Short-Run Behavior of the Economy

Though productivity is the key to long-run economic growth, GDP is primarily driven by spending in the short run. Total spending comes from the four major groups in the economy: consumers (consumption), businesses (investment), government (government purchases) and the rest of the world (net exports). Any factors that affect spending will have an impact on GDP in the short run. It would be a good idea to review the components of GDP when studying this section.

Consumer Spending

Consumer spending is determined in large part by income, wealth, interest rates, availability of credit, and expectations (confidence). Increases in income or wealth provide consumers with the ability to buy more goods and services. Income is probably the most important factor affecting consumer spending. Some purchases need to be financed and thus credit affects spending. Higher interest rates or credit becoming more difficult to obtain make it more costly to borrow thus discouraging spending on items that are typically financed (for example, durable goods such as cars, appliances, etc.). Perceptions about the current and future state of their own financial condition also affect the willingness to spend. Note that this is different from the outlook for the overall economy. Many times, consumers think the overall economy is in bad shape, but their own financial situation is fine.

Business Spending

Similarly, *business spending* is affected by profits, retained earnings (earnings that corporations hold instead of returning to share holders in terms of dividends), interest rates, credit, and expectations. Firms with more profits or retained earnings are able to purchase more capital (equipment and structures). If businesses expect conditions to improve in the near future thus increasing the profitability of investing, they are likely to invest/spend more. As with consumers, higher interest rates or lack of credit will discourage spending on projects that need to be financed. The expected rate of return on an investment must exceed the interest rate (cost of financing) in order to makes an investment profitable.

Government Policy

Government policies can be divided into two main categories: *fiscal policy* and *monetary policy*. Fiscal policy involves changes in spending and taxes by government. If the government lowers taxes, consumers and/or businesses have more funds to spend thus increasing total spending. Also, if the government spends more, total spending rises. So shouldn't the government keep increasing spending and/or reducing taxes to stimulate economic growth? We will discuss the effect of the budget deficit and national debt later. Similarly, we will discuss the Federal Reserve (Fed) and monetary policy in more detail later. For now, we can state that if the Fed lowers interest rates, consumers and businesses can borrow and spend more.

International Trade

Two major factors that affect overall *exports* are foreign economic growth and exchange rates. If the economies of our trading partners are growing, people in those countries have more income to spend, some of which will be used to purchase US goods and services. The value of the dollar (exchange rate) affects how much people in other countries have to pay for US exports. A higher value of the dollar makes US exports more expensive, causing foreigners to buy fewer US exports than before. For example, if one dollar equals one euro, an Ipod that sells for $400 will sell for about 400 euros. If the dollar increases to 1.5 euros, it will

one euro, an Ipod that sells for $400 will sell for about 400 euros. If the dollar increases to 1.5 euros, it will now sell for about 600 euros (note: this is a simple example; market considerations will help to determine the price in each country). We will explore exchange rates in more detail later.

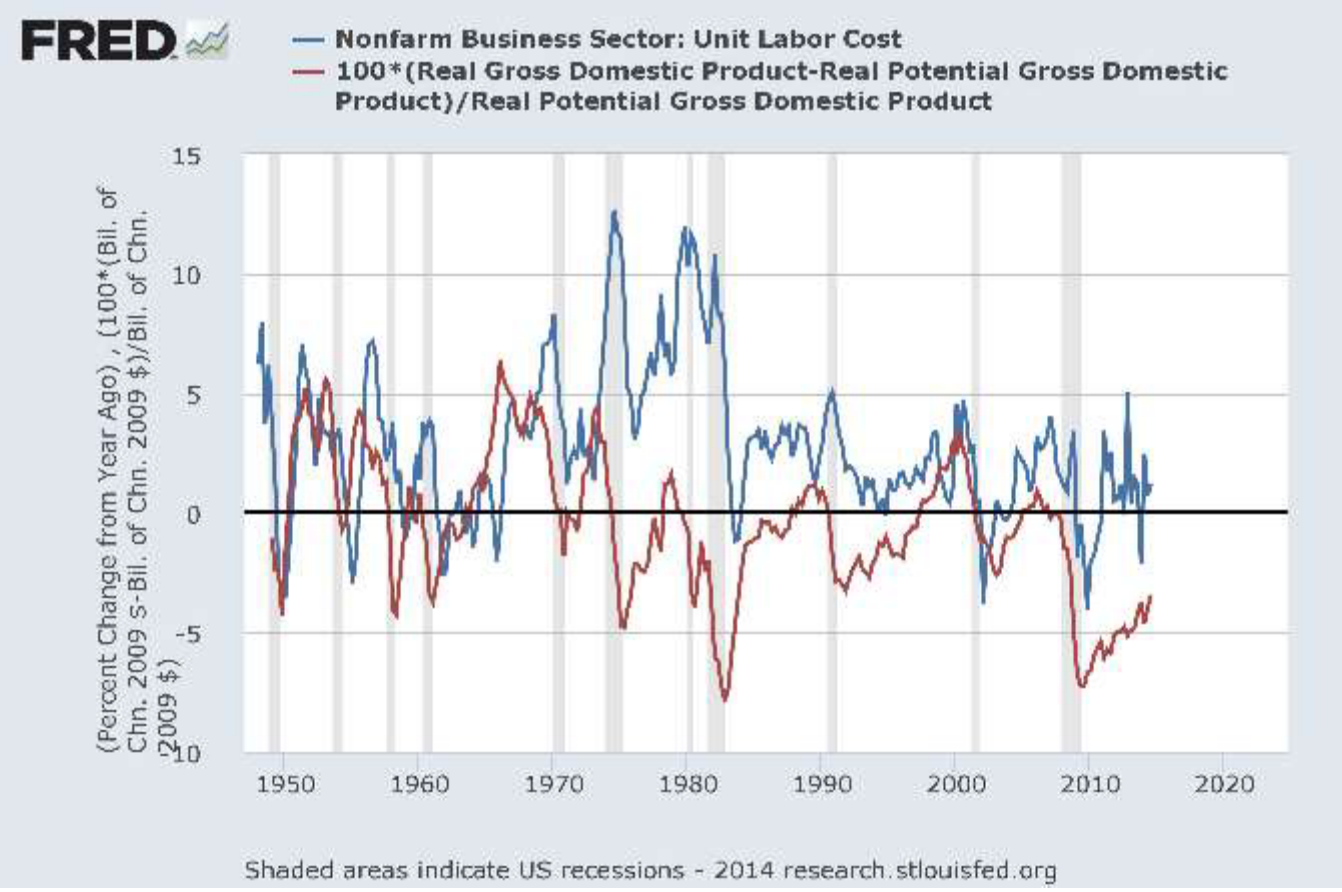
STOP AND THINK: Why is it essential to consider factors that affect spending when considering the short-run behavior of the economy? How do the factors that affect the various forms of spending help explain economic downturns (recessions) and upturns (expansions)?

GDP, Potential GDP and Inflation

Spending can occur such that GDP can be below, above or at its potential level in the short run. Very high levels of spending result in GDP being very high in the short run. If GDP is relatively high (above its potential), unemployment will be low (below NAIRU). Similarly, relatively low GDP will result in relatively high unemployment. When GDP is at its potential, unemployment will equal NAIRU.

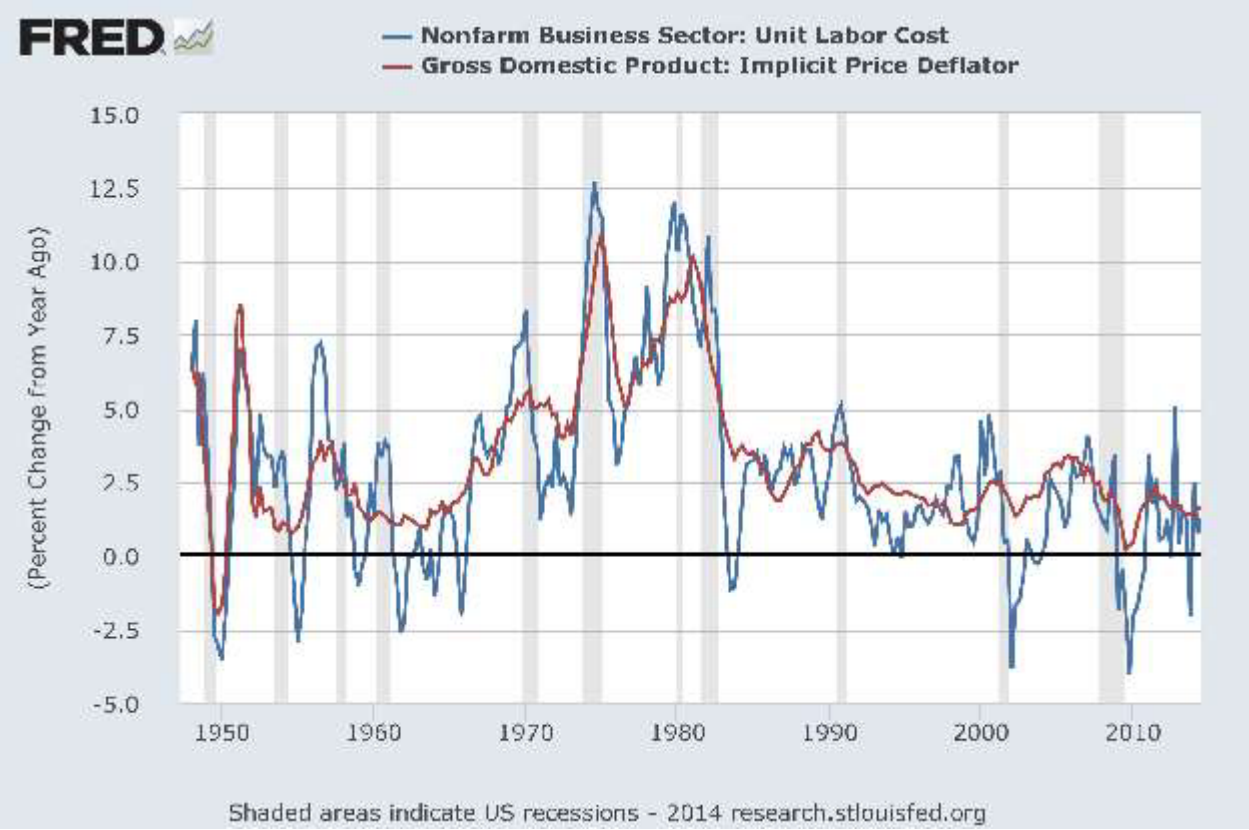
Output Gap and Unit Labor Costs

If GDP is high and unemployment is low, the economy is considered to be overheating in that inputs to production will be harder to come by and thus will become more expensive. For example, firms will have to pay more to attract new workers since fewer are readily available. This puts upward pressure on unit labor costs. If firms face higher costs per unit produced and the economy is strong, they will pass the cost increases on to their customers in the form of higher prices, leading to higher inflation. Let's look at this process one step at a time. The following chart illustrates the output gap (red line) and growth in unit labor costs (blue line) since 1947. Note the strong positive relationship between the output gap and unit labor costs, with unit labor costs responding to the the output gap (i.e., a positive output gap results in higher unit labor costs with a lag).



Unit Labor Costs and Inflation

The next chart compares the behavior of unit labor costs (blue line) and inflation (green line) since 1947. Once again, note the positive relationship. It is also clear that unit labor costs are more volatile than inflation. Obviously, other factors affect inflation, but sustained changes in unit labor costs help to explain changes in inflation.

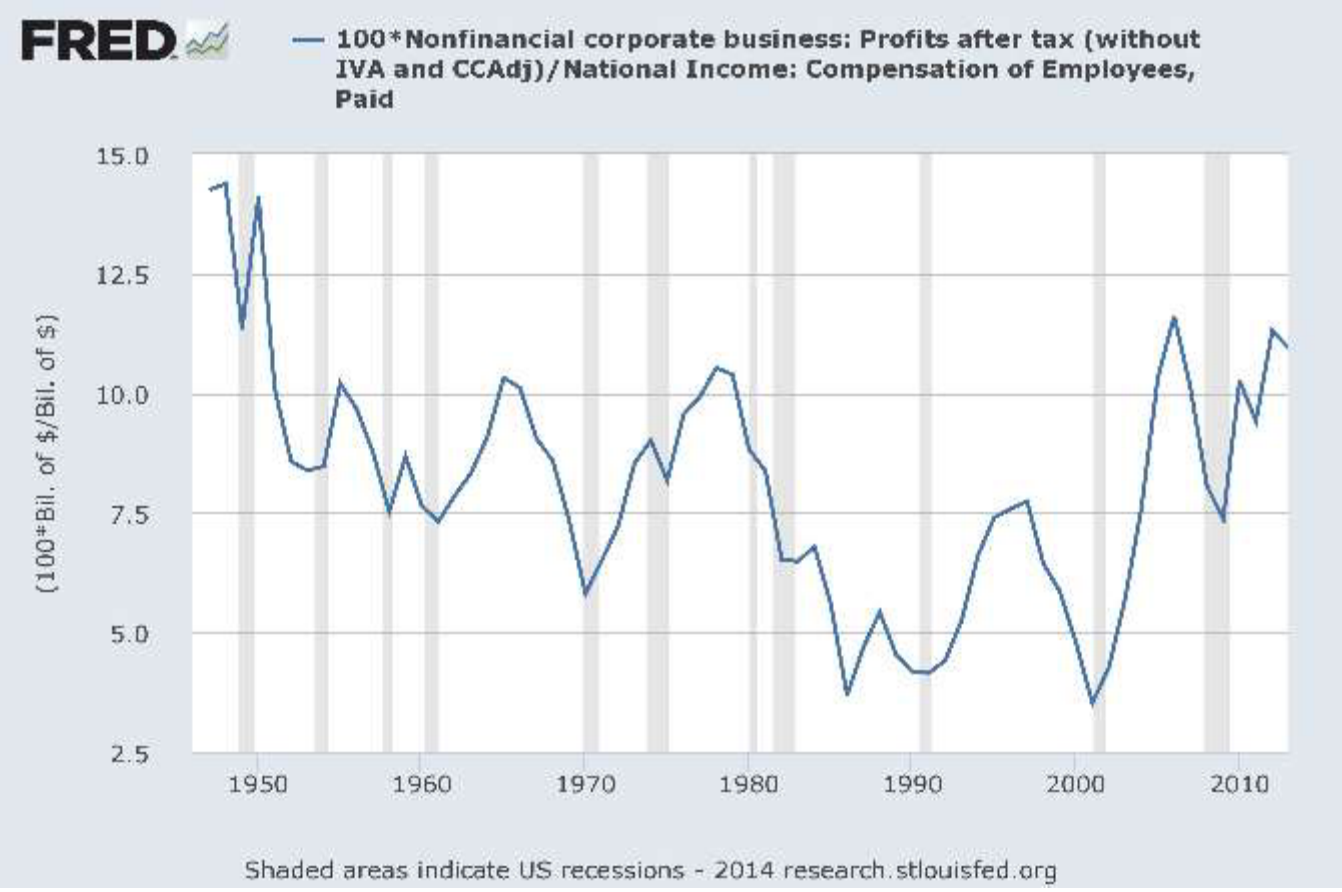


Though we focused on labor, materials and other inputs are also likely to become more costly when the economy overheats (as inputs become more scarce), further increasing unit costs (as opposed to just unit labor costs).

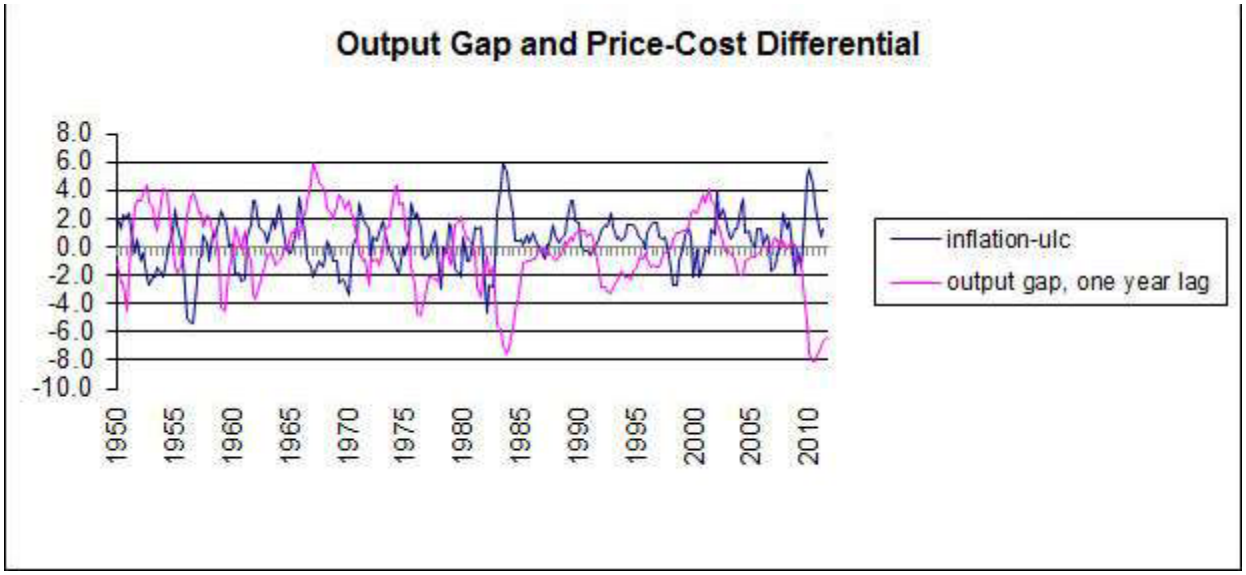
Since unit labor costs are more volatile than inflation (prices), higher unit costs tend to reduce profit margins thus discouraging production (unit cost rises more than price resulting in less profit per unit). As a result, firms produce less leading to a decline in GDP and increase in unemployment. This continues until GDP returns to its potential and unemployment returns to NAIRU. Thus, though GDP can operate above or below its potential in the short run, in the long run it will operate at its potential. Similarly, unemployment may differ from NAIRU in the short run, but will equal NAIRU in the long run.

Corporate Profits vs. Employee Compensation over the Business Cycle

The following chart shows the ratio of corporate profits to employee compensation since 1947 (measured in percentage terms). You may notice that profits tend to peak prior to the end of economic expansions. As unemployment declines below NAIRU, compensation tends to rise more quickly, reducing profitability.



How can companies make their way out of recessions? During recessions, inflation declines, but unit labor costs decline more quickly, restoring profitability. On average, it takes about a year for profitability to return, helping business become more profitable, aiding in the economic recovery. Note that over the last 60 years, the correlation between the pricing power of firms relative to unit cost and the output gap lagged one year is -0.60. In other words, when GDP exceeds potential, unit labor costs rise more quickly than prices, placing downward pressure on the profitability of firms; similarly, when the economy is weak (GDP is below potential), unit labor costs decline more than prices, eventually increasing the profitability of firms.



STOP AND THINK: How does slack in the economy (GDP below potential, unemployment above NAIRU) help explain changes in the cost of production and inflation? In what ways is the economy self-correcting? In other words, how does excessive growth or weakness affect profitability and how does that normally help the economy return to its long-term trend?