

APPLIED ECONOMICS FOR MANAGERS SESSION 11—

I. GAME THEORY AND OLIGOPOLY: RESULTS AND INSIGHTS

A. COURNOT'S INSIGHT

1. NUMBERS MATTER
2. MORE FIRMS MAKE FOR A MORE COMPETITIVE OUTCOME
3. COLLUSION AND CARTELS

B. BERTRAND'S INSIGHT

1. PRICE COMPETITION IS FIERCE AND CAN DUPLICATE COMPETITIVE OUTCOME EVEN IF WITH ONLY 2 FIRMS
2. PRODUCT DIFFERENTIATION AND CAPACITY CONSTRAINTS

C. STACKELBERG'S INSIGHT

1. ORDER OF PLAY IS IMPORTANT
2. SUSTAINED DOMINANCE OF ONE FIRM

D. REPEATED GAMES

1. FINITELY REPEATED GAMES: EXHAUSTIBLE RESOURCE
2. GAMES OF INDEFINITE DURATION

E. NON-QUANTITY/PRICE GAMES

II. EXTERNALITIES

A. ECONOMIC EFFICIENCY: PRICE INDICATES TRUE VALUE AND TRUE COST AT THE MARGIN

B. EXTERNAL EFFECTS

1. COSTS IMPOSED ON PARTY NOT INVOLVED IN THE TRADE
⇒ PRICE DOES NOT EQUAL TRUE MARGINAL COST
2. BENEFITS EXTEND TO PARTY NOT INVOLVED IN THE TRADE
⇒ PRICE DOES NOT EQUAL TRUE MARGINAL VALUE
3. A COMMON TRAGEDY

III. MARKET FAILURE OR A FAILURE TO USE MARKETS

A. MARKETS AND PROPERTY RIGHTS

1. PROPERTY RIGHTS AS A MARKET NECESSITY
2. ABSENCE OF PROPERTY RIGHTS AS THE SOURCE OF EXTERNALITY PROBLEMS
3. RE-INTRODUCTION OF THE MARKET REQUIRES RE-INTRODUCTION OF PROPERTY RIGHTS

B. COASE, PROPERTY RIGHTS, AND EFFICIENCY

1. PEDESTRIANS, CARS, AND WALK SIGNS
2. ASSIGNMENT OF PROPERTY RIGHTS AND DISTRIBUTION

C. MARKET-LIKE SOLUTIONS TO THE PROBLEM IN FIJENSEA

IV. NETWORK EXTERNALITIES OR POSITIVE FEEDBACK

A. A WAKE-UP CALL FROM NEWARK, OHIO

B. POSITIVE FEEDBACK FOR MS *WINDOWS*

1. CONSUMERS LIKE BEING ABLE TO INTERACT THEIR PRODUCTS—THE MORE PEOPLE USE *WINDOWS*, THE MORE PEOPLE WANT TO USE *WINDOWS*
2. SCALE ECONOMIES IN SOFTWARE PRODUCTION—THE MORE PEOPLE THAT USE *WINDOWS*, THE MORE SOFTWARE DESIGNERS WANT TO WRITE APPLICATIONS THAT WORK ON *WINDOWS*

C. THE APPLICATIONS BARRIER TO ENTRY

1. NO FIRM CAN CHALLENGE *WINDOWS* IN THE OPERATING SYSTEM MARKET UNLESS IT HAS A LOT OF APPLICATIONS
2. BUT NO ONE WRITES APPLICATIONS FOR AN OPERATING SYSTEM UNTIL IT IS SUCCESSFUL

D. THE BROWSER WAR

1. NETSCAPE HAD DOMINANT SHARE OF BROWSER MARKET
2. BROWSER MIGHT BE A FEASIBLE ALTERNATIVE PLATFORM
3. DESIGNERS WOULD WRITE APPLICATIONS FOR THIS PLATFORM

E. MICROSOFT RESPONSE:

1. DEVELOP OWN BROWSER AND OFFER AT 0 PRICE
2. TIE UP OEM'S WITH LONG-TERM CONTRACTS

IV. PUBLIC GOODS

- A. NON-RIVALRY IN CONSUMPTION—MARGINAL COST = 0
- B. NON-EXCLUDABILITY—CAN'T EXCLUDE THOSE WHO DON'T PAY
- C. TAXES AND PUBLIC FINANCE