Let's Play OLIGOP

E105-2000

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OLIGOP is a game in which money can be made or lost. Groups of up to seven firms on a personal computer.

In a *competitive market* there are many firms producing an identical product. No firm can influence the price, which is market determined. The firms are "price takers."

In an *oligopolistic market* there are a few sellers. Products are usually differentiated. As a result each supplier can set its own price, but how much it will sell will be influenced by the pricing strategy of other firms in the industry as well as its own pricing strategy.

Your firm competes actively in an oligopolistic market characterized by product differentiation. Many products, ranging from beer to automobiles, are marketed by oligopolists. How many cars Ford sells depends only in part upon the price it charges — the higher the price set by Chevrolet and Chrysler for their products the better the market for Fords. Similarly, when you play OLIGOP your sales volume depends not only on your price but also on the prices charged by your competitors. Your profits depend upon your production costs as well as your sales revenue. The nature of your production costs will be specified at the beginning of play. For example, the computer may tell you that you have fixed costs of $25 plus variable costs of $1.00 per unit.

This would mean that if you sell 10 units your total production costs will be

$$\$25 + 10 \times \$1.00 = \$35.00.$$

If you have priced your product at $4.00 your revenue will be

$$\$4.00 \times 10 = \$40.00$$

and your profits, the excess of revenue over total costs, will be

$$\$40.00 - \$35.00 = \$5.00$$

If instead you price your product at $1.00 you will sell more but your profits will be –10!

Up to seven firms can compete in the market. You can ask the computer to generate prices if you wish to try your pricing skills and can't find enough live players willing to compete. Can you make higher profits than the other firms in the industry?

After a few rounds you will be invited to study a Market Research Report. This analysis, prepared by skilled econometricians, reports the set of prices that you and your competitors should charge in order to maximize total industry profits. Can an aggressively managed firm do even better?

You may decide to replace your old product with a new innovation developed in your corporate laboratory - use the I (innovate) option. The product number you specify will influence both costs and market response. If you are fortunate, your new product will be cheap to produce and command a substantial share of the market.

Questions:

1. Is it easy to maintain orderly markets under oligopolistic conditions or is there a tendency for Adam Smith's invisible hand to operate, hurting everyone (other than consumers) by pushing prices down below the level that would maximize total industry profits?
2. Do aggressively pricing firms succeed in making higher profits by undercutting their competitors? Do aggressively pricing firms make higher profits than they would if all firms were to follow the pricing strategy recommended in the Market Research Report.
3. Is it more profitable to compete against aggressive prices, satisficing firms or laggards? That is to say, will an industry of laggards make more profits than an industry in which firms pursue an aggressive pricing strategy or satisfice?
4. In some oligopolistic industries one firm will assume a leadership role, announcing its price first with the expectations that other firms will follow. Is it advantageous to go first when playing OLIGOP?

LET'S PLAY OLIGOPOLY!

Computer Selected Firms:

Team 1
Anthony Mensah Attiogbe
Rebecca Louise Edwards
Nora Anne Hanagan
Catherine Mary Kannam
David Benjamin Krieger
Ahmed Mahmoud Saleh Nasir
Anthony Charles Saudek
Eli Solomon Staub

Team 2
Owen Augustus Boreland
Christina Mei-chia Fucci
Eliza Vitri Handayani
Alexis Marie Keeler
Scott Matthew Kushner
Scott William Pettingell
Shane Thomas Scarisbrick
John Patrick Voekel
Ka Yat Yuen

Team 3
Colby Matthew Brown
Aaron John Gilary
James Yozan Hansen
Clara Eunyong Kim
Sarah Alma Mann
Leah Maxx Pransky
Rachel Beth Schwartz
Stephan William Wasilewski

Team 4
Jeannette Leigh Brown
William Daniel Gillam
Liza Guinan Harrison
Rebecca Reese Kirchheimer
Sarah Jeffress Massey
Mark Steven Radosevich
Timothy Child Schwartz
Joseph Alan Wender

Team 5
Sun-Young Chyun
Amy Jayne Gomberg
Modou Billo Jallow
Wolasi Kofi Konu
Juliana Emily Mastronunzio
Jessica Lynne Richman
Patricia Nichelle Skillin
Chris Robert Wolland

Team 6
Rebecca Aili Cohen
Emily Benedict Hager
Jill Elizabeth Johnston
Oksana Kozhemyako
Kevin Frederick Willis McCarthy
Jacob Scott Robinson
Devyani Srinivasan
Camille Morgan Zahniser

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PRICE SHEET: Firm #______________; Firm Name: ______________

Round: Price (Your [price must be $5.00 or less;enter one round at a time)

#1 ______________

#2 ______________

#3 ______________

#4 ______________

#5 ______________

#6 ______________