Economics 103, Financial Markets Module Key

Winter 2020

Bates College

Paul Shea

To complete this assignment, you should:

1. Watch the recorded lecture on Financial Markets. This will provide you with much of the necessary background.

2. Read this article from *Forbes* on recent activity in financial markets and how it relates to the real economy.

3. Read discussion on the housing market from *Marketwatch.*

4. Read this article from *CNBC* on the Fed and non-fundamentals in the U.S. stock market.

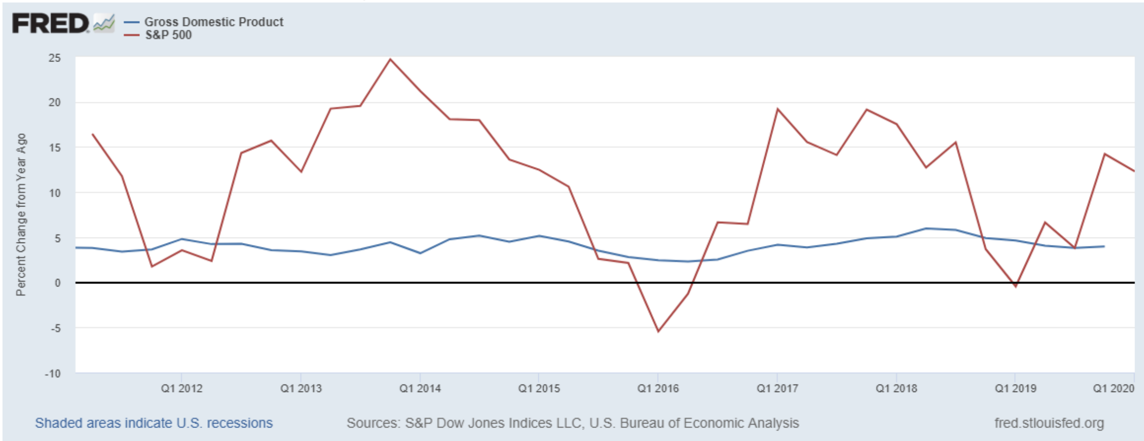
Instructions: Answer all parts of all questions. You are expected to independently craft your answers. Answers which incorporate current macroeconomic data are especially encouraged. The assignment is due by 11:59 PM on Sunday, April 5.

1. Over the past several years, have U.S. GDP and stock prices tended to move in the same direction, or the opposite direction?

Sample Answer: This question is a good opportunity to use economic data. I obtained quarterly data on the returns to U.S. stock prices and GDP growth since 2010. The correlation was 0.13, showing that these two variables tend to move in the same direction. This correlation is fairly weak and may not be clear in a simple graph:

2. How might the real economy have caused the recent decline in the U.S. stock market¿

Figure 1: GDP and Stock Price Growth



Sample Answer: The recession that will almost surely result from the covid-19 pandemic is likely to reduce corporate profits and the dividends that firms pay out. Because current stock prices depend on expectations of future corporate profits, they may fall immediately in response to concerns about future profits.

3. How might the recent decline in U.S. stock prices affect the real economy (*i.e.* unemployment, GDP, inflation, etc.) in coming months?

Sample Answer: There are several mechanisms. One especially important one is the wealth effect. Lower stock prices reduce households' wealth which leads to lower consumption. In addition, lower share prices might discourage firms from investment.

4. How might non-fundamentals have contributed to the recent decline in U.S. stock prices?

Sample Answer: The *Forbes* article mentions two sources. First, simple psychological factors like panic may have been at play where traders sell because others are selling, not because they believe that stocks' fundamentals have suffered. Second, liquidity concerns have have induced "forced selling." In this case, some stock owners needed to sell their stocks in order to obtain more liquid assets, helping drive prices down.

5. True or False? Lower interest rates have contributed to lower stock prices.

Sample Answer:This is likely false. It is another case where an event (the Fed's interest rate cut) is followed by another (a sharper decline in stock prices) and it may be tempting to conclude that the former caused the latter. Lower interest rates, all else equal are typically good for stock prices. While the Fed's actions mat have contributed to the stock decline, possibly by signaling the Fed's fears about the state of the economy, the interest rate cut itself almost surely did not cause the price decline.

6. Why has the Fed worked to "provide liquidity" to numerous financial markets in addition to lowering interest rates and announcing quantitative easing?

Sample Answer: This is related to the important distinction between insolvency and illiquidity. A firm that is solvent, meaning its assets exceed its liabilities, can still fail if it lacks the liquidity to meet its immediate liabilities. Economists generally consider these failures to be inefficient and they can deepen an economic downturn. The Fed is acting in its role as lender of last resort by buying less liquid assets. The Fed then provides cash to firms which may prevent these failures.

7. Why are corporate bond yields generally higher than U.S. treasury yields?

Sample Answer: Treasury bonds are about as risk free as an asset can. Corporate bonds are riskier, however, and lenders demand a risk premium on top of the risk free rate to compensate them for taking on this risk.

8. How has the current economic crisis, and the Fed's response, impacted corporate bond yields?

Sample Answer:A corporate bond yield consists of the risk free yield plus the risk premium. The Fed's actions lowered risk free rates. But the crisis itself has driven up risk premiums because people are more worried about firms defaulting. But this latter effect has been larger, as shown in Figure 2, and corporate bond yields have risen.

9. How are mortgage rates (the interest rate on home loans) generally affected by the real economy?

Figure 2: Moody's Baa Corporate Bond Yield

Sample Answer: Like corporate bond yields, mortgage rates consist of the risk free rate plus a risk premium. Lower risk free rates thus lower mortgage rates. But a weaker economy usually increases risk premiums on home loans.

10. How and why have mortgage rates changed since the economic crisis began?

Sample Answer: As shown below in Figure 3, the two factors from #9 roughly cancel each other out and mortgage rates have been fairly stable.

Figure 3: 15 Year Mortgage Rates