Exchange



Tremendous untapped potential in developing countries

1. Location of CDM projects (percentage of volume, 2007)

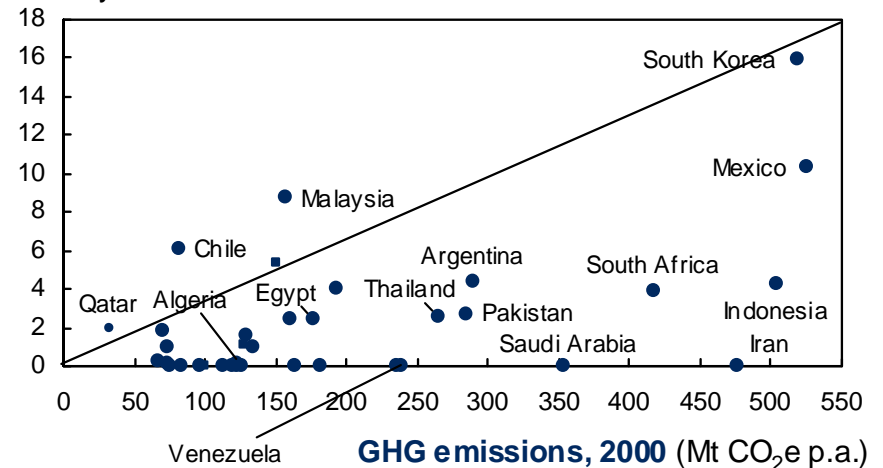


Source: WB State and Trends of the Carbon Market 2008

2. Many countries are under-penetrated even relative to their emissions

CDM activity by country, mid-2007

Mt CO₂e/year

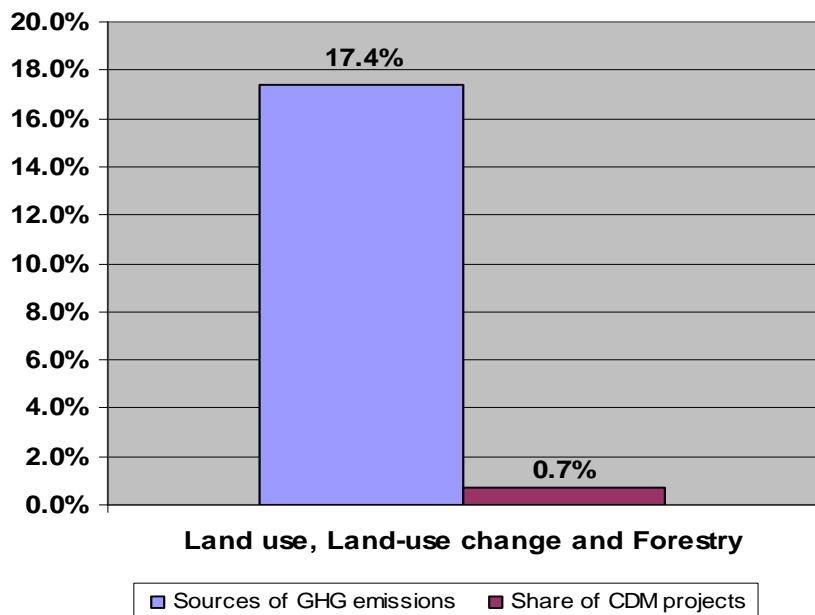


Source: McKinsey

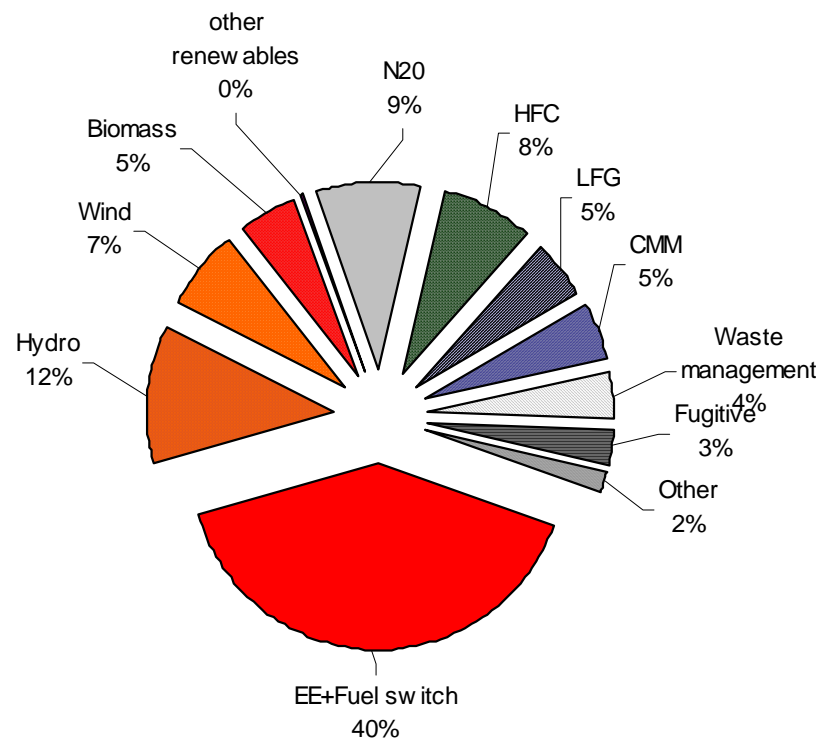
- **Uneven regional focus;** China, India and Brazil = 85% of CDM market share;
- **Africa still emerging,** some successes in 2007;
- **Smaller projects** and aggregation opportunities **bypassed;**
- Reductions from **reforestation and avoided deforestation** largely absent.
- Many countries with high emissions have relatively low presence in carbon markets.

Many opportunities to scale up and extend reach

Forestry is barely visible in CDM



64% of 2007 contracts for clean energy



Tapping new sectors

For the first time, agreement reached at Bali to move forward on Reduced Emissions from Deforestation and Degradation (REDD), providing opportunity for countries with tropical forests to join the carbon markets.

Required now: build capacity to measure and verify emissions associated with forests and bring these assets to market as soon as international regulatory framework is in place.

Building on success to scale up

Programmatic approaches will enable scaling up/extending to interventions in key development sectors (energy, appliances, waste management, transport, and newer technologies). Approaches compatible with financing provided by domestic FIs need special attention.

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2008: over a US\$100 billion

- **H1 2008: 1.8 GtCO₂e traded (US\$59 billion)**
 - EU ETS = 1.3 billion EUAs (US\$47 billion – 80%)
 - CDM = 502 MtCO₂e (US\$ 11.9 billion)
 - I CDM = 213 MtCO₂e
 - II CDM = 281 MtCO₂e
 - Options = 7 MtCO₂e
 - JI = 26 MtCO₂e (US\$0.4 billion)
- **Forecast: 4.2 GtCO₂e (US\$110.7 billion)**

- **9M 2008: US\$87 billion**
 - EU ETS = 2.7 billion EUAs (US\$69 billion – 79%)
- **Forecast: 3.9 GtCO₂e (US\$116 billion)**



> 70%

Source: Point Carbon, Carbon Market Monitor July, 2008



> 81%

Source: New Carbon Finance, October, 2008

Success masks challenges

DOE at validation or req. reg.

registered

issuance

180 days →

← 348 days →

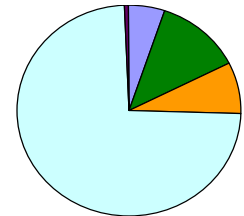
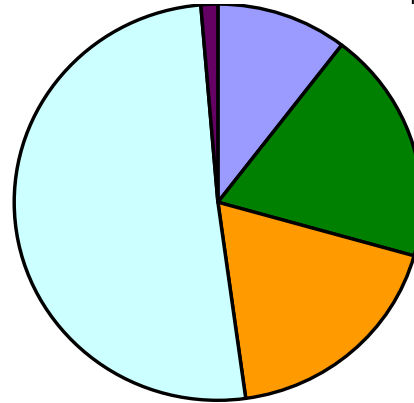
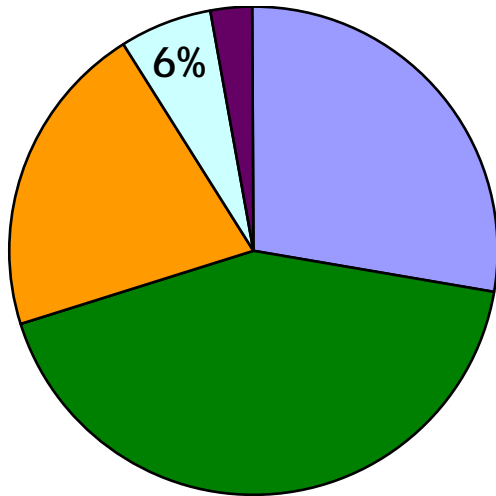
← 328 days →

2-year delay

2,645 projects
1,451 MCERs

1,170 projects
1,342 MCERs

403 projects
195 MCERs



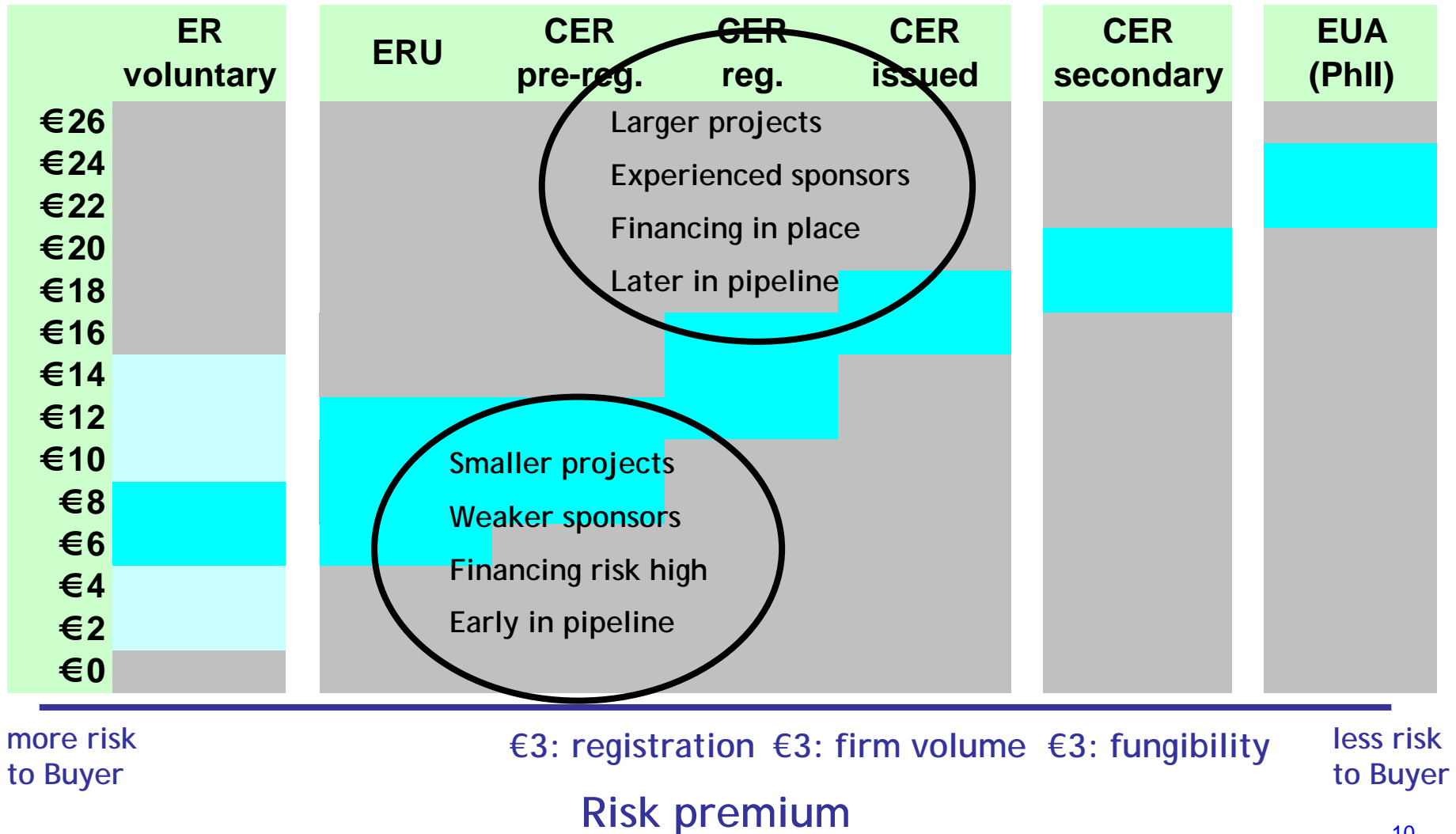
- EE
- RE
- Methane
- Industrial
- Other

RE and EE (70%) stuck somewhere in the pipeline

70% of all projects (half of volumes) have not reached registration

74% to high yield projects (ind. gas)

Market tiers widen, following risk allocation



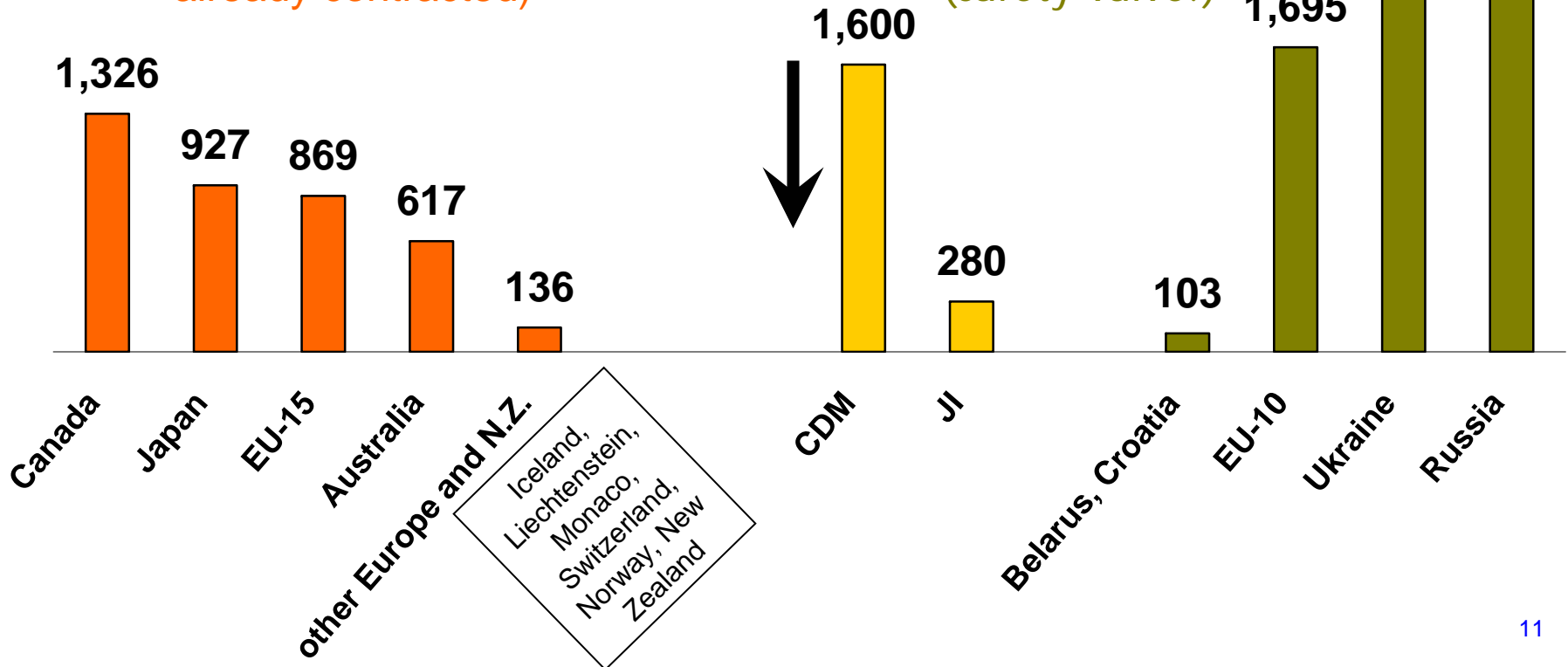
Kyoto market balance - Cumm.2008-12

Potential Gap (2008-2012)
in MtCO₂e
(with existing measures)

Potential Supply (2008-2012)
in MtCO₂e
(with existing measures)

Demand for Kyoto Mechs.
at least 2.4 GtCO₂e (1.4
already contracted)

Green Invest. Scheme
at least 1GtCO₂e
(safety-valve?)



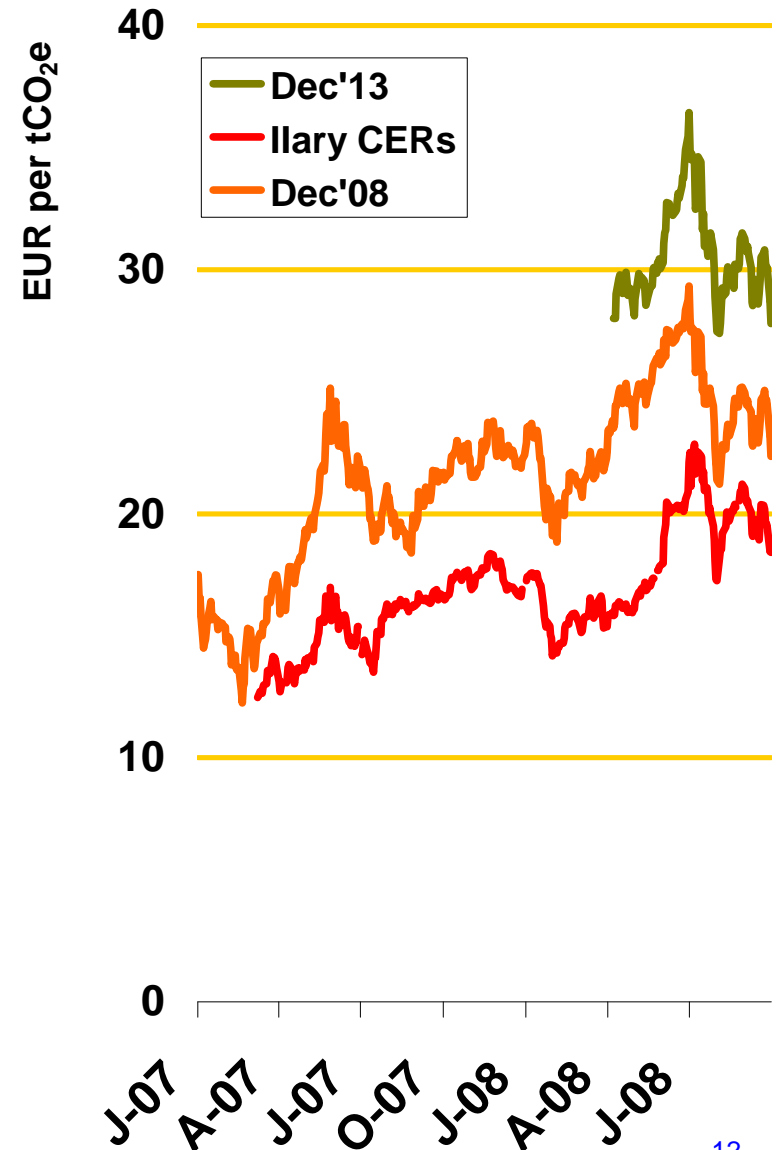
EU-ETS: ready for Phase II

PhII: ITL/CITL up and running

- general cap at 2,098 mln EUAs per year (6% below 2005 emissions).
- average limit imports of CERs & ERUs: 13.4% (280 MtCO₂e/yr)
- price forecasts: €25 to €40 on avg (before economic crisis)
- More liquidity

PhIII: EU proposal (2013-2020)

- at least 20% 1990 levels by 2020 (20/20/20)
- still many aspects to be negotiated yet



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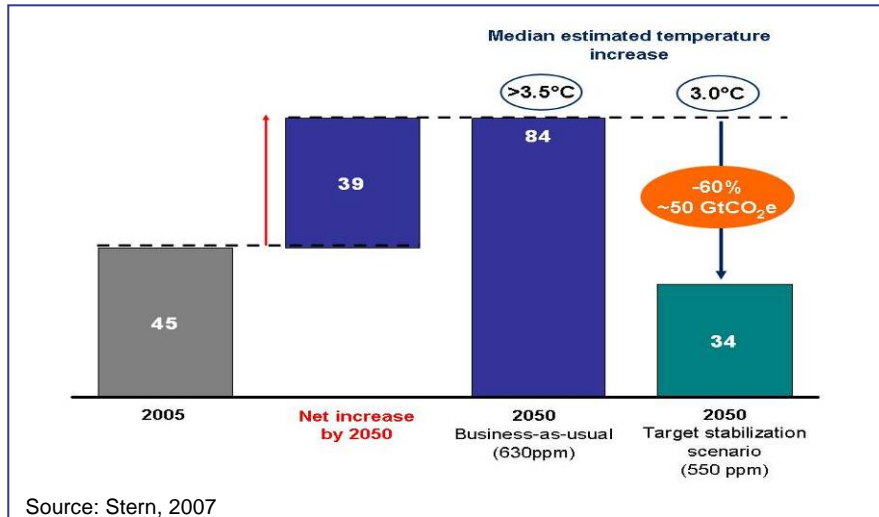
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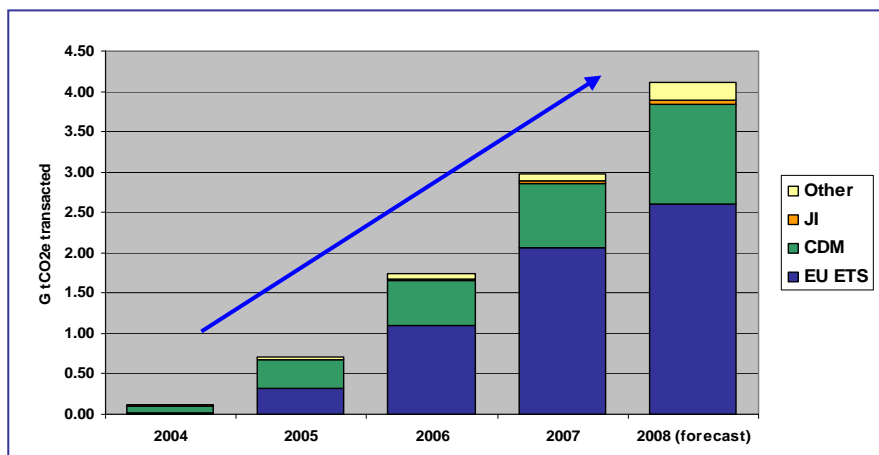
Reductions of 50 GtCO₂e/year needed by 2050: Current trading is very small (only 4 GtCO₂e* expected in 2008)

1. Effort required to stabilize emissions by 2050 (GtCO₂e)



- Dramatic reductions of GHG emissions required. Unless addressed, emissions and temperature will rise to unacceptably high levels.
- Stabilization at 550 ppm CO₂e by 2050 needs emissions to go down 60% from business-as-usual.
- Mitigation efforts over the next two to three decades will be critical.

2. Volume of carbon transacted (GtCO₂e)

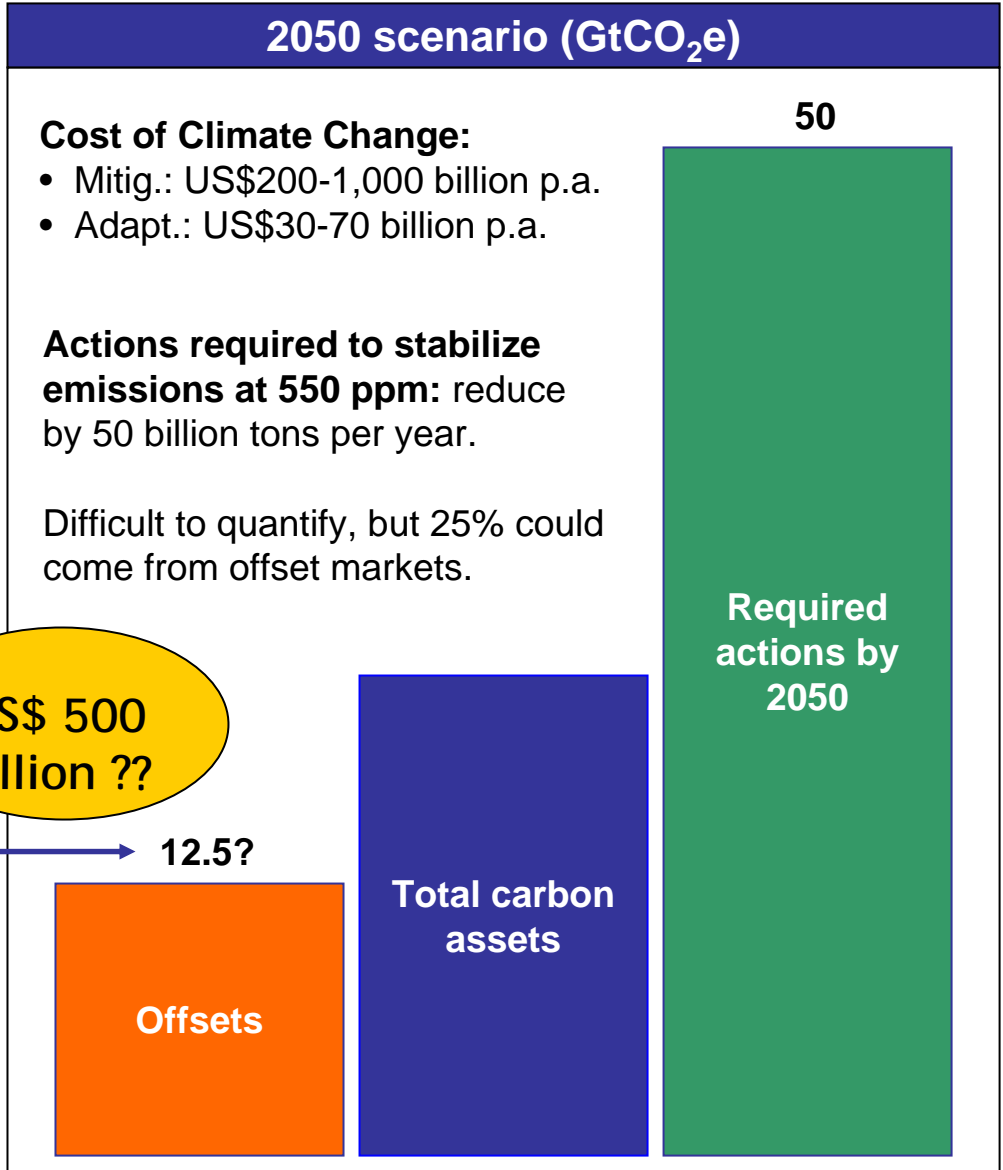
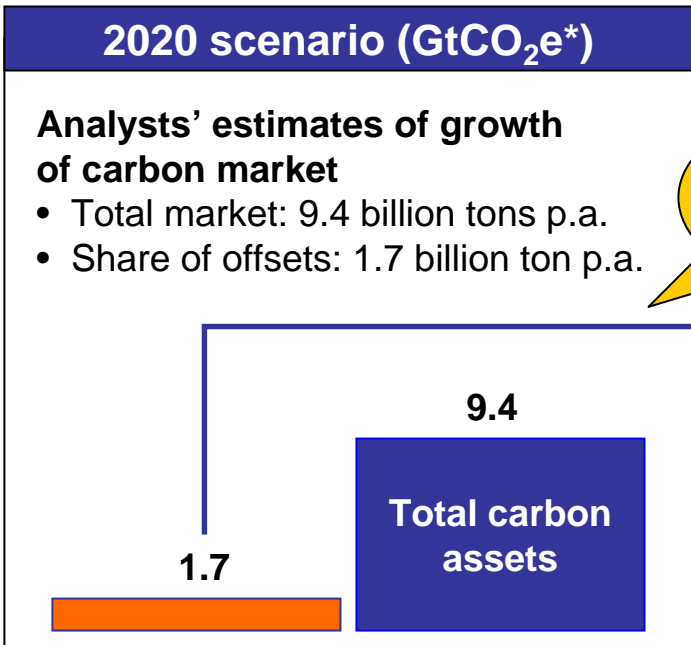


- 50 GtCO₂e per year needed by 2050.
- Current carbon trading is 4 GtCO₂e but actual physical volume of reduction **barely half of that amount** as the market includes large trade in permits (essentially quotas repeatedly changing hands).
- Enormous gap between effort needed and current volumes.

*GtCO₂e: Billion tons CO₂-equivalent

Untapped potential: how much can carbon markets contribute?

Offsets (such as credits from developing countries) could possibly expand 8 times in 30 years



US\$ 500 billion ??

Decisions needed

To provide long-term carbon price signals and certainty to the private sector

Define a global goal for 2050 supported by intermediate targets, to be agreed by the UNFCCC process.

To facilitate access to new carbon markets and sources of capital and lower costs of abatement

Build a truly global carbon market by linking regional carbon schemes and markets to each other through increased access, converging prices and harmonized products.

To accelerate low-carbon growth in developing countries

Reform the existing market-based mechanisms and explore new policy instruments – reduced transaction costs, streamlined processes, simplified methodologies.

To scale up and deepen access to carbon markets and finance

Facilitate the transfer of low-carbon technologies and establish sector-based programs to enable larger scale investments in cleaner development.

Thank you

Full report available at

www.carbonfinance.org

BACK UP

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www.carbonfinance.org

Update on AAU/GIS transactions

GIS: voluntary mechanism whereby proceeds of AAU transactions support bilaterally agreed environment- and climate-friendly projects through and beyond 2012.

Known Interests	Potential Supply (mln AAUs)	
Japan	Ukraine	1,000-1,200
Belgium	Russian Fed.	??
Ireland	Hungary	100
Italy	Czech Republic	100
Spain	Latvia	40
the Netherlands	Poland, Romania	could be
	Bulgaria	20 (abandoned pilot)

Likely a **buyer market**, with advantage to early sellers.

Controlled supply (potential value beyond 2012 & lead time to prepare GIS) so price should not drop to zero.

Prices rumored: €10 to 15?; option on AAUs (safety-valve)?

Key messages

- 1. Greenhouse gas (GHG) emissions must be reduced.**
- 2. Technologies are available now that enable substantial reductions at acceptable marginal abatement costs.**
- 3. A variety of policies can lead to reductions of GHG emissions; carbon markets are needed to implement cap-and-trade and can interconnect policy measures.**
- 4. A deep, liquid and global carbon market has the potential to deliver significant benefits to all participants, including for development.**
- 5. But countries will need to take decisions to establish long-term price signals and gain the full benefits of carbon markets.**