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ECN100: Section A — Summer 2016
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Homework Week 10
Money and Monetary Policy

1. About Money:

a) What are the differences of: commodity money, commodity-backed money and fiat money?

Commodity money has intrinsic value in other uses aside from acting as a currency, commodity-backed money has no intrinsic value, but is guaranteed by a promise that it can be converted into valuable goods, and fiat money only has value that derives entirely from its official status as a means of payment.

b) Of those three, which one has the highest intrinsic value?

Commodity money

c) What are the limitations of currencies that are based on gold and silver?

The limitations of currencies that are based on gold and silver are that the supply of this money is limited to the supply of gold and silver. As such, there is only a finite money supply and no new money can be created because it would need to be backed by extra gold that would not exist in the gold and silver supply.

2. About Money Multiplier:

-Currency in circulation is	*$ 400 (bil.)*
-Checkable deposits is	*$ 1,000 (bil.)*
-Banks' required reserve ratio is	*10%*
-Banks' excess reserves is	*$ 200 (bil.)*

a) *What is the money multiplier?*

The money multiplier is a ratio of commercial bank money to central bank money used under the fractional-reserve banking system. The money multiplier measures the maximum amount of commercial bank money that can be created by a unit of central bank money. It is M1 / MB, or in the example 1,400 billion / 700 billion, or 2.

b) *What is the money supply, M1?*

The money supply (M1) is the total number of checkable bank deposits plus the currency in circulation. It is the most liquid forms of money which makes up the formula: M1 = C + D. In the example, this is 400 billion + 1,000 billion, or 1,400 billion.

c) *What is the monetary base*

The monetary base (MB) is the sum of currency in circulation and the bank reserves. MB = C + RR + ER. In this example MB is equal to 400 billion + 100 billion + 200 billion, or 700 billion.

3. About the interest rate:

a) What is discount rate?

The discount rate (i_d) is the rate of interest the Fed charges the banks when the banks need liquidity and cannot get it from other banks.

b) What is federal funds rate?

The federal funds rate (i_{ff}) is the interest rate of the overnight inter-banks loan.

c) In time of banking crisis, which one is usually a lower rate?

Normally the federal funds rate is lower to discourage banks from bowering from the Fed, however, in times of crisis the Fed can lower the discount rate below the federal funds rate in order to help banks in need.

4. Use the liquidity preference model (Ms-Md) to describe the effect of the following events; answer with "Money demand increases/decreases" or "Money Supply increases/decreases":

a) The Fed engages in an open-market purchase of T-bills.

Money Demand decreases

b) The aggregate price level increases due to oil price increase.

Money Demand Increases

c) The housing market has declined the past two years, and households reduce consumption

Money Supply Decreases

d) The American Recovery Act costs $787 Billion in bailouts on banks and job creation in some industries.

Money Supply Increases

5. What is Money "Neutrality"?

a) How does that affect the aggregate price in the long run?

The aggregate price will rise.

b) How does that affect the aggregate output, GDP, in the long run?

The aggregate output does not change.

c) If you agree on Money Neutrality, what kind of monetary policy would you propose (if you're in a position to do so)?

Money neutrality seems to make sense, as pumping extra money into the economy would appear to have great short term gains, but would later be offset by a fall in supply turning into no real output.