



# EU Commodity Markets and Trading

## Exotic Derivatives

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CORPORATE AND INVESTMENT BANK

## What are exotics?

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### Section C(10) of Annex 1 to MiFID

“Options, futures, swaps, forward rate agreements and any other derivative contracts relating to climatic variables, freight rates, emission allowances or inflation rates or other official economic statistics that must be settled in cash or may be settled in cash at the option of one of the parties (otherwise than by reason of a default or other termination event), as well as any other derivative contracts relating to assets, rights, obligations, indices and measures not otherwise mentioned in this Section, which have the characteristics of other derivative financial instruments, having regard to whether, inter alia, they are traded on a regulated market or an MTF, are cleared and settled through recognised clearing houses or are subject to regular margin calls.”

## Some specific exotics ...

### Freight derivatives

- Through Forward Freight Agreements (FFA), the value of which is determined by the value of an underlying asset
- The underlying asset in a freight derivatives deal is the freight rate for a specific trade route. Freight derivatives provide for the sale and purchase of a freight rate along a named voyage route over a specified time
- Primarily over-the-counter with 75% of business done through London
- Market made up quite evenly of banks, companies such as BHP and Cargill, and ship-owners/operators
- More and more trades are being conducted with clearing through a third party (this is particularly prevalent in Europe where the Norwegian Futures and Options clearinghouse (NOS) has been used by the International Maritime Exchange for freight contracts since October 2001)
- Parties to over-the counter derivatives usually use either the Forward Freight Agreement Brokers Association (FFABA) form of contract or the ISDA Master Agreement (the former becoming more like the latter last year)
- The market is currently enjoying its highest levels for 30 years, and this has been sustained for approximately two years
- Rotterdam remains the busiest European port as it provides easy over-land access to the rest of the continent's mainland. Hellenic ports are also experiencing large volumes due to the access they provide to the emerging economies in the far east

## Some specific exotics ...

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### Weather derivatives

- While temperature-related derivatives dominate the market, businesses are increasingly heading their exposure to other climatic risks such as rainfall, snow and wind
- For example, weather may be quantified and indexed in terms of monthly or seasonal average temperatures, and a value attached to each index
- Two most prominent indexes relate to temperature and are Cooling Degree Days (CDDs) and Heating Degree Days (HDDs). CDDs are a measure of how much the average daily high temperature and low temperature is greater than the predicted average. In other words, how much cooling is required. HDDs are simply the inverse of this and used to establish how much heating is required
- The most rudimentary form of weather derivative is a weather clause embedded into a contract stipulating a rebate from the seller if the temperature in a given month is cooler than expected
- A regulated market has established itself on the Chicago Mercantile Exchange. While this is an American market, it currently lists weather derivatives for nine European cities
- Weather derivatives are generally traded under an ISDA Master Agreement using the ISDA 2005 Commodity Definitions

## Some specific exotics ...

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### Capacity trading

- The most common type of capacity trading is the buying and selling of transportation capacity in gas and power networks, gas and power interconnectors and storage capacity in gas storage facilities (natural gas and LNG)
- Access to transportation and storage capacity is complicated
- There are two key ways to gain access to the capacity trading market. First is from the sale of regulated capacity conducted by Transmission Systems Operators (“TSOs”). The amount of capacity is calculated and offered by the TSO, and the terms are standardized and generally non-negotiable. Second is by contractual negotiation directly with the individual owner of the specific medium (pipeline, network or interconnector) where the assets are unregulated or exempted from regulation
- EFET has prepared a list of suggestions on this subject. It has recommended that TSOs should work with capacity users to establish a standardized transportation contract. This would facilitate the trade of capacity and recognise the ability of shippers to trade primary capacity rights on a secondary market
- Entry requirements to the primary market should be minimal to ensure liquidity and promote trade and efficiency

## One specific exotic

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### Emission allowances

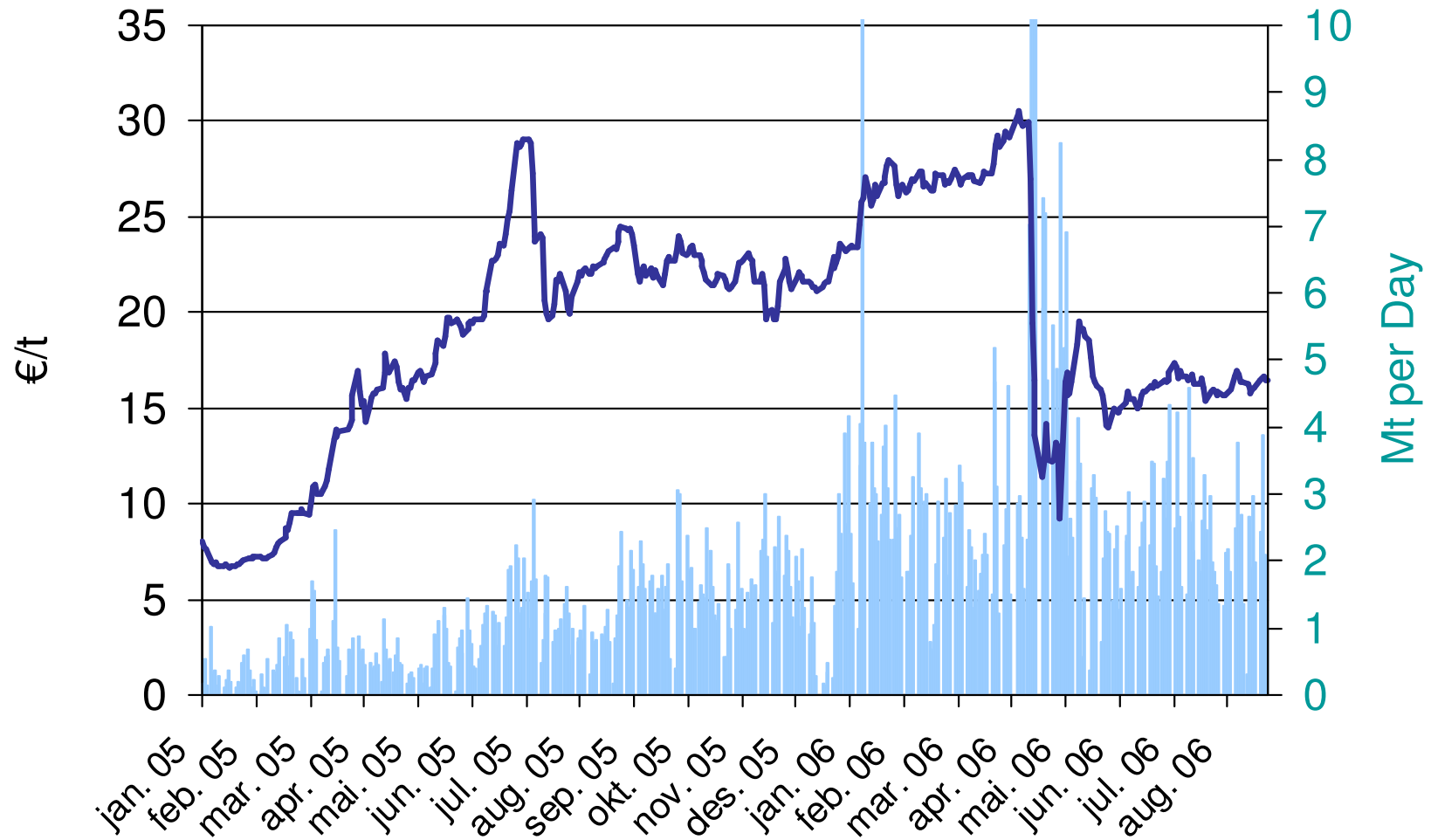
- Two significant international agreements established the framework for reduction of greenhouse gases
- The Kyoto Protocol is an international treaty on climate change which was proposed in 1997 and entered into force in February 2005. It amended the United Nations Framework Convention on Climate Change (UNFCCC) which was proposed in 1992 and entered into force in 1994
- The Kyoto Protocol provided for and recognised three forms of emission reduction by those countries in Annex 1 to the UNFCCC:

**Emissions trading (Article 17 of the Kyoto Protocol):** the EU ETS is such a scheme

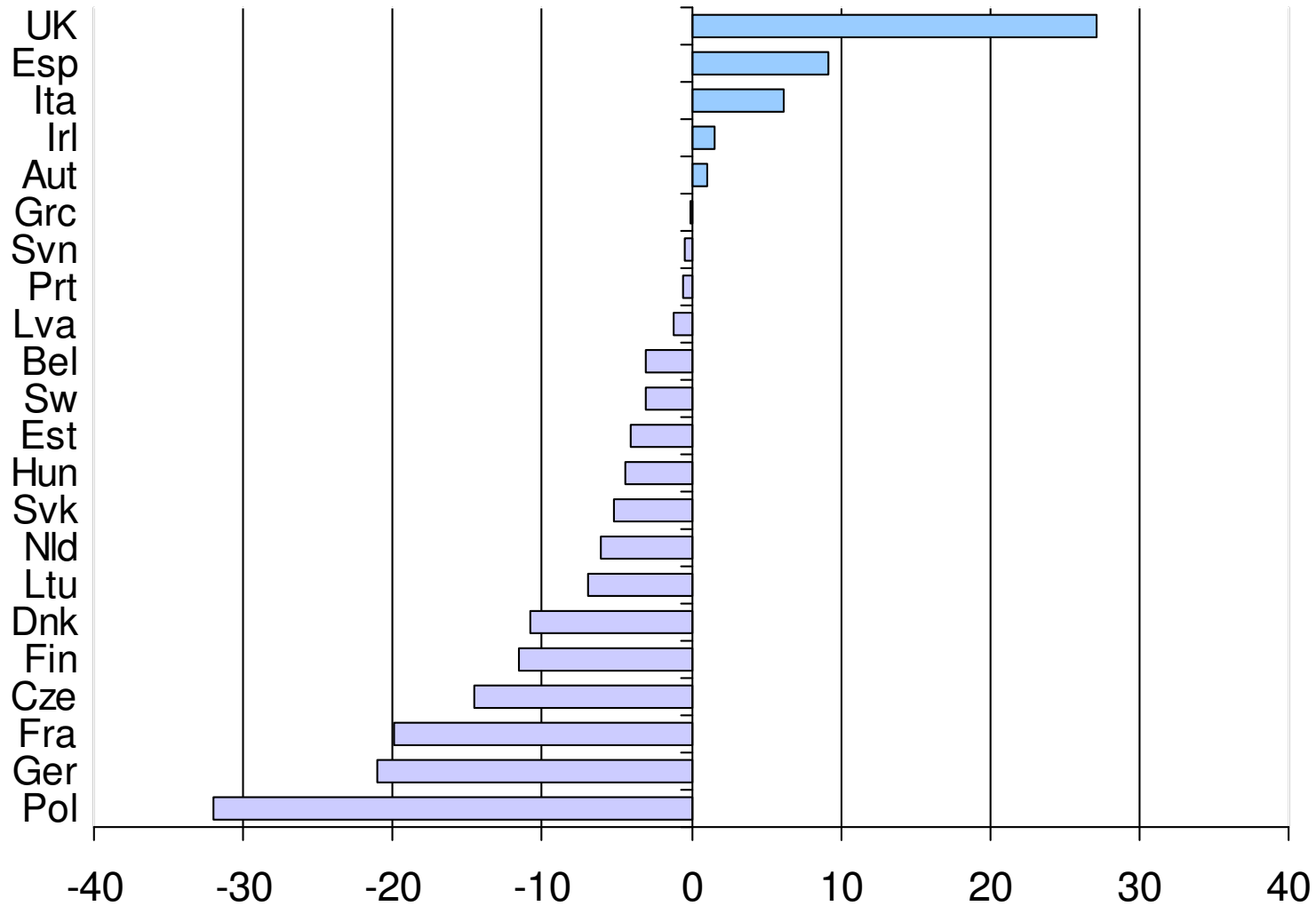
**Clean Development Mechanism (CDM) (Article 12):** import of Certified Emission Reductions (CERs) from a developing country (non-Annex 1) to an industrialised country (Annex 1)

**Joint Implementation (JI) (Article 6):** import of Emission Reduction Units (ERUs) from an industrialised country to another industrialised country

## EU ETS: prices and volumes



## Verified emission data (overall market balance 97 Mt long)



## EC Guidance

Country	Phase 1 cap (mt/year)	Est. Phase 2 cap (mt/year)	Total cut (mt/year)	Cut in percentage
Austria	33.0	24.6	8.4	25.4
Belgium	62.9	57.8	5.1	8.1
Cyprus	5.7	5.7	-	-
Czech Rep	97.6	97.6	-	-
Denmark	33.5	24.9	8.6	25.7
Estonia	19.0	19.0	-	-
Finland	45.5	37.5	8.0	17.7
France	156.5	156.5	-	-
Germany	499.0	483.6	15.4	3.1
Greece	74.4	74.4	-	-
Hungary	31.3	31.3	-	-
Ireland	22.3	20.1	2.2	9.8
Italy	232.5	194.7	37.8	16.2
Latvia	4.6	4.6	-	-
Lithuania	12.3	12.3	-	-
Luxembourg	3.4	2.8	0.6	18.4
Malta	2.9	2.9	-	-
Netherlands	95.3	88.9	6.4	6.8
Poland	239.1	239.1	-	-
Portugal	38.2	35.5	2.7	7.1
Slovakia	30.5	30.5	-	-
Slovenia	8.8	8.4	0.4	5.0
Spain	174.4	142.6	31.8	18.2
Sweden	22.9	22.9	-	-
UK	245.3	245.3	-	-
<b>Total</b>	<b>2190.9</b>	<b>2063.4</b>	<b>127.5</b>	

## Key numbers

Country	Phase I	2005 emissions	Guidance	NAP
Germany	499	474	484	471*
UK	245	242	245	237*
Poland	239	205	239	280
Italy	233	223	195	186*
France	156	131	156	150*
Spain	174	184	143	145*
EU 25	2191	2013	2063	2172

\* Cap for comparable set of installations

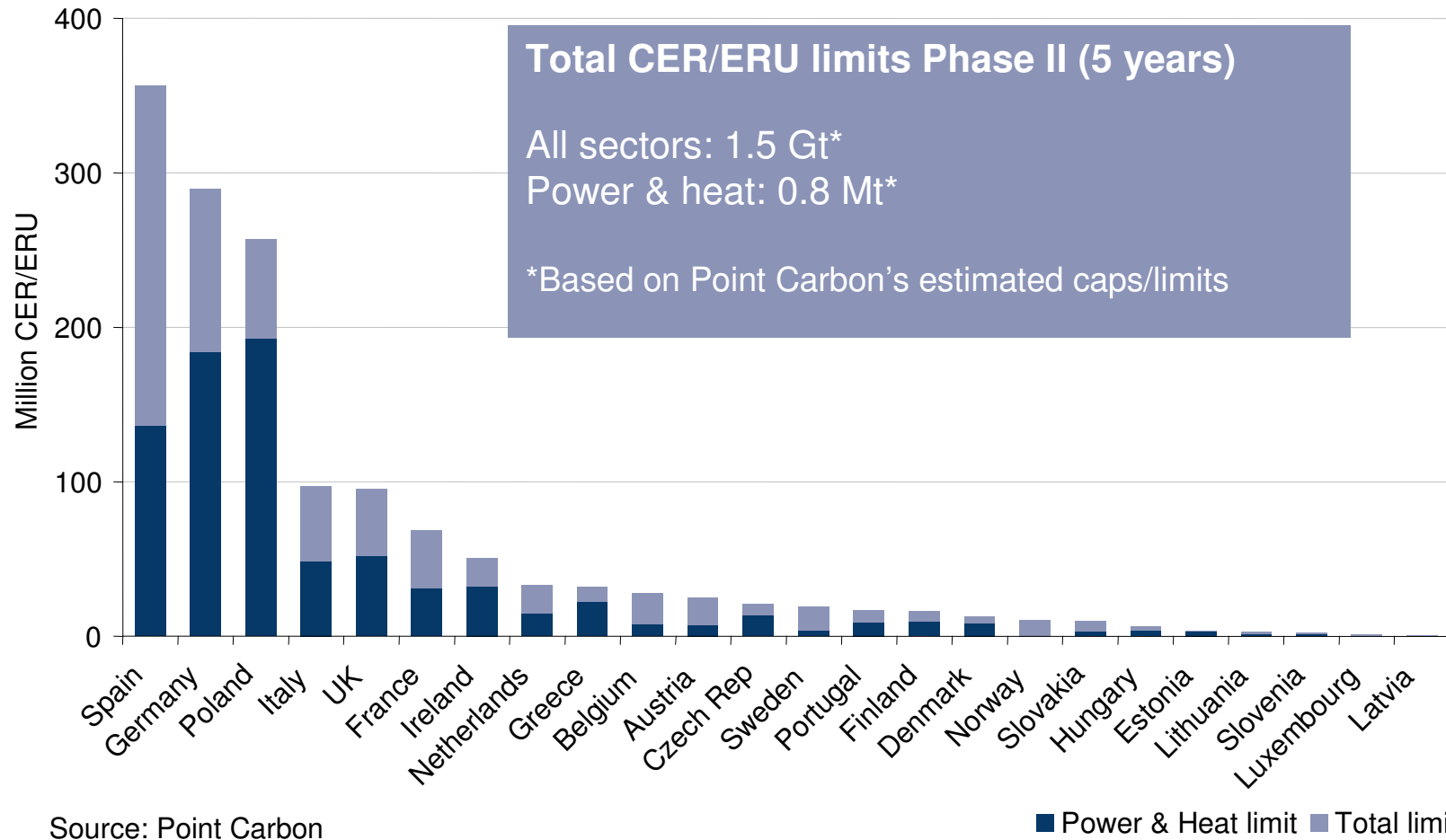
- Only indicative numbers for EU25, but lax overall
- How will the Commission assess the plans?

## Particular areas of interest

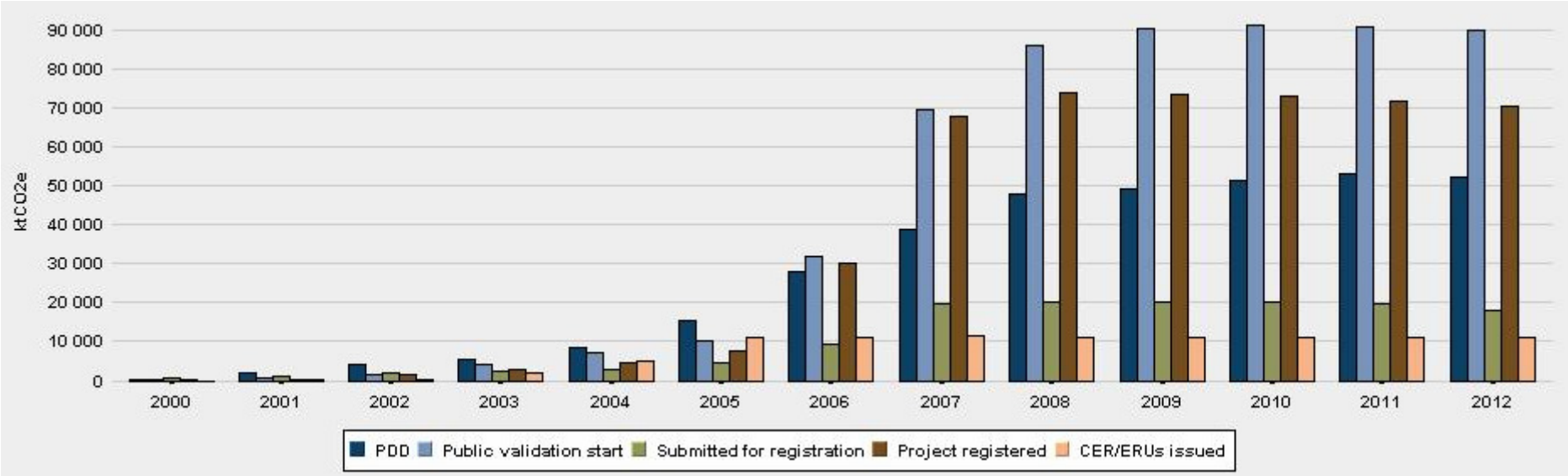
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- Heavyweights: Poland and France
  - 51 Mt surplus in 2005
  - Lax drafts (Poland +40 Mt from Phase I)
  - Banking
- Middleweights: Czech Republic and Denmark
  - 25 Mt surplus in 2005
  - Still without drafts
- Welterweights: Baltics, Netherlands and Slovakia
  - 23 Mt surplus in 2005
  - All have proposed to increase cap

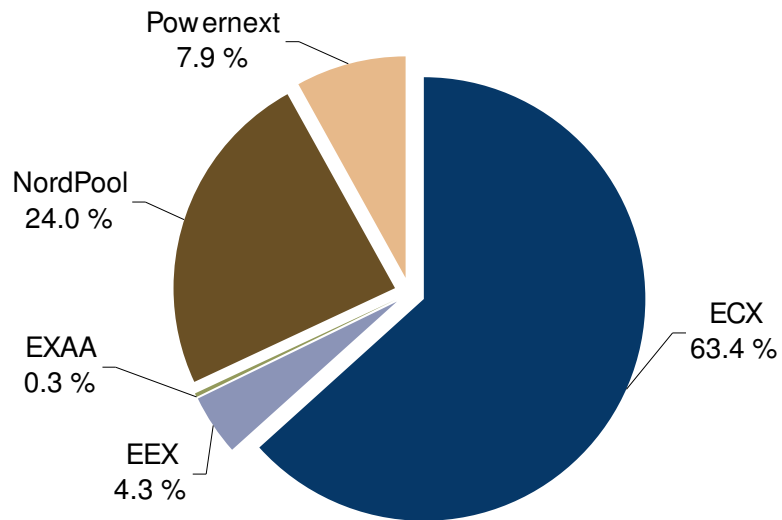
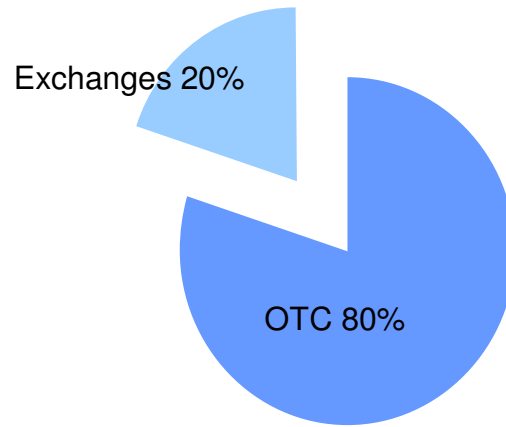
# And what of CERs/ERUs?



# Projected CER/ERU supply per project stage



# Where is the trading?

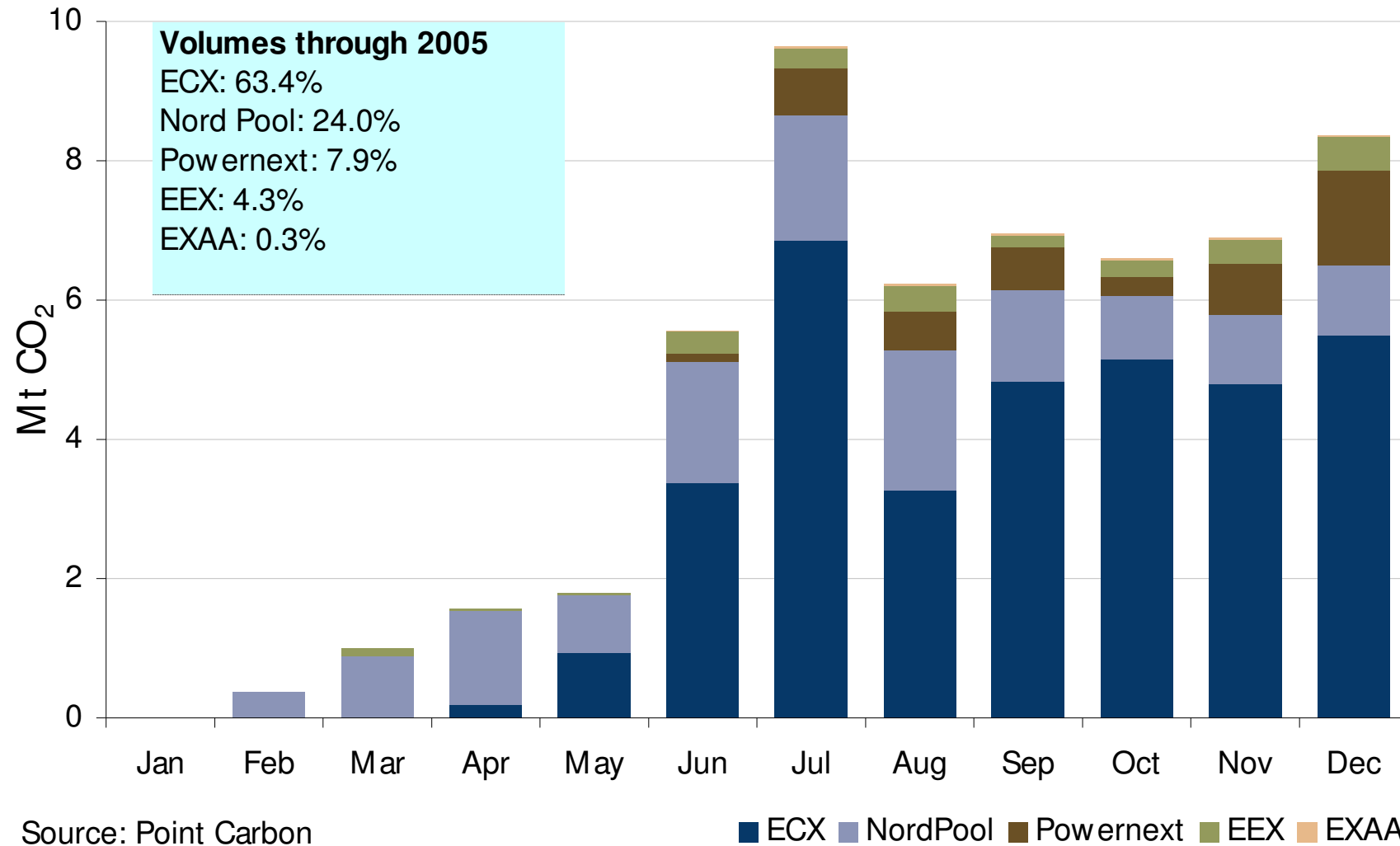


Source: Point Carbon

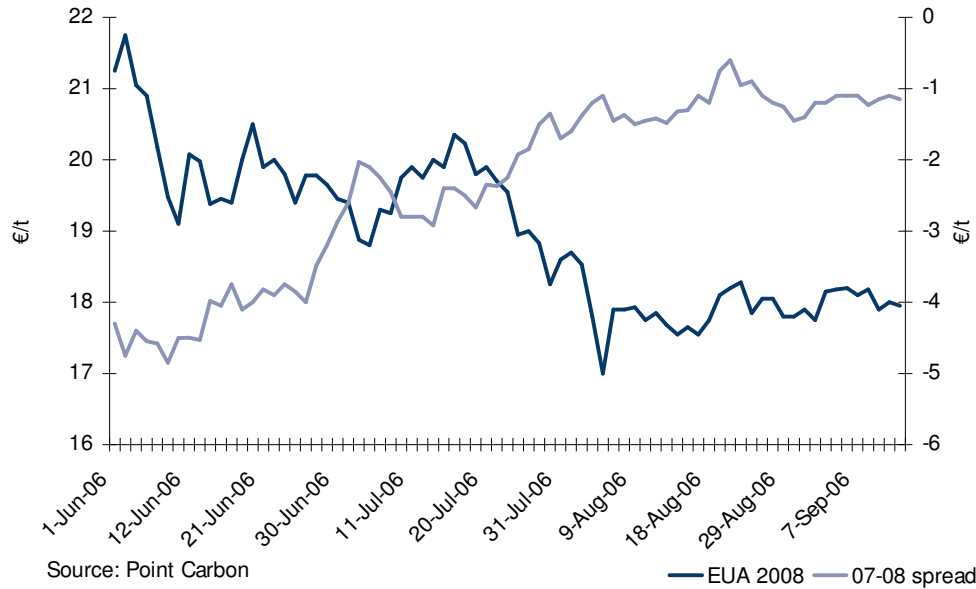
## Exchange trading:

<b>ECX/ICE</b>	London
<b>NordPool</b>	Oslo
<b>EEX</b>	Leipzig
<b>EXAA</b>	Vienna
<b>Powernext</b>	Paris

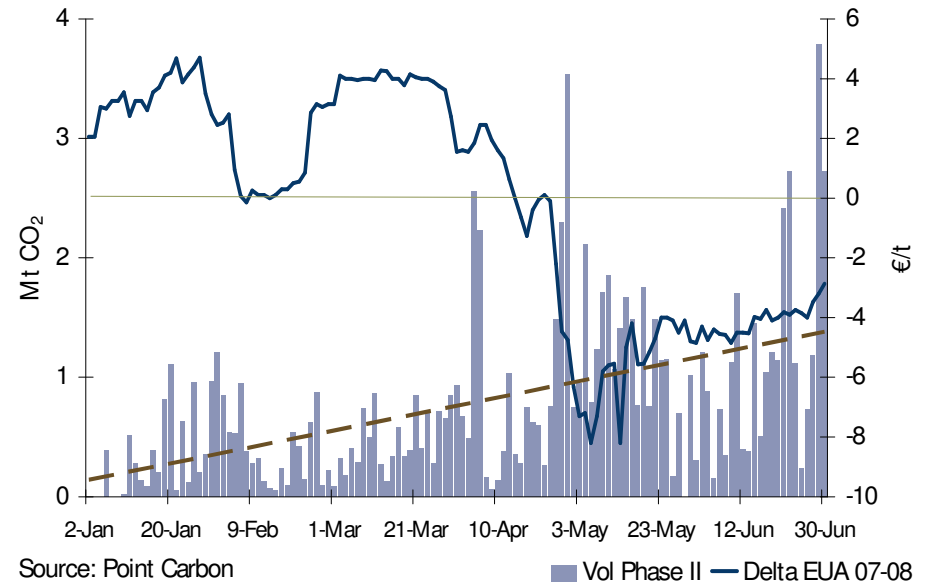
# Exchange growth



# What are the indications for Phase II?



- Falling prices Phase II
- Increasing volumes



## Some questions

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- Why difference of terminology in Section C at Annex 1?
- Why particular reference to cash settlement, markets/MTFs and margining?
- Why an exemption for ancillary business etc.? And why the distinction between the treatment of credit institutions etc. and other market participants?
- What really is the point of MiFID and related application of the Capital Adequacy Directive?

## Some paradoxes

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- Markets are in physical OTC products/regulation focuses on financial/exchange traded products
- Regulation focuses on those products that by their nature have limited risk and have credit cover. Thus it imports, by CAD, a second, and imprecise, credit charge for those inherently more secure products, whilst ignoring those products that may not be covered by collateral
- Regulation focuses on business undertaken by regulated entities, not those entities with a specific focus. Thus it imposes an additional, and arbitrary cost on those market participants less likely to create a systemic risk because of diversification of exposure and reputation, whilst ignoring more focused unregulated traders
- Netting or set-off remains unprotected

In sum, regulation is focused on the inherently least risky products, undertaken by the least risky institutions. And those institutions are the only entities to benefit (clearly and universally) from the obvious benefits of netting

Nevertheless, markets deal most efficiently with a participant that loses US\$6 billion in one week, but a fully regulated bank such as Barings can completely fail with a loss of less than £1 billion, extended over a significant period of time

## Some solutions

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### On the one hand

- Prudential risk management should be limited to retail trading, where sophisticated market risk management is inapplicable.
- There should be limited capital adequacy requirements for wholesale commodities trading activity

### On the other hand

- The most important credit risk management tool – netting or set-off – should be extended to all trading or all entities, if not as a mandatory matter then certainly to those who wish to adopt it
- Emissions trading schemes are the only affordable means of reducing GHGs. Particularly as this is an entirely conceptual or invented market, the fundamentals of a market must be created and they must be unshakeable – certainty and unchangeability of nature, longevity and desirability. In particular, there will be no desirability, and so no market if there is no shortage. There must be a significant limitation on issued EU allowances. At the same time, there is no reason for caps on the import of CERs and ERUs (in other words, regulatory pricing)

### Sometimes less may really be more

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**With thanks to Point Carbon for data**