an lpl research BOND MARKET Perspectives

KEY TAKEAWAYS

The FOMC's May meeting minutes showed a continuing discussion on reducing the size of the Fed's balance sheet.

The ECB's balance sheet is now larger than the Fed's (in dollar terms) and the BOJ's balance sheet is growing close.

With \$13 trillion in combined exposure, a lot of finesse will be needed to reduce the size of the Fed's, ECB's, and BOJ's balance sheets.

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BALANCING THE BALANCE SHEETS

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The minutes of the Federal Reserve's (Fed) May 2–3, 2017 meeting signaled that the Fed is likely to continue tightening monetary policy and may begin to normalize (reduce) its balance sheet toward year-end. The unwinding of the balance sheet by the Fed and the strategy it employs to accomplish this will be material to global markets. Despite signaling that it will clearly articulate its exit strategy so as to not be disruptive, the Fed is walking a difficult tightrope while trying to weigh its goals against the objectives of the European Central Bank (ECB) and Bank of Japan (BOJ).

THE FED'S BALANCE SHEET

The Fed implemented the first round of its bond-buying program, known as quantitative easing (QE), in 2008 to inject capital into the market, hoping to stimulate economic growth while keeping interest rates low. Several iterations of QE later, the Fed had purchased more than \$4 trillion of bonds, including \$2.5 trillion in Treasuries and \$1.8 trillion in mortgage-backed securities. Even though the latest QE program in the U.S. ended more than two years ago (October 2014), the Fed has rolled proceeds from maturing bonds into new purchases, keeping the size of its balance sheet relatively constant and also likely keeping interest rates slightly lower than they otherwise would be. To date, according to Bloomberg data, the Fed's balance sheet totals approximately 24% of U.S. gross domestic product (GDP). Although it is too early to judge the success or failure of QE, it is irrefutable that it did calm the markets after the 2007–08 financial crisis.

Stocks saw strong performance as the balance sheet grew, but have also performed well since QE ended. Stock market performance may have been helped by QE, as low bond market yields pushed more investors toward stocks, but recent performance may be more attributable to the impact of earnings growth, a fundamental driver of stock prices. Nonetheless, with stocks at all time highs, the Fed is likely to act cautiously, as it does not want to disrupt markets. The Fed's strategy to reduce the balance sheet begins with communicating policy changes in a clear and timely fashion. The terms "gradual" and "predictable" were used in the FOMC's May minutes, and because of this advanced signaling, we think the shortterm risk to markets may be limited.

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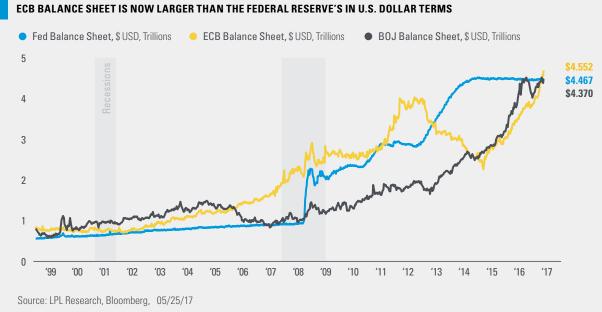
ECB'S BALANCE SHEET NOW LARGER THAN THE FED'S

Unlike the Fed, which started purchasing bonds in 2008, the ECB waited until January 22, 2015 to enact its version of QE, which centered on three phases in an attempt to minimize financial stress.

- First, the ECB cut its key interest rates and moved its deposit rate to less than zero. This caused interest rates to drop substantially, and even turn negative in some cases.
- Second, the ECB increased incentives for banks to lend through a targeted long-term refinancing operation (TLTRO I), where banks could borrow at below-market rates if they issued more loans to euro area firms and individuals. This has since been extended through TLTRO II.
- Third, the ECB purchased bonds from weaker economies like Italy, Spain, and Portugal, along with rendering support to the stronger economies of Germany and France under the asset purchase plan (APP). Purchases were recently reduced from 80 billion euro to 60 billion euro per month, but the

ECB expects to continue its bond-buying program until the end of the year. The purchases include government bonds, asset-backed securities, and corporate bonds and are an attempt to stimulate growth in the region. This has resulted in recordlow yields and stability in the Eurozone for now. In just over two years however, the ECB has managed to grow its balance sheet from \$2.4 trillion in January 2015 to more than \$4.5 trillion today (in USD terms), surpassing the size of the U.S. balance sheet [Figure 1].

The ECB is still purchasing assets and therefore the size of its balance sheet is likely to continue to increase in the near term. When the ECB does feel that it has reached a point where it can start to reduce its balance sheet, this may prove difficult given the disparity between economic growth in individual countries. For example, since inflation is rising in Germany, normalizing early would help there; however, this effort could throw the weaker countries into recession. We expect that when the ECB does begin balance sheet normalization, it will likely be methodical and communicate policy changes well in advance.



Fed-Federal Reserve BOJ-Bank of Japan ECB-European Central Bank

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BOJ'S HOLDINGS

Japan practically invented QE to help fight deflation in the early 2000s. After experiencing the "lost decade" (1991 to 2001), a period of stagnation caused by years of excessive loan growth in the 1980s, the BOJ stepped in with a zero interest rate policy (ZIRP), balance sheet expansion, and easing credit policy. The result has been negligible at best, with the percentage of bonds held by the BOJ now totaling over 105% of the country's GDP [Figure 2]. In addition, according to Bloomberg data, the BOJ holds stocks in its portfolio and also owns approximately 45% of the total bonds outstanding in Japan. Even so, the BOJ has signaled that it will continue to expand its holdings by 80 trillion yen per year. This may prove difficult to achieve, since maturities of existing holdings and the lack of available supply may be prohibitive. For these reasons, we do not forecast an announced normalization program in Japan but rather a stealth

COMPARING BALANCE SHEET ASSETS

Central Bank	Size of Balance Sheet (in U.S. \$)	Balance Sheet Holdings as % of GDP
Fed	4.4 Trillion	24.9%
BOJ	4.3 Trillion	106.0%
ECB	4.5 Trillion	42.6%

Source: LPL Research, Bloomberg, 05/25/17

GDP—Gross Domestic Product BOJ—Bank of Japan Fed—Federal Reserve ECB—European Central Bank tapering in which it will gradually allow assets to run off. It remains to be seen how this will be interpreted by the market as participants have grown accustomed to the BOJ monetizing most assets.

CONCLUSION

After instituting easing policies of their own, the ECB and BOJ are starting to overtake the U.S. in assets held. Since their economies are smaller, this may present a range of problems. Selling assets outright or moving too aggressively when the time comes to normalize may stifle economic growth and lead to volatility. At the same time, doing nothing or extending purchases has driven rates lower and created excess reserves that banks are holding, and this lack of reinvestment weighs on growth.

It's a daunting task to try to forecast the effect of a balance sheet reduction, as it has never been done before on this scale. Although the Fed hasn't made a final determination, the minutes from the May FOMC meeting indicated that it is likely to take a gradual approach, setting a specific amount of principal that will be allowed to roll off each month, at least initially. We are hopeful that proper communication from the Fed will lead to an orderly balance sheet normalization within the U.S., and provide a template for what are likely to be even larger balance sheet normalization processes for the ECB and BOJ. However, only time will tell, as it is always easier to acquire debt than it is to pay it down.

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Corporate bonds are considered higher risk than government bonds but normally offer a higher yield and are subject to market, interest rate, and credit risk as well as additional risks based on the quality of issuer coupon rate, price, yield, maturity, and redemption features.

Mortgage-backed securities are subject to credit, default, prepayment risk that acts much like call risk when you get your principal back sooner than the stated maturity, extension risk, the opposite of prepayment risk, market and interest rate risk.

International debt securities involves special additional risks. These risks include, but are not limited to, currency risk, geopolitical and regulatory risk, and risk associated with varying settlement standards. These risks are often heightened for investments in emerging markets.

DEFINITIONS

Quantitative easing (QE) refers to the Federal Reserve's (Fed) current and/or past programs whereby the Fed purchases a set amount of Treasury and/or mortgagebacked securities each month from banks. This inserts more money in the economy (known as easing), which is intended to encourage economic growth.

The Federal Open Market Committee (FOMC) is the branch of the Federal Reserve Board that determines the direction of monetary policy. The eleven-person FOMC is composed of the seven-member board of governors, and the five Federal Reserve Bank presidents.

The European Central Bank (ECB) is the central bank responsible for the monetary system of the European Union (EU) and the euro currency. The bank was formed in Germany in June 1998 and works with the other national banks of each of the EU members to formulate monetary policy for the European Union.

Gross Domestic Product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period, though GDP is usually calculated on an annual basis. It includes all of private and public consumption, government outlays, investments and exports less imports that occur within a defined territory.

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