**FIN333 Global Finance**

Homework Assignment 1

1. (30 points) Suppose that the pound is pegged to gold at £6 per ounce, and the U.S. dollar is pegged to gold at $36 per ounce. The current market exchange rate between pounds and U.S. dollars is $5 = £1.
2. If you have $500 to invest, how would you take advantage of this situation and how much profit would you make in terms of dollar?

The exchange rate implied by the gold contents is $6 = £1 while the market rate is $5 = £1, thus pound is undervalued in the market, the idea behind the arbitrage transaction is to buy the undervalued pound at market rate and sell it at the higher rate implied by gold content.

1. First, convert $500 to pound at the market rate of $5 = £1, thus get £100,
2. then convert pound to gold, thus get 16.67 ounce gold (100/6=16.67)
3. next, convert 16.67 ounce gold to dollar, thus get $600 (16.67\*36)
4. The profit is $100.
5. If you have £100 to invest, how would you take advantage of this situation and how much profit would you make in terms of pound?

As we start with £100, we want to sell it at the higher rate implied by gold content. Thus we

1. First convert £100 to gold, thus get 16.67 ounce gold (100/6=16.67)
2. then convert 16.67 ounce gold to dollar, thus get $600 (16.67\*36)
3. Convert $600 dollar to pound at the rate of $5 = £1, thus get £120,
4. The profit is £20.
5. We assume that there is no transaction cost or shipping cost in part a and b, what would be the effect of these costs?

These costs would reduce the profit of the arbitrage opportunity, and thus recue the arbitragers’ incentive to conduct these transactions. In that case, there will be discrepancy between market rate and the rate implied by gold contents.

1. (30 points) Assess the possibility of a future international monetary system based on cryptocurrencies such as Bitcoin along the three criteria of an ideal international monetary system.
2. (20 points) Discuss the benefits and costs for countries of the European Monetary Union to have a common currency Euro. You can refer to the impossible trinity theory.
3. (20 points) Explain how each of the following transactions will be recorded as the debit or credit of the U.S. balance of payments:
4. A Japanese insurance company purchases $1,000,000 U.S. Treasury bonds and pays out of its bank account kept in New York City.

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| --- | --- | --- |
|  | Credit | Debit |
| A Japanese insurance company purchases $1,000,000 U.S. Treasury bonds. | $1,000,000 |  |
| The Japanese insurance company pays $1,000,000 out of its bank account kept in New York City. |  | -$1,000,000 |

1. A Chinese immigrant living in Los Angeles sends a check of $5,000 drawn on his L.A. bank account as a gift to his parents living in Beijing.

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|  | Credit | Debit |
| A Chinese immigrant send a gift to his parents living in Beijing. |  | -$5,000 |
| A check of $5,000 drawn on his L.A. bank account.\* | $5,000 |  |

* This represents an increase in U.S. liability; thus it is a dollar inflow, recorded as credit.

1. A U.S. computer programmer is hired by a British company for consulting and gets paid for $80,000 from the U.S. bank account maintained by the British company.

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|  | Credit | Debit |
| A U.S. computer programmer hired by a British company gets paid for $80,000 | $80,000 |  |
| $80,000 is drawn from the U.S. bank account maintained by the British company. |  | -$80,000 |