

ECON 103: Credit Markets

Objective: This game is designed to help freshmen university students understand the credit market and game theory by engaging in a competitive auction for loan opportunities. Participants will take on the roles of lenders, attempting to maximize their returns while considering their competitors' strategies.

Instructions:

Assign all 20 students the role of lenders by distributing "lender" role cards. Provide each student with a certain amount of play money to start (e.g., \$1,000).

Display a pre-prepared project card with a description, borrowing amount, and risk level. Explain that this project represents a borrower's request for a loan in the credit market. For each project card, low-risk projects might have a **5%** default rate, medium-risk projects a **10%** default rate, and high-risk projects a **20%** default rate. After the borrowers' defaults, the recovery rate is based on the risk level of the projects (**80%** recovery rate for low-risk projects, a **60%** recovery rate for medium-risk projects, and a **40%** recovery rate for high-risk projects).

Lenders must compete in an auction to finance the project by offering the lowest interest rate they are willing to accept. Each round, students will simultaneously submit their bids (interest rates) on a piece of paper. The lender with the lowest bid will finance the project. The goal of the game is to maximize their returns while considering the strategies and bids of their competitors.

The game consists of several rounds, with each round featuring a new project card. Students should be given 3-5 minutes per round to consider their bid based on the project's risk level, borrowing amount, and their competitors' potential strategies.

At the end of each round, collect the bids and determine the winner. Record the winning bid on the whiteboard or blackboard, noting the lender, project, loan amount, and interest rate.

At the end of the game, calculate the total returns for each lender, taking into account the loan amounts and interest rates. **The five winners are the lenders with the top five highest return rates.**

Debrief and discuss the game as a class. Reflect on the role of game theory in the credit market and how it influenced bidding strategies and decisions. Encourage students to share their experiences and insights from the game.