

Homework 4

Due on Thursday, June 7

Q1. Suppose Boeing and Airbus are deciding whether to invest in R&D to improve the quality of their medium-capacity planes. Given the following payoff matrix in millions of dollars, what is the Nash equilibrium of the game?

		Airbus	
		Invest	Not Invest
Boeing	Invest	<div style="display: flex; justify-content: space-between; align-items: center;"> 70 60 </div>	<div style="display: flex; justify-content: space-between; align-items: center;"> 125 80 </div>
	Not Invest	<div style="display: flex; justify-content: space-between; align-items: center;"> 90 100 </div>	<div style="display: flex; justify-content: space-between; align-items: center;"> 90 80 </div>

- a. Suppose the governments of Europe seek to expand Airbus' international market share by providing the European aircraft producer with a subsidy of \$40 million for R&D. Redraw the payoff matrix and find the Nash equilibrium. Is the subsidy successful in increasing European welfare? Explain.
- b. Suppose the United States government decides to support Boeing with a matching subsidy. Redraw the payoff matrix and find the Nash equilibrium. How do these subsidies affect welfare in the United States and Europe?