Optional Assignment #3

1. The Fed's perception of the short-run equilibrium can be depicted by a figure such as 7.11, panel (a). In the figure and in the Fed's view, real GDP is less than potential GDP. The Fed's view is based on the underutilized industrial capacity and high unemployment. If the Fed raised the interest rate, it would decrease aggregate demand and shift the AD curve leftward, thereby pushing real GDP still further below potential GDP.

2. An increase in household wealth increases consumption expenditure because consumers spend a higher fraction of their disposable income. As a result aggregate demand increases and the AD curve shifts rightward.

3. Real wealth is the purchasing power of net assets. Net assets = Assets – Liabilities. If asset prices fall, assets decrease in value but liabilities do not change. Thus, real wealth will fall. For firms and households with heavy debts, this decrease in the value of net assets is potentially a more serious problem. It could lead to bankruptcy if the value of assets decreases enough.

Question 1 illustrates the idea that the AS-AD model is a model of the level of real GDP relative to potential and the price level relative to its long-run increase due to money growth. Even though the economy grew quickly, real GDP can still be relatively less than potential. With the short-run equilibrium below potential, there is downward pressure on price level relative to its typical increase due to money growth. Indeed, the Fed was at that time more worried about deflation than inflation. Now, of course, the effects of the low interest rates have taken hold and boosted AD sufficiently that the Fed now believes the economy is above potential and rising inflation is a bigger worry. Thus, the Fed has been increasing interest rates over the past year.

Question 2 has to do with the so-called "wealth effect". Alan Greenspan was worried about the effect of rising wealth on aggregate demand and this lead to his now-famous comments about "irrational exuberance". In reality, the increase in stock wealth probably did boost AD, but not by as much as Greenspan thought it would.

Question 3 has to do with the debt-deflation spiral that appeared to be a problem in the Great Depression. In particular, asset prices are highly volatile and can change quickly. Meanwhile, debt levels are often fixed in nominal terms. The consequence is that when asset prices fall, debt levels remain about the same. Then, many households and businesses are unable to service their debts and default in the form of bankruptcy. As households and firms go bankrupt, aggregate demand and aggregate supply both fall, leading to a further fall in the value of assets and further bankruptcies. Put in this light, the recent worries about inflation are a good thing. That is, we appear to have avoided the debt-deflation spiral following the collapse of the asset price bubble. Of course, the Economist thinks we may have only delayed the inevitable in the event that housing prices collapse.

Here are some excepts from good answers:

1. "Because businesses are producing less than they are capable of and unemployment is high, the Fed believes the economy is below potential GDP, which is why it wishes to keep the interest rate low."

"The discussion provided by the Wall Street Journal suggests that the Fed believes the U.S. economy is still below potential. As the gap in the graph shows, the short-run equilibrium is below potential. The key word and phrases … are "underutilized industrial capacity" and "high unemployment". As we know from the production function, there is a direct relationship between employment and real GDP. And the word "underutilized" speaks for itself…"

2. "An increase in real wealth has a direct effect on the household's saving decision. The higher the real wealth, the lower the savings. This, in turn influences the AS-AD model. The effect, however, is indirect; less savings means more spending. In the AS-AD model, a general increase in real wealth, as was seen in the late nineties stock market boom, means a rightward shift…"

3. "When asset prices fall, real wealth decreases. It can be risky for firms and households to be heavily indebted because a sudden drop in asset prices (a bursting of the bubble) would leave the debtors unable to pay off their debts and the lenders unable to collect on their loans. This could obvious[ly] have disastrous effects on the economy."

"If asset prices fall, real wealth falls. If households are heavily indebted, then they can't pay back loans from the banks and such, which means banks are in a risky spot and can't make more loans because their deposits go down. Also, with low wealth, people probably save more and consume less, which puts a damper on spending flow and slows the economy down…"

"When asset prices fall, a household's real wealth falls too. Imagine a household which owns its home. The home has a value of, say, $50000. This means that the household can sell their home and purchase anything up to $50000. In other words, their home adds $50000 to their real wealth. When the real estate bubble bursts they can sell their house for only $30000, meaning that their real wealth just decreased by $20000… Now, imagine you have a large plot of land and you rent it out. Showing the land as collateral and counting on the rent, you start a business which requires you to borrow money from the bank. Suddenly, asset prices fall; consequently taking your rent income down. The value of your collateral is reduced. You have trouble paying off your debt and default on your loans. The bank loses money. If this happens to a lot of people (which is the result of a stock market crash), banks go out of business and a financial crisis follows. If households and firms are debt free a financial crisis and this dismal spiral leading to it is avoided."