

Session 24
University of Southern California
IOM455 April 14, 2010

Outline

- **Questions? Comments?**
- **Case 2 presentation and discussion (Autodesk)**
- **Case 3 presentation and discussion (Boeing)**
- **Negotiation**

Game Theory

“How rational actors ought to behave when their separate choices interact to produce payoffs to each player”

Consider it from the perspective of what it tells us about negotiation because it offers us powerful insight

Helps us consider how the other party will respond to our offers

Basics:

- 1. You have to act (doing nothing is considered an act)**
- 2. Payoffs depend on what each party does**
- 3. You don't know what they will do, but know what they could do**
- 4. They do not know what you will do, but know what you could do**

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Payoff (R, C)

		COLUMN PLAYER	
		C1 (LEFT)	C2 (RIGHT)
ROW PLAYER	R1 (UP)	Payoffs associated with (UP, LEFT)	Payoffs associated with (UP, RIGHT)
	R2 (DOWN)	Payoffs associated with (DOWN, LEFT)	Payoffs associated with (DOWN, RIGHT)

Figure 4.1. The 2×2 matrix display.

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Game 1

		COLUMN PLAYER	
		LEFT	RIGHT
ROW PLAYER	UP	(4, 5)	(10, -6)
	DOWN	(12, 7)	(5, 9)

Game 1

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Game 2

		COLUMN PLAYER	
		LEFT	RIGHT
ROW PLAYER	UP	(4, 3)	(3, 0)
	DOWN	(12, 8)	(5, 4)

Game 2

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Game 3

		COLUMN PLAYER	
		LEFT	RIGHT
ROW PLAYER	UP	(0, 2)	(5, 4)
	DOWN	(10, 3)	(3, 8)

Game 3

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Game 4

		COLUMN PLAYER	
		LEFT	RIGHT
ROW PLAYER	UP	(4, 3)	(10, 6)*
	DOWN	(12, 8)*	(5, 4)

Game 4

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Game 5

		COLUMN PLAYER	
		LEFT	RIGHT
ROW PLAYER	UP	(4, -100)	(10, 6)*
	DOWN	(12, 8)*	(5, 4)

Game 5

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Game 6

		COLUMN PLAYER	
		LEFT	RIGHT
ROW PLAYER	UP	(0, 0)	(1, 2)*
	DOWN	(2, 1)*	(0, 0)

Game 6

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Game 7

		COLUMN PLAYER	
		LEFT	RIGHT
ROW PLAYER	UP	(1, 5)	(4, 1)
	DOWN	(0, -10)	(1, -20)

Game 7

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Game 8

See next page!

5 MIN SENTENCE

10 Get off free

-5 max sentence

-2 vined sentence

		COLUMN PLAYER	
		LEFT	RIGHT
ROW PLAYER	UP	(5, 5)	(-5, 10)
	DOWN	(10, -5)	(-2, -2)

Game 8

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Prisoner's Dilemma

		COLUMN PLAYER	
		NOT CONFESS	CONFESS
ROW PLAYER	NOT CONFESS	(1 year, 1 year) → (5 years, 0 years)	
	CONFESS	(0 years, 5 years) → (3 years, 3 years)	

Figure 4.2. The prisoner's dilemma.