

## **APPLIED ECONOMICS FOR MANAGERS SESSION 18—**

### **I. REVIEW: GROUP DECISION MAKING & ECONOMIC OUTCOMES**

#### **A. COLLECTIVE CHOICE A FACT OF LIFE**

1. IN PUBLIC POLICY

2. IN INTERNAL ORGANIZATIONAL DECISIONS

a. MANAGEMENT/LABOR COMMITTEES

b. CHOICE OF CEO

#### **B. COLLECTIVE CHOICE CHARACTERIZED BY DIFFERENT LOGIC (ILLOGIC) THAN INDIVIDUAL CHOICE**

1. BIAS TOWARD THE STATUS QUO—INDIVIDUAL UNCERTAINTY MAGNIFIED AT AGGREGATE LEVEL

2. CYCLING AND CONDORCET

3. COLLECTIVE CHOICE TO PURSUE PRIVATE INTEREST

#### **C. IMPLICATIONS FOR PUBLIC POLICY**

1. CAUTIOUS PUBLIC POLICY

2. ALWAYS A LARGE GROUP OF UNHAPPY VOTERS

3. DANGER OF “CAPTURE”

#### **D. IMPLICATIONS FOR CORPORATIONS**

1. CAUTIOUS POLICIES

2. ALWAYS DISGRUNTLED SPLINTER GROUP

3. DANGER OF “CORRUPTION”

### **II. CORPORATE ARCHITECTURE AND VERTICAL INTEGRATION —WHERE IS THE FIRM’S BEGINNING AND ENDING?**

#### **A. THE VERTICAL PRODUCTION CHAIN**

1. RAW MATERIALS

2. MANUFACTURE

3. DISTRIBUTION

4. RETAIL

## B. VERTICAL INTEGRATION VS SEPARATE FIRMS

### 1. SEPARATION ALLOWS

- a. COMPETITION TO SPUR EFFICIENCY
- b. SCALE ECONOMIES

### 2. INTEGRATION

- a. AVOIDS HOLD-UP PROBLEM OF FIRM SPECIFIC ASSETS
- b. REDUCES DOUBLE-MARGINALIZATION
- c. FACILITATES PRICE DISCRIMINATION

## C. PRODUCT COMPLEMENTARY & DOUBLE MARGINALIZATION

RETAIL DEMAND:  $P = 100 - 2Q$

RETAIL MARGINAL REVENUE:  $MR^D = 100 - 4Q$ .

ASSUME MARGINAL COST = WHOLESALE PRICE =  $W$

RETAIL PROFIT MAXMIZATION  $W = 100 - 4Q$ .

HENCE, MANUFACTURER'S DEMAND:  $W = 100 - 4Q$

MANUFACTURER'S MARGINAL REVENUE:  $MR^U = 100 - 8Q$

MANUFACTURES MARGINAL COST: = \$12

MANUFACTURER'S PROFIT MAXIMIZATION:  $100 - 8Q = 12$

FULL, DIS-INTEGRATED EQUILIBRIUM:  $Q = 11$ ;  $W = \$56$ ;  $P = \$88$

PROFIT: RETAILER = \$242; MANUFACTURER = \$484

WHAT IF FIRMS VERTICALLY INTEGRATE?

THEN DEMAND FACING INTEGRATED FIRM IS:  $P = 100 - 2Q$

MARGINAL REVENUE FOR INTEGRATED FIRM IS:  $MR = 100 - 4Q$

WITH MARGINAL COST = \$12, EQUILIBRIUM IS:  $Q = 22$ ;  $P = \$56$

PROFIT = \$968 > \$242 + \$484

FIRMS AND CONSUMERS GAIN FROM VERTICAL INTEGRATION

D. DOUBLE MARGINALIZATION & COMPLEMENTARY GOODS  
MANUFACTURER AND RETAILER  
HARDWARE AND SOFTWARE

E. VERTICAL INTEGRATION VERSUS CONTRACT

1. CONSIDER A TWO-PART TARIFF

- a. SELL TO RETAILER AT  $MC = \$12$
- b. CHARGE RETAILER A FIXED FEE FOR SALES RIGHTS
- c. RETAILER SETS:  $P = \$56$ ; SELLS  $Q = 22$  UNITS; EARNS OPERATING PROFIT OF \$968

2. FIXED FEE: MUST BE LESS THAN \$726 (SO RETAILER EARNS AT LEAST \$242) BUT MORE THAN \$484 (SO MANUFACTURER EARNS AT LEAST \$484—BUT CAN DUPLICATE INTEGRATION OUTCOME WITH A CONTRACT

F. CHOICE BETWEEN INTEGRATION AND CONTRACT

1. NEGOTIATION COST

2. CAN CONTRACT BE COMPLETE—UNCERTAINTY

3. ENFORCEMENT COST—WHAT HAPPENS IF CONTRACT IS BROKEN?

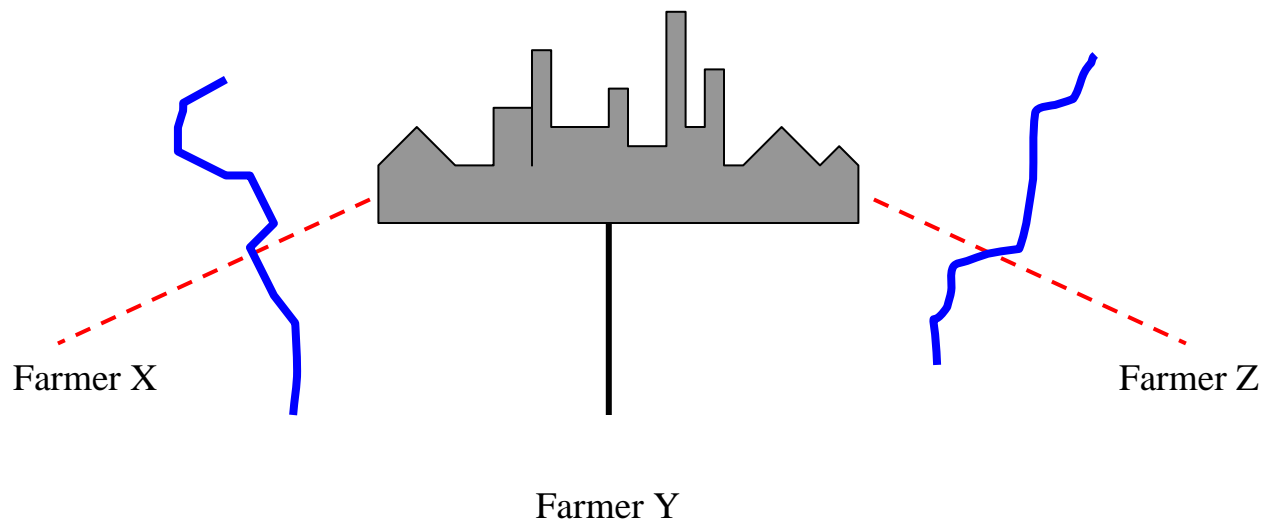
G. VERTICAL INTEGRATION AND PRICE DISCRIMINATION

$P = 100 - 2Q$  IN MARKET 1—MONOPOLY PRICE ( $C = \$12$ ) = \$56,  $Q = 22$

$P = 60 - 2Q$  IN MARKET 2—MONOPOLY PRICE ( $C = \$12$ ) = \$36;  $Q = 12$

CANNOT ACHIEVE SUCH DISCRIMINATION UNLESS MARKETS SEPARATED

SOLUTION: INTEGRATE INTO LOW-PRICE (ELASTIC) MARKET AND REFUSE TO SELL TO ANY OTHER RETAILERS



	<u>MODERNIZE ROAD SEGMENT X</u>	<u>MODERNIZE ROAD SEGMENT Z</u>
COST	\$10,000	\$10,000
BENEFITS	\$7,000 TO FARMER X 0 TO FARMER Y 0 TO FARMER Z	0 TO FARMER X 0 TO FARMER Y \$7,000 TO FARMER Z

POLITICAL SOLUTION: VOTE-BUILDING COMMISSION OR LEGISLATURE VOTES ON ROAD IMPROVEMENT BILLS PAID FOR OUT OF GENERAL REVENUES. THEN, VOTE-TRADING—REPRESENTATIVE FROM X VOTES FOR IMPROVEMENT IN ROAD TO Z IN RETURN FOR Z VOTING FOR IMPROVEMENT IN ROAD TO X. BOTH ROAD IMPROVEMENT BILLS PASS BUT COST IS SPREAD EQUALLY OVER ALL ***THREE*** REGIONS

	<u>REGION X</u>	<u>REGION Y</u>	<u>REGION Z</u>
COST	\$6,667	\$6,667	\$6,667
BENEFITS	\$7,000	0	\$7,000