

Goods - distinguished by Rival property rights & privacy (congestable)

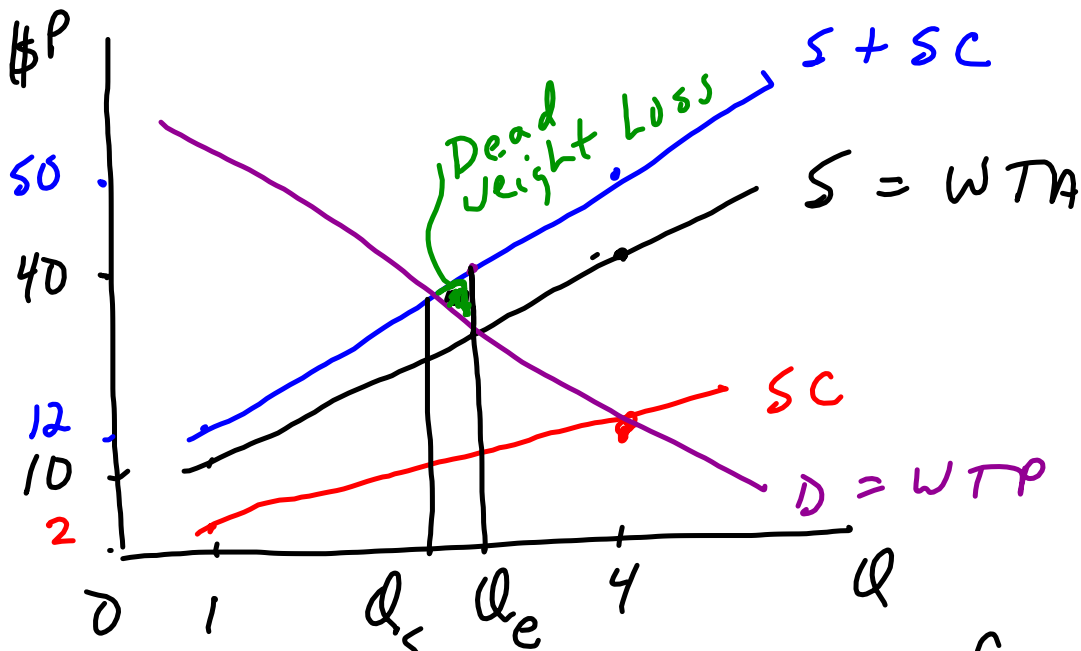
	y	N
Excludable y	<u>Private</u> A	<u>Club Good</u> B
n	Common Property C	<u>Public</u> <u>Externality</u> D

Externality - excludable? N  
 Negative (bad) - increases cost

Q	Private Cost	Social Cost	Total Cost
1	10	2	12
2	20	4	24
3	30	6	36
4	40	10	50

↑  
 opportunity  
 cost

↑  
values



at  $Q_e$  value Demand < Value of resources  
 Require - safety  
 - treat water or  
 - treat air  
 Tax on output  
 so private  
 cost includes  
 social cost

Regulatory response - "as if"

property rights assigned  
so all cost incorporated into  
selling price

- options - tax

- command - define production  
process

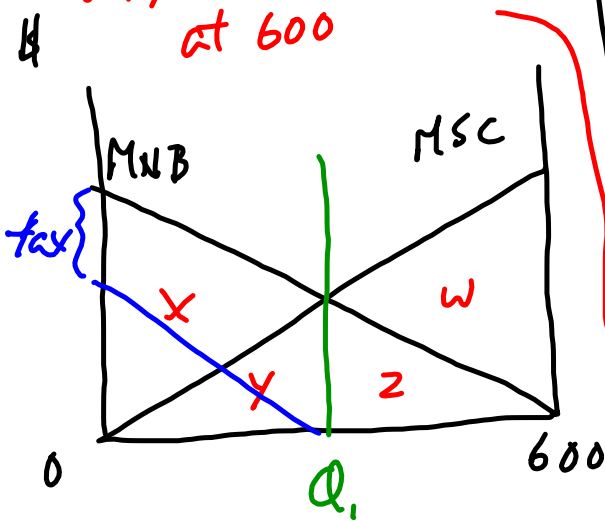
- cap - trades

Coase -

{ - side payments to  
cover cost of externality  
- land use zoning

Hug farming

Property right to HF  
 could produce 600  
 but residents offer  
 sidepayment to reduce  
 $x+y+z$  total profit  
 at 600



- aside

"coming to the  
 nuisance"

-if noxious site  
 exists + someone  
 moves near  
 they cannot obtain  
 judgement

MNB = Revenue  
 at 600 - Cost +  
 profit

Loss to neighbors  
 is  $y+z+w$   
 Gain is  $w$ .

Does it work? - yes

Sweden + Poland

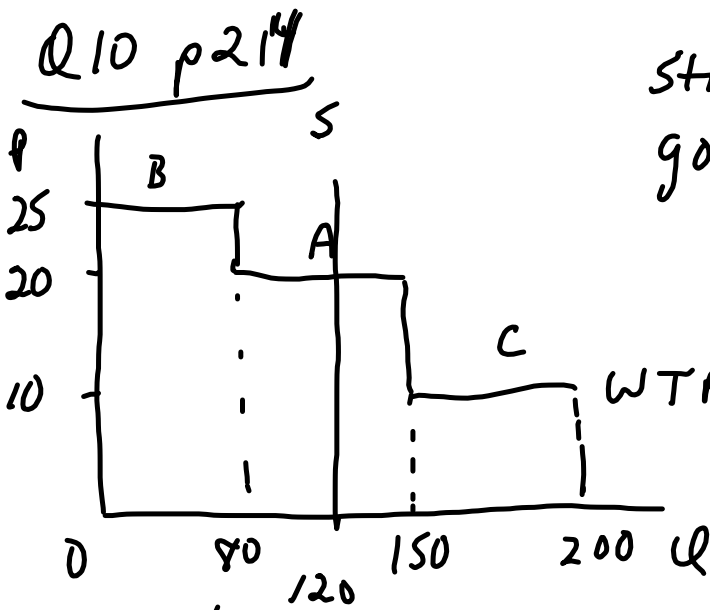
Coal burned in Poland → acid rain in Sweden

Sweden technology increased efficiency

Sweden gave technology to Poland.

knew Poland coal output stay same  
& price ↓

Sweden got coal saved with technology  
dumped coal into abandoned mines



Start 200  
goal 120

- options -  
each 40  
or permits  
& trade

Price = \$20

C sell - Cost to reduce \$500

B buy - 40 from C

A reduce → cost  $30 \cdot 20 = \$600$   
\$1100

net \$300  
diff. sell  
& cost  
to reduce

Q 6    p 214 } next class  
Q 1    p 213 }  
—————→