

### Experiment Instructions

This is an experiment in the economics of decision making. Do not communicate with any other student during the experiment. Please read and follow these instructions carefully.

In today's experiment, you will be asked to make **four distinct decisions** in **four separate situations labeled A, B, C and D**. However, your earnings in only one of the four situations will be paid to you in cash. The situation for which you will receive cash earnings will be chosen at random after the experiment is completed. At that time, a student from the class will draw a ball from a bag filled with balls marked A, B, C, and D. The ball drawn will indicate which of the four situations will provide cash earnings.

Each of the four situations will proceed as follows:

- In each of the four situations you are part of the same large group of people. The size of your group is predetermined but unknown to you. It will only be announced once the experiment is completed.
- For each of the four situations, you and every other member of your group receives an "initial balance" of \$20 each.
- You must decide how to divide your \$20 between a "private account" and a "group investment fund". You can put any amount between \$0 and \$20 into either account, but the total of the two accounts must equal \$20.
- Any money that you deposit in your private account is yours to keep.
- The money you invest in the group investment fund will be combined with the money received from all other members of your group for that particular situation. This investment may provide a "personal payoff".
- Depending on the situation, the group investment fund may make an investment according to either one of two possible sets of rules. In Situations A and B, the investment is made through a "**Closed Fund**", whereas in Situations C and D, the investment is made through an "**Open Fund**".

## **RULES FOR SITUATIONS A AND B: CLOSED FUND**

- In each of Situations A and B, separately, the money received from all members of your group will be combined in a Closed Fund.
- The Closed Fund can purchase either 25,000 “shares” at a price of 1 cent each (an investment cost of \$250), or none at all.
- If the sum of all bids made by members of your group is below the investment cost of \$250, no investment will be made.
- If the sum of bids equals or exceeds \$250, the investment will be made and you and all other members of your group will receive a personal payoff from the investment.
- The personal payoff you could receive in Situation A is indicated in Table 1 -- Situation A, of the attached pink “Information and Decision Sheet”. Similarly, Table 1 -- Situation B provides your personal payoff information for Situation B. Consult the pink Information and Decision Sheet now to see what your personal payoffs would be if the investment cost of \$250 was reached in one or both of situations A or B.
- Note that you have been randomly assigned to your personal payoffs and that the payoffs of other members of your group may differ from yours.

Under the rules of the Closed Fund, there are three possible outcomes:

**FIRST POSSIBLE OUTCOME: If the sum of bids to the group fund is LESS than \$250,** the shares cannot be purchased and **your bid to the group fund will be refunded.** In this case, your earnings for this situation will be equal to your initial balance of \$20.

**SECOND POSSIBLE OUTCOME: If the sum of bids to the group fund is EXACTLY \$250,** the group fund will purchase all 25,000 shares and you will receive your personal payoff. Every other member of your group will also receive their personal payoff. Therefore, if the investment cost of \$250 is exactly met, your earnings for this situation would be equal to the amount you deposit in your private account, plus your personal payoff from the group fund.

**THIRD POSSIBLE OUTCOME: If the sum of bids to the group fund is GREATER than \$250**, the group fund will purchase all 25,000 shares and you will receive your personal payoff from the investment. Every other member of your group will also receive their personal payoff. In addition, the amount of the bids in excess of \$250 will be returned to the group through a rebate of excess contributions described below. Therefore, if the investment cost is exceeded, your earnings for this situation would be the amount you deposit in your private account, plus your personal payoff from the group fund, plus your personal rebate of excess contributions.

**Calculation of your personal rebate when the sum of bids to the group fund is greater than \$250.** If the sum of the bids to the group fund exceeds \$250, you will receive a rebate based on the amount of your bid relative to the sum of all bids. In other words, if your own bid was equal to 10% of the sum of bids from your group, your rebate would be 10% of the bids in excess of \$250.

**PLEASE STOP READING NOW**

**YOU MUST WAIT FOR ORAL INSTRUCTIONS BEFORE READING ANY FURTHER**

## **RULES FOR SITUATIONS C AND D: OPEN FUND**

- In each of Situations C and D, separately, the money received from all members of your group will be combined in an Open Fund.
- The Open Fund can purchase “shares” at a price of 1 cent each. However, the fund can only purchase up to, but no more than, 25,000 shares (an investment of up to \$250).
- If the sum of all bids made by members of your group is less than or equal to \$250, all the money received by the group fund will be used to purchase shares, and you and all other members of your group will receive a personal payoff from the investment for each share purchased by the group fund.
- The payoff per share and maximum possible payoff that you could receive if all shares are purchased in Situation C is indicated in Table 1 - Situation C of the attached pink “Information and Decision Sheet”. Similarly, Table 1 -- Situation D provides your payoff information for Situation D. Consult the Information and Decision Sheet now to see what your personal payoff per share and maximum possible payoff would be in each of situations C and D.
- Note that you have been randomly assigned to your personal payoff per share and that the payoff of other members of your group may differ from yours.

Under the rules of the Open Fund, there are three possible outcomes:

**FIRST POSSIBLE OUTCOME:** If the sum of bids to the group fund is LESS than \$250, all bids will go toward the purchase of shares at 1 cent each. You and all other members of your group will receive a personal payoff from the group investment fund. Your payoff would be equal to the number of shares purchased by the fund times your personal payoff per share. Therefore, your earnings for this situation would be equal to the amount you deposit in your private account, plus your personal payoff.

**Calculation of your personal payoff when the sum of the bids to the group fund is less than \$250.** When the sum of bids to the group fund is less than \$250, your personal payoff is directly proportional to the amount of money placed in the group fund. For example, if the sum of bids made to the group fund is \$125 (50% of \$250), then, 12,500 shares (50% of 25,000) will be purchased and you would receive 50% of the maximum personal payoff shown in Table 1 for the corresponding Situation.

**SECOND POSSIBLE OUTCOME: If the sum of bids to the group fund is EXACTLY \$250**, the group fund will purchase all 25,000 shares and you will receive your maximum personal payoff from the investment. Every other member of your group will also receive their maximum personal payoff. Therefore, if \$250 is received in the group fund, your earnings for this situation would be equal to the amount you deposit in your private account, plus your maximum personal payoff from the group fund.

**THIRD POSSIBLE OUTCOME: If the sum of bids to the group fund is GREATER than \$250**, the group fund will purchase all 25,000 shares and you will receive your maximum personal payoff from the investment. Every other member of your group will also receive their maximum personal payoff from the investment. Therefore, if the sum of bids exceeds \$250, your earnings for the experiment would be the amount you deposit in your private account, plus your maximum personal payoff from the group fund. Note that no matter how much money is contributed to the group fund, no more than 25,000 shares can be purchased.

**Turn to next page for instructions on how proceed to make and report your decisions.**

## **MAKING AND REPORTING YOUR DECISIONS.**

### **READ THIS PAGE BUT DO NOT FILL OUT THE DECISION SHEET UNTIL INSTRUCTED TO DO SO BY THE EXPERIMENTER**

- For each situation separately, you must now decide how to divide your initial balance of \$20 between a private account and a group investment fund.
- For each situation, **MAKE SURE TO IDENTIFY AND UNDERSTAND WHICH SET OF RULES APPLIES.**
- To indicate your decisions, you must write your name and social security number at the top of the attached pink "Information and Decision Sheet". This is necessary for you to be paid for the experiment.
- You must also fill out the bottom portion of each cell in the table, indicating for each situation how much of your \$20 you are depositing in your private account and how much you are bidding into the group investment fund.
- **For each situation, the sum of the private and group amounts must equal \$20.**
- Once everyone has completed the forms, these instructions and the forms will be collected.
- The experimenter will then announce what the pre-determined group size is.
- A volunteer student will then come to the front of the class and select a ball from a bag containing balls inscribed with the letters A, B, C and D. The ball selected will indicate which of the four situations will be used to calculate your cash earnings for today's experiment.

Your deposit and bid amounts for the selected situation will be entered into a computer along with those of all other members of your group to determine the investment by the group fund and to calculate your earnings. Your earnings will be paid to you in cash next week.

**All information regarding your personal bid, rebate and earnings is strictly confidential.**  
**In particular, no private information from this experiment will be made available to your regular Professor nor to the TA's of this course.**

**STOP NOW AND WAIT FOR ADDITIONAL ORAL INSTRUCTIONS.**

**DO NOT FILL OUT THE INFORMATION AND DECISION SHEET UNTIL THE  
EXPERIMENTER TELLS YOU TO DO SO**

**Information and Decision Sheet**

ID \_\_\_\_\_

1) YOUR NAME (PLEASE PRINT LEGIBLY): \_\_\_\_\_

2) YOUR SOCIAL SECURITY NUMBER: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

**REMEMBER:**

- 1) Be sure that you know and understand which rules apply to each situation before making your decisions
- 2) For EACH situation SEPARATELY, the sum of the amounts in 1) your private account and 2) your bid to the group investment fund MUST EQUAL \$20.

**Table 1**

SITUATION A	CLOSED FUND
Investment Cost:	<b>\$250</b>
Personal Payoff:	<b>\$1</b>
<b>INDICATE HOW MUCH OF YOUR BALANCE OF \$20 YOU WANT TO PUT:</b>	
<b>In your PRIVATE account:</b>	\$ _____
<b>In the GROUP investment fund:</b>	\$ _____
VERIFY that the total for Situation A equals \$20	

SITUATION C	OPEN FUND
Maximum Investment:	<b>\$250</b>
Maximum Personal Payoff:	<b>\$1</b>
Personal Payoff per Share:	<b>\$0.00004</b>
<b>INDICATE HOW MUCH OF YOUR BALANCE OF \$20 YOU WANT TO PUT:</b>	
<b>In your PRIVATE account:</b>	\$ _____
<b>In the GROUP investment fund:</b>	\$ _____
VERIFY that the total for Situation C equals \$20	

SITUATION B	CLOSED FUND
Investment Cost:	<b>\$250</b>
Personal Payoff:	<b>\$6</b>
<b>INDICATE HOW MUCH OF YOUR BALANCE OF \$20 YOU WANT TO PUT:</b>	
<b>In your PRIVATE account:</b>	\$ _____
<b>In the GROUP investment fund:</b>	\$ _____
VERIFY that the total for Situation B equals \$20	

SITUATION D	OPEN FUND
Maximum Investment:	<b>\$250</b>
Maximum Personal Payoff:	<b>\$6</b>
Personal Payoff per Share:	<b>\$0.00024</b>
<b>INDICATE HOW MUCH OF YOUR BALANCE OF \$20 YOU WANT TO PUT:</b>	
<b>In your PRIVATE account:</b>	\$ _____
<b>In the GROUP investment fund:</b>	\$ _____
VERIFY that the total for Situation D equals \$20	