# The new Danish CO2e-tax on Agriculture

observations on the role of scientific advisors

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#### Content

- The new Danish CO2e-tax on Agriculture
  - Main Tradeoffs
- Observations on the role of scientific advisors

#### The CO2e-tax etc.

#### Agreement:

- Tax of 750 DKK/ton (100 Euro/ton) on emissions from farm animals
- Subsidy of 750 DKK/ton (100 Euro/ton) for reduced fertilizer use
- Deduction/subsidy of 60% of tax per farm animal
- Subsidies to Pyrolysis of 0.5 billion DKK/year (0.07 billion Euro/year)
  - Tax fully implemented in 2035 subsidies in 2030

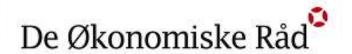
#### Economic council evaluation:

- Marginal tax same as in rest of economy (welfare economically efficient)
- Deductions and subsidies welfare economically *in*efficient, cost: 0,5 1,5
   billion DKK/year (0.07-0.2 billion Euro/year)
   De Økonomiske Råd

### Key issues in policy discussion

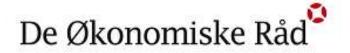
#### CO2e-tax causes:

- Carbon leakage to the rest of the world
- Loss of agricultural/rural jobs
- Asset and income loss to farmers



## EC input to leakage discussion

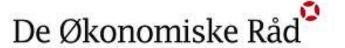
- Leakage op til 2030
  - Greater in agriculture (35%) then in rest of economy (20%)
- Leakage after 2030 (EU reform: Fit for 55)
  - Less in agriculture then in rest of economy
    - after 2030 ETS encompasses everything but agriculture
    - After ca. 2032 leakage in ETS sectors close to 100%
    - After 2030 expected leakage i agriculture 30-40%



## EC input to job loss discussion

 Annual	mean	
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	CO2e-Tax No Comp*	Added Effect Comp**
		Mio. ton CO2e
Effect on CO2e emissions from DK	-3,2	+0,6
		Bil. 2023-kr
Income effect on farmers	-0,8	+0,2
Total Income effect on all Danes	-0,5	-1,0
		jobs
Job effect agriculture and food ind.	-8.200	+4.300
		1000 kr. pr. job
Annual extra cost per job	-	260



- Subsidies based on criteria that production decisions can not effect
  - Subsidy on number of animals/area year prior to implementation (rather than current number of animals/area)



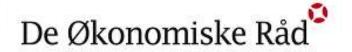
## EC input to job loss discussion

	Annual mean			
	CO2e-Tax	Added Effect	Added Effect	
	No Comp*	Comp**	Comp EC	
	Mio. ton CO2e			
Effect on CO2e emissions from Denmark	-3,2	+0,6	0,0	
		Bil. 2023-kr		
Income effect on farmers	-0,8	+0,2	+0,2	
Total Income effect on all Danes	-0,5	-1,0	0,0	
		jobs		
Job effect agriculture and food industry	-8.200	+4.300	0	
1000 kr. pr. job				
Annual extra cost per job	-	260	-	

## Key issues in policy discussion

#### CO2e-tax causes:

- Carbon leakage to the rest of the world
  - Argument for relatively stricter agricultural regulation
- Loss of agricultural/rural jobs
  - Avoided at added cost of 260.000 DKK/job (35000 Euro/job) not moved to a less polluting sector
- Asset and income loss to farmers
  - Can be compensated at no added cost



# Observations on the role of scientific advisors

- What we do ... what we don't
- Who we help
- How we help
- A delicate balance

