

Problem 1. Use the money market to explain the interest-rate effect and its relation to the slope of the aggregate demand curve.

Problem 2. Explain the logic according to liquidity preference theory by which an increase in the money supply changes the aggregate demand curve.

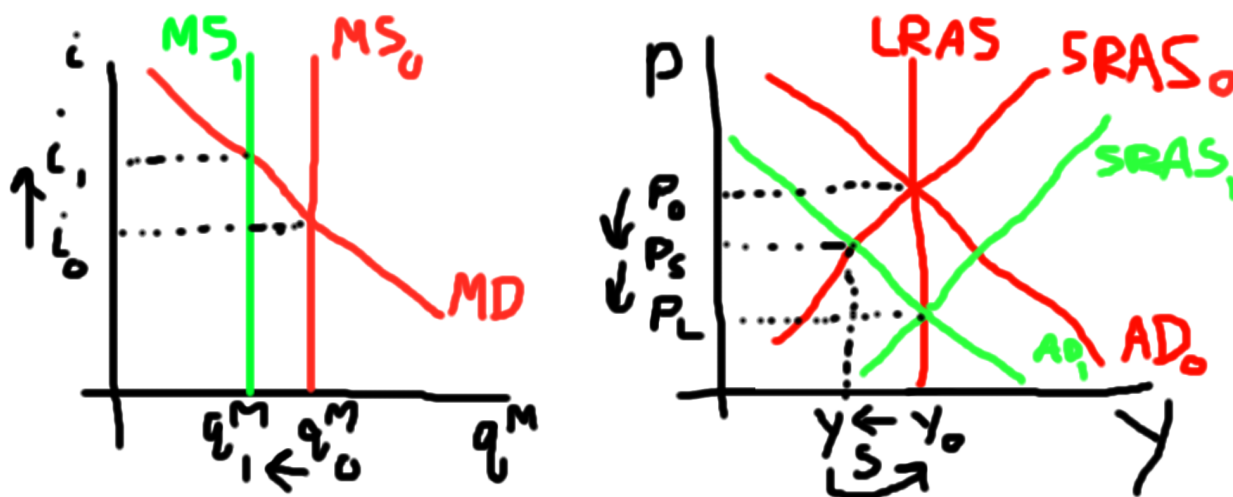
Problem 3. Suppose that Federal Reserve reduces the money supply by 5%. Use the theory of liquidity preference to illustrate the impact of this policy. Then use AD/AS to show the impact of the change in the interest rate on output and prices in both the long run and the short run.

Answer 1. When the price level falls, people need less money for their transactions. The decreased demand for money leads to a decrease in interest rates as money demand shifts left. Lower interest rates encourage consumption and investment spending. Thus, a decrease in the price level raises the aggregate quantity of goods and services demanded.

Answer 2. When the money supply increases, the interest rate falls. As the interest rate falls people will want to spend more and firms will want to build more factories and other capital goods. This increase in aggregate demand happens for any given price level, so aggregate demand shifts right.

Answer 3. The money supply will shift to the left. This will increase the interest rate.

The increase in the interest rate will reduce investment spending, which will shift AD to the left. The price level will decrease and output will fall in the short run. In the long run, eventually SRAS will shift to the right and prices will fall even more but output will be back at its natural level.



Can you tell I made this with MS Paint? The color scheme is unintentionally Christmasy.

If the government did not want to wait for the long run to get back to the natural level of output, they could have increased government spending to shift AD back to the right.

Problem 4. The interest-rate effect

- (a) depends on the idea that increases in interest rates increase the quantity of money demanded.
- (b) depends on the idea that increases in interest rates increase the quantity of money supplied.
- (c) is the most important reason, in the case of the United States, for the downward slope of the aggregate-demand curve.
- (d) is the least important reason, in the case of the United States, for the downward slope of the aggregate-demand curve.

Problem 5. The idea the Federal Reserve can no longer stimulate aggregate demand when interest rates hit zero is called

- (a) a liquidity trap.
- (b) forward guidance.
- (c) quantitative easing.
- (d) competitive eating.

Problem 6. When the Federal Reserve promises to keep interest rates low for a long time in order to encourage borrowing, they engage in

- (a) a liquidity trap.
- (b) forward guidance.
- (c) quantitative easing.
- (d) competitive sleeping.

Problem 7. When the Federal Reserve engage in unconventional monetary policy by buying “other” assets such as long term bonds and mortgage backed securities, it is called

- (a) a liquidity trap.
- (b) forward guidance.
- (c) quantitative easing.
- (d) competitive sneezing.

Problem 8. The interest rate falls if

- (a) the price level falls or the money supply falls.
- (b) the price level falls or the money supply rises.
- (c) the price level rises or the money supply falls.
- (d) the price level rises or the money supply rises

Answer 4: (c). Because money holdings are a small part of household wealth, the wealth effect is the least important of the three. In addition, because exports and imports represent only a small fraction of U.S. GDP, the exchange-rate effect is not large for the U.S. economy. (This effect is more important for smaller countries, which typically export and import a higher fraction of their GDP.) For the U.S. economy, the most important reason for the downward slope of the aggregate-demand curve is the interest-rate effect.

Answer 5: (a). Yep.

Answer 6: (b). Forward guidance was done during the Great Recession in response to the belief that the economy was in a liquidity trap

Answer 7: (c). Quantitative easing was also done during the Great Recession in response to the belief that the economy was in a liquidity trap

Answer 8: (b). A lower price level reduces the amount of money people want to hold. As people try to lend out their excess money holdings, the interest rate falls. If the money supply rises, then the MS curve will shift to the right giving a lower interest rate.

Problem 9. If the Fed conducts open-market sales, which of the following quantities increase(s)?

- (a) interest rates, prices, and investment spending
- (b) interest rates and prices, but not investment spending
- (c) interest rates and investment, but not prices
- (d) interest rates, but not investment or prices

Problem 10. The economy is in long-run equilibrium. Suppose that automatic teller machines become cheaper and more convenient to use, and as a result the demand for money falls. Other things equal, we would expect that, in the short run,

- (a) the price level and real GDP would rise, but in the long run they would both be unaffected.
- (b) the price level and real GDP would rise, but in the long run the price level would rise and real GDP would be unaffected.
- (c) the price level and real GDP would fall, but in the long run they would both be unaffected.
- (d) the price level and real GDP would fall, but in the long run the price level would fall and real GDP would be unaffected

Problem 11. If the multiplier is 2.5, then the MPC is

- (a) 0.2.
- (b) 0.6.
- (c) 0.75.
- (d) 1.00.

Problem 12. To reduce the effects of crowding out caused by an increase in government expenditures, the Federal Reserve could

- (a) increase the money supply by buying bonds.
- (b) increase the money supply by selling bonds.
- (c) decrease the money supply by buying bonds.
- (d) increase the money supply by selling bonds.

Problem 13. Critics of stabilization policy argue that

- (a) there is a lag between the time policy is passed and the time policy has an impact on the economy.
- (b) the impact of policy may last longer than the problem it was designed to offset.
- (c) policy can be a source of, instead of a cure for, economic fluctuations.
- (d) All of the above are correct.

Answer 9: (d). An open market sale means the money supply falls. This will raise the interest rate (money market graph). The price level will fall (value of money/price level graph). The increase in the interest rate reduces investment.

Answer 10: (b). Lower demand for money shifts the money demand to the left, which causes the interest rate to fall. The reduction in the interest rate will increase investment, which will shift aggregate demand to the right, which increases the price level and output in the short run. In the long run, the SRAS would shift to the left to get back to full employment output, which raises the price level even more.

Answer 11: (b). The fiscal multiplier is $1/(1 - MPC)$, where the MPC is the **marginal propensity to consume**. This is just a fancy way of saying “the percentage of income will be spent on consumption.” We are told that the multiplier is $2.5 = 5/2$, so

$$\frac{1}{1 - MPC} = 5/2 \implies MPC = 0.6$$

So people consume 60% of their income in this economy.

Answer 12: (a). Crowding out happens when government purchases increases the interest rate. The Federal Reserve could increase the money supply by buying bonds to bring the interest rate back down.

Answer 13: (d). (Stolen from the textbook.) The primary argument against active monetary and fiscal policy is that these policies affect the economy with a long lag. As we have seen, monetary policy works by changing interest rates, which in turn influence investment spending. But many firms make investment plans far in advance. Thus, most economists believe that it takes at least six months for changes in monetary policy to have much effect on output and employment. Moreover, once these effects occur, they can last for several years. Critics of stabilization policy argue that because of this lag, the Fed should not try to fine-tune the economy. They claim that the Fed often reacts too late to changing economic conditions and, as a result, ends up being a cause of rather than a cure for economic fluctuations. These critics advocate a passive monetary policy, such as slow and steady growth in the money supply.

Fiscal policy also works with a lag, but unlike the lag in monetary policy, the lag in fiscal policy is largely attributable to the political process. In the United States, most changes in government spending and taxes must go through congressional committees in both the House and the Senate, be passed by both legislative bodies, and then be signed by the president. Completing this process can take months or, in some cases, years. By the time the change in fiscal policy is passed and ready to implement, the condition of the economy may well have changed.