

Appendix B: Student Instruction Sheet

“You are all back in the 1700s. Your group consists of four players:

1. A Goldsmith. The Goldsmith accepts deposits of gold coins and can also make loans. The Goldsmith is well established and trustworthy (i.e., this is not a goldsmith who just started business). The main costs of storing gold involve security, as this is necessary to limit the chance that gold deposits are stolen. To prevent theft the Goldsmith has invested significantly in security, such as a safe vault and guards. Because the Goldsmith deals with more gold coins than any individual Depositor, the Goldsmith has invested more in security than any individual Depositor and therefore faces a much lower risk of robbery.
2. A Gold Depositor. The Depositor is a wealthy individual with a quantity of gold coins equal to the endowment they are given. The risk of robbery is zero if the gold is stored with a Goldsmith, but significantly higher than zero if the gold is stored at home. Also, given the size of the Goldsmith, the security costs per gold coin are lower for the Goldsmith than for you. Warning: There is a 50 percent chance that any gold carried outside your group will be stolen from you! Note that different Depositors may have different endowments.
3. A Borrower. The Borrower is an individual who receives an endowment of gold in the future (the end of the exercise). This endowment will be equal to that of the gold Depositor in your group.
4. A Merchant. This is an individual selling a good or service that would be appropriate in the 1700's. Every merchant has 4 units of a good and must charge \$50 for each unit of whatever good they decide to sell.

Goldsmith Exercise, Record Sheet

Name: _____ Role: _____

Other members of your group and their roles: _____

Starting Out: Each member of your group must choose a different role and answer the following questions:

1) List one thing that makes the Goldsmith in your group good at security.

2) What role (in the 1700's) does the Depositor in your group have? Why might they be interested in depositing gold coins with the Goldsmith?

3) What role (in the 1700's) does the Borrower in your group have?

4) What good or service is the Merchant in your group selling?

5) Merchants: Will you accept gold coins as payment for your products? Why or Why not?

6) What is your purchasing power? That is, how many goods and services could you purchase?

7) How much purchasing power does your group have in total?

8) Use the grids on the next page to construct the balance sheets for each member of your group.

Goldsmith Exercise, Record Sheet

Goldsmith

Assets	Liabilities +Equity

Depositor

Assets	Liabilities +Equity

Merchant

Assets	Liabilities +Equity

Borrower

Assets	Liabilities +Equity

Round One:

- 1) Listen to the instructor for the instructions for this round.
- 2) After carrying out the instructions, update the balance sheets for everyone in your group using the charts on the right.
- 3) What specific changes happened in the Goldsmith's balance sheet?
- 4) How many gold notes did the Goldsmith issue? (Your group should keep track of this throughout the exercise)
- 5) What specific changes happened in the Depositor's balance sheet?
- 6) What is the backing ratio of the gold notes (the ratio of gold deposits to gold notes)?

Goldsmith

Assets	Liabilities +Equity

Depositor

Assets	Liabilities +Equity

Merchant

Assets	Liabilities +Equity

Borrower

Assets	Liabilities +Equity

Round Two:

- 1) Listen to the instructor for the instructions for this round.
- 2) Exactly what did the Merchant accept in exchange for his/her goods?
- 3) Did you rewrite any of the gold notes? If so, what changes did you make?
- 4) Update the balance sheets for everyone in your group using the charts on the right.
- 5) How many goods or services could the Depositor have purchased before depositing his/her gold?
- 6) How many goods and services could the Depositor have purchased with the gold notes right after depositing his/her gold?

- 7) Did depositing the gold change the Depositor's purchasing power?

Goldsmith

Assets	Liabilities +Equity

Depositor

Assets	Liabilities +Equity

Merchant

Assets	Liabilities +Equity

Borrower

Assets	Liabilities +Equity

Round Three:

- 1) Listen to the instructor for the instructions for this round.
- 2) After carrying out the instructions, update the balance sheets for everyone in your group.
- 3) What are the terms of the loan between the Goldsmith and the Borrower?
- 4) Borrower, what medium of exchange did the Goldsmith give you? Why?
- 5) How much purchasing power does the Depositor have?
- 6) How much purchasing power does the Borrower have?
- 7) What is the amount of new money that has been created?
- 8) What is the total value of all gold notes issued by the Goldsmith?

- 9) Compute the backing ratio for these gold notes.

<u>Goldsmith</u>		<u>Depositor</u>	
Assets	Liabilities +Equity	Assets	Liabilities +Equity

<u>Merchant</u>		<u>Borrower</u>	
Assets	Liabilities +Equity	Assets	Liabilities +Equity

