SUPPLEMENT TO "SPECULATIVE OVERPRICING IN ASSET MARKETS WITH INFORMATION FLOWS"
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SAMPLE INSTRUCTIONS

YOU ARE GOING to participate in a market where you trade a financial asset that pays off real money. The market is divided into eleven 50-second trading periods. The asset you will be trading has a value that depends on the flip of a coin before the market opens. If the coin comes up heads, then each unit of the asset that you hold at the end of the last trading period of the market pays off 100 experimental dollars. If the coin comes up tails, then each unit of the asset pays off 20 experimental dollars. We will call it a High Payoff State if the coin comes up heads and a Low Payoff State if the coin comes up tails. Your earnings in the market come from two sources. One source is these payments you receive at the end of the last trading period for your final asset holdings. The second source of earnings (or losses) comes from buying and selling units of the asset while the market is open.

Each of you begins the first trading period with three units of the asset. You will also start with an initial cash holding of 800 experimental dollars, which is a loan. You are allowed to sell units of the asset only if you have some units to sell. You are allowed to buy units of the asset only if you have enough cash holdings to pay for the purchase. When you sell a unit, your cash holdings increase by the transaction price. When you buy a unit, your cash holdings decrease by the transaction price. At the end of the last trading period, any payoffs for holding units of the asset will be added to your cash holdings. Remember, those units pay off 100 experimental dollars/unit in a High Payoff State and 20 in a Low Payoff State. Also, the 800 experimental dollars loan will be subtracted from your total earnings at the end of the experiment.

At 50-second intervals you will receive a news announcement that gives you some information about the Payoff State. To do this, we will roll a die. In the High Payoff State, if the die roll was a 1, 2, 3, or 4, then the news announcement is "good news." Otherwise, the news announcement is "bad news." In the Low Payoff State, if the die roll was a 1, 2, 3, or 4, then the news announcement is "bad news." Otherwise, the news announcement is "good news." Therefore, good news is twice as likely as bad news in the High Payoff State. Bad news is twice as likely as good news in the Low Payoff State. News announcements are made at the end of each trading period.

We will now start the program and explain how to use the computers. Please click on the icon pw2 and when prompted, type in your first and last name and press submit. Then wait for everyone to finish connecting to the server.

The first screen tells you to wait while I flip a coin to determine the Payoff State for the market, and enter it into the computer. [coin flip] The coin came up ____ so the Payoff State is _____. This brings up the next screen. Please note that you do not receive a news announcement until the end of the first trading period. Please click OK. After everyone has done this, the trading screen appears and the first trading period begins. Please do not use your computers yet, but pay attention carefully while I explain how you trade.

[Sequence of screens to show trading. Go over the regions of the trading screens and explain how to make bids, offers, cancel, etc.]

Trading occurs when one trader makes a bid to buy or offer to sell and another trader accepts that bid or offer. If you wish to buy a unit of the asset, you may place a bid to buy that unit by specifying a price in the box next to bid and then pressing bid. All bids and offers must be positive integers up to 100. Everyone in the room will see that you have placed that bid. If anyone wishes to sell to you at your bid price, they can click to accept your bid. If that happens, a transaction takes place, and you will have bought one unit of the asset from the seller who accepted your bid. Your cash holdings decrease by the bid price, and your asset holdings increase by one unit. The seller's cash holdings increase by the price, and their asset holdings decrease by one unit. Similarly, if you wish to sell a unit of the asset, you may place an offer to sell that unit by entering a price in the box next to offer and then pressing offer. Everyone in the room will see your offer price. If anyone wishes to buy from you at that price, they can accept your offer. If that happens, a transaction is completed, and you have sold one unit of the asset to the buyer who accepted your offer. Your cash holdings increase by the offer price, and your asset holdings decrease by one unit. The buyer's cash holdings decrease by your offer price, and their asset holdings increase by one unit.

You may have at most one bid or offer on the market at one time. If you have an outstanding bid and would like to make an offer instead, you must cancel it before you can make an offer. Similarly, if you have an outstanding offer, you must cancel it if you want to make a bid. The market uses an improvement rule. If there is an active bid to buy on the screen, any new bid to replace it must be higher. If there is an active offer to sell on the screen, any new offer must be lower. Whenever an improving bid or offer is made, the previous bid or offer is automatically cancelled and the new one becomes the active bid or offer. If the current bid is accepted by a seller, then there are no active bids, so the next bid can be any amount from 1 to 100. Similarly, if the current offer is accepted by a buyer, then there is no active offer. Also, there is no active offer if the current offer is cancelled and no active bid if the current bid is cancelled. The current bid and offer will be cancelled automatically at the end of each trading period. You may cancel your own current bid or offer at any time by clicking on it and pressing cancel. You may also replace it with an improving bid or offer simply by entering the new bid or offer.

The first trading period has ended. I will now roll a die. The die comes up a ____, and recall the Payoff State was ____ so the news announcement is "." If

the Payoff State had been _____, the news announcement would be "." Explain the history panel, then, when the period ends, explain the rest of history panel.

We will now have a short practice market with three 50-second trading periods. You will not be paid for this practice market. It is only to help you learn how to use the trading screen. At the beginning of the practice market, you will begin with 800 experimental dollars and 3 units of the asset. You will receive the first news announcement after the first 50-second trading period. Are there any questions?

For this experiment, we will have six markets, which are completely independent of each other. We will now proceed to the first market. After the 11 trading periods of the first market are over, we will open a new market that will also have 11 trading periods. The rules will be the same for every market, but we will flip a coin at the beginning of each market to determine the Payoff State for that market. If the coin comes up heads, it is a High Payoff State, and if it comes up tails, it is a Low Payoff State.

You must remember the following important things:

• At the beginning of the first market, you start with 800 experimental dollars and three units of the asset. The 800 is a loan that will be subtracted from your final earnings at the end of the experiment.

• Each market will consist of 11 50-second trading periods. You will receive a news announcement at the end of each trading period.

• Each unit of the asset pays off 100 experimental dollars/unit in a High Payoff State and 20 in a Low Payoff State.

• Good news is twice as likely as bad news in the High Payoff State. Bad news is twice as likely as good news in the Low Payoff State. News announcements are made at the end of each trading period.

• Different markets may have different Payoff States, depending on the coin flip at the beginning of the market.

• The units of the asset you hold at the end of a market do not carry over to the next market. They expire at the end of a market. You will always start with exactly three units of the asset at the beginning of each market.

• Your cash holdings DO carry over to the next market.

If you have any questions from now on, please raise your hand and I will come to your computer station and answer your question in private.

[after end of first market]

Remember, your cash holdings will be carried over to the second market, and cash holdings will be carried over from market to market until the end of the experiment. However, your units of the asset do not carry over. We will give each of you exactly three units of the asset to start with in market 2.

[after end of last market]

We have now completed the experiment. Please note that the 800 experimental dollar loan has been subtracted from your earnings. We will pay you the sum of your earnings in the markets plus your show-up fee of $10.00. We will now pay each of you in private in the next room. Please take all belongings

with you when you leave to receive payment. You are under no obligation to reveal your earnings to the other players. Please remain in your seat until we call you to be paid. Please leave the dividers pulled out. Do not talk or socialize with the other participants or use cell phones or computers. Thank you for your patience.

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