Dimensional

Considering Central Bank Influence on Yields

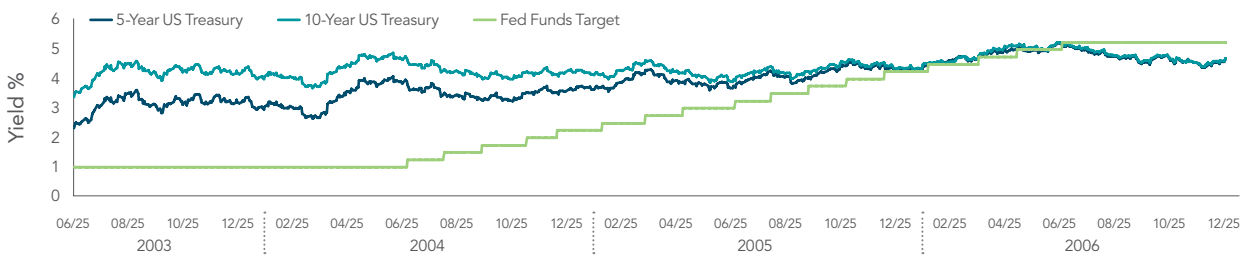
September 2015

Fed watching is a favorite pastime for many market participants. Investors read statements from the Federal Reserve as if they were tea leaves, parsing new information and seeking to forecast future Fed activity. The presumption is that Fed actions lead to specific market outcomes. Recently, some market prognosticators believed that the Fed was going to begin raising the federal funds target rate. However, what actually happened reinforced how difficult it is to accurately forecast when a Fed tightening cycle will occur or what its effects may be.

The presumption of many is that longer-term interest rates will rise when a tightening policy does begin. However, history shows that short- and long-term rates do not move in lockstep. There have been periods when the Fed aggressively lifted the fed funds target rate—the short-term rate controlled by the central bank—while longer-term rates did not change or "stubbornly" declined.

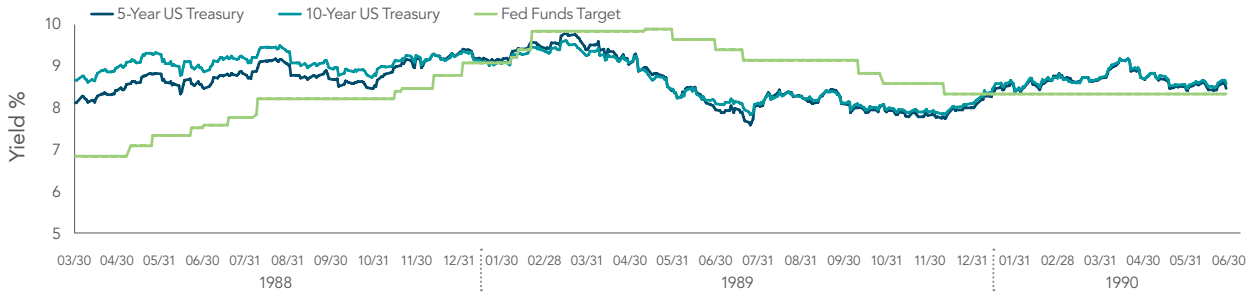
A good example is the Fed's last campaign of policy tightening through the use of the fed funds target rate (see **Exhibit 1**). From 2004 to 2006, the Fed increased the rate by 4.25%, yet longer-term rates experienced a period of decline. Alan Greenspan, Fed chairman at the time, referred to this phenomenon as a "conundrum."

Exhibit 1: Fed Funds Rate and Treasury Yields



Past performance is no guarantee of future results. Source: Federal Reserve Bank of St. Louis.

Exhibit 2: Late 1980s Inverted Yield Curve



Past performance is no guarantee of future results. Source: Federal Reserve Bank of St. Louis.

Other periods of short- and longer-term rates moving independently include the 1980s, when the fed funds target rate was increased by more than 3% while longer-term rates remained largely unchanged. In fact, the late 1980s was a period marked by an inverted yield curve; long-term rates yielded less than short-term rates. This can be seen in **Exhibit 2**: The green line representing the fed funds target rate yielded more than 5- and 10-Year US Treasury notes. There have been a number of instances of inverted yield curves throughout history in the US (and other developed markets).

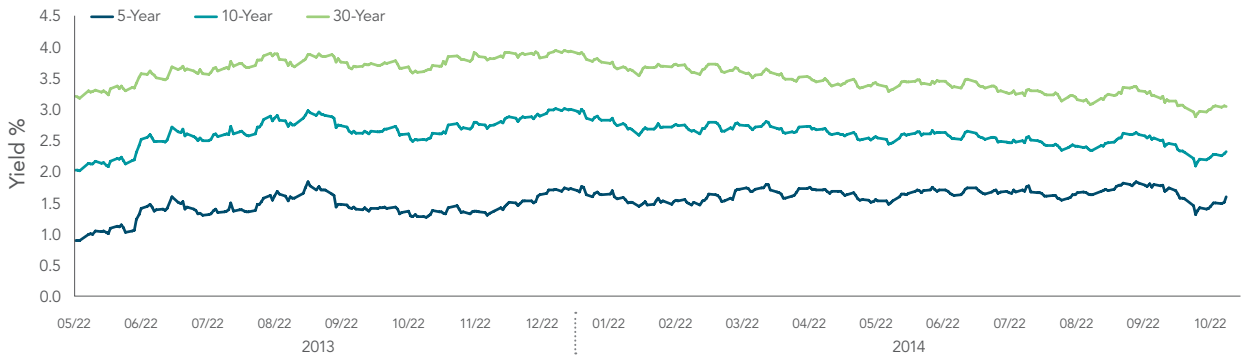
Another period when market participants attempted to forecast specific outcomes based on Fed actions occurred in 2013. In a statement to Congress on May 22, 2013, Ben Bernanke, then chairman of the Fed, asserted that the Federal Open Market Committee (FOMC) was prepared to scale back its bond purchasing program. At the time, the FOMC was purchasing approximately $85 billion a month in mortgage-backed and US Treasury securities.[1] The news of the FOMC's scaling back of purchases in the open market resulted in what became known as the "taper tantrum."

Market forecasters speculated that the scaling back of bond purchases by the FOMC would inevitably result in higher interest rates. But interest rates actually declined when the FOMC eliminated its purchases from January 2014 to October 2014.

Exhibit 3 illustrates yields on intermediate- and long-term US Treasury bonds from the time Bernanke made his statement to Congress until the end of the FOMC's purchases in open market operations.

As mentioned earlier, history shows that investors who attempt to forecast interest rates have not demonstrated any ability to consistently and reliably predict the future path of those rates. Changes in fed funds target rate, as well as short- and long-term rates,

Exhibit 3: Yields during Scaling Back of Bond Purchases



Past performance is no guarantee of future results. Source: Barclays Bank PLC.

1. Statement from Federal Open Market Committee, September 13, 2012.

are not perfectly correlated—and are often driven by market forces.

When analyzing the Fed's impact on short-term rates, we must also consider the unprecedented action taken by the Fed since 2008—its massive issuance of reserves paying rates of interest.

As Eugene Fama has noted in his research,[2] the Fed paid no interest to banks on excess reserves prior to 2008; thus, there was an opportunity cost for banks depositing excess reserves at the Fed. This opportunity cost naturally encouraged banks to make loans and purchase securities; the availability of loans and the money supply created by banks purchasing securities creates downward pressure on interest rates.

The Fed's recent policy of paying interest rates on excess reserves removed the previous opportunity cost, assuming available rates in the market are not higher than what the Fed is paying. Due to a lack of attractive spreads on loans in the current market, holding excess reserves at the Fed is now the more attractive option. Conventional wisdom has been turned on its head.

By paying interest on excess reserves, the Fed has, in essence, created new "short-term securities." The issuance of these reserves, or "short-term securities," pulls monetary supply out of the economy, which by definition should raise interest rates. The question then becomes: Has the Fed really been trying to keep interest rates low? It does not seem that way. Perhaps, in an effort to fight deflation, the Fed has actually been trying to push interest rates higher, yet the lack of attractive lending opportunities in the market has flooded banks with deposits, pushing interest rates lower and limiting the power of the Fed.

In his academic blog, Professor John Cochrane[3] also analyzes the effect of the Fed on interest rates. He poses an interesting rhetorical question: "Is the Fed in fact 'holding down' interest rates?" To answer this question, he points out that the Fed, to keep interest rates low, will lend money to banks at low interest rates so banks can then lend that money to the rest of the economy, making a spread. But, instead of going out to the market to find "higher" interest rate opportunities, banks have deposited $3 trillion worth of reserves at the central bank despite the "low" rates being paid. If the banks find the Fed rates attractive, is the Fed really keeping interest rates low—or high?

2. Fama, Eugene F., "Does the Fed Control Interest Rates?" working paper, University of Chicago Booth School of Business, 2013.
3. johnhcochrane.blogspot.com/2015/09/is-fed-pulling-or-pushing.html.