

Perfect Competition Monopoly Monopolistic Competition Oligopoly

# Quick Start Student Guide Principles of Economics

#### Introduction

Beat The Market is a microeconomics simulation game that can be played individually against computer managed firms or in teams. The objective is to achieve greater profits than the firms you are competing against. Each quarter of play, representing 3 months in time, you make decisions that will affect your company's sales and profits. To see the results of your decisions for single-player games (you against computer managed firms), you press the execute button in the top menu bar. For multi-player games (you against other students), the teacher executes the game.

# Play

Depending on the game your teacher assigns, there can be a maximum of 4 decisions. <u>Detailed descriptions and</u> <u>examples are given in your online Student Manual</u> which can be downloaded from the home page of your website.

## Decisions

1. Price	Set price too high and your sales may plummet. Sell too low and your profits will diminish.
2. Advertising	Increasing advertising expenditure, more than the competition, increases sales up to a
	point.
3. Production	Produce too little and you may miss out on sales.
	Overproduction leads to losses. Unsold stock is perishable and cannot be stored
4. Number of plants	<ul><li>Each plant adds about \$7,000 to fixed costs &amp; has a maximum production capacity of 1000 units. Therefore a plant size of 6 has a maximum production of 6,000 units.</li><li>Producing near maximum production capacity is very costly.</li><li>There is a delay of 1 quarter before a change in plant size takes effect.</li></ul>
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# Reports

There are 4 reports that a team will need to examine to make the best decision.

1. Competitive analysis report

This shows the decisions that all the other teams made in the previous quarter and the profits made by them. This allows your firm to learn from others – which decisions are leading to better profits?

2. Demand and Supply reports

This tells the team the demand that existed for their product in the previous quarter. If the demand was less than production then maybe the team needs to reduce production, or try increasing demand by lowering prices or increasing advertising.

3. Profit and Loss report

This tells the firm how their profit is calculated. The revenue depends on the number of units they have sold and the price. Variable cost depends significantly on you production level compared to maximum capacity. Fixed costs depend on the number of plants. This can be adjusted if your game includes a plant size decision.

4. Market research and Macroeconomic Reports

This report shows the industry average price, revenues and spending on various items so your firm can compare their performances and decisions with the industry average. If the market demand is greater than supply, then you can expect competitors to increase production or raise prices. If the forecast GDP (Gross Domestic Product) is growing, it is likely to lead to greater demand. With higher forecasted inflation (CPI) can expect all costs of doing business to go up in proportion to the CPI.



# FREQUENTLY ASKED STUDENT QUESTIONS

## 1. How do I begin to make a decision?

- a. Understand that the objective is to maximize profits.
- b. Study the reports in the game including: Market Research, Demand & Supply, Net Profit, and Competitive Analysis.
- c. Review the suggestions of the automated "CONSULTANT" that are on the Summary page of the game.
- d. Click on the information buttons next to each decision and read the suggested process.

# 2. What are the "key" factors that affect profits in the game?

There are three "major factors" in the game:

- a. Set production as close as possible to firm demand.
- b. Set marginal revenue close to marginal cost
- c. If plant size is a decision, select the plant size that will be most cost effective, given the projected level of demand. Information how costs change by plant size is found on the Decision page by clicking the Info button.

#### 3. The CONSULTANT tells me to set production closer to firm demand, how do I do this?

- a. Look at the past reports to study the sensitivity of demand to changes in your firm's price, your rival's price and he market price (if not a monopoly). Once you learn about price elasticity, this information is very helpful and may be found on the Decision page by clicking the Info button for price.
- b. If advertising, then look at the marginal impact of this decision. This information is found on the Decision page by clicking the Info button.
- c. If there are random economic events occurring in the game, check out this information on the Market Research Report.
- d. If the economy is changing, check out the GDP forecast in the Market Research Report. As a rule of thumb, a 10 unit change in the index would increase market demand by 5%.

#### 4. The CONSULTANT tells me my average costs are much higher than the average, why?

- a. Costs rise rapidly as production gets close to maximum capacity. The maximum production capacity is found on the Decision page by clicking the Info button for production.
- b. If plant size is a decision, average costs depend also on plant size. The impact of plant size on average costs is found on the Decision page by clicking the Info button for plant size.
- c. Selling or overhead costs include advertising, if very high it could have an impact.

#### 5. The CONSULTANTS tells me to set MR closer to MC, how do I do this?

- a. Changing price is the most important factor affecting MR. MR will change positively with price. As price is increased, MR will rise and become closer to the price level but will always be less than price; and as price is decreased, MR will decline at a faster rate and the gap between MR and price will widen.
- b. Changing "production" will alter MC. As production gets closer to the maximum production capacity of the firm, then MC will rise rapidly.
- c. If you can change plant size, then this will also change MC. The impact of plant size on MC may be found on the Decision page by clicking the Info button.

#### 6. How do I decide on the level of advertising?

If advertising is a decision, be competitive and raise advertising as long as the extra (marginal) revenues from increased advertising exceed the extra (marginal) costs of production. But be careful there are diminishing returns to advertising. (Information on the marginal impact of advertising is available by clicking the Info button on the decision page for advertising).