Anticipating the Federal Reserve's Wind-Down of Its Asset-Purchase Program

Since 2008, the Federal Reserve has spent more than $2 trillion purchasing public and private sector debt. The stated objective has been to raise stock and bond prices in U.S. capital markets. The latest program, which began last November, consists of the unprecedented purchase of up to $600 billion in U.S. Treasuries. During its April 2011 meeting, the Federal Reserve's Federal Open Markets Committee (FOMC)[1] confirmed its intention to wind down that asset-purchase program by the end of June, as originally planned.[2]

This *Research Note* puts the Federal Reserve's exceptional activities of the past several years in context and explains the rationale for those actions. The *Research Note* also addresses the possible implications for investors as the Federal Reserve prepares to scale back those activities, which include the following:

- Inflationary pressures,
- Potentially higher borrowing costs,
- Higher long-term interest rates, and
- Greater risk of declines in stock and bond prices following the exit of such a large buyer.

The Fed's Asset-Purchase Program — and the Market Response

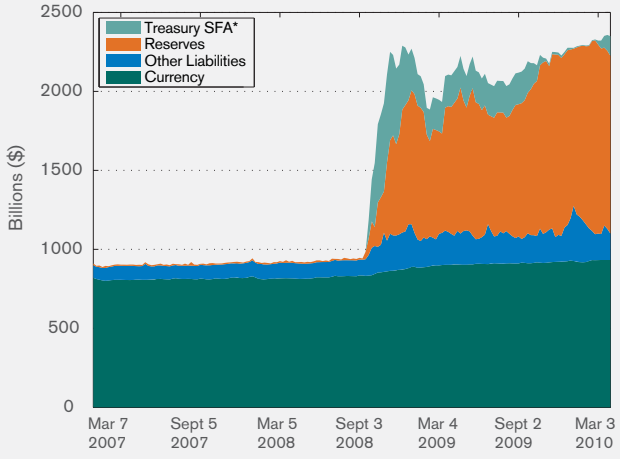
Having reached an approximately zero federal funds interest rate (the short-term interest rate charged among depository banks, as noted in footnote 1, the Federal Reserve's traditional monetary policy tool) in the fall of 2008, yet still facing concerns over the strength of the economy, the FOMC engaged in a series of additional asset-purchase programs aimed at bolstering capital markets through outright purchases of securities.

With these purchases, paid for by placing additional deposits in depository institutions' excess reserves, the Federal Reserve's balance sheet ballooned. As shown in the accompanying graph, excess reserves (represented by the orange shaded area) were transformed from a tiny sliver of the liabilities of the Federal Reserve to a behemoth measured in the trillions of dollars, and exceeding the amount of currency in circulation prior to the initiation of asset purchases (represented by the dark green shaded area).

This extraordinary expansion of liabilities was used to fund the purchase of a broad array of fixed-income instruments. Initially, the Federal Reserve purchased short-term commercial paper sold by private corporations. Its next purchase was asset-backed securities, backed by credit-card and other receivables. Beginning in early 2009, it undertook a large-scale purchase of mortgage-backed securities (MBS), backed by residential mortgages. The MBS purchases eventually exceeded $1 trillion — a level that was greater than the entire Federal Reserve balance sheet as of March 2007.

In an August 2010 speech, Federal Reserve Chair Ben Bernanke explained that "purchases of Treasury, agency debt, and agency MBS likely both reduced the yields on those securities and also pushed investors into holding assets with similar characteristics, such as credit risk and

Liabilities of the Federal Reserve



* "SFA" stands for "supplementary financing account," which is where the proceeds from Treasury-issued debt is held.

Source: "The Central-Bank Balance Sheet as an Instrument of Monetary Policy," by Vasco Cúrdia and Michael Woodford (*Staff Reports*, No. 463, July 2010), Federal Reserve Bank of New York. The views expressed in this paper are those of the authors and are not necessarily reflective of views at the Federal Reserve Bank of New York or the Federal Reserve System. Any errors or omissions are the responsibility of the authors.

[1] The FOMC, which is composed of the Federal Reserve Board in Washington, DC and the Federal Reserve Bank of NY, is charged with managing the Federal Reserve's balance sheet. The FOMC adds and subtracts reserves to the system through open-market operations, thereby influencing the short-term interest rate charged among depository banks, referred to as the federal funds rate. Purchases by the Federal Reserve are held as excess reserves in depository banks. Banks with excess reserves will sell their excess to banks that are short on reserves. Traditionally, the FOMC had limited its investments to short-term U.S. Treasuries traded among depository banks as a means of maintaining an appropriate level of cash on reserve at the Federal Reserve.

[2] The April 27, 2011 press release is available on the Federal Reserve's website: http://www.federalreserve.gov/newsevents/press/monetary/20110427a.htm

duration."[3] In other words, the Federal Reserve's purchases likely lowered the cost of borrowing for both the public and private sector by crowding out investors seeking to invest in risk-free or low-risk bonds.

The markets generally followed the lead of the Federal Reserve, with more investment in riskier assets. Equity markets moved up and bond markets moved down in price, with yields generally rising.

Potential Implications for Investors of the Program's Wind-Down

As the FOMC prepares to wind down its exceptional capital markets activities, investors should be aware of the potential implications, which include the following:

- ***Impact on the Economy*** The Federal Reserve's extraordinary expansion of the supply of reserves to the banking system could flow into the general economy, fuelling further bubbles and inflationary pressures. The Federal Reserve argues that, because it fully intends to wind down asset purchases and, thereby, drain excess reserves, expansion of the balance sheet is only temporary, and need not be inflationary. Of course, this requires that the Federal Reserve time the withdrawal with the utmost accuracy. Draining reserves too soon will contribute to rising borrowing costs, slowing economic activity. Waiting too long (the more likely outcome), would fuel risky lending and inflationary tendencies.
- ***Higher Long-Term Interest Rates*** A study prepared by staff of the Federal Reserve Bank of New York estimates that the $1.72 trillion of assets purchased between December 2008 and March 2010 served to reduce the difference between longer and shorter U.S. Treasuries by 52 basis points,[4] or approximately one-half of 1 percent.[5] Purchase of an additional $600 billion likely served to further reduce the differential. The wind-down is expected to lead to higher long-term interest rates.
- ***Rising Risk Premiums*** Given that the stated goal of the Federal Reserve's open-market operations is to lower risk premiums across asset classes, it is logical to assume that risk premiums should rise as the FOMC withdraws its support.[6] In theory, a stabilized economy, with better visibility of corporate earnings, would support a reduction in perceived risk, mitigating the upward trend to risk premiums as the FOMC exits. Indeed, if the spike in market volatility and falling economic activity was a short-term dislocation, then a better functioning economy will warrant a reduction in risk premiums that will offset the exit of a large buyer. If, however, the impairment is deeper than a single business cycle, as is hinted by the lingering dislocations in the housing market and labor force, then the Federal Reserve's activity served only to mask the underlying trend, indicating that the FOMC's exit will cause risk premiums to shoot back up. That would result in falling stock prices and expanded credit spreads. Given the unprecedented nature of capital market involvement by the Federal Reserve as it outlines its exit, investors are likely to demand, at least temporarily, a higher risk premium, with downward pressure on assets.

Just as the wind-down of federal deficit spending can be expected to be a drag on economic growth, the Federal Reserve's end of its asset-purchase program can be expected to place a drag on asset returns. The dimensions and channels for this increased risk are complex and uncertain. Nevertheless, as plan sponsors and institutional investors consider their outlooks for expected investment return, caution is warranted in weighing the import of the strength of the recent recovery from the market collapse of 2008-2009.

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To discuss the implications of the Federal Reserve's wind-down of its asset-purchase policy for your plan's investment strategy, contact your Segal Advisors investment consultant, the nearest Segal Advisors office from the second link in the green box below or Glenn Ezard at 310.231.1775 or gezard@segaladvisors.com.

[3] The Economic Outlook and Monetary Policy, Remarks by Ben Bernanke at the Federal Reserve Bank of Kansas City Economic Symposium, August 27, 2010: http://wwwfederalreserve.gov/ newsevents/speech/bernanke20100827a.htm

[4] As a reminder, 10 bps equals 0.1 percent.

[5] Gagnon, Joseph, Matthew Raskin, Julie Remache, and Brian Sack, "Large-Scale Asset Purchases by the Federal Reserve: Did They Work?" *FRBNY Economic Policy Review*, March 2010: http://www.newyorkfed.org/research/epr/forthcoming/1104gagn.pdf

[6] Risk premium is the incremental return demanded by investors over the risk-free rate. For example, if stocks are said to have a risk premium of 4 percent over the risk-free 10-year U.S. Treasury Note, and the 10-year U.S. Treasury Note yields 3 percent, then the expected return for stocks is 7 percent. Therefore, an increase in the risk premium causes a decline in the current market value of stocks.