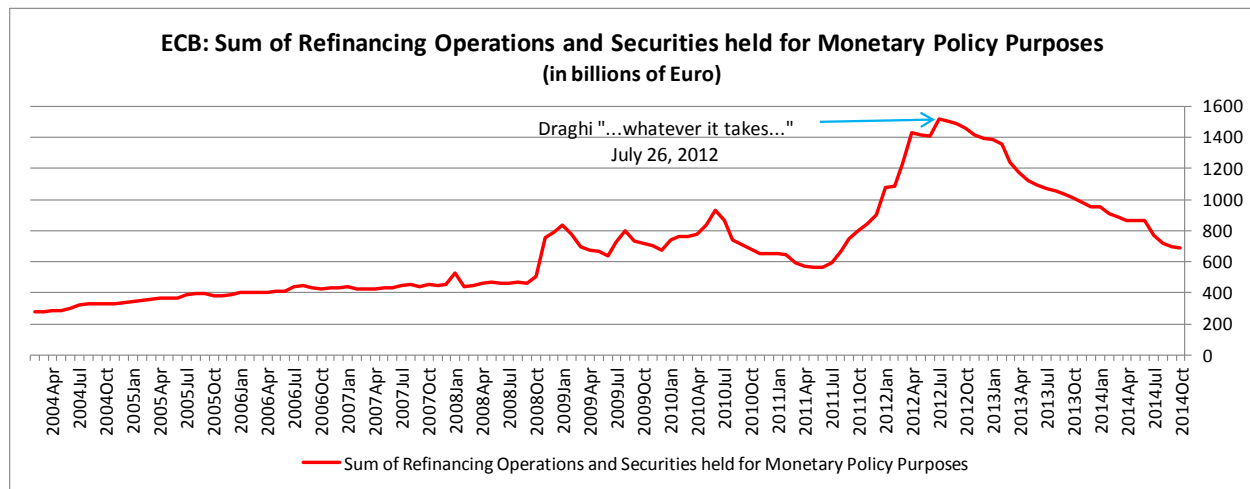


What the ECB has done

If one were to rank policy effectiveness by “bang per buck” or “effect per euro”, a few words spoken in London by Mario Draghi on July 26, 2012 would certainly be near the top of the list. The notion that the ECB would do whatever it could and that “...it would be enough” has been widely credited with a dramatic fall in Euro-area spreads and almost singlehandedly saving the Euro.

The impact of those almost magical words seems to be waning now and the market is clamoring not for more “words” but for “quantitative easing”, QE. Whatever the market may mean by QE, it seems to have something to do more with quantity than quality and size rather than substance. It is therefore rather ironic that the market’s post-July 2012 hypnotic trance coincided with a clear and unwavering *downward trend* in the size of ECB monetary operations and balance sheet.



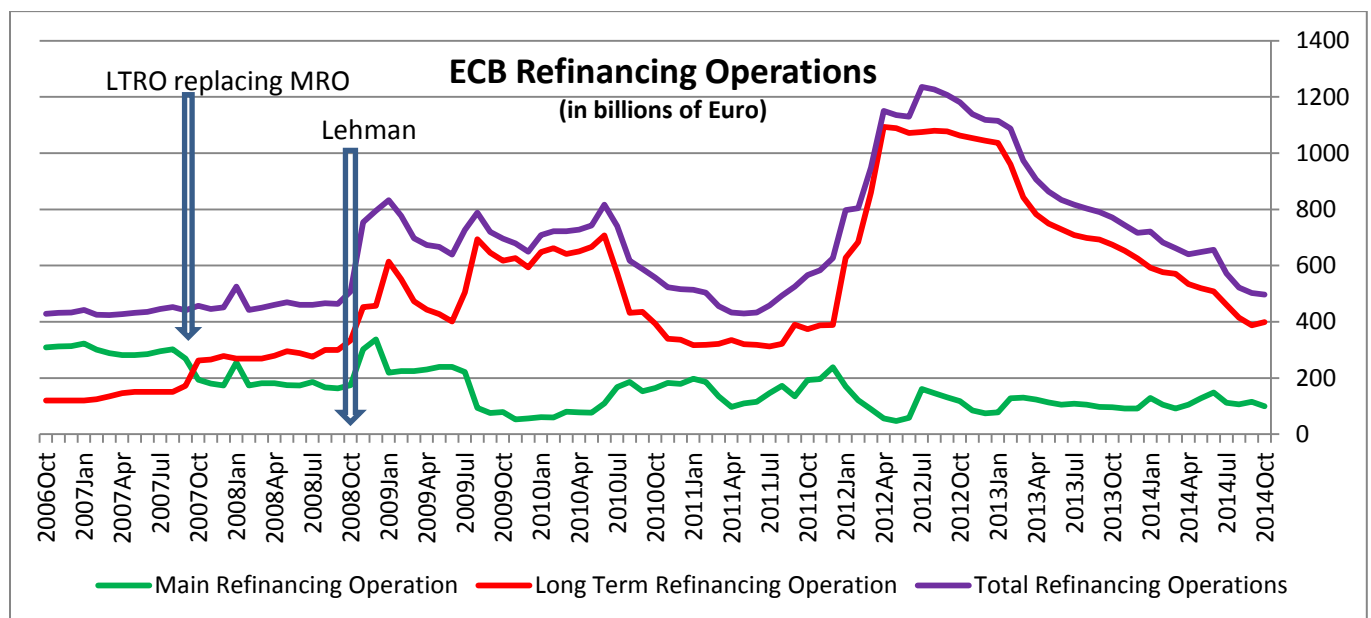
Rather amazingly, a crude quantitative measure of ECB stimulus—the sum of refinancing operations and securities held for monetary policy purposes—peaked the very month of Dr. Draghi’s speech. Those who are now seeking QE apparently believe that, despite the inverse correlation between quantitative stimulus and actual results, an increase in the size of the ECB balance sheet will lead to an outcome superior to that associated with the increase in policy “size” evident above during the 14 months prior to the Draghi speech. During that time, the sum of ECB monetary operations instruments expanded by 168 percent without any discernible palliative impact on markets. So if the definition of insanity is repeatedly trying the same behavior and expecting different results, the market would appear slightly insane. Or perhaps it is simply guilty of failing to fully comprehend the complexity of monetary operations, and more specifically, which monetary medicines work and which do not.

Prior to the Great Recession, all advanced country central banks—including the ECB—centered monetary policy on short term interest rate management. As the financial crisis unfolded, central banks expanded the number and nature of the tools they used actively. They broadened the scope of collateral accepted in their lending operations and bought lower quality assets than theretofore had been the case. At first, no central bank permitted an expansion in the size of its balance sheet. Despite

alarmist media reports to the contrary, neither the *quantity* of their assets nor liabilities materially changed prior to the Lehman insolvency. Solely the *composition* of balance sheet assets changed.¹

Only following Lehman and the events of the third week of September 2008 did central bank balance sheets begin to expand, and expand rapidly they did. On the liability side, after a couple of months of temporizing, domestic monetary bases (the primary central bank liability) began to expand one-for-one with expansions on the asset side. Virtually all of the liability expansion took the form of bank reserves—currency played merely a bit role in the drama². On the asset side, central banks provided more credit and of longer duration (often against somewhat dodgy assets) to banks and acquired less than credit pristine assets through outright purchases. The expansion of the monetary base was **not** an intent of policy—it was an unintended consequence of asset accumulation³.

The first alteration evident on the ECB balance sheet occurred as short term operations declined and long term operations rose. It was only after Lehman that total operations significantly increased.



As can be seen, the total volume of refinancing operations was virtually unchanged up until the Lehman insolvency yet there was an increase in the duration of lending. Essentially, banks were searching for guaranteed liquidity in the future—substituting longer duration debt that guaranteed financing, even if it were at a higher expected cost than rolling over short term borrowing⁴.

Total ECB refinancing operations are currently (October 2014) slightly less than they were in October 2008, the first post-Lehman month. Utilization of MRO credit has remained below pre-crisis levels since January 2009 while the use of LTRO credit remains elevated—albeit falling rapidly.

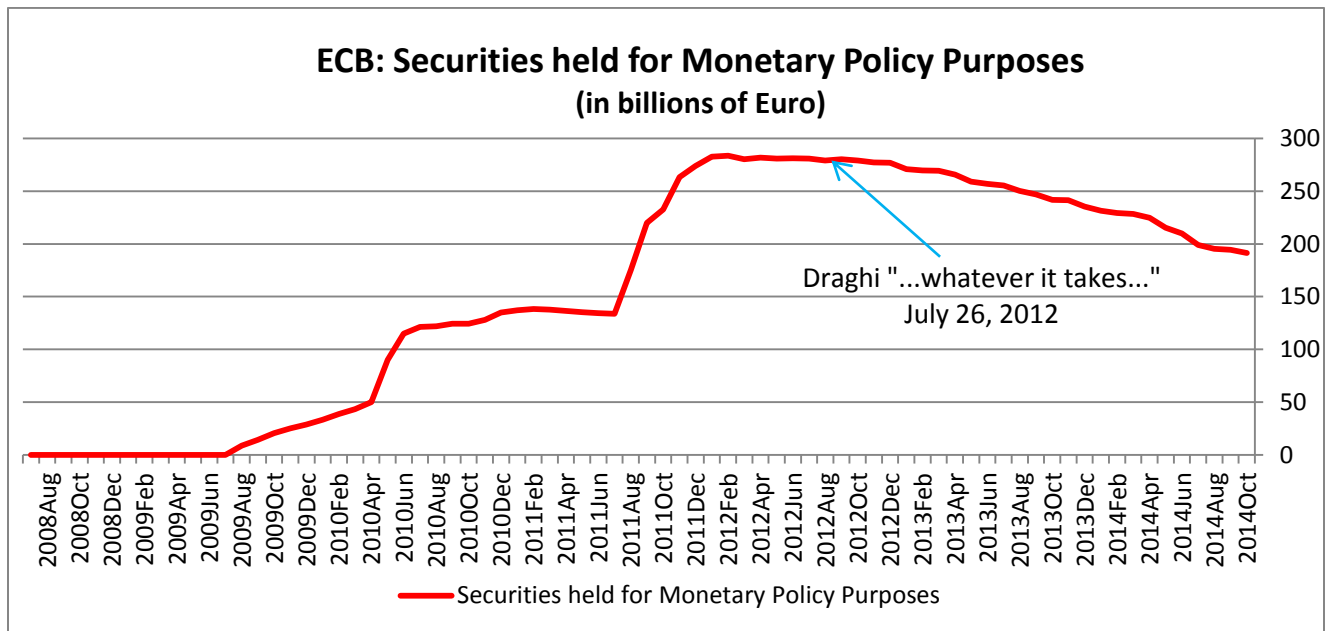
¹ See IMF WP 08/210 (<https://www.imf.org/external/pubs/ft/wp/2008/wp08210.pdf>) and IMF WP 08/220 (<https://www.imf.org/external/pubs/ft/wp/2008/wp08210.pdf>).

² The monetary base is currency in circulation + bank reserves (liquid bank deposits at the central bank).

³ The significant exception to this is Japan, discussed below and in bit.ly/16iM3zP.

⁴ MROs are one-week liquidity-providing operations and LTROs are generally three-month.

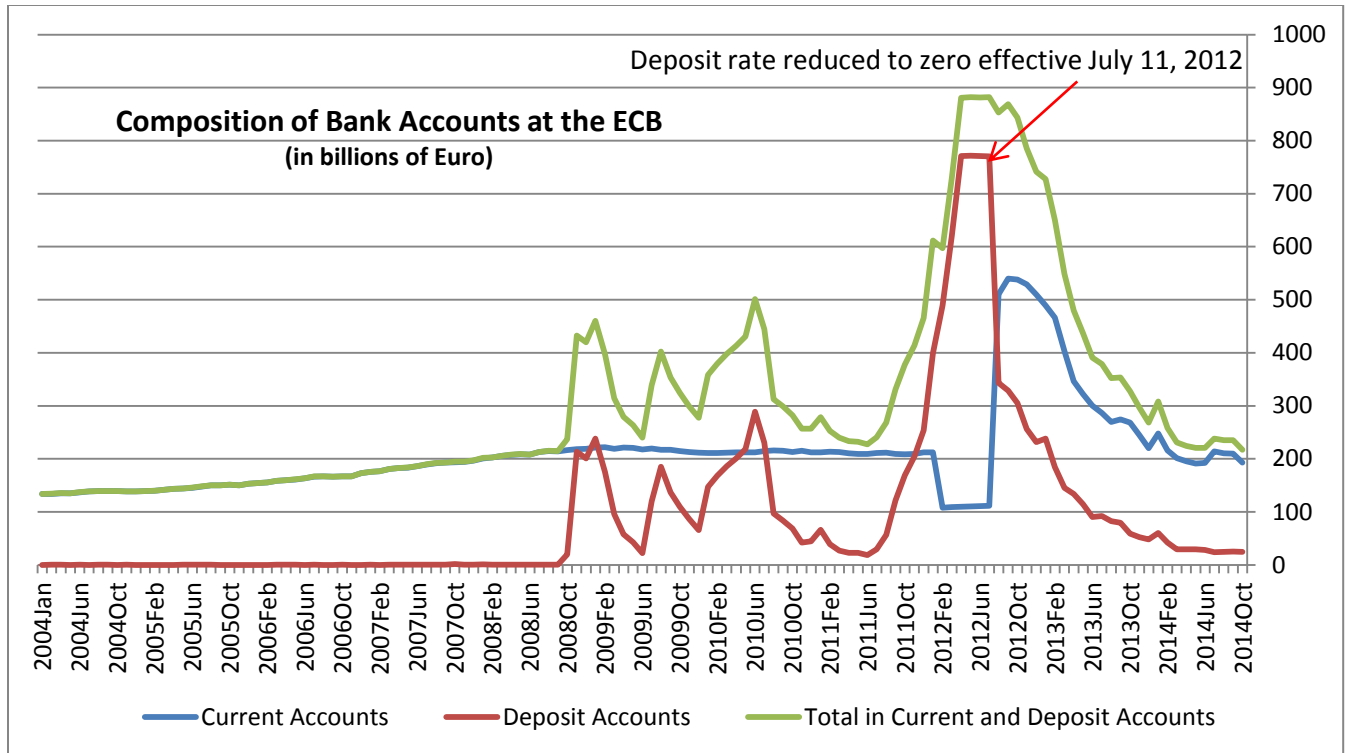
The second asset category driving movements in the size of the ECB balance sheet is “securities held for monetary policy purchases”. Whereas refinancing operations are confined to banks and have an amortization structure similar to a loan—often with provisions allowing early repayment, outright ECB securities purchases take place within the broader financial market and reside on the ECB balance sheet either until they are sold or the securities mature⁵. These securities have been acquired in the context of the Securities Markets Programme (2010) and the two Covered Bond Purchase Programmes (2009-2010 and 2011-2012). The evolution of the totals outstanding is shown below.



It is evident that the decline in securities held for monetary policy purposes has been less rapid than the decline in refinancing operations. The reason is simple. Refinancing operations may be repaid at the discretion of the banks while the securities portfolio amortizes at the rate of the underlying securities. As banks have become more confident of their liquidity situation they have seen less need to hold excess reserves. The lessened need to hold reserves, combined with the increased cost of holding them has induced banks to repay loans to the ECB. This has led to a decline in refinancing operations and a pari passu decline in bank reserves and the monetary base. The net cost of holding reserves has risen with decreases in the rate the ECB pays on deposit accounts as the net cost = interest rate charged on lending minus interest paid on excess reserves (deposit account balances).

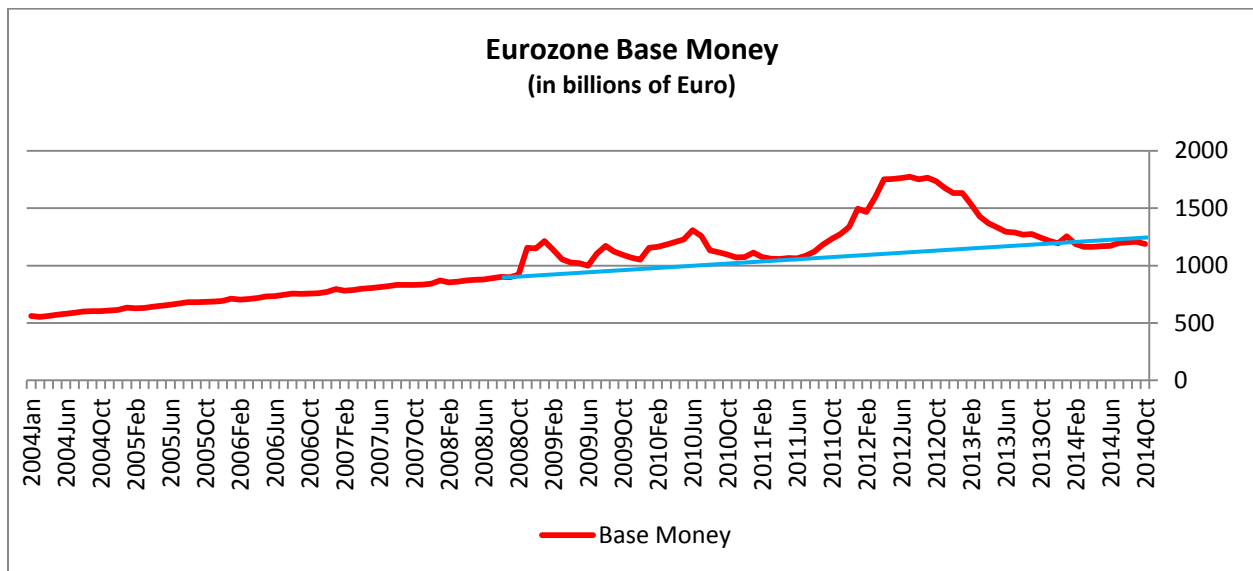
The impact of reducing the deposit rate to zero is evident in the chart below as is the fact that the volatility of bank reserves held at the ECB was reflected entirely in balances in deposit accounts until the reduction in the minimum reserve ratio from 2 to 1 percent effective January 2012. Balances were shifted significantly from deposit accounts to current accounts once the deposit rate was reduced to zero in July 2012. Total bank accounts at the ECB are presently at pre-crisis levels.

⁵ Both types of operations have identical impacts on bank reserves and the monetary base.

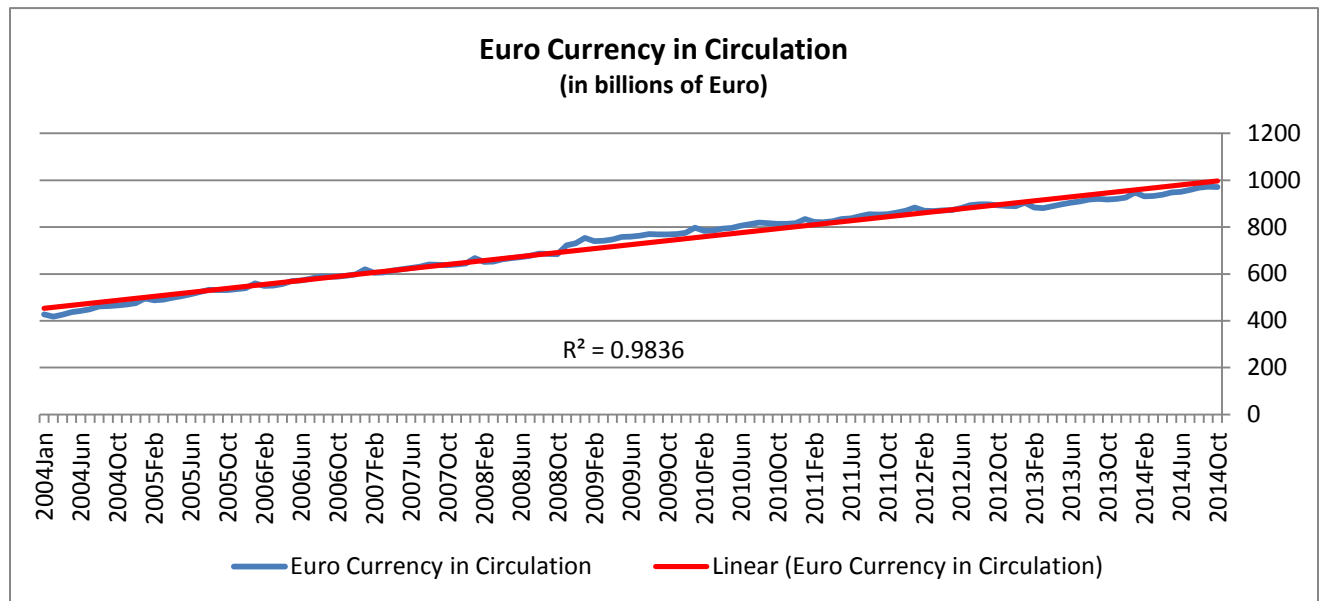


Active policy management can be effected by altering the composition of central bank assets—irrespective of the total size of the balance sheet—but such dynamics are considered irrelevant from the perspective of QE. QE is concerned simply with the size of the balance sheet and thus can be analyzed equally well from the asset or liability side. Indeed QE advocates seem to dwell in a haze induced by a mistaken understanding of the quantity theory of money. In that view, expanding the size of the central bank balance sheet is both necessary and sufficient to provide expansionary monetary policy.

Let us now examine the ECB balance sheet from the purely QE perspective.



Base money appears to be right on its 10 year trend following some crisis-related turbulence. What is important to understand, however, is that central banks—even when they are aiming at QE type policies (as is the Bank of Japan)—never attempt to influence the quantity of *banknotes* in circulation. In other words, the supply of Euro banknotes is exactly equal to the amount desired by holders of those notes since retail clients are able to exchange deposits into notes without restriction and usually without explicit costs. Consequently, the quantity of banknotes in circulation tells us *nothing* about the active element of central bank monetary policy. Causality runs from demand to supply.



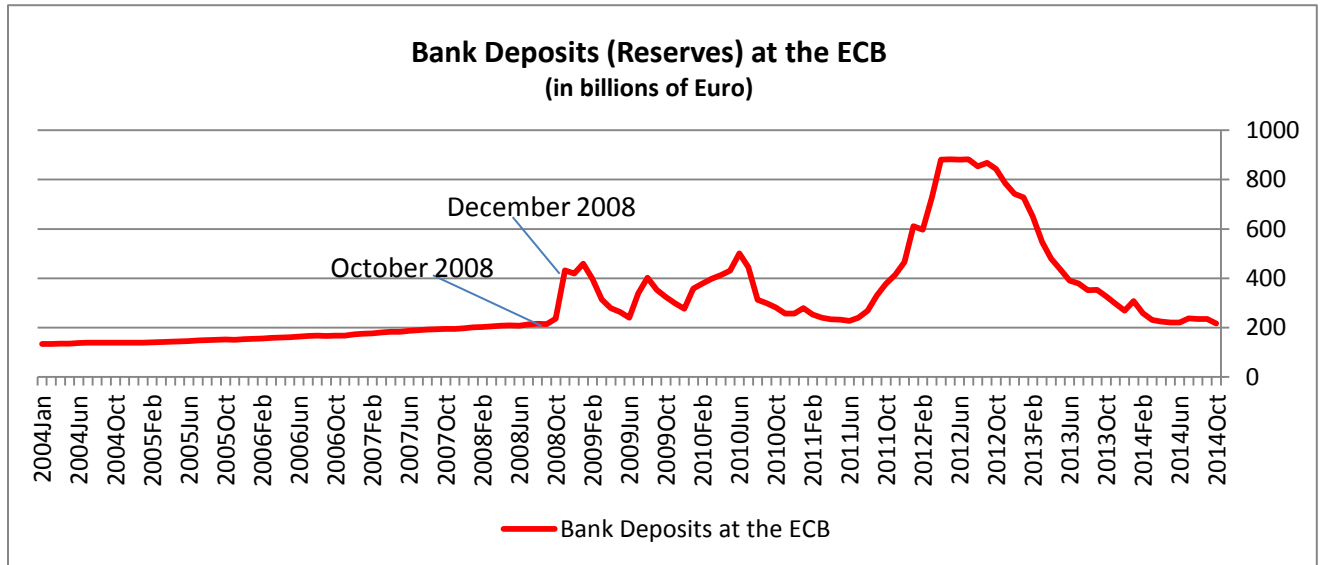
Seen from a different angle, the stability of the Eurozone monetary base is largely the result of the stability in the demand for currency and the large weight of currency in the monetary base⁶. Thus looking at the aggregate “monetary base” can lead to erroneous assessments of monetary policy.

The active part of the monetary base, the part reflecting the change in central bank policy assets, is bank reserves. Prior to the crisis, banks held virtually no excess reserves and the quantity of reserves—just as is the case with currency—was determined by market *demand*. Banks in the Eurozone were subject to a 2 percent minimum reserve requirement applied to “reservable” liabilities. The ECB supplied these reserves on demand at the policy interest rate. Consequently, bank reserves rose along with commercial bank balance sheet liabilities subject to reserves. Again, causality ran from demand to supply.

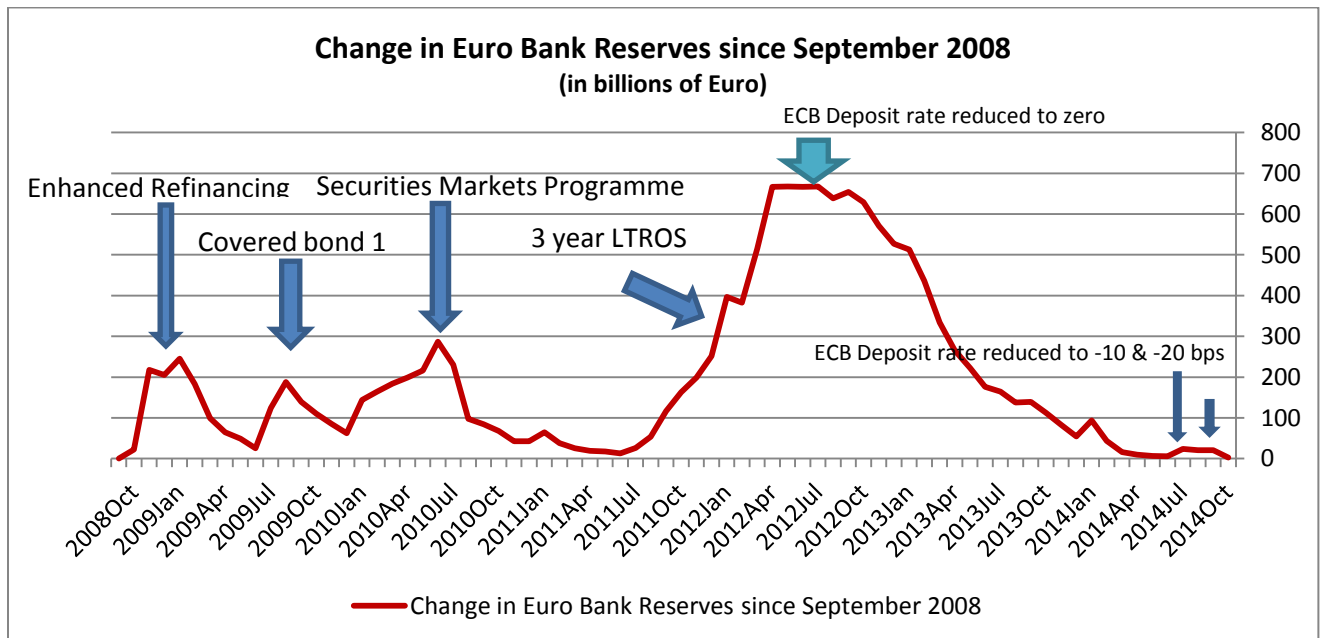
As can be seen below, bank reserves—as was the case with currency, rose steadily until October 2008. At that point the demand for excess reserves—reflecting the demand for longer term financing discussed above—rose. Bank reserves were subsequently volatile, reflecting the interplay between demand for excess reserves, the cost of holding them and the ECB’s outright purchases of assets and

⁶ Currency currently accounts for 82 percent of Eurozone monetary base. It accounted for 78 percent in October 2006. Bank deposits are at pre-crisis levels while demand for currency has grown steadily.

their amortization. Reserves currently are slightly below the level that obtained in October 2008 and slightly above the level of September 2008.



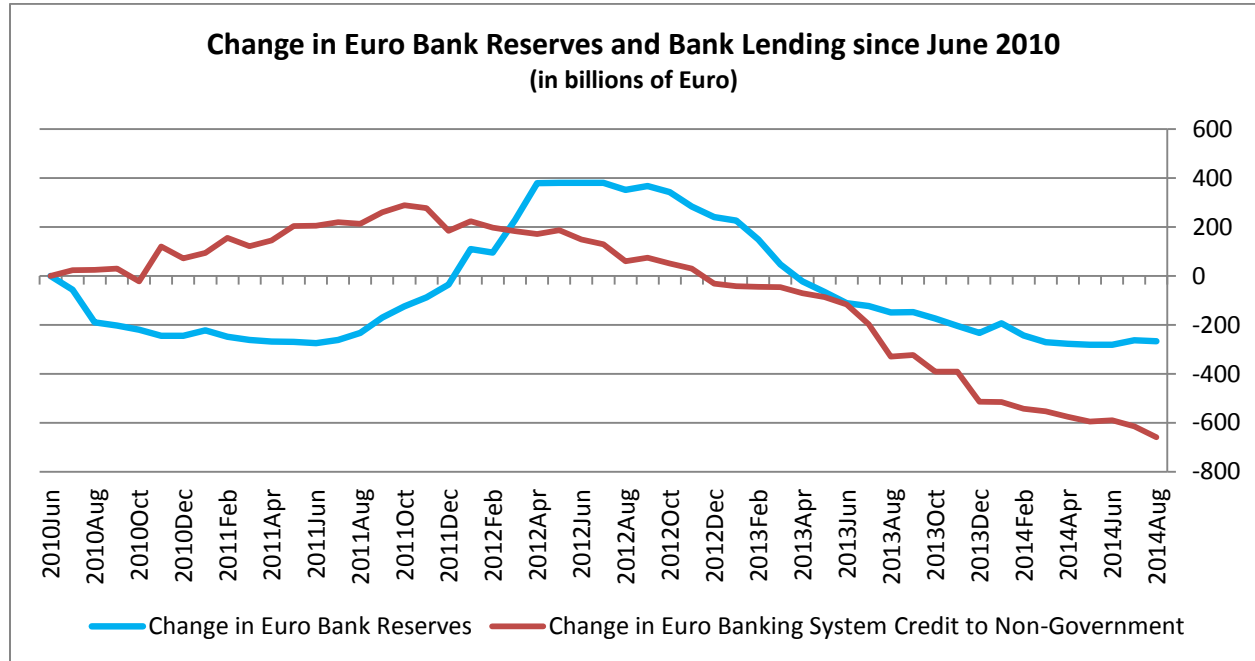
Examining more closely the fluctuations since September 2008, the impact of ECB policies on bank reserves is evident. The most significant impact on bank reserves occurred with the 3 year LTROs provided on December 22, 2011 and March 1, 2012.



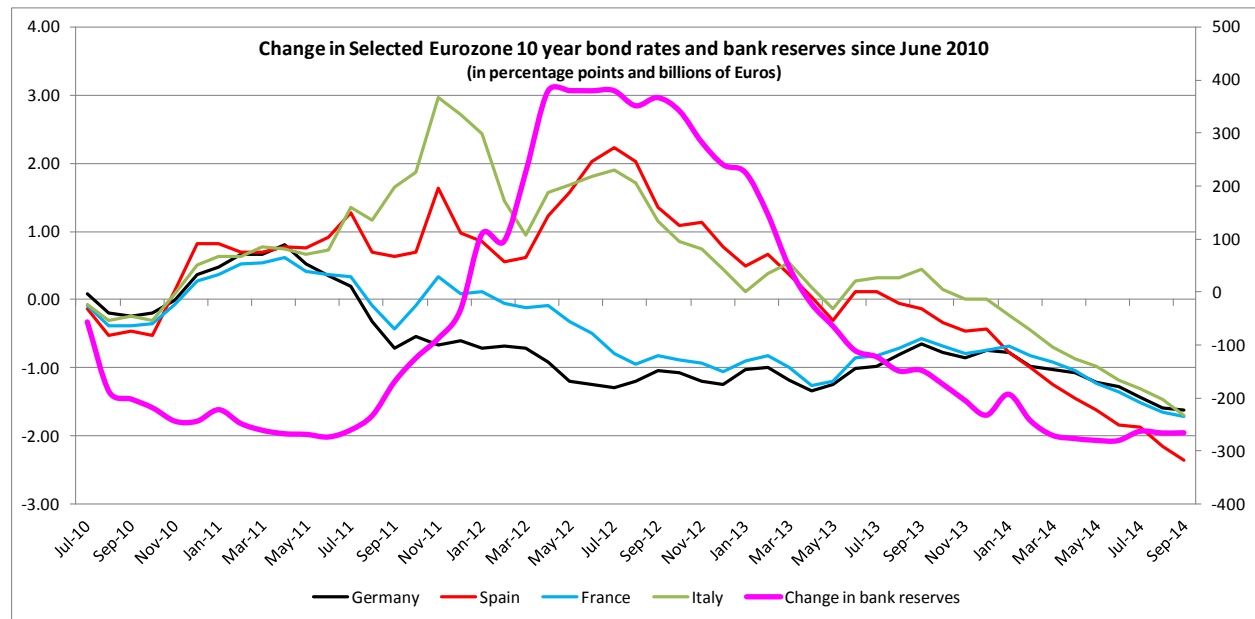
The 3 year LTROs incorporated a provision that permitted early repayment starting one year after the settlement of the respective operations. The repayment process can be seen to start in December 2012.

Does the volume of bank reserves matter?

Bank reserves fell from June 2010 through July 2011 while bank lending increased. Then reserves began to rise while lending began to fall through May 2012 whereupon they have been falling in unison.

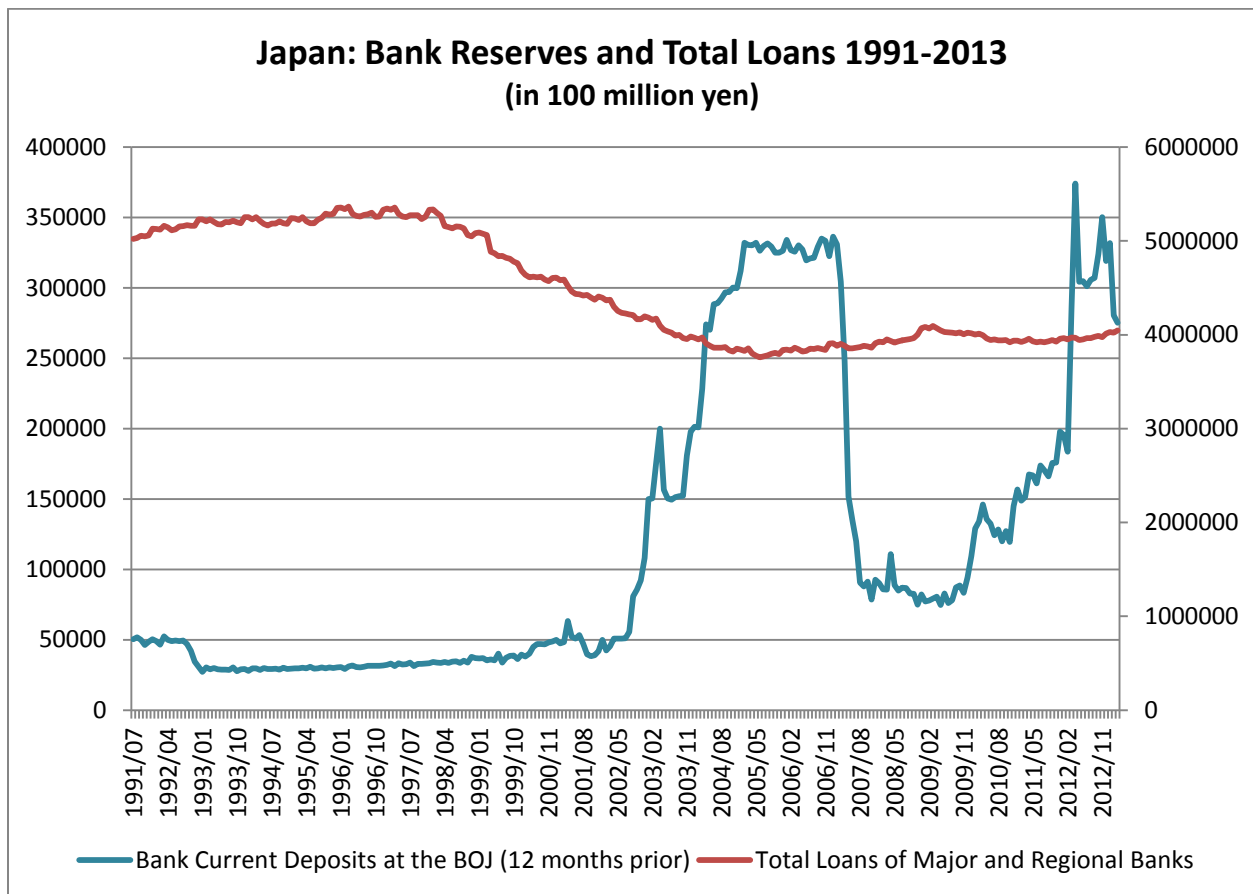


Bank reserves fell by € 274 billion between June 2010 and June 2011 while bank lending rose by € 200 billion during the same time span. Bank reserves then rose by € 641 billion (282 percent) by September 2012 while bank lending fell by € 200 billion. Bank reserves are clearly not “causing” lending. Nor does the simple textbook inverse relationship between the monetary base and interest rates hold.



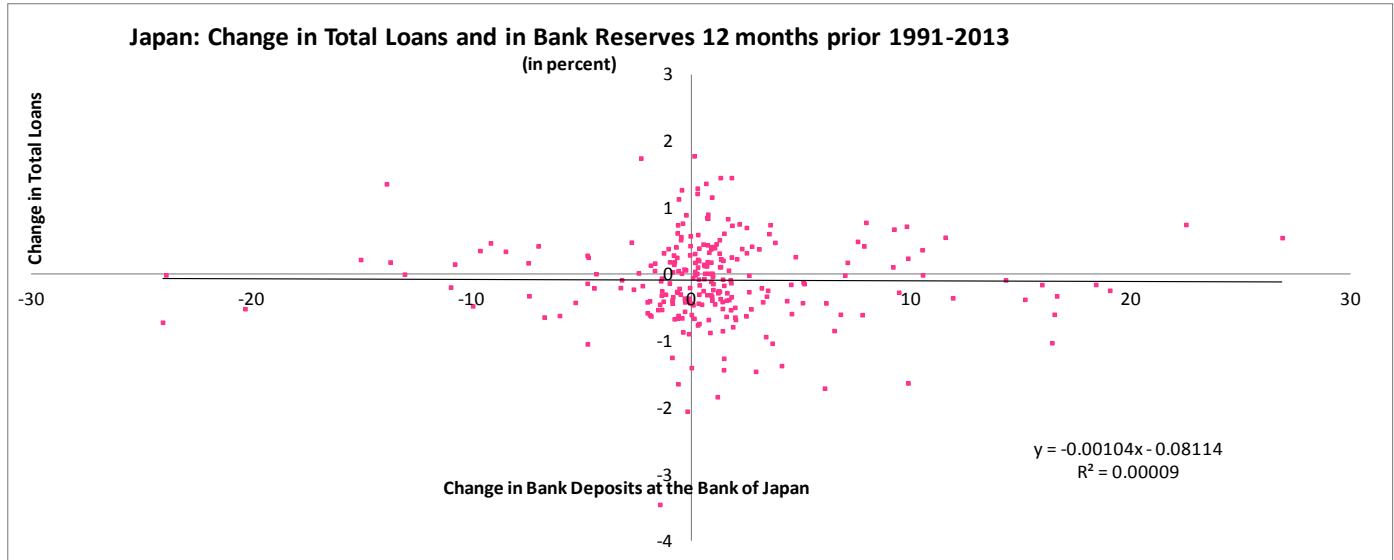
Indeed, as noted in the case of bank reserves and lending, Eurozone spreads for Italy and Spain reached their peak at the same time as base money reached a peak. Since the Draghi speech, reserves—and sovereign bond yields—have fallen steadily. In other words, demand for reserves rises when conditions are turbulent—there is fear in the market and lending falls—and fall when calm is established and lending resumes. The causality, if any, is the reverse of the mechanics misunderstood by QE advocates.

While this data contradicts the quantity theory of money as incorrectly understood, it is consistent with reality in other countries who have experimented with quantitative easing. Take Japan for example. There has been zero correlation between bank lending and bank reserves during recent decades and a *negative* correlation during the periods of quantitative easing.



A stunning increase in bank reserves did nothing to stem the secular decline in lending following the property market collapse in the 1990s. Nor did the similarly sharp drop in bank reserves seem to have prevented the anemic recovery in lending that began in 2004-2005. As is evident above, the second attempt at QE has had no more effect.

Viewed over the entire period 1991-2013, the correlation between bank reserve movements and Japanese bank lending is about as close to zero as is statistically possible.



What does all this signify for the Eurozone? The ECB *does* have tools that might be effective—promises to keep interest rates low for a long time; programs to take credit and interest rate risk on to the balance sheet such as purchases of corporate debt and asset backed securities; and foreign exchange intervention to directly weaken the Euro—but QE is not one of those effective tools.

Indeed proponents of QE seem rather confused. In Japan the explicit policy aim is to double bank reserves held at the BOJ. In the Eurozone, QE proponents were under the misguided impression that negative deposit rates would lead European banks to “lend out idle reserves”. In other words, in Japan the objective is to increase idle reserves while in Europe it is to decrease them.

Insanity.

QE is an empty box wrapped in pretty paper.

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 October 2014