

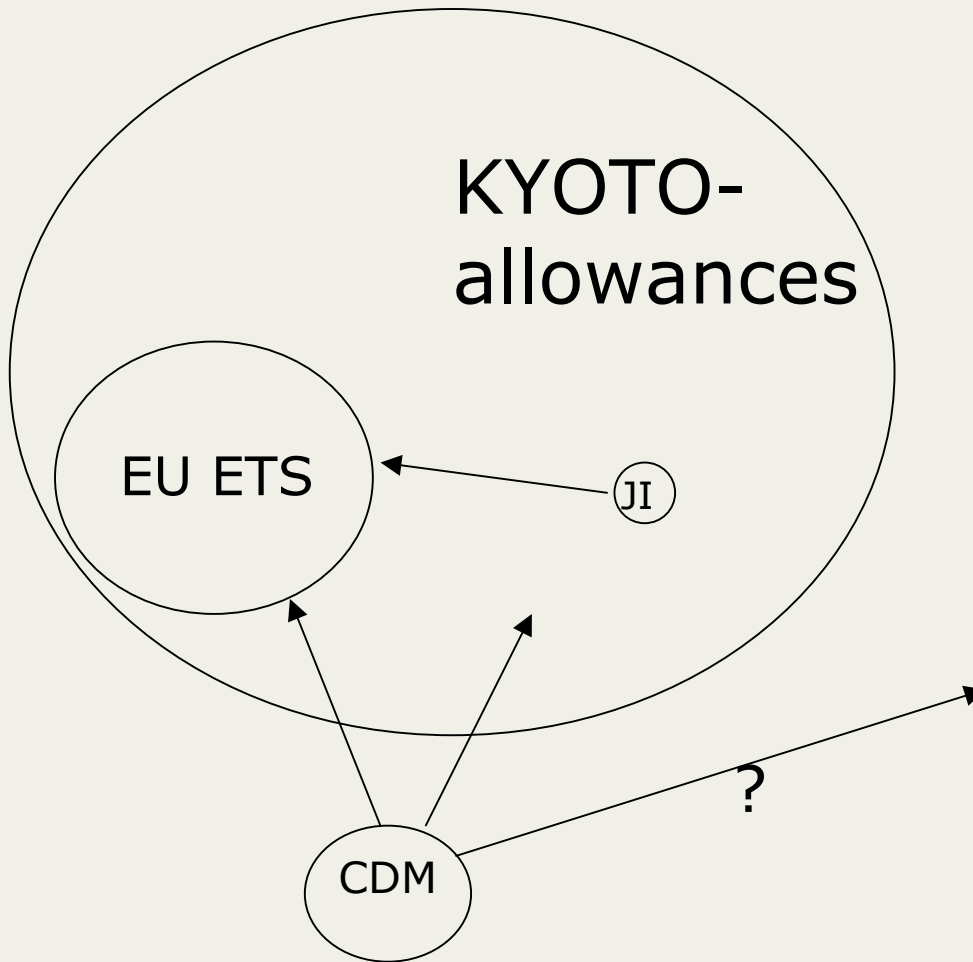


FINANSDEPARTEMENTET

Carbon taxes and allowances, similarities and differences

by
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Markedsstruktur

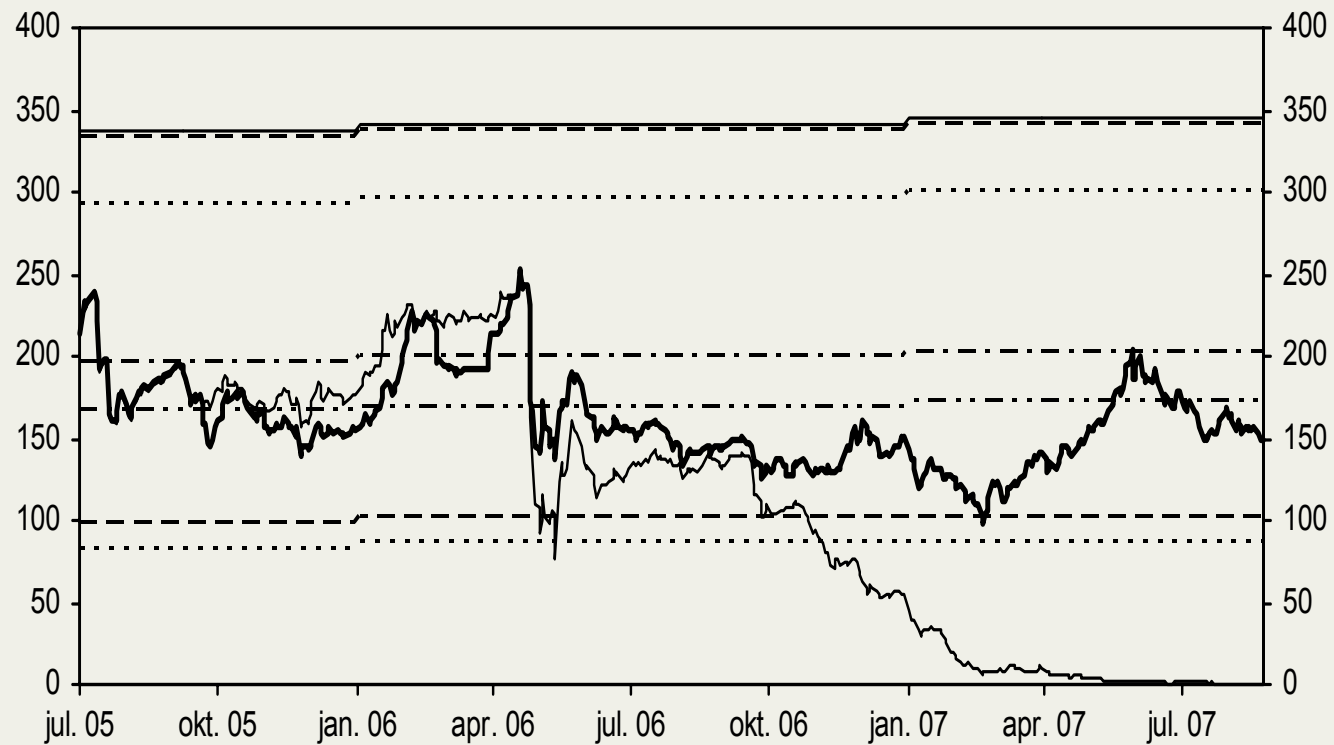


Global emission

CCX, Australia, RGGI, others



Carbon prices and CO₂-taxes



System attributes

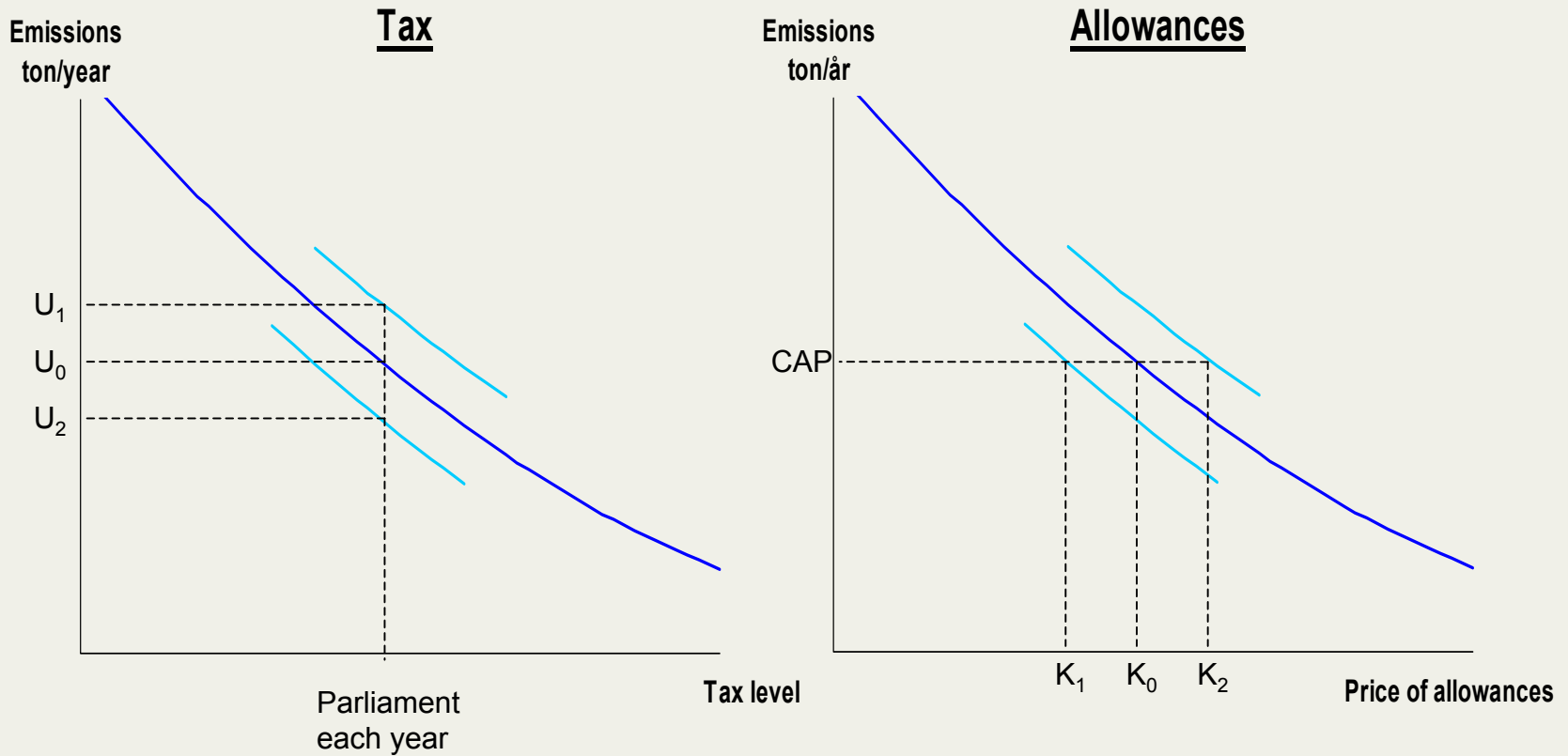
Administrative conditions:

- Measurable emissions or computed, no difference.
- Periode: 1 year for taxes , several years for emissions
- Different but similar strength of reactions when deviant behaviour.
- Different agencies and ministries.
- Allowances needs a functioning market, while taxes only need one unit to tax.

Economic relationship.

- Level of tax contra price on allowances
- Allowances for free contra deductions or differentiated levels.

Level on carbon tax decided by tax
Ministries/Parliaments
Prices on allowances are set in a market.



Conclusions:

- If the reaction curve/cost curve is well established
 - then likely to have same emissions by tax and allowance.
- If the curve is uncertain:
 - Tax will give certain price but uncertain quantity
 - Allowance system will yield certainty in quantity but uncertain price.
- Compromise:
 - Hybrid systems with ceilings and bottoms. A tax system where the tax rate trace a market.

Free allowances vs. deductions.

- One can use exactly the same rules.
- It is very difficult to establish such rules , rules which do not at the same time reduce the effect of the system.

Observations.

- Allowance systems stimulate a debate about distribution /equity/ needs/moral issues
- Allowance systems are more popular mainly because it is easier to obtain free allowances than an deduction in a tax.
- Allowance systems can give more certainty in quantity. (in reality this is not the case; leakages (offsets), 5 years vs 1 year.
- Kyoto: Significant over allocation. All allowances for free.
 - EU-ETS: 1.periode: Significant over allocation, only free allowances.
 - N-ETS: Significant over allocation, only allowances for free.
 - EU-ETS: 2. period: jury is out.
 - Kyoto: 2. period: Nobody thinks about it.

Value of allowances.

- Kyoto allowances worth over 200 billion Euro per year.
- A sale of 10% would be a significant source of finance.

