



European
University
Institute

ROBERT
SCHUMAN
CENTRE FOR
ADVANCED
STUDIES

Loyola
de
Palacio
Chair

Climate
Policy
Research
Unit

What to Expect (and Look for) in Phase III of the EU ETS

Denny Ellerman

EfE Workshop on Economic Challenges for Energy
11 January 2013



Q: What could have been expected of Phase III and can now be verified?

A: That the price between the end of Phase II and the start of Phase III would not differ greatly.

What a Difference Banking Makes!

(EUA Prices: 2005-Present)





Continued Scarcity is Expected

- A seamless transition from Phase II to III, unlike Phase I to II
 - Effect of inter-period banking
 - Implies expected scarcity in Phase III +
- Expected scarcity is less now than in 2008
 - The Great Recession
 - The Euro Crisis



Over-allocation?

- Banking always creates appearance of over-allocation
- Difference is whether price is zero or positive



What Determines Scarcity?

➤ Expectations concerning...

- The cap (Now declining 1.74% annually indefinitely)
- Level of economic activity
- Coal/Natural Gas price relation
- Offsets, but EUA price sensitive
- Policy interactions, *e.g.*, RE incentives

➤ Expectations of future scarcity change



What Should We Pay Attention to in Phase III?

- Effects of auctioning
- Banking behavior
- From offsets to linkage
- Competitiveness & Leakage
- Innovation
- Policy Interactions



Auctioning

- Is agent behavior affected? (NOT, does it make a difference financially)
 - Theory says it should not (opportunity cost, Coase, ...)
 - But a strong, consensus belief that it does.
- What do governments do with the money?
 - Used for extra climate-related purposes?
 - Reduce distortionary taxes, as economists advocate?
 - Reduce deficits and debt?
 - 27 separate experiments starting

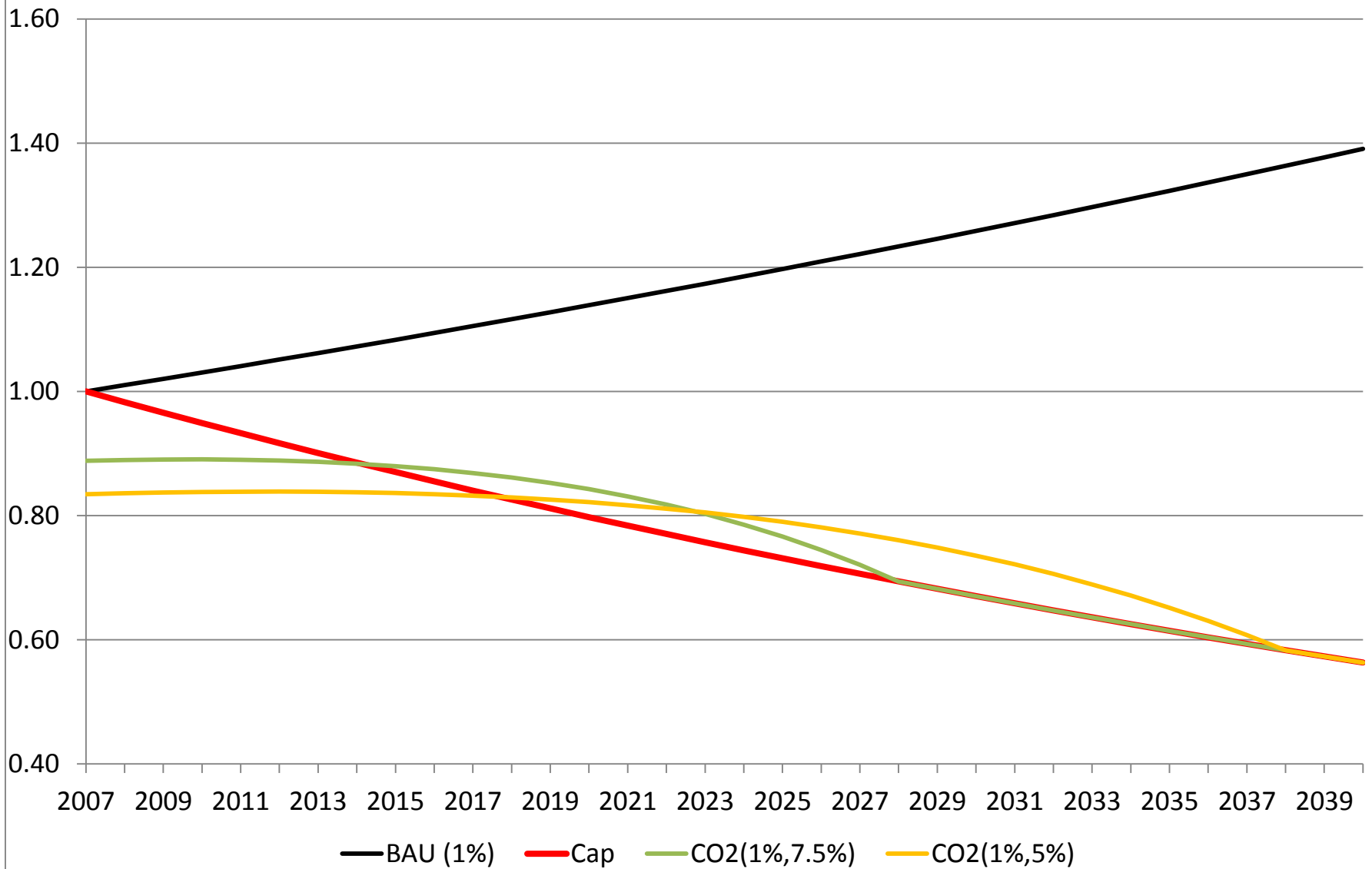


Banking and Emission Paths

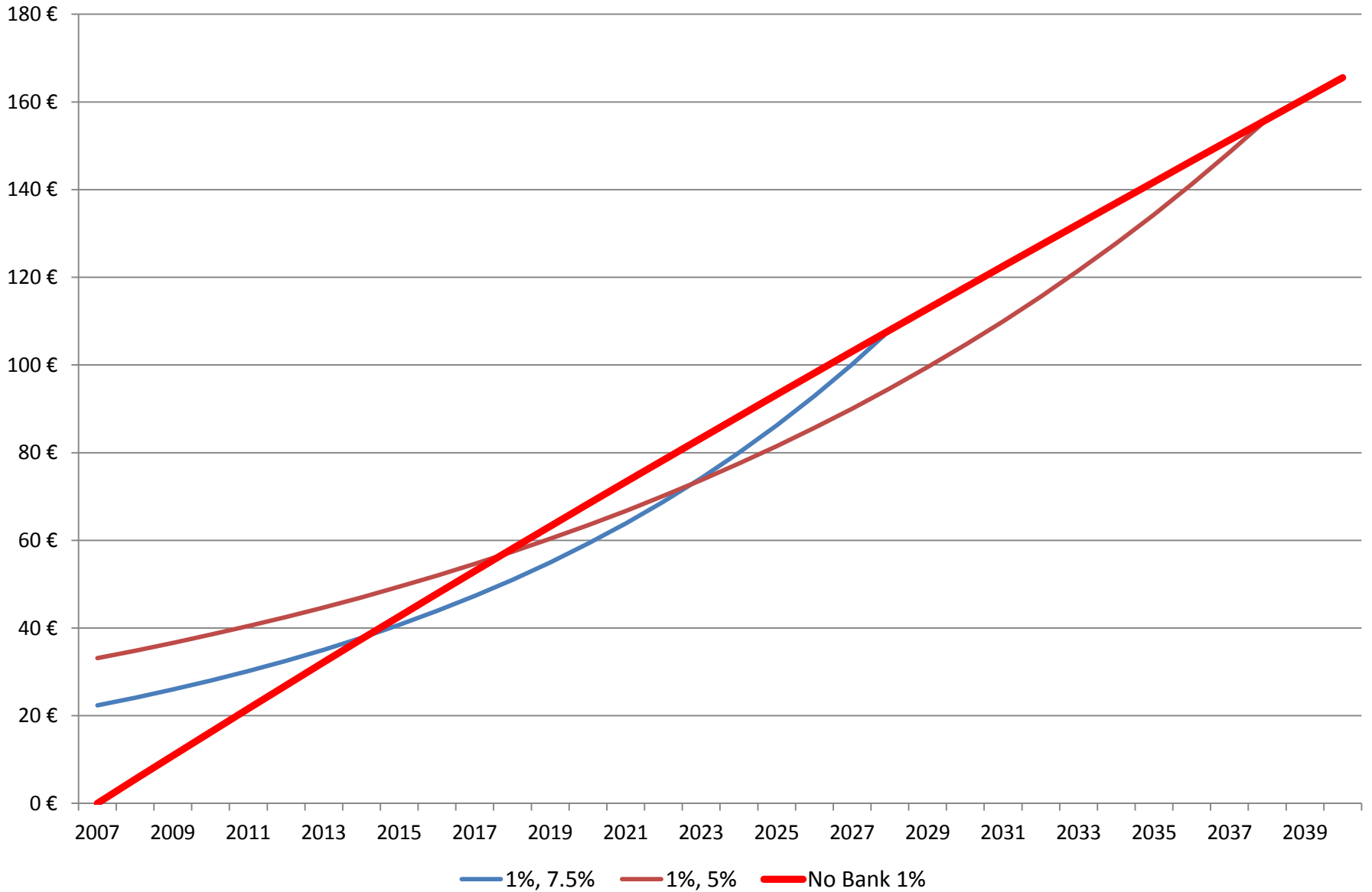
➤ Developing the theory

- Continually declining cap from BAU creates banking
- How will prices, emissions, and banking behavior change as expectations change?

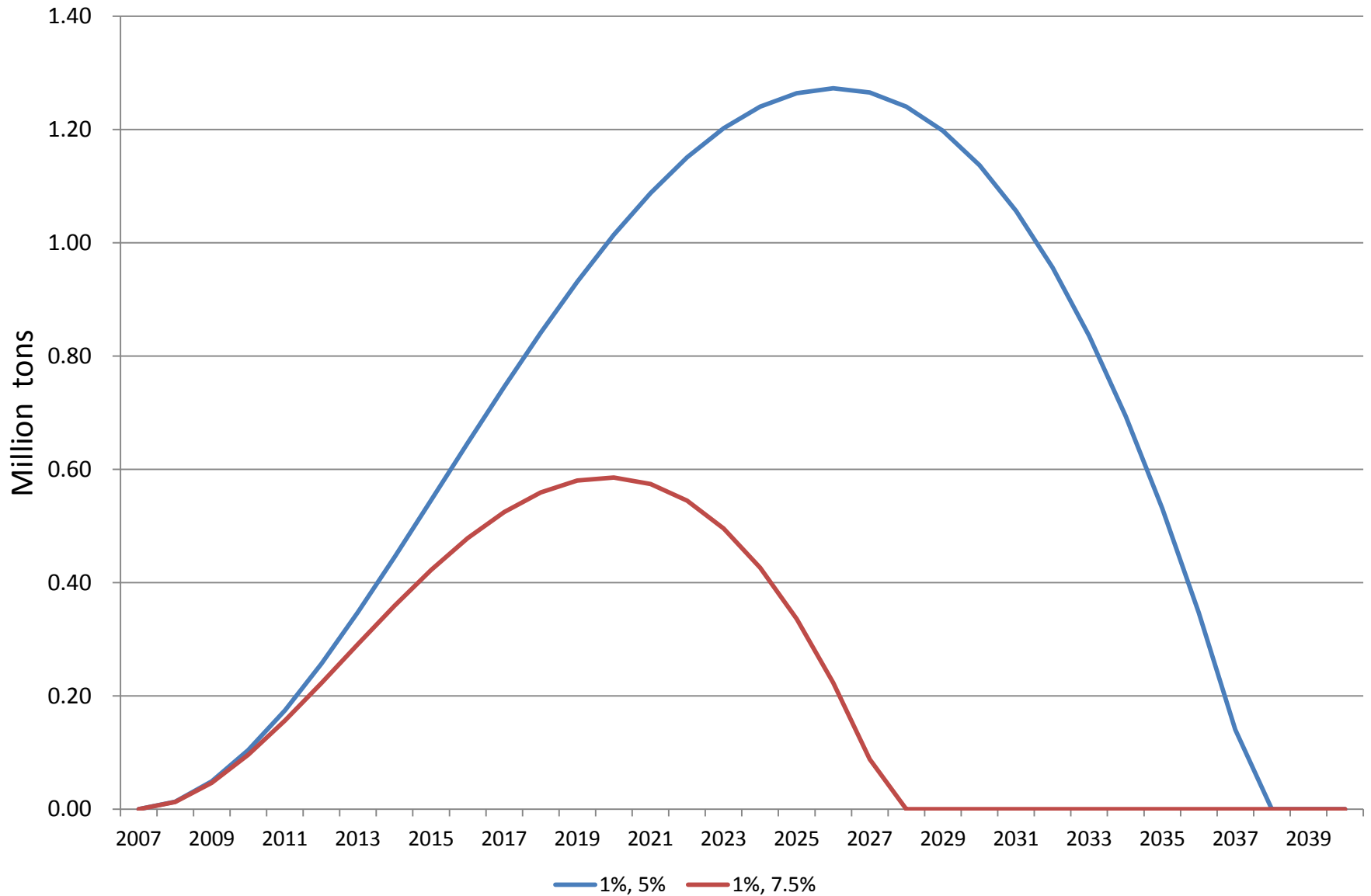
ETS Banking Scenarios



Price Scenarios with Banking



Bank Accumulation and Draw-down





Banking and Emission Paths

➤ Developing the theory

- Continually declining cap from BAU creates banking
- How will prices, emissions, and banking behavior change as expectations change?

➤ Agent behavior

- Agents have clearly borrowed and banked in Phase II
- Is observed banking some irrational or behavioral, default action?
- What is the discount rate for banking?



From Offsets to Linkage

- **Offsets will play a much smaller role in Phase III**
 - EU “graduation” policy *vis-à-vis* CDM and JI
 - Low EUA prices will have an effect on supply
- **Linkage will be the new issue**
 - Will Australia be a seller or buyer? How much?
 - Will China and S. Korea links be established?
 - If so, ditto for each.



Competitiveness

- Not unique to Phase III, but now enough time to observe effects.
- Is a carbon price at current and expected levels that important to trade and investment?
- Superficial evidence to date suggests not, but difficult to isolate effect.
- Does free allocation improve competitiveness? If so, how?



Innovation

- Again not unique to Phase III but sufficient time
- Broad definition to include dissemination and organizational behavior
- Nothing dramatic to be expected, but is R&D, investment, and behavior bent to a more low carbon direction (*ceteris paribus*)
- Some evidence from interviews & patents that the carbon price makes a difference



How Important are Policy Interactions?

- RE and EE policies suppress EUA prices
 - Fully expected; part of integrated planning
 - But, if different from expectation, what effect?
- Could be important in gauging expected scarcity
 - Are subsidies sustainable with deficit/debt crises?
 - Will these industries be competitive w/o subsidy?



What to expect? More of the Same!

- To some extent, Phase III is included in current expectations and prices
- But, expectations change and have effects on prices
- We know no more about Phase III now than we did about Phase II on Jan 11, 2008
- Focus attention on the expected scarcity that determines the price