

# The European Emissions Trading Scheme

## Where are we?

**Electricity Policy Research Group at the University of Cambridge  
EPRG Winter Research Seminar 2006**

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**Dr. Felix Chr. Matthes**

# The EU ETS

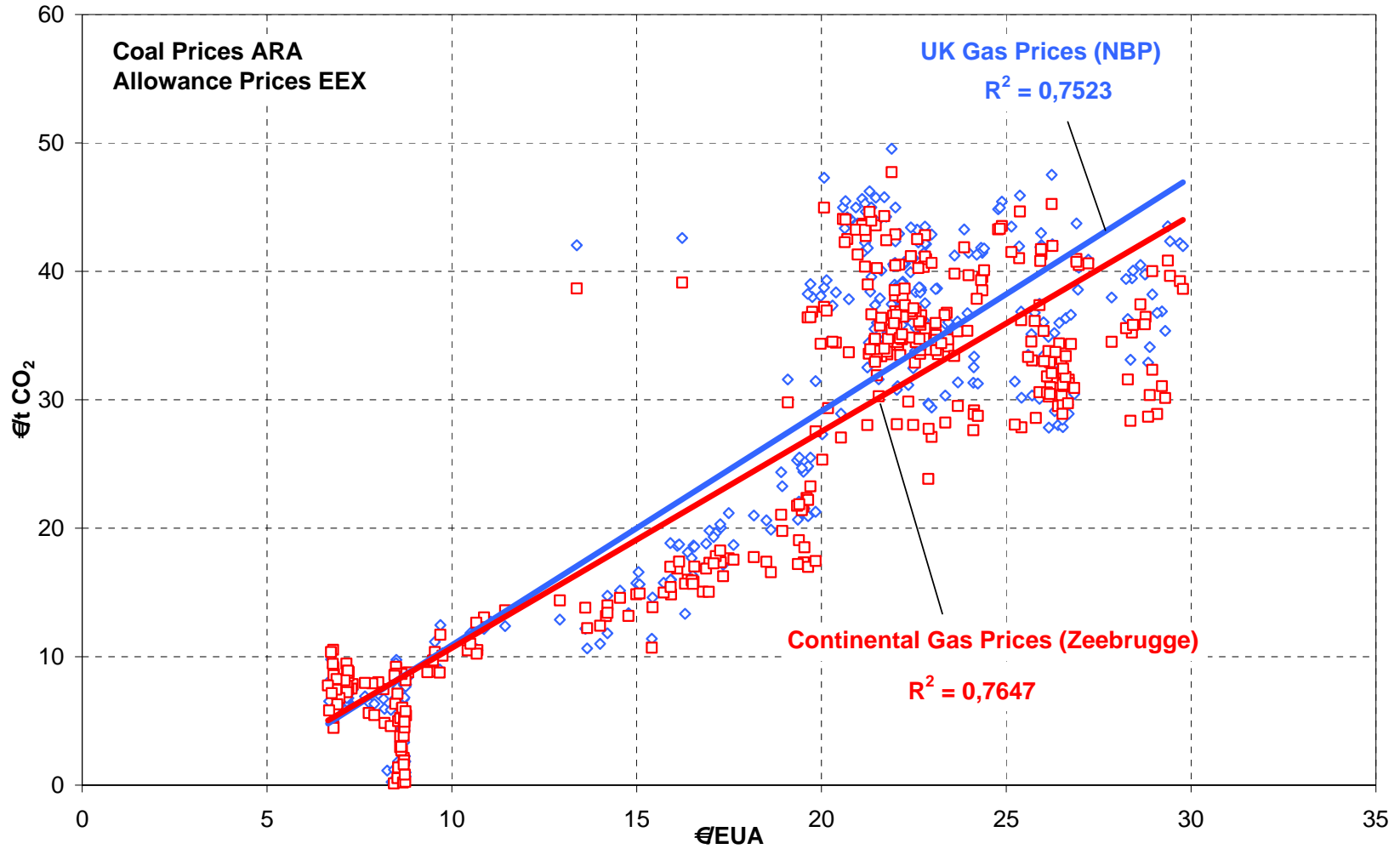
## Where do we stand?

- Phase 2005-2007 is the pilot phase
- Goal of the pilot phase: Raising experiences and prepare adjustments of the scheme
- Crucial issue: Buy-in or lock-in

	2004	2005	2006	2007	2008
Legal basis	Red	Green	Green		
Data management	Red	Red	Green		Green
Allocation	Red	Orange	Green	Green	
European dimension	Red	Red	Orange	Green	Green
Registries		Red			
Trading		Red	Orange	Green	
Monitoring		Red	Orange	Green	
Verification			Red	Green	
FlexMechs			Red	Green	
Compliance			Red		Red
	Red	Key experiences form the pilot phase			
	Green	Main use of experiences			

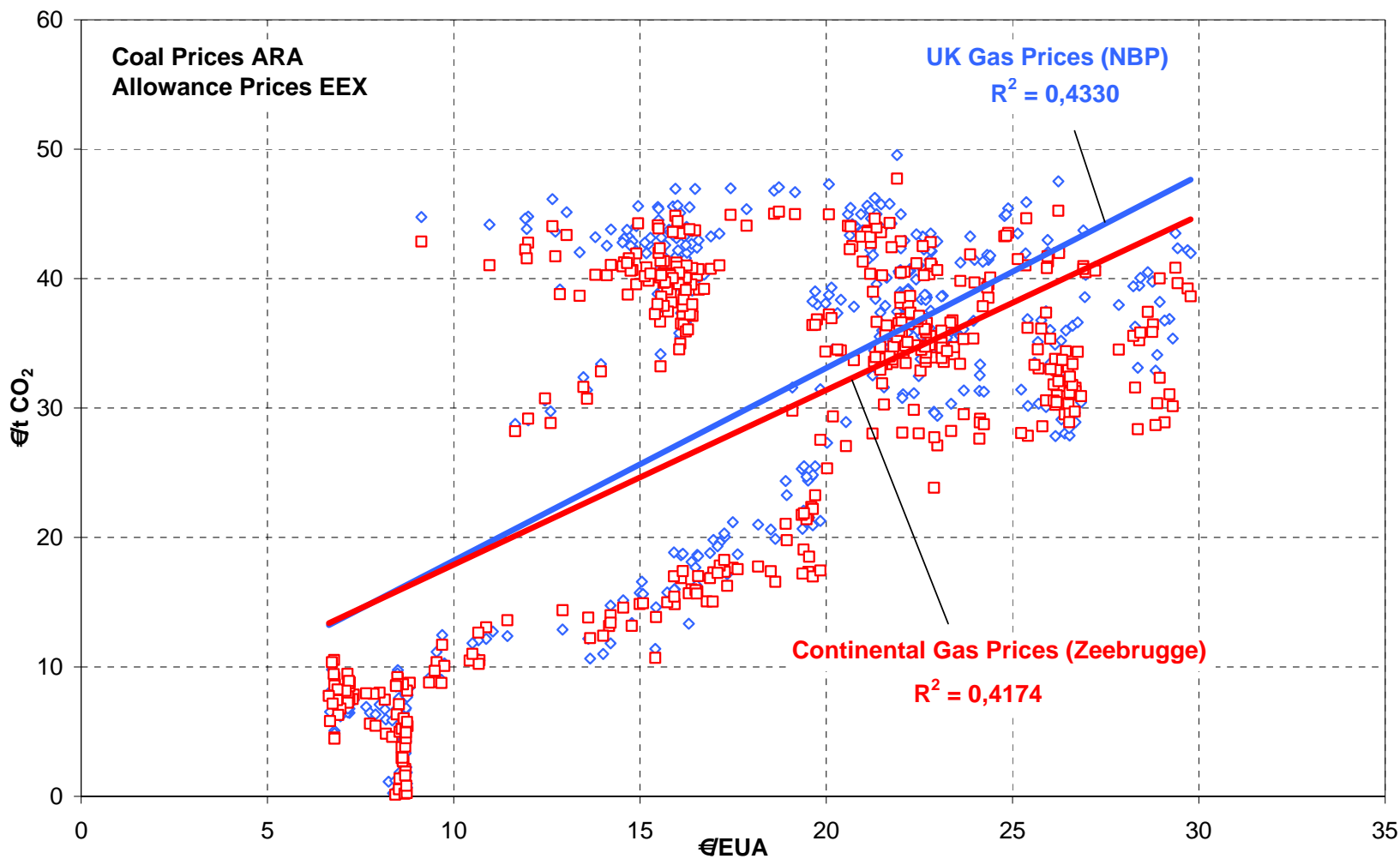
# An EU scheme – a single EU price

## EUA price determinants by April 2006



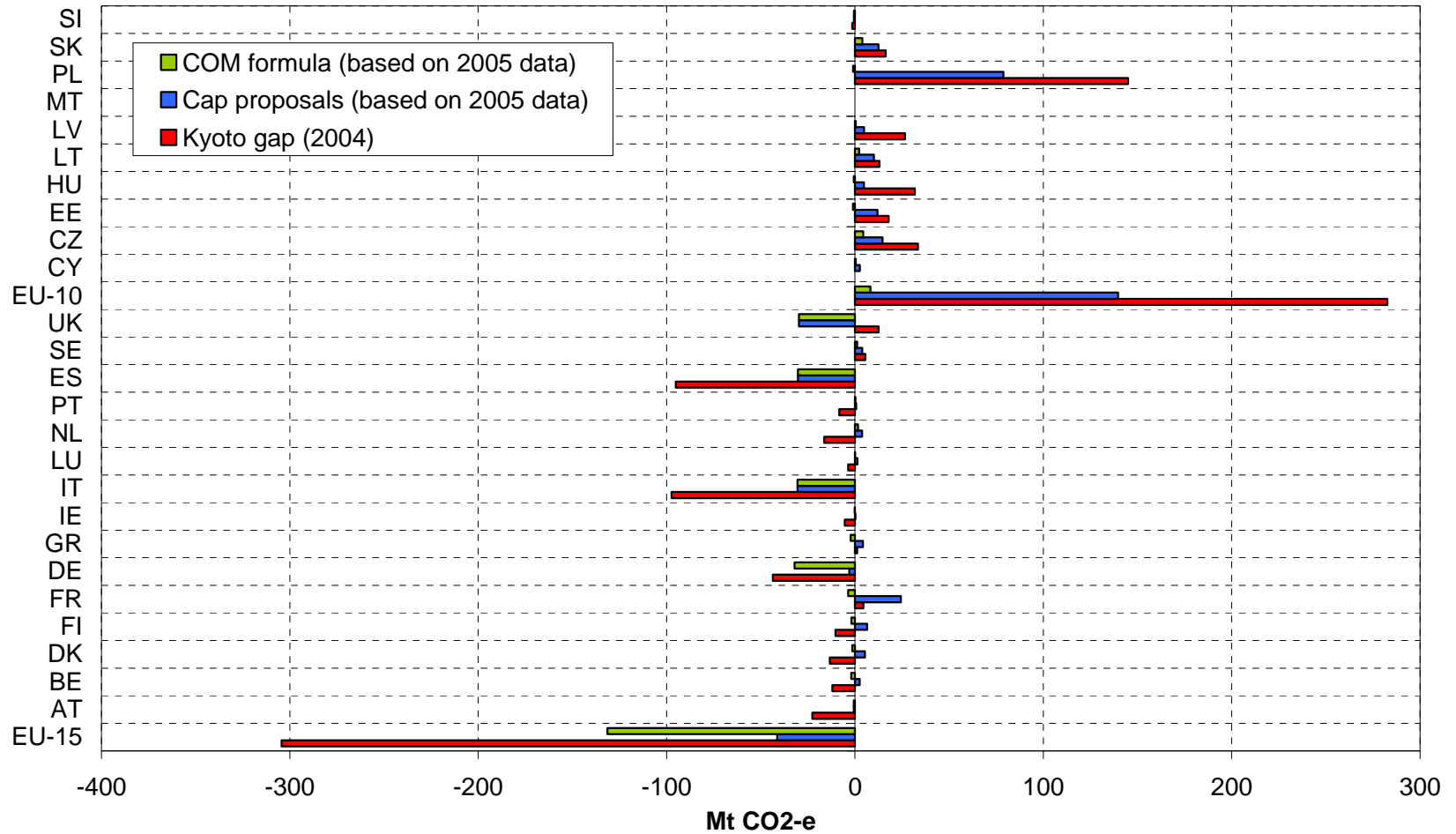
# An EU scheme – a single EU price

## More uncertainties since May 2006



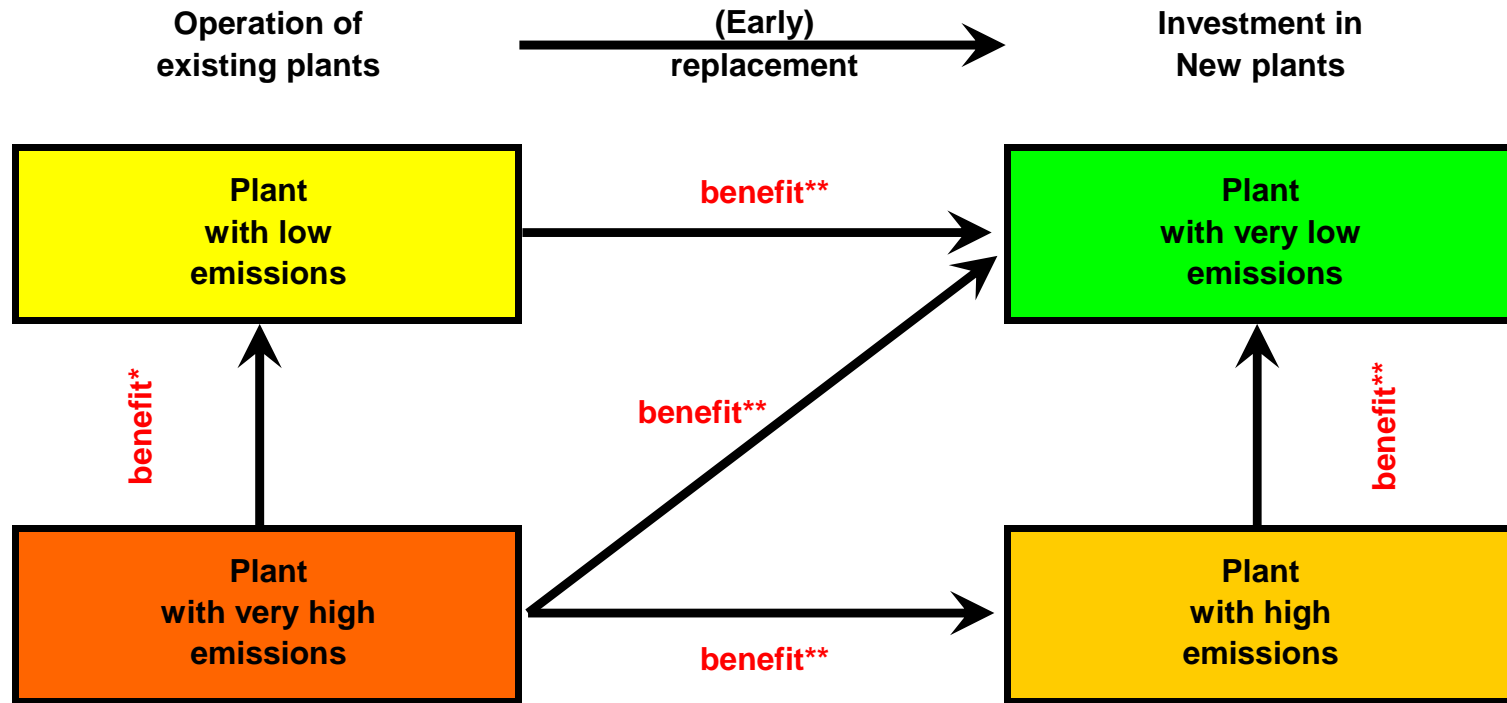
# Caps for Phase 2

## Closing the Kyoto gap?



# The challenge of allocation

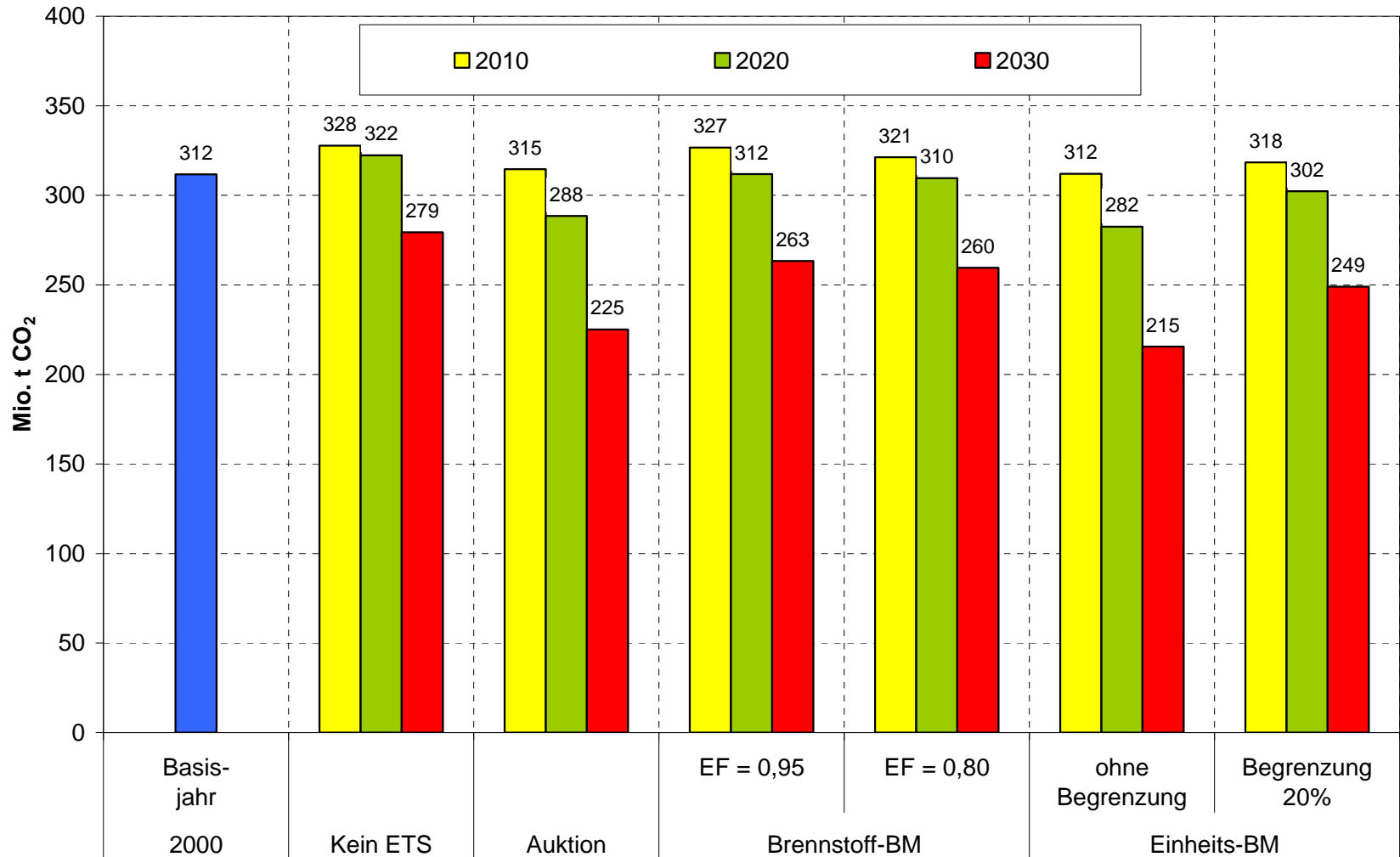
## Ensure incentives from the scheme



\* resulting from full costs of carbon

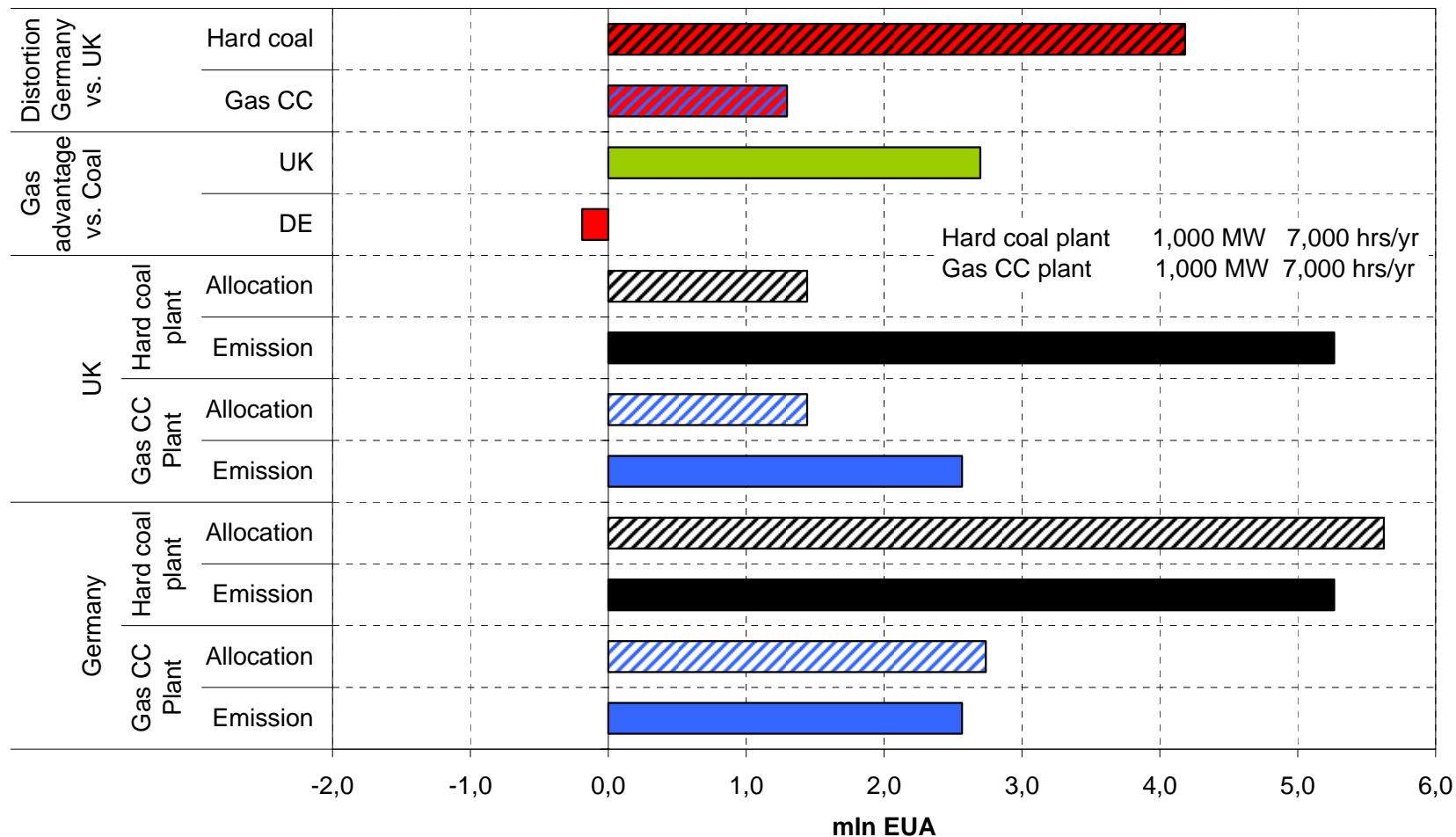
\*\* resulting from allocation

# New entrant allocation Effects on long-term CO<sub>2</sub> levels



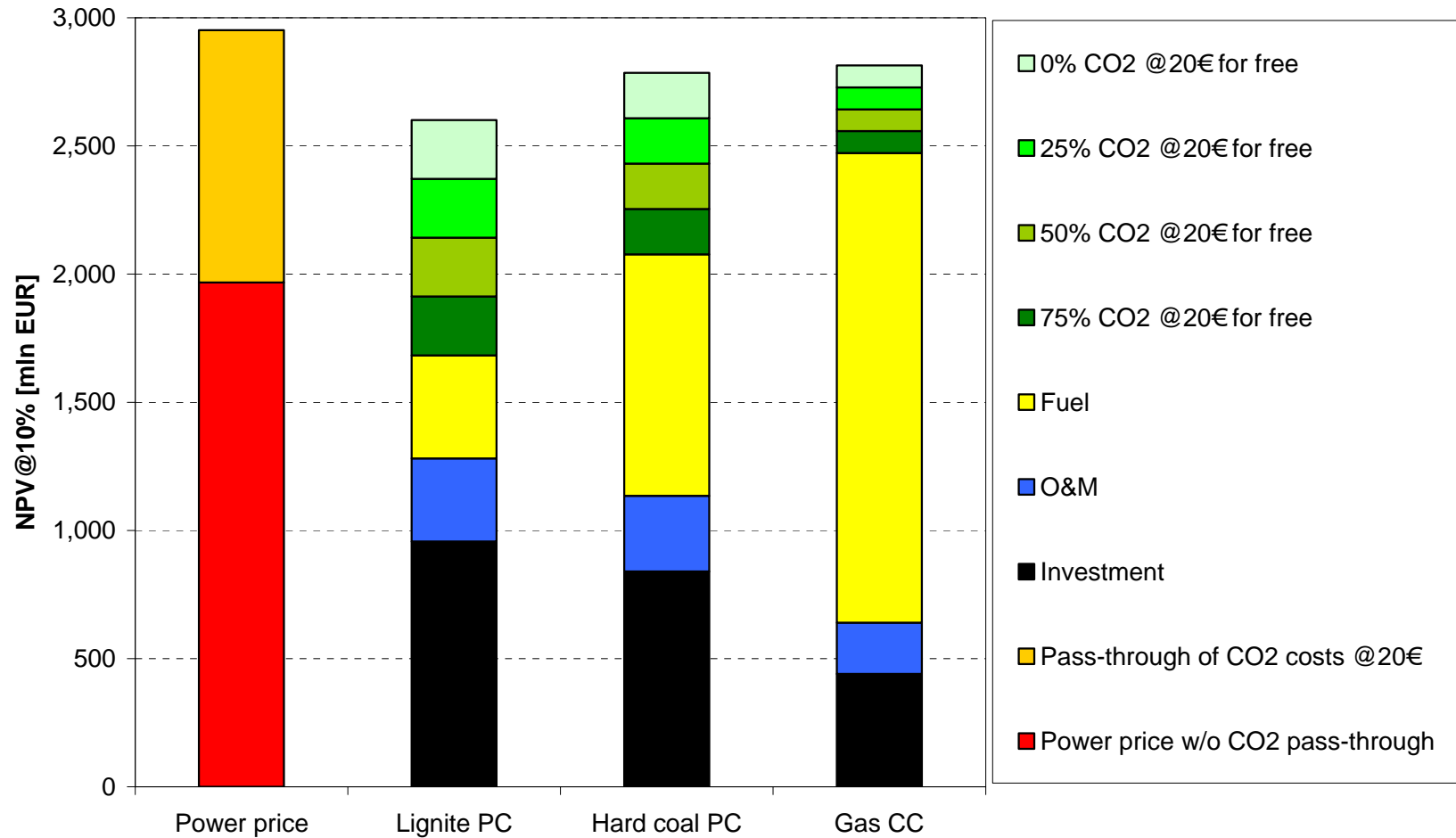
# New entrant allocation

## Economic and competition distortions



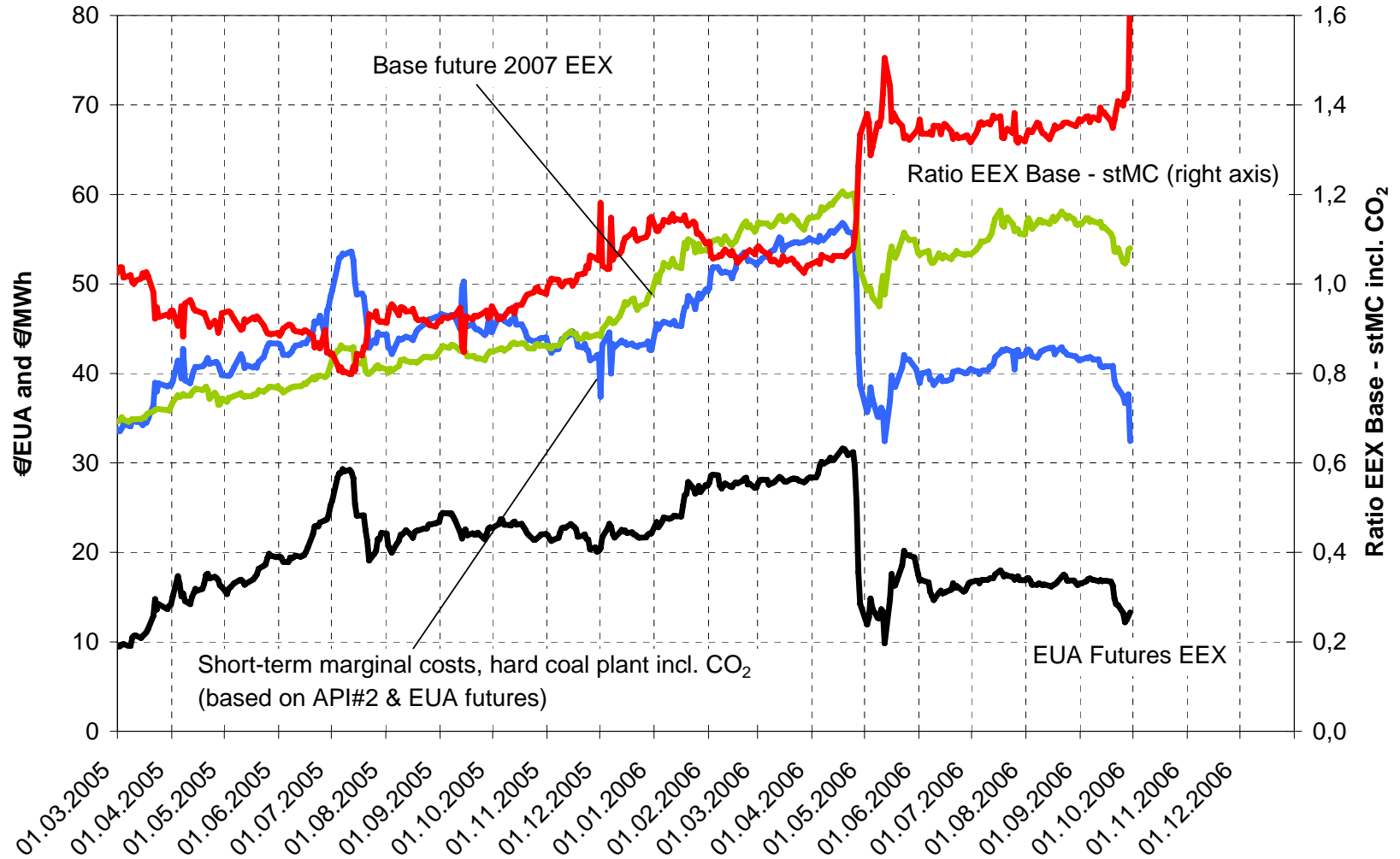


# Effects from new entrant allocation and pass-through of CO<sub>2</sub> costs



# The EU ETS (price signal) works

## Many questions remain



- **Modeling exercise on the EU ETS in Germany**
  - cost reduction of 250...500 mln €/a compared to other policies and measures
  - against the background of an 45 Mt/a CO<sub>2</sub> reduction
  - and an EU ETS coverage of about 500 Mt CO<sub>2</sub>/a
- **Transaction costs**
  - allocation fee (1st TP in Germany: 1.5 ... 15 ct/EUA)
  - monitoring & certification (1.0 ... 5 ct/t CO<sub>2</sub>)
  - trading (EEX 2.5 ct per EUA traded)
  - total of 10 ct/EUA p.a. not out of range (equals 50 mln €/a for the German ETS)
- **What is the economic efficiency gain of an ETS with a 2 Mt CO<sub>2</sub> reduction target?**
  - certain minimum caps are necessary on the medium and long-term to legitimate the EU-ETS by economic efficiency gains

- **The EU ETS works (in the main parts of the EU and after some take off problems in many countries).**
- **There is a significant price signal and there are emission reductions against the BAU without any doubt. However many questions remain. More empirical data are needed.**
- **The cap is key for environmental effectiveness:**
  - **size and consistency of the cap,**
  - **procedures of cap setting.**
- **Allocation does matter:**
  - **no ex post adjustments is important,**
  - **new entrant allocation can create major distortions (most notably for fuel or process specific free allocation).**
- **However, significant transactional costs exist.**
- **There is technological innovation induced by the EU ETS.**

**Thank you  
very much**

**Dr. Felix Chr. Matthes  
Energy & Climate Division  
Berlin Office  
Novalisstrasse 10  
D-10115 Berlin  
f.matthes@oeko.de  
www.oeko.de**