Today’s Plan

• Housekeeping
• Reading quiz
• Money
Housekeeping

• Finding good sources
• Midterm review coming up in section
Reading Quiz (1)

• Gresham's Law states:
  • a. Bad money drives out good money if their exchange rate is set by law
  • b. Good money drives out bad money if their exchange rate is set by law
  • c. Overvalued money will leave the country or disappear from circulation into hoards
  • d. Undervalued money will leave the country or disappear from circulation into hoards
  • e. a & d
  • f. b & c
Reading Quiz (2)

• What is the name of the currency in Iran?
  • a. Iranian Dollar
  • b. Yen
  • c. Rial
  • d. Kroner
  • e. Euro
  • f. Dinar
Reading Quiz (3)

• The sanctions against the Iranian government have made it difficult for them to:
  • a. Participate in the global banking system
  • b. Sell oil
  • c. Repatriate dollars and other foreign currencies
  • d. All of the above
What is money?

• Medium of Exchange
  • Barter is really inefficient
  • Money releases us from the dual incidence of wants
• Unit of Account
• Store of Value
• Method of Deferred Payment
  • i.e. can be used to pay back debts later
What is money?
Why does money have value?

• Money is just a commodity
• Its value is determined by supply and demand
• The demand for money is determined by:
  • 1. the amount of goods and services available for purchase
     • Holding supply constant, the more goods and services in the economy, the more money is worth
  • 2. People’s faith in the ability of the money to hold its value
What about the money supply?

• The supply of gold is determined by how much of it we can find.
• The supply of Rai wheels is determined by how many the islanders had time to go mine and carry back.

• The supply of paper money is determined by how much the Fed decides to print.
  • And how fast that money circulates (velocity of money).
How do we measure the money supply?

- We divide types of money according to how liquid it is
- M0: Cash in circulation
- MB: M0 plus...
  - Cash in bank vaults, Federal Reserve Bank credit
- M1: MB plus...
  - Money in checking accounts (aka demand deposits)
- M2: M1 plus...
  - Money in savings accounts
  - CDs (aka time deposits)
  - Retail money-market funds
How the Gold Standard Worked

• The government owns gold, keeps it in Fort Knox
• The government prints currency, and says it is worth x amount of gold
• Promises to let you trade currency for gold at that rate
• Works as long as government has lots of gold
What Should you Do?

• If your country is on the gold standard, and you think the government might run out of gold sometime in the future, what should you do?
  
  • A. Hoard your paper currency.
  
  • B. Run to the bank and exchange your paper currency for gold bullion ASAP
  
  • C. Continue as normal -- it doesn’t matter if the government runs out of gold.
Inflation and Deflation

- Increases in inflation is good if you’re in debt, bad if you have savings
- Decreases in inflation (deflation) is bad if you’re in debt, good if you have savings
- Interest rate volatility leads to less lending overall

- Inflation causes spending and investing
  - Money is a crappy store of value
- Deflation causes saving and hoarding
  - Money is an awesome store of value
Philipps Curve

[Graph showing the Phillips Curve with points A and B, illustrating the relationship between inflation and unemployment.]
Causes of Inflation and Deflation

• If the supply of money increases slower than the supply of other goods/services, we get deflation
  • 1896 Cross of Gold speech

• If the money supply increases faster than the supply of goods & services, we get inflation
  • This is common with fiat currencies
Dollar-Gold System (1946-1971)

- After WWII, trade was growing quickly, supply of gold was not
  - We didn’t want deflation
- Bretton Woods: Dollar became international reserve currency
  - Instead of being backed by gold directly, other currencies were back by dollars
- By 1965, there were more dollars overseas than gold in U.S. reserves
- In 1971, Nixon announced the U.S. would no longer redeem dollars for gold
- Dollar becomes a fiat currency
  - No intrinsic value
  - Not exchangeable for anything else at a fixed rate
Inflation and Fiat Currencies
Interest Rates and Inflation

• Nominal interest rate:
  • How much do I have to pay you next year tomorrow to get money today?
• Real interest rate = nominal interest rate - inflation
Clicker Question

• If I have a mortgage at a 3.5% nominal interest rate, and inflation is 2%, what is my real interest rate?
  • A. 0%
  • B. 1.5%
  • C. 2%
  • D. 3.5%
  • E. 5.5%

• What about if inflation went to 5%?
Interest Rates and the Money Supply

• If interest rates are low, people borrow more
  • Money comes out of banks (MB) and becomes cash in people’s hands (M0)
  • Velocity of money increases

• If interest rates are high, people save
  • Money goes out of people’s hands (M0) and into banks (MB)
  • Velocity of money slows
Inflation and the Economy (key points)

• Low real interest rates stimulate the economy (i.e. cause growth).
  • Firms borrow money and buy factories, etc
• Low interest rates cause inflation
  • They increase the money supply

• However, governments in debt may want inflation for its own sake

• Federal Reserve is politically independent
  • Dual mandate: Keep inflation low and unemployment low
    • These two things are tradeoffs
The big bad Fed

• Politicians are too willing to trade inflation later for growth and low unemployment now
  • So we don’t want them in control
• But the Fed is undemocratic and super powerful
  • So Ron Paul is freaked out about that
  • And they make a good scapegoat
The Volcker Disinflation
Good Money and Bad

- A story about bimetallism
- Dollars were initially exchangeable for either silver or gold
  - ratio of 15:1
- When gold became less valuable in 1849 (gold rush), all the silver coins were melted down and shipped overseas.
- Later in the 1870s-1890s, as the economy boomed, the supply of gold expanded too slowly, causing deflation
Iran Step by Step

• Step 1: People begin to worry about the Rial
• Step 2: People exchange their Rials for dollars
• Step 3: Value of Rial falls, value of dollar rises
• Step 4: Government exchanges a bunch of dollars for rials, restoring the value of Rials
• Step 5: The government is worried it will run out of dollars
• Step 6: The government passes a law -- no more selling Rials or goods for dollars at below the official exchange rate
• Step 7: Gresham’s law: Dollars vanish (under mattresses)
• Step 8: If I have Rials, I can’t change them into dollars to import goods. So a shortage of imported goods.
• Step 9: Eventually devaluation of the Rial
What happens with devaluation?

• Devaluation by another name is inflation
• Prices go up suddenly
  • Food riots
  • Major economic problems
What should you do?

• You are a well informed economist, and you know the Thai government has only a small foreign currency reserve, but the economy is otherwise very healthy. However, your buddy tells you that an opposition politician is about to go on a talk show and announce that he believes that the government is totally out of reserves and that the currency is about to lose a lot of its value. You think a lot of people will believe him. What should you do?

• A. Stay calm and do nothing
• B. Bet against the foolish crowd. Put all your assets in Thai Baht.
• C. Sell all your Baht. Currency is going down!