

# BEAT THE MARKET SIMULATION: A SELF-STUDY BUSINESS ECONOMICS GAME

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## ABSTRACT

*An innovative self-study simulation pedagogy is demonstrated with direct audience participation using an online business economics game called Beat the Market in which students “learn by doing”, on their own and at their own pace, without the necessity of direct involvement by the instructor. The simulation self-study consists of a set of games that place students in different market environments from highly competitive to highly concentrated. The simulation has an automated consultant that provides feedback to the student players on problem areas and factors to consider to improve after each decision period. Courses that may find this simulation pedagogy beneficial would include large classes such as introduction to business or economics.*

## INTRODUCTION

The basic idea of a simulation self-study is to allow students to play simulation games on their own that link to the theories being taught in the class; but the students complete the games on their own and at their own pace, without direct instructor involvement except for some optional due dates. The number of assigned games would depend on the course objectives established by the instructor.

A self-study pedagogy is presented for a course in economics or business at the foundation level using a web-based simulation program called “Beat the Market Online: A Microeconomic Game” which may be accessed at <http://www.goldsimulations.com>.

## BEAT THE MARKET GAME: BRIEF DESCRIPTION

Beat the Market is a simplified online business simulation game that is designed to help students learn or reinforce basic business and economic principles at the foundation level. In the game participants are placed in the role of managing a firm under different market environments including: monopoly, concentrated markets, and highly competitive markets. The game provides the opportunity to observe how different markets function in a dynamic setting and how to apply economic tools of analysis to try to beat the market under different environments.

There are different learning levels, so the games start out with only two basic business decisions (price and production) and then advances incrementally up to four business decisions (including advertising and plant size). Feedback is provided to students on their performance by an automated consultant, a set of profit reports, a performance grade (0 to 100%) and a ranking compared to other players (a leaderboard).

## LEADERBOARD

To motivate students to do well in the self-study simulation games and recognize their performance, there is an online leaderboard that broadcasts their accomplishments. Entry onto the online Leaderboard is reserved for the TOP 10% of all players, both nationally and internationally, not only in one course. The real-time leaderboard activity may be viewed by both players and non-players at <http://www.goldsimulations.com/leaderboard>. Players may elect to use anonymous or alias names.

## SIMULATION GAME STORY AS TOLD TO PLAYERS

“You begin your journey by managing a monopoly firm with no direct rivals in a stable economy. Your firm is producing a perishable product so you must be careful not to overproduce. Once you succeed, so will the challenge! The number of rival firms in the market will increase to 9 and you will be placed in a market called “oligopoly”. Although there are some rival firms, you will have a significant market share and the ability to differentiate your product and build brand loyalty. But do not drop your guard because your rivals are also large and powerful, and can have a substantial impact on your sales if they decide to become aggressive. After you have proven your ability to succeed in this market, you cannot rest on your laurels. The challenge (and fun) continues to increase! Now you have the privilege of showing your worth (economic skills) by managing a firm in a highly competitive market starting with 25 rival firms! And to further add to the challenge, new firms may also enter this market and compete with you. In this case, you will need to figure out how to keep the customers you have or attract more customers when the numbers of rival firms increase. In this environment you will need to carefully determine the right price to succeed, so do not get too greedy! Good luck and most of all have fun. Remember, you are a true winner, no matter how you perform in the game, if you learn from the experience.” ([www.goldsimulations.com/economics-simulation-game/self-learning-story-process](http://www.goldsimulations.com/economics-simulation-game/self-learning-story-process))

## LEARNING OBJECTIVES

The game is designed to help students:

1. Acquire a “working” knowledge of economics and business principles as they receive information on their firm’s demand, revenues, price elasticity, production costs, economies of scale, profits, the overall market behavior, and the economy.
2. Reinforce economic principles and decision-making as they have the opportunity to apply business theories and tools of analysis by making controllable decisions to achieve the

- objectives of their firm;
3. Gain a clearer understanding of market forces and how equilibrium is achieved in different market environments from highly competitive to concentrated markets.

## LEARNING PROCESS

The simulation games are organized on two levels: Introductory and Advanced. The major differences in the game levels are: the number of controllable firm decisions, whether the economy is stable or changing, and the focus on short-run versus long-run decision-making.

At each level (Introductory or Advanced), the order of the games that you are asked to play lead you through a “step-wise learning process”. The introductory level starts with only two controllable firm decisions (price and production), a stable economy and no random economic events. Next, a third firm decision is added (advertising) and the number of firms in the market increases from 1 to 9 and then to 25 firms. After learning to succeed at the introductory level, the advanced level adds a fourth firm decision that permits long-run analysis by allowing players to change the size (production capacity) of the firm, and including the possibility of changing economic conditions (like business cycles and random economic events).

## SELF-STUDY PROCEDURE

1. Explain the self-study process and it is implemented in a foundation business or economics course.
2. Give a tutorial and demonstration of the Beat the Market simulation game.
3. Divide participants into small groups (or work individually if desired) to play simulation games. The results are anonymous.
4. Lead a group discussion of the game self-study experience and pedagogical effectiveness.

## REQUIREMENTS

To participate and experience the game, bring a laptop with you. If you do not have one, you may work with another participant or just observe.

An internet connection (Wi-Fi) is needed to play. The simulation game is online and does not require a download.

## REFERENCES

- Gold , S. (2016) Design and Effectiveness of a Self-Study Pedagogical Approach to using a Simulation Game in the Classroom, *Developments in Business Simulation and Experiential Learning*, Volume 43, 136-140.