

Principles of Macroeconomics  
Discussion Activity 4  
May 20<sup>th</sup>, 21<sup>st</sup>, 22<sup>nd</sup>, 23<sup>rd</sup>

This week, we are trying something completely outside the box. There has been a push in certain segments of the education industry to gamify courses. The general idea behind gamification is that it will increase engagement if it is enjoyable, and retention. An initial attempt at this was created in 2023 and is still up-and-running at <https://virtualecon.ucr.edu>. But prototypes of new games (and new versions of old games) have been created for this course.

For the activity, there will be two components: (i) single-player exploration, and (ii) a class game.

**Step 1: Navigate to the Activity Webpage at <https://matthewdlang18.github.io/macroeconomics-course-website/activities/index.html>**

In the Economic Games panel, there is a link to “Go to Games Home” to get to the login screen.

Login using your NetID and the passcode found on Canvas and is a six-digit number (no commas).

After you log in, choose your section and go back to the Games Home Page.

**Step 2: Create an Investment Strategy**

The first fully functional game is an Investment Simulation. Typical investment simulations use real-time data and apply those dynamics to your portfolio (<https://www.marketwatch.com/games>). While this has value, day trading is a brutal industry and without significant experience, most new “traders” end up funding a few established traders and institutions.

So how can we practice long-term investing strategies in a short time-period. This game will help with that.

You will start with \$10,000 in the first round (year) and can invest in up to six assets (or hold cash). Each period your portfolio will update based on the change in prices of assets from round-to-round. You will also receive a cash injection every round (year), meant to represent your annual savings.

The game will last 20 rounds (years) and your goal is to think about how you want to balance out the returns of the assets with the risk of them decreasing. For example, Bitcoin has a high average return, but can fall as much as 75% in a given round. Some people may want to take on that risk, but many people want to have more stability and predictable returns.

Before you play your first game, study the returns of the assets on the Investment Odyssey front page and **answer question 1 below**.

After you answer the question, talk with those around you briefly and share your goals and strategy.

**Step 3: Play a Single Player Game**

To actually play the game, click on Play Single Player.

This will take you to the game interface. The assets will be listed in the top panel. In the next panel, you will see your Portfolio Performance and allocation, as well as the allocation (pie chart).

The Game Controls and Trading panel will be where you can construct your portfolio. If you want to have a completely diversified portfolio, you can distribute cash evenly. Alternatively, you can distribute cash evenly to a subset of select assets (for example, 60% stocks, 40% bonds) or have your own diversification strategy using the “Execute Trade” option.

Note that before you trade, click “Start Game”. Buy the assets that suit you, then click the yellow “Next Round” button. Your portfolio will update, and your cash injection will be given. Update your portfolio to reflect your goals and how much risk you want to tolerate.

The first rounds may go a bit slower as you get comfortable with the interface, but by the time you hit round 5 to 10, you will feel more comfortable executing your investment strategy and move the rounds forward.

After you play one game, share your results and strategy with those around you and **answer question 2**. Play a few more games and get comfortable with an investment strategy that suits you.

#### **Step 4: Play a Class Game**

Navigate back to the Investment Odyssey homepage (clicking on Investment Odyssey in the header will get you there).

Click on the Join Class Game. Be sure to link to the correct section! Your TA will start a new game and a similar interface will appear.

Now is the time to execute your investment strategy in a one-shot game against your peers. Since you are comfortable with the interface and have a strategy, plan on getting through each round relatively quickly (less than a minute).

A leaderboard will be updated as the rounds move forward. The highest scores on both the single player leaderboard and class game get a prize!

Once the game is finished, **answer question 3 below**.

#### **Step 5: Exploring Other Games**

The motivation for this week is to introduce you to a game that could be implemented in a class that could possibly signal one’s understanding of a topic. This game is more finance related as opposed to being directly related to course material. The other prototypes of games are less competitive but more related to our class concepts.

Check out the games and **answer question 4 below**.

Name:

1. Think about your post-UCSB life and what your financial goals are over a 20-year period. What is the most important aspect of saving and investing for you? Maximum wealth accumulation, steady, predictable growth, reducing big decreases in your portfolio, or something else? Given your goal, what is your initial strategy going to be?
2. After completing one full 20-year simulation in Investment Odyssey, reflect on your experience. How did your actual results compare to your initial expectations? Identify one specific decision you made during the simulation that significantly impacted your portfolio's performance (either positively or negatively), and explain what you learned from this outcome. Do you plan to adjust your approach in your next game? Why or why not?
3. During the class competition, how closely did you stick to your original investment strategy? Did seeing the leaderboard influence your decisions, and if so, how? What does this experience reveal about investor psychology in real-world markets?
4. What are your thoughts on using games like these to learn economic concepts? Do you think you would find them more engaging than traditional methods? What about as a replacement for exams? If you could design your own economics game, how would it work?