



INSIDE THE VAULT | FALL 2001

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The Cycling Economy

Is the economy growing? Well, that's a trick question. On average over time, the economy is always growing, but it also moves through phases of stronger and weaker growth—and occasionally it slips into reverse. At these times—when the growth rate at which goods and services are being produced actually turns negative for a period of time—policymakers such as the Federal Reserve and members of the general public turn their attention to what economists call “business cycles.” The U.S. economy appears in late 2001 to be in the downward phase of a business cycle. Predictably, several age-old economic questions are being asked:

- What constitutes a recession?
- How deep will the downturn be?
- What caused it?
- And, most profoundly, how can we be sure the economy will eventually expand again?

Glancing Back

A growing economy is described as being in expansion. The most recent expansion began in April 1991—and probably lasted at least a few months into 2001. This 10-year expansion is the longest in U.S. history; the average expansion dating back to 1854 lasted about three years. A contracting economy is said to be in recession. The last recession occurred between July 1990 and March 1991 and was about half as long as the average recession, which lasts 18 months. Together, an expansion and the ensuing recession constitute a complete business cycle.

There have been 31 complete business cycles since 1854, averaging about four years each.¹ Recent business-cycle history is noteworthy in at least two respects. The most recent expansion and the previous one lasted between two and three times as long as the historical average. In fact, nine of the last 11 expansions lasted three or more years. At the same time, all 11 of the most recent recessions—dating back to 1937—lasted less than 18 months. Nevertheless, it is risky to assume that the recession into which we now appear headed will necessarily follow recent trends. A business cycle is too complex to forecast with any precision—except for the likelihood that economic growth will resume and that future business cycles will occur.

Making the Turns

A useful rule of thumb for describing recessions is a period of two consecutive quarters (i.e., six months) during which the overall economy, measured by gross domestic product (GDP), contracted. The official arbiter of U.S. business cycles, the Business Cycle Dating Committee of the National Bureau of Economic Research, uses a somewhat different definition of expansion and contraction based on monthly economic indicators (although in most cases the conclusions drawn are very similar). The committee, consisting of six prominent academic economists, applies the following definition to how we determine turning points in the economy:

A recession is a significant decline in activity spread across the economy, lasting more than a few months, visible in industrial production, employment, real income and wholesale-retail trade. A recession begins just after the economy reaches a peak of output and employment and ends as the economy reaches its trough. Between trough and peak, the economy is in an expansion. Expansion is the normal state of the economy; most recessions are brief and they have been rare in recent decades (www.nber.org/cycles/recessions.html).

The four principal economic indicators mentioned in the committee's definition—industrial production, employment, real income, and wholesale and retail trade—are chosen to cover the broad range of business and household activity that makes up total economic activity. A recession is indicated not by significant declines in any one of these indicators, but rather by declines in all or nearly all of these benchmarks simultaneously. Industrial production has been declining rapidly since September 2000, for example, while employment has fallen since the first quarter of 2001. Yet the committee had not declared the expansion over by early September 2001 because real income and trade—indicators of household economic condition and behavior—continued to expand.

Looking Ahead

The terrorist attacks of Sept. 11 and their aftermath (including reduced corporate profit expectations and increased layoff announcements) probably will dampen household income and spending growth, the remaining indicators that pointed previously to continued expansion. Virtually all economists now believe a recession is imminent if one has not begun already. We can only guess what its severity and duration will be because many aspects of the current economic situation—the terrorist attacks themselves, the languishing stock market, high levels of household and corporate debt—are unprecedented. Nevertheless, the nearly 150-year history of U.S. business cycles suggests that our economy will grow again within the next year or two.

This article was adapted from the work of William R. Emmons, economist in the Bank Supervision and Regulation Division of the Federal Reserve Bank of St. Louis.

Endnotes

1. The National Bureau of Economic Research provides a complete chronology of U.S. business cycles since 1854, at www.nber.org/cycles.html. [[back to text](#)]



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Q & A

What's a yield curve?

Bonds with identical risk, liquidity and tax characteristics usually have different interest rates because of different times remaining to maturity. A yield curve is a picture contrasting yields with time to maturity for similar bonds. Yield curves usually slope upward because bonds with longer time to maturity usually pay higher interest rates.

Why are higher yields associated with bonds that have a longer maturity?

A longer-term bond involves more risk from interest rate fluctuations. Also, the longer-term bond encompasses expected inflation over the life of the bond. You may recall that nominal interest rates equal the real interest rate plus expected inflation. For example, if the real interest rate is 2.5% and expected inflation is 2%, the nominal interest rate would be 4.5%. Longer-term bonds require compensation for this inflation risk.

Why do long-term interest rates sometimes rise when the Fed cuts the federal funds target, causing short-term interest rates to fall?

Although the Fed can exert considerable influence over short-term rates, changes in inflation expectations can confound the effect of the federal funds target changes on longer-term rates. Easier monetary policy lowers short-term rates now, often at the expense of higher prices in the future.

What causes the yield curve to be inverted?

Although the yield curve is often upward sloping, sometimes it is downward sloping, in which case it is referred to as inverted. In this case, short-term interest rates are higher than long-term interest rates. If financial markets expect a weakening economy, long-term rates may fall relative to short-term rates. Although an inverted yield curve doesn't always signal a recession, it does indicate the markets' future expectations regarding the direction of the economy's performance.

The content for Q & A was adapted from "The Long and the Short of the Federal Funds Target Cuts," which was written by Michael T. Owyang, economist at the Federal Reserve Bank of St. Louis, and appeared in the September 2001 issue of Monetary Trends, a St. Louis Fed publication.



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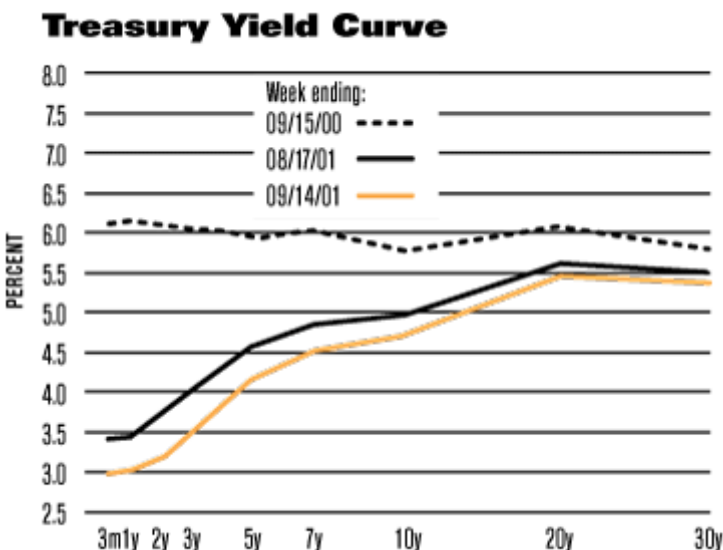
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Economic Snapshot

3rd Quarter 2001

	Q4-00	Q1-01	Q2-01	Q3-02
Growth Rate—Real Gross Domestic Product	1.9%	1.3%	0.3%	-0.4*
Inflation Rate—Consumer Price Index	2.9%	4.2%	3.1%	0.7%
Civilian Unemployment Rate	4.0%	4.2%	4.5%	4.8%

*Advanced estimate



Graph on left is from the Board of Governors, Federal Reserve System, published in the Federal Reserve Bank of St. Louis' Monetary Trends October 2001. Graph on right is from the front cover of September 2001 Monetary Trends with article written by Michael T. Owyang, economist at the Federal Reserve Bank of St. Louis.

Have yields on Treasury securities moved in the same direction as the federal funds target rate?

Targeting the federal funds rate is one way in which the Federal Open Market Committee (FOMC) conducts monetary policy. As the graph on the right indicates, short-term rates have moved in the same direction as the federal funds rate. Long-term rates, however, generally have moved in the opposite direction. (See the Q & A page for an explanation.)

On the Treasury yield curve above, why are the two solid-line curves upward sloping whereas the dotted line is slightly downward sloping?

All three curves depict yields to maturity for Treasury securities. Notice that the curves for August and September 2001 indicate 3% to 3.5% yields on securities that mature in three months whereas yields on a 10-year Treasury security are approximately 5%. Both of these yield curves are typical upward sloping curves. The Treasury yield curve for September 2000, however, is slightly inverted, or downward sloping, indicating a negative outlook at that time for future economic performance.