



Benefits and risks of price caps

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What would price caps be?

- **Supplementary permits made available in unlimited quantities at a given price**
- **At domestic and/or international levels**
 - ◆ **If at the international level, one institution must be tasked with selling permits to governments, and governments to entities**
 - ◆ **If at the domestic level only, international coordination requires all-sectors emission coverage through an upstream regime or ETS and taxes at the level of the price cap**



The benefits

- **Benefits and costs are uncertain, and climate change is cumulative**
 - ◆ Short term certainty on emission levels may prove costly and is not worth it
- **Price caps reduce expected costs...**
 - ◆ i.e. all possible cost outcomes times their probabilities of occurrence
- **... may help engage more countries**
- **... and set relatively tighter targets**
 - ◆ More ambitious targets with price caps offer higher expected benefits & lower expected costs



The risks (1)

- **Weak against climate catastrophes?**
 - ◆ If a GHG threshold is known and close:
 - Use a quantity target to stop emissions
 - ◆ If a GHG threshold is a possibility but its level is unknown:
 - Favour the most ambitious policy
- **Does not ensure GHG stabilisation?**
 - ◆ Level and agenda left undecided
 - Ensure action, not exact results
 - Favour the most ambitious policy
 - Over time, adjust the target & the price cap



The risks (2): too low price caps?

- **Price caps should be set in the upper range of cost expectations for a given target...**
 - ◆ ... until targets are ratcheted down...
- **Governments may not use them 'right'...**
 - ◆ would they do better without price cap?
- **Agreeing on level may be easier than it seems:**
 - ◆ Differentiation amongst countries would remain through differentiated assigned amounts and levels of efforts
 - ◆ ENGOs say abatement costs are low; industry say they are high. Some price cap level might be felt high enough by the ENGOs and low enough by the industry
- **An international agreement on price cap level would be preferable but not absolutely necessary**
 - ◆ Several price cap levels may coexist in one international trading system; to avoid the domination of the lowest price cap level, only complying countries (i.e. not 'using' the price cap) should be net sellers



Where should the money go?

- If the international permit price reaches the price cap level, money will be raised
 - ◆ Little hope for full restoration of the target – if the international architecture of commitments is comprehensive and global (incl. CDM, JI, domestic offsets), there would be no cheap reduction left
- Best options may be the following:
 - ◆ Greater adaptation funding to compensate for greater emission levels
 - ◆ Greater R&D funding to reduce abatement costs in subsequent periods
- But the value of the price cap does not lie in its possible capacity to raise some money
 - ◆ If everything goes right, markets work and technology develops, the permit price will remain below the price cap and the (more ambitious) targets will just be met



The risks (3): A threat for technology development?

- Reducing expected abatement costs means reducing expected benefits for climate-friendly technology developers...
- ...if the ambition in the targets is unchanged
 - ◆ Targets and price cap level drive technology development, not certainty on quantitative results
 - ◆ Price volatility (e.g. oil) shown to deter investments
 - ◆ In any case, more specific instruments remain needed to promote high-cost technologies with great learning-by-doing potential (i.e. PV)
- The price cap should smoothly grow over time
- And in a decade or two reach a level above the cost of CO₂ capture and storage ('backstop' technology)



The risks (4)

- **Price caps have proven unworkable in different contexts**
 - ◆ ‘Let the market do and it will deliver cheap reductions’
- **What makes such contexts different?**
 - ◆ For commodity markets, the scarcity is real; capping prices may lead to shortages
 - ◆ For emissions trading, the scarcity is created by the regulation; no shortages at stake
 - ◆ If the markets do deliver enough cheap reductions, nobody will ‘use’ the price cap



Conclusion

- **Price caps address all sources of uncertainties on abatement costs**
 - ◆ **Uncertain economic growth**
 - ◆ **Technology development, energy prices**
- **On balance, benefits outweigh risks**
 - ◆ **If price caps set in the upper range of cost expectations**
 - ◆ **And if targets are made more ambitious than they would be without a price cap**