

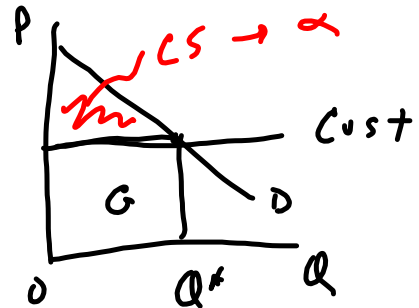
- Property Rights

- Public goods - free rider problem  
under provision

Prod. Fn.  $G = \alpha \sum_{i=1}^n g_i$

Fred & Wilma  
C or NC

$C = 10$   $NC = 0$   
 $\alpha = 1.5$



	W	C	NC
F			
C		<u>20, 20</u>	<u>5, 25</u>
NC		<u>25, 5</u>	<u>10, 10</u>

Wash\*

Strategies NC, C

$G = 1.5 \cdot 20 = 30$

If only 1 contributes

$G = 1.5 \cdot 10 = 15$

Dominant strategy  $\rightarrow$  NC  
Fred  $25 > 20$   $10 > 5$

Resolve free rider

↳ create organization - assign  
task of collecting \$ to  
pay for public goods  
right to collect the money

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Nash Equilibrium - no individual  
has incentive to change  
strategy

- Commons - each person pays own cost but does not account for cost imposed on other
  - road  $\rightarrow$  driver account own cost but not delay costs on others
- Theory of Second Best

If mode A is subsidized then efficiency requires subsid on mode B

A - car  
B  $\rightarrow$  public transit } without subsidy to B too many cars

Minneapolis  $\rightarrow$  subsidy bus  $\rightarrow$  fare =  $\frac{1}{2}$

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	- permit	trading	- SO <sub>2</sub>	- NO <sub>x</sub>	} market
	Initial	Cost reduce	permits		
A	70	20	40		
B	80	25	40		
C	50	10	40		
	<u>200</u>		<u>120</u>		
	tuns		target		

- trade permits

B - buy - P = 20  
Cost = 25

C - sell Cost 10  
Price 20 } \$10 profit

