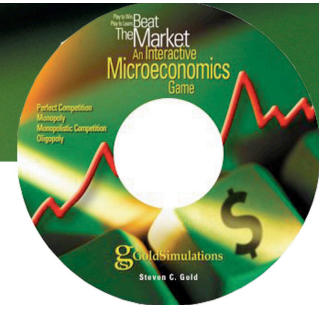


Beat The Market: An Interactive Microeconomics Game



Quick Setup Guide

Three Easy Steps
For using the computer simulation with

Principles of Microeconomics
and
Managerial Economics

Beat The Market: An Interactive Microeconomics Game



Gold Simulations
www.goldsimulations.com

FIRST EDITION

Steven C. Gold

GoldSimulations Educational Software
Beat The Market: An Interactive Microeconomics Game

Beat The Market: Quick Setup Guide

Published by GoldSimulations LLC. 330 Rick Road Milford NJ, 08848. Copyright© 2004
by Gold Simulations, LLC ALL RIGHTS RESERVED

No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written consent of GoldSimulations, LLC., including but not limited to, any network or other electronic storage or transmission, or broadcast for distance learning.

ISBN: 0-9759842-0-9

Copyright 2004. Exclusive rights by GoldSimulations for manufacture and export.
Printed in the United States of America, First Ed.

Beat the Market is a trademark of Gold Simulations.

www.goldsimulations.com

Table of Contents

Introduction.....	1
Description of the Game.....	1
Learning Objectives.....	1
Ideal for Large Classes.....	1
How to Use the Game in Class.....	2
Principles of Economics – 3 Easy Steps.....	2
Managerial Economics – 3 Easy Steps.....	2
Administrator Summary Report.....	3
Getting the Administrator Summary Report.....	3
Grading and Administrator Report.....	3
Test Mode and Learning Levels.....	4
Test Mode.....	4
Learning Levels.....	5
Team versus Individual Play.....	6
Single Player versus Multi-Player Option.....	6
Support Provided To Instructors.....	6
Understanding the Game & Answering Student Questions.....	6
Tutorial with PowerPoint Slides.....	7
Test Bank Questions.....	7
Solutions to Student Manual Questions.....	7
APPENDIX.....	8
Simulating the four market structures.....	8
Perfect Competition.....	8
Monopoly.....	8
Monopolistic Competition.....	8
Oligopoly.....	8

Quick Setup Guide



Quick Setup Guide

Three Easy Steps for Principles and Managerial Economics

Introduction

The Quick Setup Guide is a shortened version of the full Instructor Manual. This quick guide will help you use this interactive computer game in your class. You will soon learn that you can make Microeconomics fun in three easy steps using Beat The Market. The full Instructor Manual will go into further detail but this Quick Setup Guide is sufficient.

Confucius says:

- Tell me & I'll forget
- Show me & I'll Remember
- Involve me & I'll Understand

Description of the Game

Beat the Market is an experiential exercise used to teach microeconomics or managerial economics in a new & exciting way. The computerized simulation puts students inside the world of the textbook. In the simulation game students are asked to manage a firm & to try to maximize profits under different market structures: perfect competition, monopoly, monopolistic competition & oligopoly. The game gives students the opportunity to observe how different markets function in a dynamic setting, and to apply the microeconomic tools of analysis to “beat the market”.

As the name implies, Beat the Market challenges students to get the highest profits in one or all of the four standard market structures. Students make demand & supply decisions each period of play. The program rates student performance from 0 to 100% based on their profits relative to the best firm. Financial reports are generated each period that itemize the revenues, costs, and profits of the firm. There is a single player & multi-player option. In the single player game, the student, or team of students, competes against firms managed by the computer. In the multi-player game, students compete against each other.

Learning Objectives

It is clear from our observations that the simulation game makes learning microeconomics more fun and meaningful. It captures student interest, motivates students to learn economics to do well in the game, and it works. We have observed students reading chapters in advance and raising many more questions. The game enhances learning by visually reinforcing textbook theories and providing a hands-on “learning-by-doing” exercise. By participating in the game, students:

1. Acquire a “working” microeconomic vocabulary.
2. Reinforce microeconomic principles as they develop strategies to achieve firm objectives;
3. Really learn to apply the tools of economic analysis to allocate resources in a decision-making setting; and
4. Gain a clearer understanding of market forces and equilibrium by participating actively in and observing a set of simulated markets.
5. Practice critical thinking skills as they try to solve problems and achieve objectives

Ideal for Large Classes

No direct involvement of the instructor is required to facilitate the playing of the simulation game. The students play the game on their own computers or in the computer lab and are automatically graded based on cumulative

Quick Setup Guide



profits compared to the best firm. All student grades are viewed in an “Administrative Summary Report”. The procedure for this is explained in the “three easy steps”.

How to Use the Game in Class

The game can be used in either principles of microeconomics or managerial economics. The reason it can be used for either course is that the settings of the game can be changed by the click of a button to make it simpler or more advanced on a number of dimensions, such as the number of controllable decisions and the stability of the market system.

Principles of Economics - 3 Easy Steps

At the principles or introductory level the game is used to visually illustrate market behavior and give students an opportunity to apply economic measures to make decisions and maximize profits. To simplify the game, the number of decisions can be limited to as little as two and the economy can be set to be stable with no random events to jar the market.

The three easy steps for you to use the game in class are as follows:

1. Instructor tells students which game to play in Beat The Market.

- Market structure from Perfect Competition to Oligopoly
- Test mode for grading purposes or Learning mode for practice
- Number of decisions: typically up to 4 (learning level 3)
- Number of Periods: typically 6 – 8 periods per game.
- Macroeconomy set to STABLE – CPI and GDP do not change
- Random economic events set to NO shocks

2. Students play the assigned game and submit their results electronically.

- The game is menu driven and self-explanatory. There is also a detailed student manual.

3. Instructor imports results to get an Administrator Summary Report of student grades.

- Getting the Administrator Summary Report detailed below,

Managerial Economics - 3 Easy Steps

In managerial economics the focus is on the measurement and use of demand, production, and cost concepts to make effective management decisions. Beat the Market provides a database that may be exported to Excel to allow students to do more sophisticated quantitative analysis and decision-making. Also, the learning level of the game can be increased by allowing the number of decisions to increase from 2 to up to 8; and the economy can be set to allow business cycles with random shocks. The three easy steps for you to use the game in managerial economics are as follows:

1. Instructor tells students which game to play in Beat The Market.

- Market structure from Perfect Competition to Oligopoly
- Test mode for grading purposes or Learning mode for practice
- Number of decisions: typically from 6-8 (up to learning level 5)



Quick Setup Guide

- Number of Periods: typically 8 – 12 periods per game.
- Macroeconomy set to Business CYCLES or GROWTH – CPI and GDP change
- Random economic events set to YES – shocks permitted

2. Students play the assigned game.

- Export game data to Excel spreadsheet to do regression analysis to help with decision-making.
- Students submit game results electronically.
- The game is menu driven and self-explanatory.
- There is also a detailed student manual.

3. Instructor imports results to get an Administrator Summary Report of student grades.

- How to get this report is detailed below.

Administrator Summary Report

Getting the Administrator Summary Report

The process of getting the Administrator Summary Report, which reports the grades of all students playing the game in an Excel spreadsheet, is simple and outlined below.

1. Students save a Summary Report of their completed games and send them to the instructor's in-box or to the instructor's shared drive.
2. Files posted to the instructor's in-box will have to be downloaded to a folder on the instructor's computer. This can usually be done with the click of one button to download all files to a particular folder.
3. Instructor starts BTM program, clicks 'Get Simulation', selects 'Administrator Summary Report of all games', and then imports all the student report files at once by following the on-screen instructions.

Grading and Administrator Report

The game automatically grades & reports student performance. The grade is based on the student's profit compared to the best firm. The Administrator Summary Report lists, by student name, the games played & some of the key results including the performance rating of each student.

You can easily see if the students played the game you selected by looking at the relevant columns. For example if you told the students to play Learning Level 3 & Test Mode, Perfect Competition (PC), Stable Economy, NO random shocks, 6 periods you would see the following. (See columns in RED). IF any of the selections were different, you would know a student did not comply. The final grade is shown on the right hand side called "Cumulative Rating". The report includes:

Quick Setup Guide



Student	Firm	Game ID	Players	Learn Level	Market	Econ	Random Shocks	Last Period	Mkt. Share	Plant Size	Period Net Profit	Cumulative Profit	Period Rating	Cumulative Rating
Barrows, Bob	1	62114	1	3-Test	PC	Stable	No	6	3.88	9	110,823	390,822	83	88
Miller, Sue	1	38442	2	3-Test	PC	Stable	No	6	22.1	12	168,268	859,381	93	82
Sherman, Carrie	2	38442	2	3-Test	PC	Stable	No	6	15.6	10	141,382	995,640	82	91

Game ID:

Random generated number unique to each game which ensures that the same game is not submitted by two different students.

Players:

Single player (1), multiplayer (up to 10). A multiplayer game will report the results for each student player. In the sample above, Miller and Sherman are playing in the same multiplayer game because they have the same Game ID and Players are listed as two.

Learn Level:

Refers to the learning levels, from 1 to 5, and includes the word TEST if the Test Mode was used.

Market:

Market structures. Perfect Competition (P.C.), Monopolistic Competition (M.C.), Monopoly (MON), and Oligopoly (OLIG).

Last Period:

The last period executed in the game.

Period Rating:

The performance rating of the last period (between 0-100) based the student's net profits compared to the best firm.

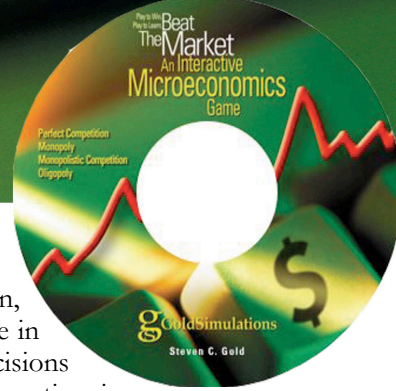
Cumulative Rating (Recommended Grade):

The overall performance rating for all periods (between 0-100) based on the student's cumulative net profits (sum of all periods) compared to the best firm.

Test Mode and Learning Levels

Test Mode

At the start of a new game, students have the option of selecting either the "Learning Mode" or the "Test Mode". The Learning Mode is for practice and begins each new game with the same starting environment in terms of demand, costs, production, plant size, and all other factors. The purpose of the learning mode is to give students an opportunity to learn by repeating the same game to improve their performance. Student feedback clearly indicates that they can more easily learn the economic relationships and how to apply the economic tools of analysis by repeating the same game. Once the students have practiced with the learning mode, they will be better prepared to try the "Test Mode" to confirm their understanding of economics. In the "Test Mode" a unique starting



Quick Setup Guide

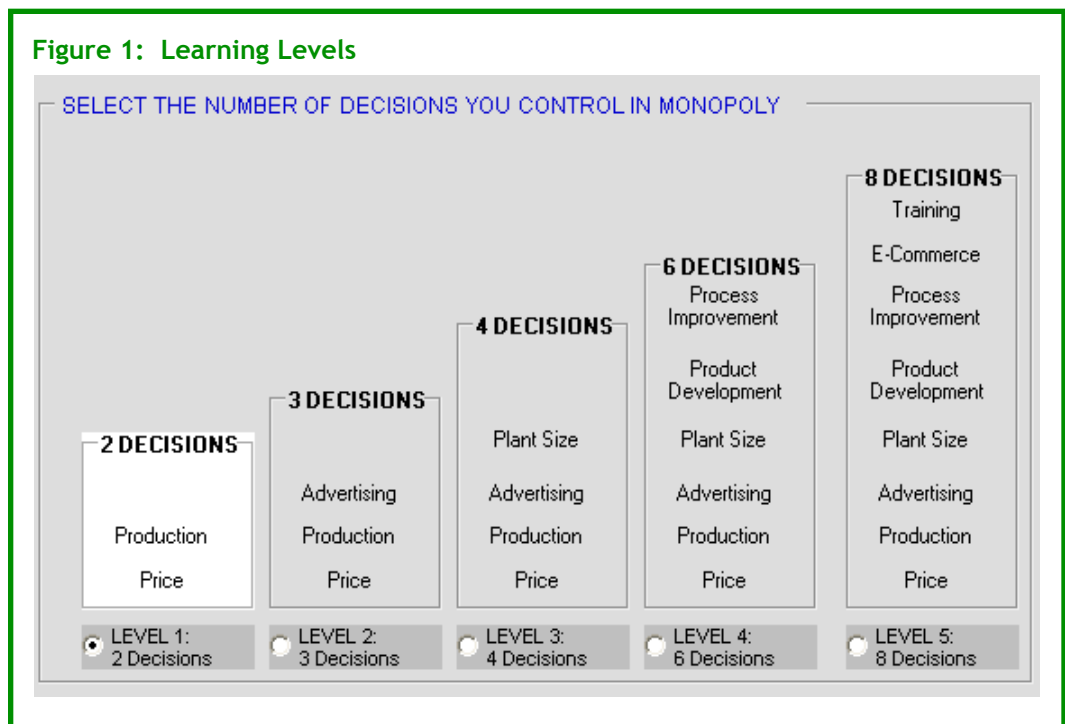
environment is created with each new game. Starting demand, production, plant size, costs, and many other factors are different with each new game in “Test Mode”. Because of this, a student cannot just copy the winning decisions from another game. All game reports are labeled as Test Mode if this option is selected. The Test Mode is also identified in the Administrator Summary Report.

Learning Levels

Students may learn the microeconomic relationships in the game in steps by limiting the number of controllable decisions, holding the other decisions constant (“ceteris paribus”). This option allows students to adjust the complexity of the game and is a powerful learning tool.

There are five learning levels in the game as illustrated in Figure 1, which is a sample of a screen in the monopoly market game. Each market structure in the game has similar learning levels. The bar in white indicates the current choice of the student, which is level 1 consisting of only two decisions price and production.

In the principles or introductory courses it is recommended that students start at level 1 and move to higher levels as they begin to understand the relationships at each level. Reaching level 3 is a good goal for students in the introductory courses and includes the major firm decisions. In the intermediate or more advanced economics courses, it is still useful for students to start at the lower levels but they can move more quickly to the higher levels. The ability to limit the number of decisions shows students the power of ceteris paribus analysis in understanding and learning economic relationships.



Quick Setup Guide



Team versus Individual Play

A single firm in the game can be played by one student alone or a team of students participating together and managing the one firm. A team approach allows students to interact, share ideas, and learn from their colleagues. Helping or teaching others is one of the most effective ways for students to learn. Meeting in teams also takes time. Some students may not agree with the decisions of the group, and some students may not fully participate or fulfill their assigned team responsibilities. Playing alone, however, gives students the opportunity and the full responsibility to test their own knowledge and ideas without compromise, and to learn from their own mistakes and successes. Both team and individual play have their advantages and challenges.

Single Player versus Multi-Player Option

Single and multi-player options are available in the game. In the single player game, a single student or team of students manages a firm and competes against the computer-managed firms.

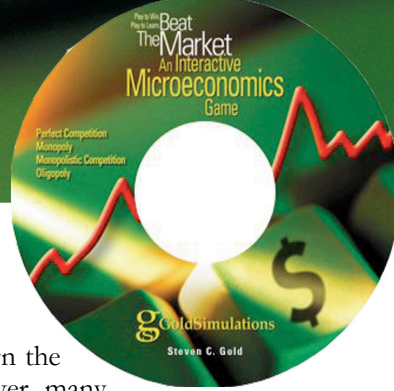
The multi-player game allows up to 10 players (or teams) to compete against each other in a given market. Each player represents a different firm in the market. A player could be an individual student, or a player could represent a team of students working together to manage a firm in the game. The multi-player game works the same as the single player game except that decisions must be entered for each player. For on-campus use, students can meet at one location to play the game together. Detailed procedures for use of the multi-player game in either an off-campus distance learning format or an in-class format are described in the full Instructor Manual available on line at www.goldsimulations.com.

Support Provided To Instructors

Understanding the Game & Answering Student Questions

To help understand the results of the game, we will reveal to the instructor the firm cost and demand relationships embodied in the game, and the profit-maximizing short and long-run equilibrium in each of the markets in the game, including perfect competition, monopolistic competition, monopoly, and oligopoly. This should help the instructor in answering student questions about the game results, without the instructor having to study or play the game. We recommend professors keep this information confidential, and allow the student to “discover” the cost and demand relationships and how they impact the optimal decisions of the firm. Learning-by-doing or experiential learning is argued by educators to be one of the most effective pedagogical approaches.

To request a detailed explanation of the game results, just go to our website, www.goldsimulations.com, and click “contact us”. We will send them to you electronically.



Quick Setup Guide

Tutorial with PowerPoint Slides

The game and student manuals were designed so that students could learn the game on their own without a formal tutorial from the professor. However, many professors like to give an orientation or tutorial session on the simulation game. For this purpose, a set of power point slides that illustrate the mechanics of playing the game, the decisions, and game reports are available for downloading from the instructor's section of the website: www.goldsimulations.com.

Test Bank Questions

A set of multiple-choice questions is available to instructors who have adopted Beat The Market for their class. Just go to our website, www.goldsimulations.com, and click on "contact us" to request them. We will send them to you electronically.

Solutions to Student Manual Questions

Solutions to the questions at the end of each section of the Student Manual are available for instructors who have adopted Beat The Market for their class. Just go to our website, www.goldsimulations.com, and click on "contact us" to request them. We will send them to you electronically.

Online support is not in a shortage. From PowerPoint slides, to test questions, more help is always available online. If you have comments or questions when playing Beat The Market, please contact us by going to our website at: goldsimulations.com



APPENDIX

Simulating the four market structures

Perfect Competition

- One thousand firms are in the market at the start of the simulation.
 - Economies and diseconomies of scale occur with plant size.
- Each firm is selling identical products with no ability to differentiate one's product.
- The firm faces a horizontal demand & can sell all it wants at current market price.
- Full information on the market is provided.
- Entry and exit of firms occur as profit levels change in the market

Monopoly

- Only 1 firm is in the market with 100% market share and does not change.
 - Firm demand is equal to the market demand.
 - Plant capacity can be changed.
- No entry of rival firms is permitted.
- Non-price factors (i.e. advertising & product dev.) may be used to shift market demand.
- Student success is based on a comparison with other monopolists.
 - Each monopoly market is independent and does not affect another monopoly market / firm.

Monopolistic Competition

- Twenty-five firms are in the market with equal market share to start.
 - Market share is limited by plant size.
- Product differentiation is possible but limited.
 - Advertising and product development decisions are permitted.
- Firm demand is negatively sloped but there is limited market power.
 - Firm price elasticity is affected by the number of firms in the market & non-price factors such as relative advertising. Price elasticity starts at about 3.
- Entry and exit of firms occur as profit levels change in the market
- Information is provided on 15 of the 25 firms in the market.

Oligopoly

- Five firms are in the market with economies and diseconomies of scale.
 - Market share may grow with increases in plant size & productive capacity.
- Significant product differentiation is possible.
- Market power exists but mutual interdependence is high.
 - One firm can significantly affect its rivals in the market.
 - Rivals react to changes in market share and pricing policies of competitors.
 - Price wars may occur and a dominant firm or price leader may emerge.