## Lecture 17 5 Nov 07

## Ultimations & Bargaining

I can make a take it or leave it " offer to 2 (s, 1-s)

{ 2 can accept offer 
$$\rightarrow$$
 (s,1-s)}  
or 2 can reject  $\rightarrow$  (0,0)

## 2 - period bargaining

Stage 1 Player 1 makes offer to 2 (5', 1-5')

 $\frac{5 \text{tage 2}}{2 \text{ gets to Makean offerto } 1 \left(s^2, 1-s^2\right)}$   $1 \text{ can accept} \longrightarrow \left(s^2, 1-s^2\right)$   $\text{if rejects} \longrightarrow \left(0, 0\right)$ 

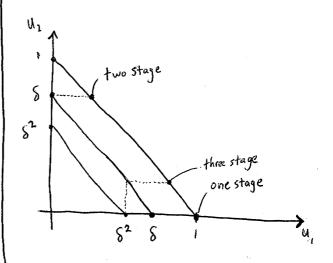
(discounting) \$ \$ \$ \$ \$ \$ \$ \$

	offerer	receiver
one stage		0
two stage	[1-8]	8
three stage	1-8(1-8)	38(1-8)
four stage 1-	8(1-8(1-8))	8(1-8(1-8))
1-8+82	.83	$S-S^2+S^3$
Ostage $1-5+5^2$	83+88-89	
ACCUSTON 1.00		

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if player 1 offer 2 > 8.1 2 will accept

< 8.1 2 will reject



- 1) I makes offer if accepted done if reject
- (2) 2 makes offer if accepted done 8 if reject 7
- 3 1 makes offer if accepted (0,0) 5.8=8

a Solving geometric series >>

Suppose rapid offers, so 
$$S \approx 1$$
  
 $S \rightarrow 1 \Rightarrow S = \begin{pmatrix} 1 \\ 2 \end{pmatrix}, 1-S = \begin{pmatrix} 1 \\ 2 \end{pmatrix}$ 

# CONCLUDE Alternating offer bargaining

- (1) Even split if
  - · potentially can bargain for ever
  - · 8 -> 1, no discounting or rapid offers
  - Same discount factor  $S_1 = S_2$

( relax on homework )

(2) The first offer is accepted

(no haggling in equilibrium)

Walve of the pie and the assumed value of time

\*\*The first offer is accepted

when assumed known

The poor will do less well in bargaining >>

When valuations unknown, sometimes you fail to execute a deal that is efficient >> (efficient in that buyer's valuation > seller's valuation)

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