## The Plumbing of the Global Financial System

While newspaper headlines tell us that global central banks united last Wednesday to "throw more dollars at Europe's crisis," in actuality, the banks' action is more like a plumber trying to fix a clogged pipe. In this case, the Bank of Canada, Bank of England, Bank of Japan, European Central Bank, the Swiss National Bank and, most importantly, the Federal Reserve, comprise the team of plumbers. The pipes are the linkages of the global financial system. The water flowing through those pipes is US dollars. The tools available are US dollar loans ("central bank liquidity swaps") supplied by the Fed at a rate of OIS + 50 basis points (0.59%) to banks around the world.

### Why is this happening?

First, it is important to note that the US dollar plays a dominant role in global, cross-border banking activity. Over the last decade, European global banks borrowed in the US dollar money markets from US households (via money market funds, for example) and lent money in the shadow banking system by purchasing private label assets (SIVs, ABCP, MBS or corporate bonds). This complex chain connected depositors to the borrowers just like an old-fashioned, simple banking system, yet our modern system transcends national borders (see Diagram below).

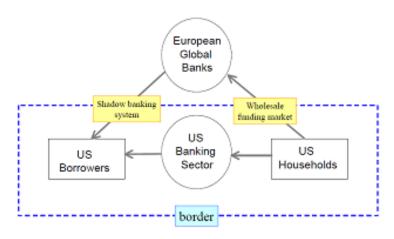
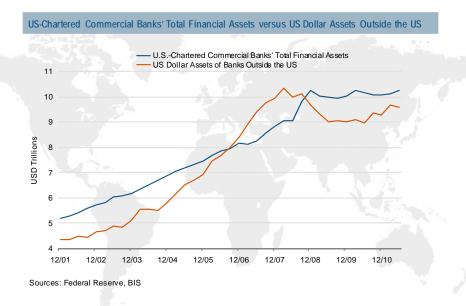


Figure 1. European global banks add intermediation capacity for connecting US savers and borrowers

Second, the size of this "offshore" US dollar banking sector is massive. It is comparable in size to the US-chartered commercial bank sector (See Chart below). That's right, US dollar assets of banks outside the US total nearly \$10 trillion. Not all of the counterparties to lending activity are US residents – in fact, a substantial portion of the nearly \$10 trillion in dollar assets held by banks outside the US involve non-US counterparties: thus we see the imposing presence of the US dollar in "offshore," or global banking operations.

#### Non-US Banks' US Dollar Assets Rival US Bank Holdings

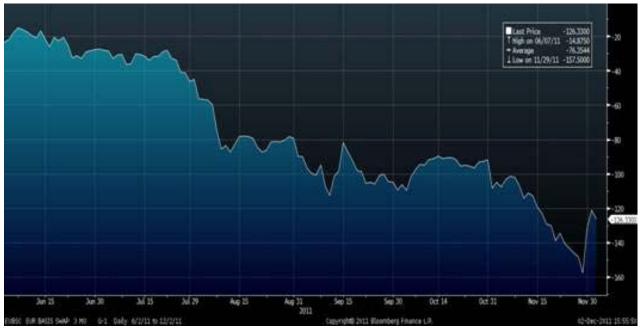


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The third reason for the central banks' intervention is a clog in the financial plumbing described above. The clog began to accumulate in 2007 and 2008 as demand for US dollars spiked globally. 2011 marked a change as the exposure of US money market funds to European names decreased. Further, US households prefer to put money in savings deposits at US banks and US banks prefer to buy US Treasury securities or park money at the Federal Reserve. In short, the "depositors" in our complex chain in the diagram above prefer to hold US dollars rather than lend them out globally.

This domestic preference curtails the flow of dollars to non-US banks and the global dollar system. The Fed originally unveiled the central bank currency swaps to address the situation. Borrowing via the swap lines peaked near \$600 billion in 2008 before receding. In a central bank currency swap, the Fed creates US dollars and transfers them to the ECB in exchange for euros. The exchange will be reversed in the future along with an interest payment. The Fed's counterparty is the ECB, not the ultimate bank borrowers the ECB lends dollars to. As of last week's data, borrowing through the US dollar swap lines totaled only \$2.4 billion. One question you might ask is: why doesn't a European bank borrow euros from the ECB and swap euros for US dollars in the market? Why does the ECB need the Fed? The answer is that this option has always been available to banks—for a price. The price of that "cross-currency basis swap" has been on the rise since June—going from -20 bps to -157 bps prior to the coordinated central bank announcement on Wednesday (See chart below).

#### **Cross-Currency Basis Swap**



They say you never care about your home's plumbing until there is a problem. Indeed, in the age of globalized financial systems, we find ourselves dealing with the same household problem, only writ large. Instead of "throwing dollars at Europe's crisis" the Fed is acting as a plumber, ensuring the pipes through which dollars flow in global markets remain clear of obstructions. By no means is this a solution to the European crisis, but it is a recognition of the importance of US dollars on a global basis and the Fed's role as a global lender of last resort.

# The plumbing matters!