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Yield Curves

THE SHAPE OF THINGS TO COME

By Mark G. Dotzour

At the beginning of 2006, Dr. Alan Greenspan departed as chairman of the Federal Reserve. Referred to as "Maestro" by one author, Greenspan directed the U.S. economy through 18 years that included the 1987 stock market crash, the Russian ruble crisis in 1998, the much anticipated Y2K crisis in 1999, the 9-11 attacks and the subsequent 2001 recession. Despite all this, the U.S. economy posted one of the least volatile periods in American economic history.

After much speculation over who would replace the central banking legend, the job was turned over to Dr. Ben Bernanke. Bernanke will now be like a physician in charge of the health and treatment of the U.S. economy, which is being weaned from the powerful stimulus of low interest rates. Are rates still too low? Does the flat yield curve suggest a recession is ahead? The consequences of this delicate situation could have a strong influence on both commercial and residential real estate markets in the coming years.

In the summer of 2000, the stock market imploded. This was followed by the terrorist attacks and the recession that began in November 2001. The economy was losing jobs.

Suddenly a new word entered the mainstream economic vocabulary. The word was *deflation*, which is the opposite of inflation, and causes a general decline in prices. The repercussions of deflation are higher foreclosure rates for homeowners and declining profits for businesses.

So the Fed treated the ailing economy with a potent dose of lower interest rates, dropping the Fed funds rate to 1.25 percent to encourage Americans to buy cars, houses, furniture and anything else that would stimulate job growth.

Empirical research has shown there is a lag between the time the Fed starts to treat an ailing economy and the time the "patient" starts to respond. In this case, the "medicine" — low interest rates — began to take effect in 2004. Jobs were created, and employers started to hire again. The "jobless recovery" was over. Job growth continued through 2005 and into early 2006.

In June 2004, the Fed began slowly reducing the flow of the interest rate stimulant, raising rates 15 times to 4.75 percent as of April 2006. The question now is whether the patient is fully recovered and healthy or overstimulated by excessive medication.

At the outset of 2006, deflation was no longer an issue. The principal question became whether the Fed had left interest rates too low for too long. Would the economy overheat? Would interest rates turn upward?

The present spike in the price of oil, gold, silver and other commodities seems to signal higher inflation on the horizon.

In response to these concerns, the Fed has continued to increase interest rates to reduce the stimulus to the economy. At the close of first quarter 2006, however, it appeared the higher interest rate regime had not impacted the economy adversely. Cars and houses were still selling, as were computers, cell phones, iPods and televisions. Second quarter 2006 began with prospects of more Fed rate hikes.

So what's the big deal here? Why should business people care?

The answer is that the Fed has raised short-term interest rates 15 times, but long-term interest rates (such as the ten-year U.S. Treasury bond and mortgage rates) have barely budged. This has created a situation known as a "flat yield curve" that could be approaching an "inverted yield curve."

What is a yield curve? It is a snapshot of interest rates on U.S. government notes and bonds on any given day. Intuition tells us that as a note or bond gets longer in term, the interest rate gets higher. That is, interest on a ten-year Treasury note

should be higher than that on a five-year note. Similarly, interest on a five-year should be higher than on a two-year note, which should be higher than a one-year note.

Under normal conditions, the yield curve should be upward sloping. An upward sloping yield curve usually means the U.S. economy is expanding rapidly because borrowing costs are low. When Americans can borrow money cheaply, they spend money freely.

Business decision-makers have to be concerned about a flat yield curve that may become inverted because a flat or inverted yield curve often is followed by a recession and job losses. In an October 2005 report for the Fed, Arturo Estrella, senior vice president of the Federal Reserve Bank of New York, explains, "The yield curve has predicted essentially every U.S. recession since 1950 with only one false signal, which preceded the credit crunch and slowdown in production in 1967."

In a Fed report issued in February 2006, Fed economist Jonathan H. Wright stated, "The shape of the yield curve that has historically been the strongest predictor of recessions involves an inverted yield curve with a high level of the federal funds rate." One Fed model currently puts the odds of a recession at about 50 percent. However, three other models put the likelihood at 20 percent.

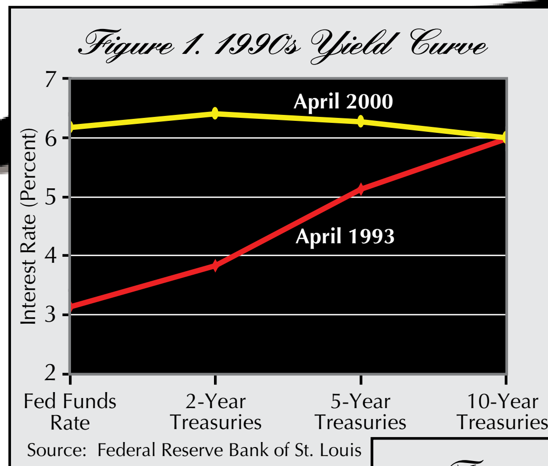
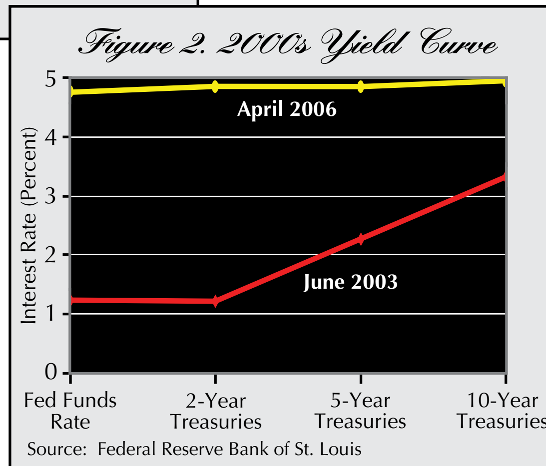


Figure 1 shows what the yield curve looked like in April 1993. The U.S. economy was laboring under the effects of the 1991 recession, and the Fed had created an upward sloping yield curve to stimulate job growth. In this case, the medicine worked.

By April 2000, the economy was charging ahead, the stock market was booming and speculative fever was in the air. In the midst of the euphoria, the Fed raised interest rates sufficiently to flatten the yield curve. Eighteen months later, a recession began.

Figure 2 shows what the yield curve looked like in June 2003, when the U.S. economy was sluggishly trying to recover from the 2001 recession and the 9-11 attacks. The yield curve was upward sloping. The Fed stimulus was flowing into the economy.



As job growth expanded in 2004, the Fed started to gradually withdraw the low-interest-rate stimulus with a long string of quarter-point interest rate increases. During this period, however, the interest rate on ten-year U.S. Treasury bonds changed little. And because mortgage rates on homes are based on ten-year Treasury rates, Americans continued to buy houses in record numbers.

Figure 2 also shows the yield curve for April 2006. The Fed rate has been increased to 4.75 percent, yet the ten-year Treasury has not increased by the same magnitude. Because the interest rate on the two-year Treasury is about the same as the rate for the five-year and ten-year notes, the yield curve is basically flat.

So the big question for American business and investors is whether the flat yield curve will induce a recession in the next 12 to 18 months. Unfortunately, the answer is not obvious. In a March 2006 speech, Fed Chairman Bernanke said, "Clearly bond prices . . . incorporate a great deal of information that is potentially very relevant to policymakers. However, the information is not always easy to extract and, as in the current situation, the bottom line for policy appears ambiguous."

This is an impressive way of saying that the bond market has a lot to say, but we don't know how to interpret what it is telling us.

Whenever the yield curve turns flat or inverts, the possibility of a recession is greatly increased. However, Fed economists are convinced that extraordinary circumstances may be causing the flat yield curve and that a Fed funds rate of 4.75 percent is too low to cause a recession.

In the March speech, Bernanke went on to say, "Although macroeconomic forecasting is fraught with hazards, I would not interpret the currently very flat yield curve as indication of a significant economic slowdown to come . . ."

Economist Wright also commented that Australia and the United Kingdom have had downward sloping yield curves for some time, yet, "Both economies have continued to expand robustly."

Let's hope Bernanke and Wright are correct.

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THE TAKEAWAY

The Fed is using its most powerful tool — interest rates — to cool down the U.S. economy. But history shows when rates increase enough and the yield curve inverts, recession is likely.

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