Homework 9 – KEY

Average: 69.93 + 6pts GI bonus

Due on 1/4/2025, by 23:00

The tasks in this assignment were designed for the average student to solve independently after mastering the material. The answers provided here are written in an instructional manner to help you understand the problem-solving process for each task. If you continue to struggle with a task after reviewing this key, the difficulty may stem not from the task itself, but from having missed or overlooked some parts of the required material.

1. ✓ What is the role of money when you use your debit card to buy a coffee from Starbucks?
   A. Store of value.
   B. Unit of account.
   97% C. **Medium of exchange.** *[By using a debit card, money will be digitally transferred from the buyer to the seller]*
   D. Money has no role in this transaction.

2. ✓ Which of the following happens during an Open Market Purchase?
   A. Banks buy securities from the CB, leading to a decrease in M1.
   B. Banks buy securities from the CB, leading to an increase in M1.
   C. Banks sell their securities to CB, leading to a decrease in M1.
   89% D. **Banks sell their securities to CB, leading to an increase in M1.**
   [From the definition of the Open Market Purchase we discussed in class]

3. ✓ Suppose that the Central Bank increases the money supply and observes that the price level decreases. Which of the following is most likely to have happened?
   A. M_s has increased by more than the percentage increase in real GDP.
   B. M_s has increased by more than the percentage decrease in real GDP.
   84% C. **M_s has increased by less than the percentage increase in real GDP.**
   D. M_s has increased by less than the percentage decrease in real GDP.
   E. Only M_s has changed, not the real GDP.
   [Because $inflation = growth\ of\ \ M_s - growth\ of\ Real\ GDP$ and inflation here is negative, it follows that $growth\ of\ \ M_s < growth\ of\ Real\ GDP$]

4. Which of the following is most likely to increase M1, ceteris paribus?
   20% A. When an individual withdraws cash from an ATM. *[Both the cash and the individual's account are included in M1]*
   B. When an individual pays her Spotify subscription using her debit card. *[Money is transferred from the individual's account to the Spotify's account. The quantity of money does not change]*
   49% C. **When CB buys corporate bonds in the open market.** *[This transaction transfers money from the CB (which does not count in M1) to the owner of the bond (where it counts in M1)]*
   30% D. When government pays pensions to retirees. *[The same M1 money is transferred from the taxpayers to the government and then to the retirees]*

5. Which of the following will decrease the demand for money, ceteris paribus?

71% A. An increase in the real interest rate. *[Interest rate is the "price" of money. Thus, it should not affect its demand, but its quantity demanded]*

B. A decrease in the real interest rate. *[Same as above]*

C. An increase in the real GDP. *[If there is more output, there will be needed more money to transact this output]*

21% **D. A decrease in prices.** *[If output is cheaper, people will need less money to do their transactions]*

E. A decrease in money supply. *[Money supply does not affect the money demand curve]*

6. In periods of high inflation, which of the following is most likely to be negatively affected?

A. Countries that have issued long-term bonds. *[Those will benefit from inflation because inflation benefits the debtors]*

B. Firms with fixed long-term contracts with their suppliers. *[They will benefit because they will increase prices, but contracts will keep their costs relatively stable, ultimately raising their profit margin]*

32% **C. Individuals with large deposits.** *[The real value of their deposits will drop]*

58% D. All of the above will be negatively affected.

7. Which of the following do we mean by "scarce reserves regime"?

49% A. That the CB keeps the money supply limited. *[Money supply is by nature limited]*

B. That the CB has set the interest rate to zero. *[Totally arbitrary]*

47% **C. That the CB imposes a binding reserve ratio to the commercial banks.** *[By facing a binding reserve ratio, the commercial banks can loan out only up to* $(1 - RR) \cdot deposits$ *so their reserves are scarce]*

D. That the CB forces commercial banks to lend out all their reserves. *[It does not]*

8. What prevents commercial banks from loaning out more money than the CB wants under an ample reserves regime?

A. The CB must approve all loans. *[Not true]*

B. Banks have limited deposits. *[Deposits do not affect the banks' ability to loan out, since they have ample reserves by the CB]*

91% **C. The demand for loans.** *[When the CB sets the interest rate, it knows how much money will the private sector demand to borrow at that interest rate]*

D. All of the above.

9. How would a speculator react after an increase in the interest rate?

87% **A. She will buy bonds if she believes that interest rate will decrease.** *[r will decrease; prices of bonds will increase; speculators buy bonds now to sell when r decreases]*

B. She will buy bonds if she believes that interest rate will increase more. *[r will increase; prices of bonds will decrease; speculators will want to sell their bonds now]*

C. She will sell bonds if she believes that interest rate will decrease. *[r will decrease; prices of bonds will increase; speculators buy bonds now to sell when r decreases]*

10. Which of the following best describes the term "inflation tax"?

97% **A. The decrease in citizens' purchasing power when the government finances its spending through having the CB printing money.** *[As we defined it in the lecture]*

B. A sales tax introduced by the government that leads to higher prices for goods.

C. The cost incurred by firms due to frequent price adjustments during times of high inflation. *[This is a "menu-cost"]*

D. A tax imposed by the government aiming at reducing the impact of rising prices.