

## Stock Trading Simulation Participant Instructions

### PLAYERS AND ASSETS

**TRADING TEAMS:** Each of you has been assigned to one of 8 teams: A-H.

**ASSETS:** Each team starts with:

- 1) Three “assets,” each represented by a sheet of colored paper
- 2) \$20.00 cash account that can be used for buying other assets.

**EARNINGS:** Trading teams make money from:

- 1) Buying and selling assets
- 2) Collecting dividends paid on assets held at the end of each trading period
- 3) Cashing in assets at the end of the final trading period.

**DIVIDENDS:** Each asset pays a dividend of \$1 at the end of each period.

**ASSET FAILURES:** There is a 1/6 chance that an asset will fail after each dividend payment. Once an asset fails, it is worthless, and I will tear up the sheet of paper that represents that asset. To determine which assets fail, I will roll a 6-sided die separately for each asset. If the die roll outcome is “1”, the asset is destroyed. Other die outcomes are benign.

**REDEMPTION VALUE:** Any asset that is not destroyed after the final roll of the die in the last period is redeemed for \$6.00.

### TRADING RULES

**TRADERS:** Each team designates one member as “trader.” Once a trading period begins, traders are free to raise their hands, and when called on, BID to buy or ASK to sell an asset.

**BIDS:** If team A wishes to BUY an asset at 58 cents, the trader for team A places a BID at 58 cents. The BID is an offer to buy one asset at the stated price from any team. Traders with an asset on hand can sell it to trader A in exchange for 58 cents by raising their hands and, when called on, saying “I accept A’s BID at 58.” First come, first served.

**ASKS:** If team B wishes to SELL an asset at 81 cents, trader B places an ASK at 81 cents. The ASK is an offer to sell one asset at the stated price to any team. Traders with sufficient cash can buy the asset from trader B for 81 cents by raising their hands and, when called on, saying “I accept B’s ASK at 81.” First come, first served.

**BID/ASK IMPROVEMENT RULE:** A new BID must be higher than the previous BID. A new ASK must be lower than the previous ASK. If the following BIDS and ASKS have been observed, the next BID must be above 62 and the next ask below 79.

BIDS	ASKS
A 58	B 81
C 59	D 79
A 62	

**TRADES:** A trade occurs only when one trader accepts the BID or ASK of another. When a trade occurs, the seller immediately delivers the asset to the buyer and both adjust their cash positions. The buyer's cash goes down by the price, and the seller's cash goes up by the price. Once a trade is made, all outstanding BIDS and ASKS are inoperative and the BID-ASK process starts anew. A trader may make both BID and ASK bids during a period but must always have sufficient cash or assets to complete their trades.

**CLOSING BELL:** The period will end after 3 minutes, whether or not traders have completed trades they wish to make. At any time during the period, any trader may raise their hand and say "I vote to close the market." If all other traders agree, that period ends, dividends are paid, the die is thrown, and the game proceeds.

**SUMMARY**

- 1) BID to buy and ASK to sell.
- 2) You may sell an asset by placing an ASK that another team accepts or by accepting a team's BID.
- 3) You may buy an asset by placing a BID that another team accepts or by accepting another team's ASK.
- 4) You cannot sell an asset that you do not have.
- 5) You cannot purchase an asset with money that you do not have.

**RECORD KEEPING**

Each team has a record sheet with separate panels for each trading round. Each team chooses an accountant to make entries into the trading sheet and an auditor to audit the sheet of another team at the end of the game.

Period	Sale Price	Purchase Price	Assets	Cash Balance
1.0 Starting Asset and Cash Positions			3	2000
1.1	325		2	2325
1.2	310		1	2635
1.3		290	2	2345
1.4				
Post-Trading Cash Balance				2345
Dividend = Assets on Hand * 100				200
Ending Cash				2545
2.0 Starting Cash plus assets that survive previous die roll			1	2545
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The pictured team first sells an asset for 325 and then another for 310. It then buys an asset for 290. It ends the period with 2345 and 2 assets and receives a total dividend of 200. Unfortunately, one of the team's assets is destroyed by so it enters the second round with 1 asset and 2545 in cash.

These instructions are adapted from Sheryl B. Ball and Charles A. Holt, "Classroom Games: Speculation and Bubbles in Asset Markets," **J. Econ Perspectives**, 12, 1, 1998, 207-18.