FastFacts

The Mechanics of the US Treasury Bail-Out Plan

22 September 2008

In the wake of the dramatic events in financial markets of the last few days, we have received numerous questions from clients regarding how the various proposals are intended to work. In response, we have asked John Greenwood, Invesco Chief Economist, to provide the answers to the following key questions:

The Fed has apparently in effect bought Fannie, Freddie and AIG. Where does the money come from?

It is the US Treasury (i.e. the US government) that has bought Fannie Mae & Freddie Mac, as well as AIG, not the Federal Reserve System (the central bank). It is true that the Fed has agreed to advance loans to these financial institutions, but that money will be repaid to the Fed by institutions that are now controlled by the Federal government. So it is the US Treasury (or the US taxpayer) that will be out of pocket. In addition to these take-overs, Treasury Secretary Paulson is proposing a comprehensive bail-out plan to acquire up to USUS$700 billion of the illiquid assets of US commercial banks over the next two years. The US Treasury must therefore find the funds to make these acquisitions.

Fundamentally there are only three ways to finance additional government spending: by raising taxes, by additional borrowing, or by printing money. Based on the information released so far, it looks as though the bulk of the new funds will come from increased federal government borrowing. As long as it is the Treasury and not the Fed that is making the acquisitions, there is no need for new money to be printed.

What does it do to the US deficit?

The comprehensive bail-out plan along with the other acquisitions will raise both the federal government's budget deficit and the level of the federal net debt.

The US$700 billion bail-out plan implies spending as much as the combined annual budgets of the three federal government Departments of Defence, Education, and Health & Human Services, and could raise the budget deficit from the current 2.8% of GDP to as much as 8%. The OECD estimates the level of US net debt in 2008 at 48.0% of GDP compared with 32.9% for the UK, 43.2% for Germany, 86.8% for Japan and 90.7% for Italy.

General government net financial liabilities

(% of nominal GDP)	2008	2009
Germany*	43.2	42.2
Italy	90.7	90.5
Japan**	86.8	87.6
United Kingdom	32.9	35.4
United States***	48.0	51.9

Source: OECD Economic Outlook 83 Database.
Note: Net debt measures are not always comparable across countries due to different definitions or treatment of debt (and asset) components.
*Includes the debt of the Inherited Debt Fund from 1995 onwards
**Includes the debt of the Japan Railway Settlement Corporation and the National Forest Special Account from 1998 onwards.
*** USA before latest measures

The Paulson proposal could potentially require raising the US debt ceiling to US$11.315 trillion from US$10.615 trillion, and raise the government's net debt to around 55-60% of GDP over the next few years.

The big increase in US government borrowing clearly implies some "crowding out" of the private sector from the credit markets. This means that interest rates will be higher than they would otherwise have been. However, we should note some important caveats about how much rates may rise (see below).

What does that do to the currency?

As long as the Federal Reserve does not print money to finance the deficit, the increased deficit need not weaken the US dollar. However, this will require a huge vote of confidence by international investors.

In Japan's case the 87% level of net debt has been financed without undue weakening of the currency. However, Japan is viewed as a high-saving nation with a large current account surplus, and therefore does not depend on foreign borrowing to support its currency like the United States.

In Italy's case the high level of net debt was a millstone weighing down the value of the Italian lire until Italy became a member of the eurozone in 1999, enabling its indebtedness to be effectively diluted by the overall fiscal strength of the other euro nations. More recently, with Italian net debt at 91% of GDP and the economy weakening, 10-year Italian government bond yields are trading at 70 basis points over German government bond yields (compared with only 10-20 basis points over in 2005 and 20-30 basis points over in 2007), so doubts are beginning to creep in again.

In the case of the US, its low savings rate, its substantial current account deficit and its dependence on foreign borrowing mean that the US currency could be much more vulnerable to an increase in US dollar debt in the future.

What does it do to the sovereign wealth funds and others who have been buying US Treasuries as well as US agency and corporate bonds, and put billions upon billions into the equity shares of financial companies such as Merrill Lynch or Lehman and others?

Those who bought ordinary shares in Lehman Brothers, or ordinary shares in Fannie Mae, Freddie Mac or AIG will lose almost all of their investment, no matter whether they are sovereign wealth funds, foreign institutional investors, or individual investors. However, the fact that the surviving companies (which of course would exclude Lehman) are now owned or controlled by the federal government will benefit some of those investors who bought the debt (e.g. bonds or floating rate notes etc) of these companies. Note though that the loan to AIG from the government ranks senior to all bond holders so it is probably premature to say that all bond holders will be fully protected.

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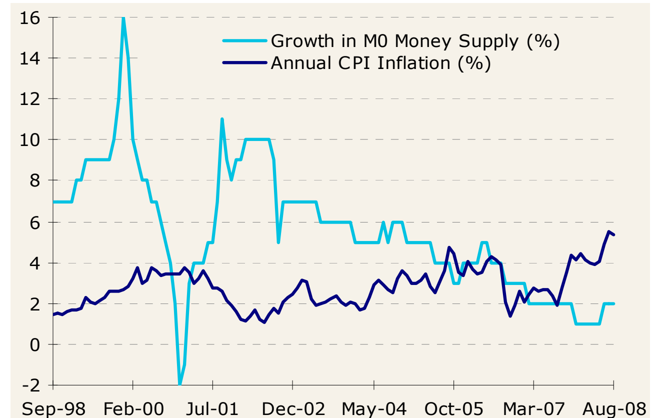
The central banks have pledged US$180bn. Where does it come from? - Our pockets? How much will it cost us? When do we get the money back?
Central banks have conducted three types of operations in recent weeks and months. None of these takes money from the pockets of taxpayers.

First, they have injected large amounts of funds into the commercial banking system by means of "repurchase" or "repo" operations. This means that they lend cash to a bank against the collateral of a security such as a Treasury bill. At the expiry of the repo the cash is repaid to the central bank and the collateral is returned to the borrower. In the case of most major central banks the amount of repos has increased rapidly since the credit crunch began, while the central banks have correspondingly reduced their holdings of domestic Treasury bills and bonds. Hence the form or composition of central banks' assets has changed (so that they hold more repos, and less Treasury securities), but the total amount of assets that they hold – which is what drives the monetary base -- has not necessarily increased very much.

Second, led by the Federal Reserve, some central banks (including the Bank of England) have begun lending securities, especially Treasury bills, to commercial banks, taking in exchange various types of securities including asset-backed securities. The primary purpose of this activity is to unblock the credit channels by making available to banks a flow of high quality paper that they in turn can "repo" with other capital market participants. This kind of repo lending plays a central role in the wholesale credit markets nowadays and the central banks therefore view it as critical that banks have sufficient liquid securities that they can pledge in these kinds of transactions. For banks, the liquid, high quality T-bills will in effect be temporarily taking the place of the illiquid, low quality asset backed paper that nobody trusts any more, and they will be able to conduct repo transactions unimpeded by concerns about the underlying value of dodgy assets.

Third, central banks have arranged international swaps with other central banks. Last Thursday the Fed loaned US$180 billion to other central banks in exchange for them lending the Fed an equivalent quantity of foreign currencies. The foreign central banks will lend these US dollars to commercial banks in their countries, and in time receive repayment. Similarly, the foreign central banks will in time repay the Fed, and therefore the money provided through these operations will eventually be removed from the global economy. The Fed is unlikely to need to use the foreign currencies that it receives.

What will it do to interest rates?
The central banks have generally been careful to separate interest rate policy (or monetary policy) from their willingness to re-liquefy markets (via repos and security lending). Although the Fed has cut rates sharply from 5.25% last August to 2% today, it has only increased the amount of money that it provides to banks through the monetary base (bank reserves and currency) by about 2% over the past year – a historically low rate of growth.



Source: Datastream, Sept 1998 to Aug 2008.

The proposed large-scale borrowing by the US Treasury will inevitably "crowd out" some borrowing by private sector companies and households. However, the impact on the level of interest rates depends on two sets of factors: inflation and the private sector's demand for credit. The level of inflation is the more important of these two. For example, in the aftermath of Japan's real estate collapse in the 1990s Japanese interest rates fell to extraordinarily low levels even though the government was borrowing huge amounts and running deficits as large as 8% of GDP. The reason was that inflation disappeared and there was deflation. Moreover, since the Japanese economy was in a slump, demand for credit was weak.

If the Fed increases the amount of funds it provides to domestic commercial banks through the first two types of operations above (repo lending and security lending), then there will be a risk of fuelling inflation and higher interest rates in the future, but so far it has not done this. On the contrary, despite the huge demand for cash-type assets and a huge increase in risk aversion, the Fed has held the line by not printing more money (see chart). This in turn means that there is less risk of inflation and more risk of sharply falling headline inflation in 2009, and possibly even deflation in 2010.

I hear the Fed is thinking about allowing financial institutions to put their bad debts off balance sheets?
The Treasury's comprehensive bail-out plan intends to enable the Treasury to set up an entity similar to the Resolution Trust Corporation (RTC) which operated in the 1989-95 period to clean up the Savings and Loan banks by disposing of the assets of 747 such banks.

The new entity (let's call it RTC2) would purchase from US financial institutions assets that are currently illiquid, thus unblocking the credit channels that are currently frozen. Specifically, "the purchases are intended to be residential and commercial mortgage-related assets,

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which may include mortgage-backed securities (MBS) and whole loans." In effect this would replace the bad assets of banks with cash or good assets from the Treasury's new vehicle, thus freeing up the financial system, while the new Treasury vehicle would hold the mortgage assets either until it could sell them at a profit, or until it was forced to write them off at a loss. The price at which RTC2 buys the mortgage-related assets is a very important element in the plan. Suppose that the value of the MBS has been driven down to just 20 cents on the dollar just because of fear and panic. If the RTC2 can buy the assets at this price and later sell them at, say, 60 or 70 cents then RTC2 can expect to make a substantial profit. In this case the selling banks and their shareholders will lose out, but the overall cost to the taxpayer will be much reduced. If, however, RTC2 overpays, and ultimately sells the MBS at a loss, then bank shareholders will make smaller losses than otherwise, and the taxpayer will be the loser.

Does it not mean the debt will still have to be repaid? Do they still not have to pay interest against those debts?

The underlying mortgage borrower will not be freed of his or her obligation to repay interest or principal on his or her debt. What's changed is that the repayments end up with the new owner of the debt – the Treasury, which has bought the debt instrument (e.g. a mortgage-backed bond) from a commercial bank for cash. The commercial bank, having sold the debt for cash (albeit at a discount) has improved both its liquidity and its solvency.

Notice that if the Treasury's new vehicle now sells the mortgage-backed asset at a profit, some of the US$700 billion could be repaid. However, if the Treasury sells the acquired assets at a loss, the taxpayer will carry the burden of loss because the Treasury debt will become permanently larger by the amount of the loss.

Here is the Press release from the US Treasury concerning the details of the comprehensive bail-out mechanism.

FACT SHEET: Proposed Treasury Authority to Purchase Troubled Assets

Washington – The Treasury Department has submitted legislation to the Congress requesting authority to purchase troubled assets from financial institutions in order to promote market stability, and help protect American families and the US economy. This program is intended to fundamentally and comprehensively address the root cause of our financial system's stresses by removing distressed assets from the financial system. When the financial system works as it should, money and capital flow to and from households and businesses to pay for home loans, school loans and investments that create jobs. As illiquid mortgage assets block the system, the clogging of our financial markets has the potential to significantly damage our financial system and our economy, undermining job creation and income growth. The following description reflects Treasury's proposal as of Saturday afternoon.

Scale and Timing of Asset Purchases. Treasury will have authority to issue up to US$700 billion of Treasury securities to finance the purchase of troubled assets. The purchases are intended to be residential and commercial mortgage-related assets, which may include mortgage-backed securities and whole loans. The Secretary will have the discretion, in consultation with the Chairman of the Federal Reserve, to purchase other assets, as deemed necessary to effectively stabilize financial markets. Removing troubled assets will begin to restore the strength of our financial system so it can again finance economic growth. The timing and scale of any purchases will be at the discretion of Treasury and its agents, subject to this total cap. The price of assets purchases will be established through market mechanisms where possible, such as reverse auctions. The dollar cap will be measured by the purchase price of the assets. The authority to purchase expires two years from date of enactment.

Asset and Institutional Eligibility for the Program. To qualify for the program, assets must have been originated or issued on or before September 17, 2008. Participating financial institutions must have significant operations in the U.S., unless the Secretary makes a determination, in consultation with the Chairman of the Federal Reserve, that broader eligibility is necessary to effectively stabilize financial markets.

Management and Disposition of the Assets. The assets will be managed by private asset managers at the direction of Treasury to meet program objectives. Treasury will have full discretion over the management of the assets as well as the exercise of any rights received in connection with the purchase of the assets. Treasury may sell the assets at its discretion or may hold assets to maturity. Cash received from liquidating the assets, including any additional returns, will be returned to Treasury's general fund for the benefit of American taxpayers.

Funding. Funding for the program will be provided directly by Treasury from its general fund. Borrowing in support of this program will be subject to the debt limit, which will be increased by US$700 billion accordingly. As with other Treasury borrowing, information on any borrowing related to this program will be publicly reported at the end of the following day in the Daily Treasury Statement. (http://www.fms.treas.gov/dts/)

Reporting. Within three months of the first asset purchases under the program, and semi-annually thereafter, Treasury will provide the appropriate Congressional committees with regular updates on the program.

Important information

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Invesco Aim Distributors, Inc. IVZ-COM-8-E 09/08