

# Focus on Economics

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## World of difference between Fed and ECB monetary policy

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The US Federal Reserve's announcement that it might begin to reduce its monthly bond-buying programme (QE3) this autumn attracted a great deal of attention, as did the latest deferral of this "tapering". Although a reduction in the volume of bonds purchased is not tantamount to exiting from expansionary monetary policy, it has drawn into focus the fact that the extremely loose monetary policy will have to come to an end at some point. The different instruments used by the Fed and the ECB mean that the central banks will have to organise their exits differently. The Fed is faced with the bigger challenge, since its actions are particularly closely monitored around the globe and its instruments have the greater effect on the capital markets.

Monetary policy measures have surged in importance worldwide as a result of their use as a crisis management tool. The public's focus on monetary policy decisions, any changes of direction and statements made by monetary policy makers is sharper than ever. In light of this, it is no surprise that statements made by the US Federal Reserve on a possible end to their current quantitative easing programme (QE3) and the recent (temporary) decision not to taper its bond purchases prompted a strong reaction among market observers and participants. At the same time, the ECB<sup>1</sup> is making efforts to keep money and capital market rates as low as possible by promising to keep interest rates low for an extended period, with a further reduction in rates not ruled out.

However, US and European monetary

policy do not only differ in terms of their orientation and objectives – the available instruments are not the same either. Consequently, the exit options open to the world's two most important central banks are different.

### ECB lends, Fed buys and sells

The starting point for both central banks is the market for central bank money (money market), i. e. the market where commercial banks trade their deposits (reserves<sup>2</sup>) held at the Fed and the ECB, respectively, among each other. These trades do not affect the overall level of the reserves. This can only be changed by the central banks themselves, which do so by using their respective monetary policy instruments to make (net) additional reserves available to the domestic banking sector or to reduce reserves.

The monetary policy instruments available to the Fed and the ECB are not identical. The ECB grants banks (generally short-term) loans, which are secured by collateral. Historically, loans have typically been granted for terms of one week and three months, but other terms were temporarily offered during the financial crisis.<sup>3</sup> Normally, the total loan amount was distributed among the (interested) banks through a tender process. Each loan transaction causes an inflow of reserves to the banks. The ECB can therefore reduce overall reserves by reducing the overall volume of a tender compared with the preceding operation. On balance, the banks would then have to pay money back. The ECB has not made use of this opportunity so far, since every refinancing operation since mid-October 2008 has provided banks with

as much liquidity as they want (full allotment).

In contrast, the Fed's main instrument (permanent open market operations) is the outright purchase or sale of US government bonds (Treasuries) of various maturities. During the different QE programmes, mortgage-backed securities (MBSs) and agency bonds (particularly those of Fannie Mae and Freddy Mac) have also played a more significant role for the Fed. However, the effect on the market for central bank money remains the same: if the Fed buys securities, it credits the purchase price to the relevant banks' accounts with the Fed, thus increasing reserves (and vice versa). The Fed fine tunes the money market through their temporary open market operations, which are short-term securities repurchase transactions (securities purchases/sales with an agreement to repurchase/sell them in the future, usually referred to as repos).

### Government bonds on the balance sheet – new territory for the ECB, familiar ground for the Fed

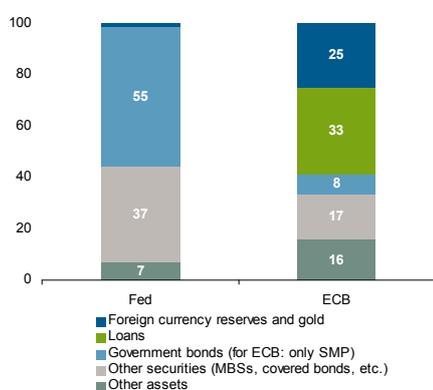
A significant operational implication of the different monetary policy approaches is the differing relationship the two central banks have with securities, particularly government bonds. It is part of the Fed's everyday business to purchase government bonds, which must then be held on its balance sheet. This remained fundamentally unchanged during the crisis. The Fed simply increased the volume of their purchases significantly and included other types of securities. The Fed currently has US Treasuries amounting to approximately USD 2 trillion on its balance sheet, which corresponds to around 55 % of its total assets. MBSs and agency bonds account for around 37 % (figure 1).

Before the crisis, government bond purchases were barely a consideration at all for the ECB. However, they were and are the subject of intense debate, particularly in connection with the Securities Markets

Programme (SMP) and the Outright Monetary Transactions Programme (OMT). Taken in perspective, the government bond purchases to date are insignificant, accounting for 8 % of total assets. Ignoring the debate surrounding the ECB's government bond purchases, the ECB is in principle allowed to purchase bonds under its Statute (Article 18, 1).<sup>4</sup>

**Figure 1: Asset structure of central banks**

Proportion of asset items in total assets, in percent



Source: Feri, own calculations

**Key rates: interest vs. target**

There is also a relatively significant difference in the nature of the ECB and Fed key rates.

In the eurozone, the key rate is the rate applicable to main refinancing operations. In simple terms, this indicates the interest rate at which banks receive liquidity from the ECB, i. e. the rate at which they can borrow. The ECB thus also sets the benchmarks for the development of money market rates. In normal circumstances, the ECB can very precisely direct interest rates at the short end of the money market through the interaction of key rates and tender volumes.

In contrast, the Fed's key rate – the federal funds target rate – is not a borrowing rate. It is just a target set for the overnight rate on the US money market (federal funds effective rate). The Fed strives to achieve this target by managing the banks' reserves through open market transactions (securities purchases / sales and repos) in such a way that the set target rate results from the banks' reserve trade among each other.

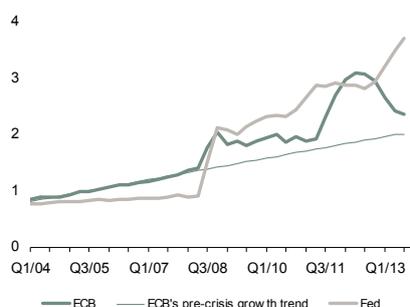
**Different starting points**

Exiting their expansionary monetary policy is not imminent for either central bank. Quite the opposite: the ECB has committed to a low interest rate for an extended period and "Fed tapering" does not mean a return to a restrictive monetary policy, as additional reserves would continue to be created even if the volume of QE3 were reduced. The expansionary monetary policy will only start to come to an end when the central banks actively implement specific measures to reduce the banking system's liquidity supply. This is not the case for either of the central banks yet. At the same time, the macroeconomic trend in the two currency areas is changing slowly and in different directions.

Economic conditions in the eurozone are still very problematic despite the slight economic upturn in the second quarter. An expansionary monetary policy with very low interest rates is still appropriate. However, the ECB's total assets have contracted sharply since mid-2012, wiping out around 70 % (in relation to its pre-crisis growth trend) of the expansion brought about by the crisis (figure 2). This is attributable to the Eurozone banks' voluntary repayment of two major three-year refinancing operations, mainly due to the European banking sector's improved circumstances and the resulting increase in confidence. The implementation of the OMT programme also played a role.

**Figure 2: Total assets of the central banks**

In EUR trillion (ECB) and USD trillion (Fed)



Source: Feri, own calculations

The economic situation in the US stabilised relatively quickly following the 2008/2009 recession. Since mid-2010, the US economy has grown by an average

of around 2.25 %. The real estate market, banking sector and private debt problems can be viewed as being largely surmounted. However, the Fed's balance sheet has until recently continued to expand. Assuming that "Fed tapering" begins in December and will involve a USD 10 billion reduction in bond purchases each month, the Fed's total assets will have risen to just under USD 4.2 trillion by the middle of next year.

Compared directly, US monetary policy is therefore significantly more expansionary and – in terms of economic growth – much more successful. The current progress towards the resolution of structural problems and the economic outlook in the US suggest that the US will exit its expansionary monetary policy before Europe.

Despite the extent of the expansionary measures, there is no risk of inflation for either economy (figure 3). Capital market participants have clearly realised that high bank reserve balances do not necessarily come hand in hand with high inflation risk. This would only be the case if the reserves were to finance rapidly rising aggregate demand, with fully utilised capacities and rising wages, through lending – a remote prospect in the eurozone.

**Figure 3: Inflation expectations**

Break-even inflation rates on the capital market, five years, in percent



Source: Bloomberg

**Other instruments – a different exit**

Due to the different monetary policy instruments they use, the ECB and Fed will also have different approaches to reducing their high reserve balances when the time comes.

For as long as the ECB maintains full allotment in practice, it will be harder for it

to control the development of reserve balances than it was with the previously customary allotment procedure. The end of full allotment would be the ECB's first major sign to market participants and observers of a gradual tightening of monetary policy. Without full allotment, the reserve balance could be reduced by banks being granted less liquidity overall than they have to repay.

The Fed can withdraw from its expansionary monetary policy by beginning to reduce its securities holdings. This could take place almost automatically if the Fed ended its current practice of immediately reinvesting the income from securities that fall due. The securities holdings would then be gradually reduced. However, most of the government bonds on the Fed balance sheet (approx. 70 %) have remaining maturities of more than five years and almost all of the MBSs have remaining maturities of ten years or more. Given the structure of the remaining maturities, although an exit would take a relatively long time, it would likely be gradual and more or less pain free. The Fed also has the option to accelerate the reduction in reserves through active selling, which would probably have a stronger impact on the capital markets.

In any case, unlike ECB policy, the Fed's monetary policy signals are very clearly communicated via the US government bond markets. However, it is desirable to avoid excessive yield fluctuations on these markets, so the Fed needs to tread very carefully without becoming ineffectual or losing credibility.

This combination of factors clearly shows that the Fed will have to tackle major challenges if it wants to exit its expansionary monetary policy. It must therefore ensure that uncertainty on the capital markets is kept to a minimum through a high level of transparency and clear communication.

**Interest rate effects: Fed faces two challenges, ECB just one**

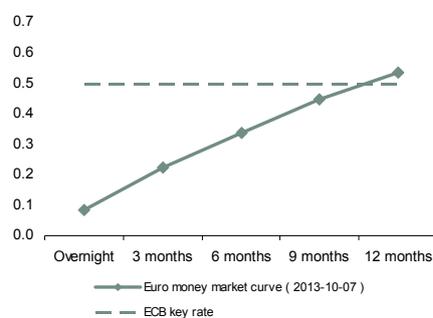
As already indicated, withdrawing from the expansionary monetary policy will affect interest rate movements. This applies to the money market for both central banks.

On the EUR money market, a gradual

reduction in reserves would initially cause money market rates to return to an appropriate level in relation to the key rate. Almost the entire money market curve is currently lower than the ECB key rate of 0.5 % (figure 4) due to the high level of reserves. In normal circumstances, the curve should be higher. In other words, the key rate does not need to be increased until the money market curve has returned to its "normal position" relative to the key rate.

**Figure 4: EUR money market**

EUR money market rates and interest rate for main refinancing operations, in percent p. a.



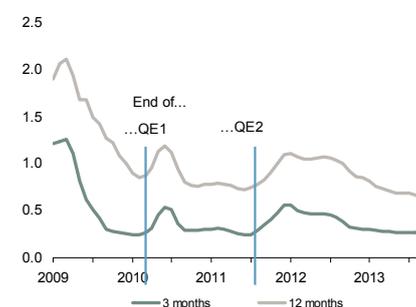
Source: Bloomberg

What is peculiar to the current situation on the EUR money market is that reserves are actually already shrinking because banks are reducing their reserves through voluntary repayments. The point at which money market rates start to rise (more rapidly) is unlikely to be too far off. If the ECB wanted to stem an interest rate rise on the money market because it thinks it is too early, the ECB would actually have to reduce key rates again to try to push down money market rates.

If QE3 starts to be tapered, a similar reaction to the end of the QE1 and QE2 programmes is likely: in both cases, rates on the US money market increased (figure 5). However, these rises were subsequently corrected, mainly because the Fed announced additional quantitative easing. This will not happen at the end of QE3 (according to current expectations), so money market rates will not be pushed down again as a result. However, the end of a QE programme is not necessarily a sign of restrictive monetary policy. Enduring rate rises on the US money market are therefore only likely if the Fed actually scales back the reserves. The reduction of reserves needs to be harmonised with the development

**Figure 5: USD money market (1)**

USD money market rates, in percent p. a.

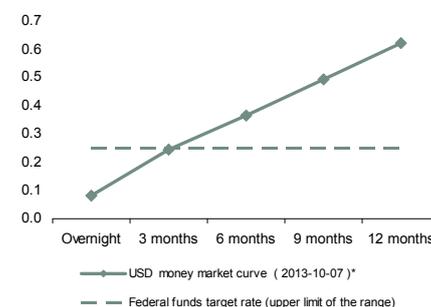


Source: Bloomberg

of the federal funds target rate, however, as it would be contradictory to keep the target rate low while simultaneously causing the effective rate to rise by shrinking reserves. In contrast to the EUR money market curve, the USD curve is already mostly higher than the key rate (figure 6).

**Figure 6: USD money market (2)**

USD money market rates and federal funds target rate, in percent p. a.



\* 9-month rate interpolated, as this figure is no longer available since 2013-05-31

Source: Bloomberg

Because the Fed reduces reserves through the government bond market, it could potentially also directly affect interest rates on the capital market, unlike the ECB. Before the crisis, the Fed's influence on the capital market was rather limited because its net purchases and sales were rather limited. The average monthly net purchases/sales amounted to around USD 3.5 billion – the Fed was just one market participant among many others. Its Treasury holdings amounted to just under 10 % of the securities in circulation. The Fed's market position has since changed. Since 2007, its net purchases and sales have been a good USD 25 billion per month. The central bank has particularly built up its holdings of long-term securities, mainly through

Operation Twist, with the segment over five years now accounting for around 35 % of the overall market (2008: approx. 15 %). In addition to the quantitative volume the Fed has now built up, the fact that its actions during the crisis were viewed as particularly influential also plays a role. Accordingly, its decisions are closely monitored and the statements made by the central bankers are carefully weighed up. Due to its market weight alone, as well as its highly influential role, an exit from its expansionary monetary policy would therefore cause interest rates to surge, which would be anticipated in part simply by announcement of its exit. This was already demonstrated when "tapering" was announced.

In addition to its main instruments, both central banks have other means of reducing the reserve balance of their respective banking systems. These include investment instruments and raising the minimum reserve requirement, in particular.

#### When will the exit begin?

Optimally timing their exit is crucial for both the Fed and the ECB. If they start too early, they run the risk of stalling economic recovery. But if they defer for too long, the risk of further distortions and bubbles on the financial markets increases.

The Fed has made the timing of its exit

contingent on the unemployment rate, setting a threshold of 6.5 %. This will be reached by the end of 2014 if unemployment continues to decline at a similar (average) pace to the past two years. Whether or not this will be too early for the Fed and it will reduce the threshold again is a subject to speculation at the moment. We expect the Fed to begin reducing its securities holdings and to raise its target rate between the end of 2014 and mid-2015.

The ECB will begin the process of contraction later than the Fed. No end date has been specified for its current low interest rate commitment and this will ultimately be dependent on economic performance in Europe's peripheral countries. The later start to the reversal of the expansionary monetary policy will probably cause the eurozone's interest arrears to rise. USD appreciation is therefore likely.

#### Conclusion

"Tapering" is not tantamount to exiting from expansionary policy. Quite the opposite: neither the Fed nor the ECB has an interest in burdening the real economy with interest rate increases that are too early or too rapid. The recent deferral of "tapering" should be viewed against this backdrop. However, the end of the QE3 programme is slowly drawing the question of the next US monetary policy steps into focus. Starting to actually reduce the Fed's securities holdings would

be a logical and, in principle, the right move. Even if this is still a long way off, given the (expected) economic situation in the US, it would be appropriate for the monetary policy decision-makers to examine the degree to which their policy is expansionary at least from time to time.

The "tapering" announcement alone has already shown how Fed statements can affect capital market rates. Its influence is due both to its significance as the central bank of the world's biggest economy and the quantitative weight on the capital market built up through its interventions. Consequently, the Fed will have to proceed very carefully when the time comes for it to exit its extremely expansionary monetary policy. At the same time, it is carrying substantial securities holdings, which are only being reduced through maturities very slowly. If it wants to reduce banks' liquidity more quickly, for example if the economic recovery significantly gathers pace, it will have to actively sell the securities or use alternative instruments, such as repo operations, its term deposit facility, or increasing the minimum reserve requirement.

The ECB only has a direct influence on the money market with its main monetary policy instruments. Its challenge is to keep money market rates low, even if the interest rate trend in the US reverses. ■

<sup>1</sup> In the following, "ECB" refers to the Eurosystem, i. e. the ECB plus the national central banks of each country that has the euro as its currency.

<sup>2</sup> We do not make precise distinctions between the terms reserves, central bank money, central bank money supply, monetary base, or base money here. Apart from the finer details, these terms ultimately mean the same.

<sup>3</sup> Temporarily granted additional terms were or are one month (more precisely: a minimum reserve period), six months, twelve months and three years. Of these additional terms, only one month is still regularly used.

<sup>4</sup> The Federal Reserve Act provides for the Fed to perform open market transactions (Section 14).