Aggregate Demand and Aggregate Supply

Answer 1: c. Recessions can't really be predicted. Thus the term "business *cycle*" is a misnomer.

Answer 2: c. This is called **money neutrality**. What it means is that changes in the money supply affect only *nominal* variables, e.g. the price level, inflation, nominal GDP; but has no effect on any *real* variables, such as output (real GDP) and unemployment. Most economists believe that classical theory describes the world in the long run but not in the short run. That is, most economists believe that changes in the money supply affects real variables in the short run.

Answer 3: a. The other two explanations for downward sloping AD are the **interest rate effect** and **exchange rate effect**.

Answer 4: c. Anything that increases any components in $C + I + G + NX$ that are not caused by a change in the price level will cause a shift in AD. An investment tax credit will increase I, shifting AD to the right. An increase in the money supply lowers the interest rate in the short run, which makes borrowing less costly, which in turn also increases I.

Answer 5: a. Long-run AS reflects the productive capacity of an economy. Think of the long run as being what happens when any inefficiencies in the economy have been ironed out—there is only natural unemployment, for instance. The productive capacity of an economy is determined by how many resources it has and how well it utilizes them (i.e. technology).

Answer 6: a. This is called **sticky wage theory**. Here's how it works.

- Suppose the price level falls unexpectedly. Then given the current level of production, profit falls.
- To compensate, firms would like to cut input costs. The problem is that most wages are determined in a contract, and thus firms cannot cut the largest of input costs, i.e. wages—they are *sticky*.
- Their only option then is to fire workers instead, which causes production to fall.
- Therefore you have a lower price level with lower output and higher unemployment—short ran AS is upward sloping.

Answer 7: b. Since the LRAS is a function of resources and technology, no price level changes will shift LRAS. An increase in the expected price level reduces the quantity of goods and services supplied and shifts the short-run aggregate-supply curve to the left. A decrease in the expected price level raises the quantity of goods and services supplied and shifts the short-run aggregate-supply curve to the right.

Answer 8: d. When the price of oil increases, firms expect their input costs to rise, and thus SRAS shifts to the left. This gives rise to a higher price level and lower output, i.e. inflation and recession. This situation is called a **stagflation**, a portmanteau of *stagnation* and *inflation*.[1]

[1] This is an economist's idea of being clever :\

Monetary and Fiscal Policy in the AD/AS Model

Answer 9: a. Government spending shifts AD to the right, as do tax cuts. There is a fiscal multipiler, not unlike the money multiplier. It's coming up soon.

Answer 10: a. The equilibrium real interest rate is determined by the intersection of money supply and money demand. (Recall that the real interest rate is the cost of money, since you could be earning that interest rate of you exchanged that money for bonds.) At higher prices, people need to use more money in order to buy stuff, and thus the demand for money increases, i.e. money demand shifts to the right. This results in a higher equilibrium interest rate. A higher equilibrium interest rate causes investment spending to fall via the interest rate effect.

Answer 11: c. If money supply increases, then the equilibrium interest rate in the money market is lower. This makes borrowing cheaper and therefore investment spending increases. This in shifts AD to the right.

Answer 12: b. Notice from the previous problem that when the Fed lowers interest rates, aggregate demand increases. But the interest rate can't really go negative—there is a zero lower bound. So if interest rates have hit zero and the Fed still wants interest rates to drop lower, they're out of luck—this is the liquidity trap. They have to try other methods to stimulate the economy.

Answer 13: c. This is the multiplier effect. That initial increase of $\$120b$ will become people's incomes, and they'll spend $\$120b \times 0.80 = \$96b$ of it. Then that $\$96b$ becomes other people's incomes, and they'll spend $\$96b \times 0.80 = \$76.8b$ of it. And so on and so forth. Like the money multiplier, this is a geometric series that has a closed form solution, namely, aggregate demand will shift in total by

$$\$120b \times \frac{1}{1 - 0.80} = \$120b \times 5 = \$600b.$$

Answer 14: c. Since the multiplier is 5, we can reason that the marginal propensity to consume is

$$\frac{1}{1 - MPC} = 5 \quad \Longrightarrow \quad MPC = 0.80.$$

Income rose by \$10, and hence consumption spending is going to increase by $\$10 \times 0.80 = \$8$. Thus, consumption spending is now $\$375 + \$8 = \$383$.

Answer 15: b. Basically the Fed wants to make sure that the interest rate doesn't change, which in turn makes sure that investment doesn't change, which in turn makes that AD doesn't shift. Increasing money holdings shifts the money demand to the right, which would increase the interest rate and possibly cause a recession if left alone. The Fed could then increase the money supply, which would bring the interest rate back down.

Answer 16: a. We're all college students, we can relate. We make little-to-no money and thus have to spend damn near all of it just to pay the bills. So if there's a tax cut and we find ourselves with a little bit more disposable income than we had before, chances are there's still something we need to spend that extra money on. Hence, we have a higher marginal propensity to consume, and thus a higher multipiler.