

## Money: Problems

Suppose that an economy has the following assets:

Asset	\$
Currency	1000
Electronic Reserves at the Central Bank	5000
Savings Accounts	2000
Real Estate	10,000
Stocks	8000
Checking Accounts	9000

1. M1 is \$10,000, the sum of checking accounts and currency. M2 includes some, but not all savings accounts. So it is tricky here. Assuming that all of these savings accounts qualify, it equals \$12,000.
2. \$6000, the sum of currency and electronic reserves.
3. For M1, it is 10/6, for M2, it is 2. In both cases, it is just the money supply divided by the monetary base.
4. False. In fact, the monetary base is currently large in the United States than M1. This is because electronic reserves are in the monetary base but not the money supply. So if there are enough electronic reserves, the monetary base will be larger.
5. True. Everything included in M1 is also in M2.
6. A multiplier of 1 implies that the money supply will also increase by \$1000. So the components of the money supply must increase by \$1000. There are many ways for this to happen. Just one example is currency and checking accounts both increase by \$500.
7. The statement is incorrect. The fact that an asset may be purchased with money does not make the asset itself money. Gold is not a good means of exchange. It is thus not money.
8. Why are more liquid assets more often counted as money?
9. Recall that the interest rate takes the place of the price of money. Then consider simple supply and demand. When supply increases, the price falls. Interest rates thus decrease.
10. When the demand curve moves to the right, quantity and price both increase. The money supply and interest rates both increase.

11. We use the equation of exchange:

$$PY \equiv MV \tag{1}$$

$$15 \equiv 3V \tag{2}$$

Thus  $v = 5$ .

12. Although changing the required reserve ratio may be used to affect the money supply, its main purpose is to ensure that banks hold enough reserves to meet all of their depositors' demand for withdraws. This helps prevent banks from failing.