11-18-2008

Understanding the Federal Reserve's Swap Line

Perry Mehrling

FINANCIAL TIMES
ft.com > comment > blogs >
Economists' Forum

Understanding the Fed’s swap line

Financial Times Author alerts Nov 18 2008 17:37 Comment

By Perry Mehrling

In a speech last week on “Policy Coordination Among Central Banks”, Ben Bernanke, US Federal Reserve chairman, drew attention to the way that the Fed’s swap line with other central banks has been used to facilitate lender of last resort funding for dollar-denominated assets held outside the US.

We should be thinking here about mortgage-backed securities (and their collateralised debt obligation derivatives) that are now on the balance sheets of European banks as a consequence of the collapse of the off-balance sheet structured investment vehicles where they were originally held.

Recall that the SIVs originally financed themselves in the international dollar money market by issuing asset-backed commercial paper, largely to institutional holders or to money-market mutual funds.

The current “policy coordination among central banks” should be understood as a consequence of the collapse of that money market funding.

What Ben Bernanke is talking about is the movement of a substantial chunk of the international money market onto the balance sheet of the central banks.

As an aside, it should be noted that the domestic money market is also moving onto the balance sheet of the Fed. We see that in the wide range of new lending facilities on the asset side, and in the enormous reserve balances on the liability side. As of November 12, the latter number was $592 bn.

These lending facilities involve substantial credit risk for the central bank, even when they are collateralized, since eligible collateral now includes any investment grade security whatsoever.

The $592bn is a substantial underestimate of the scale of the operation, since it does not include the first stage of the lending operation which was financed by liquidation of the Fed’s holding of Treasury securities.

How much money are we talking about? Observers of the Fed balance sheet have watched over the last few weeks as its swap facility (which shows up on the balance sheet as "other Federal Reserve Assets") has swelled to $615bn. What does this sum mean in terms of exposure of the US government and taxpayer?

The economics of such a currency swap are, in principle, quite simple. Domestic and foreign central banks in effect open deposit accounts with one another, each one writing an IOU in its own currency. The balance sheet relationships are thus as follows:

Federal Reserve
Assets/Liabilities:
Euro deposits/Dollar deposits European Central Bank

European Central Bank
Assets/Liabilities:
Dollar deposits/Euro deposits Federal Reserve

Because this swap is between central banks, we can ignore counterparty risk. We will also ignore the credit risk that comes from the ECB onlending its dollars to bank holders of mortgage-backed securities.

With these simplifications, the risk in this swap is simply exchange rate risk. Euro deposits pay a certain rate of interest and dollar deposits pay a certain rate of interest.

If the exchange rate between the euro and the dollar moves by exactly the differential between these rates of interest, then there is no gain or loss to either side.

If the exchange rate moves by more or less, then there is gain to one side or the other. Possibly there is some side agreement among the central banks about sharing these gains/losses.

That is the economics, and that is what is happening. A reader of the Fed's balance sheet will not necessarily see that, however, since there is no explicit mention of either the deposit of the Fed in the ECB or the deposit of the ECB in the Fed. After some detective work, I think I know what is going on.

The Fed stepped in to take over AIG, the ailing insurer, on September 16. The next day the Treasury announced what it called its "Supplementary Financing Program" and the day after that the Fed announced the establishment of currency swap lines with other central banks. I think these latter two announcements are related.

Instead of booking its dollar creation to the credit of the ECB, the Fed is booking it to the credit of the Treasury. And instead of booking the ECB's euro creation as an explicit asset, the Fed is including it in the catchall "other Federal Reserve assets".

Fluctuations in the exchange rate between the euro and dollar show up as valuation changes in this asset. Possibly those valuation changes are shared with the Treasury, but the economics are not affected by such risk-sharing.

Here are the most recent numbers, as of November 12:

Federal Reserve
Assets
Other FR assets $615, 041bn

Liabilities
$558, 892bn US Treasury, supplementary financing account

Why is the Fed booking the currency swap in this way, rather than more transparently? Perhaps it is a matter of appearances.

The Treasury is involved because of the exchange rate risk-even though in this case the Fed is long the Euro and so gains when the dollar falls, and loses when the dollar rises-but also because it might be unseemly for the Fed to carry on its books a $558bn debt to European central banks. So it creates money to the credit of the Treasury, and the Treasury lends the money on to the ECB, which lends it to European banks.

For lack of a world central bank, this is the form that international lender of last resort intervention is taking. The world money market is moving onto the balance sheets of the world central banks.

Perry Mehrling is professor of economics, Barnard College, Columbia University

Posted in Central banks, Eurozone, Federal Reserve | Permalink