

The World's Most Profitable Company

The Fed's profits from interest on its holdings soared after 2007. But so did the risks from its purchases of toxic assets. Its accounting methods understate these risks.

by **William F. Ford, Visiting Research Fellow, and Walker Todd, Research Fellow**

Here's a multiple-choice question: Which of the following was the world's most profitable company in 2009? (A) Exxon Mobil, (B) Microsoft, (C) General Electric, (D) Wal-Mart, or (E) none of the above? The correct answer is (E). True, Exxon Mobil earned \$45.2 billion—more than Microsoft, G.E. or Wal-Mart.

But in 2009, the 12 regional privately-owned Federal Reserve Banks earned a reported \$52.3 billion profit—\$7.1 billion more than Exxon Mobil's profit, and more than G.E., Microsoft and Wal-Mart's combined 2009 earnings of \$48.5 billion.

The private owners of the 12 regional Federal Reserve Banks' shares are the 2,275 member banks of the Federal Reserve System, and they received dividends of \$1.4 billion on their 2009 holdings of Fed bank shares. However, the bulk of the Fed's reported \$52.3 billion in

2009 profit, \$47.4 billion of it, was transferred to the U.S. Treasury as imputed "interest on Federal Reserve notes," i.e., on U.S. currency in circulation.

The purposes of this article are (1) to explain how the Fed banks managed to earn such a huge reported profit last year and (2) to review some key issues about how

What began as a series of ad hoc responses to specific crises has evolved into a new business model for our nation's central banking system.

the Fed now calculates and reports its post-crisis profits. The latter is based on the Fed's own in-house financial reporting protocols under the Financial Accounting Manual for Federal Reserve Banks (FAM). As noted by the Fed's external auditors, FAM provides "a comprehensive basis of accounting other than accounting principles generally

accepted in the United States of America." The latter are known as Generally Accepted Accounting Practices, or GAAP, and are used for private companies.

The Old Business Model. Let's begin with a summary of how the Fed earned much smaller reported profits of \$38.7 billion in 2007. That was just before the global financial crisis triggered dramatic changes in both the size and composition of the Fed's assets, and in the sources of its profits, in 2008 and 2009. Viewed as a business model, the

Fed's pre-crisis normal operations were elegantly simple and highly profitable.

Tables 1 and 2 compare the Fed's balance sheet and income statement for the year 2007 and 2009. In 2007, things remained relatively simple—and traditional. For perspective on the timing here, we might recall that the so-called Great Recession began in December 2007, by which point the Fed had hardly changed its stance from business as usual.

Prior to 2008, the Fed raised funds mainly by printing and circulating money held by the public, which earns no interest, and via required reserve balances of finan-

Authors **William F. Ford** holds the Weatherford Chair of Finance at Middle Tennessee State University and is a former president of the Federal Reserve Bank of Atlanta. **Walker Todd** is the director of AIER's Summer Fellowship Program and the author of *Progress and Property Rights* (AIER, 2009). He formerly served as assistant counsel and research officer in a 20-year career at the Federal Reserve Banks of New York and Cleveland. This article is adapted from a lecture given during the 2010 Summer Fellowship Program.

cial institutions, which then also received no interest payments. It then invested the interest-free funds thus raised mainly in U.S. Treasury securities, which yielded about 5 percent interest, generating most of the Fed's profits. The bulk of those profits then went back to the U.S. Treasury, whence they came, after small amounts were set aside to augment the banks' capital base and to pay dividends of around 2.6 percent of its profits to the member bank "owners" of the 12 regional banks.

The New Business Model. Beginning at the end of 2007, and accelerating rapidly in 2008, the Fed's leaders rolled out a series of huge new programs to address the very serious liquidity and credit problems they perceived in both the domestic U.S. and international financial markets. With the benefit of hindsight, two and a half years later, it is now clear that what began as a series of ad hoc responses to specific crises—such as the failures of Bear Stearns and AIG—has evolved into a dramatically larger and fundamentally changed business model of our nation's central banking system.

By way of contrast, the post-2007

business model employed by the Fed banks now involves the following important and dramatically different elements. Tables 1 and 2 show both the surge in magnitudes and the addition of some new elements in the Fed's balance sheet and income statement.

The first is a 144 percent increase in the Fed banks' scale of operations—from \$915 billion in assets on its balance sheet at year-end 2007 to about \$2.2 trillion at the end of 2009. Second, the credit-risk profile of the Fed's assets has deteriorated sharply via reductions in its holdings of riskless U.S. Treasury assets, accompanied by huge additions of much riskier assets. These include dodgy Bear Stearns collateral, troubled AIG assets, \$919 billion of mortgage backed securities (MBS), and Fannie Mae and Freddie Mac agency debt of questionable credit worthiness. Third, a major element of interest rate (or "duration") risk has been added to the Fed's consolidated balance sheet via its huge purchases of the aforementioned long-term MBS. These came mainly from Fannie Mae and Freddie Mac, both technically bankrupt wards of the U.S. Treasury.

In turn, the three business-model changes have given rise to three major accounting questions about how the Fed now measures and reports its income and costs, how it manages its capital base, and what may happen if and when it actually moves to deflate its enormous new balance sheet.

1. The Credit-Risk Issue. Prior to 2008, assets on the Fed banks' balance sheets contained little or no credit risks of any kind, other than occasional risky forays into the foreign exchange markets. As noted earlier, most of its assets were risk-free U.S. Treasury securities. Discount window loans to banks normally accounted for a very small share of the Fed banks' assets, often under one percent, and were always more than fully collateralized with good quality assets provided by the member bank borrowers.

Therefore, even though the Fed's 2007 financial report provided that "If loans were ever deemed to be uncollectible, an appropriate reserve would be established," to date only a minuscule loan-loss provision has been established for a small part of its riskiest assets and charged against reported earnings. That may have been appropriate prior to 2008 when few or no clearly risky assets were normally carried on the Fed banks' books.

However, 2008 saw an expanding variety and huge volume of credit-risk laden assets. Why, then, have no clearly labeled and adequate loan-loss reserves now been established out of earnings to account for foreseeable losses on such dubious assets as the \$29 billion package of Bear Stearns loans and the partial takeover of AIG?

If such loan-loss provisions had been made in 2008 or 2009, the Fed Banks' reported earnings would have been much smaller. That, in turn, would have resulted in smaller payments of "interest on Federal Reserve notes" to the U.S. Treasury

Table 1: The Fed's 2007 and 2009 Balance Sheet
(billions of dollars)

	2007	2009
<i>Assets</i>		
U.S. Government Securities, net	792.1	806.0
GSE Mortgage-Backed Securities	-	918.9
All Other Assets	123.0	510.1
Total Assets	915.1	2,235.0
<i>Liabilities</i>		
Federal Reserve Notes Outstanding, net	791.7	887.8
All Other Liabilities	86.5	1,295.9
Total Liabilities	878.2	2,183.8
<i>Capital</i>		
Capital Paid-In	18.5	25.6
Surplus	18.5	25.6
Total Capital	36.9	51.3
Total Liabilities and Capital	915.1	2,235.0

Note: Numbers may not add owing to rounding.

Source: Board of Governors of the Federal Reserve System, *Annual Reports*, 2007 and 2009.

and a concomitantly larger reported U.S. Federal deficit.

Also, since the end of 2007, the Fed banks have accumulated about a \$1 trillion portfolio of long-term mortgage-backed securities (MBS) and agency-security debt, mainly from Fannie Mae and Freddie Mac. Those securities have an average reported duration or maturity date of well over 10 years and also contain substantial subprime high-risk loans.

The Fed banks have set up no loan-loss reserves against those dubious assets, perhaps because the issuers of those MBS, mainly Fannie Mae and Freddie Mac, guarantee the loans. Those now government-controlled bankrupt entities are experiencing huge multi-billion-dollar losses on their MBS portfolios which are being covered directly by the U.S. Treasury.

To that extent, while the Fed's related payments of "interest on Federal Reserve notes" to the Treasury may be technically accurate, from the point of view of U.S. taxpayers they are illusory.

2. The Interest-Rate Risk Issue.

The Fed's leaders have repeatedly stated their intention to offload their planned \$1.25 trillion holdings of MBS over an unspecified future period, after the economy and the housing sector are clearly on the road to recovery. Unfortunately, when those conditions are met, interest rates and the Treasury yield curve will almost certainly be rising, generating significant losses on long-term fixed-rate MBS holdings.

For example, if interest rates on 30-year fixed-rate mortgage-backed securities were to rise from, say, 4 percent to 5 percent, one billion dollars' worth of such bonds would decline in value by about \$150 million—a 15 percent loss. And \$1.25 trillion of such bonds could decline in value by almost \$190 billion—more than three times the \$51 billion of capital on the Fed

banks' consolidated balance sheet at the end of 2009.

Moreover, unless it offloads its huge MBS portfolio over a relatively short period, it runs the risk of driving up mortgage rates and setting back progress in the housing market's recovery when it begins to sell large packages of its MBS holdings.

3. The Leveraging-of-Capital Issue. During 2007 and earlier years, the Fed banks normally held their capital-to-assets ratio at about 4 percent, thus limiting their leverage ratio to around 25 to 1. The commercial banking industry, by way of contrast, has around 8 percent capital on its consolidated balance sheet, implying a leverage ratio of only about 12.5 to 1. Because the Fed banks, pre-2008, held proportionately fewer risky assets than their member banks, the Fed's 4 percent historical capital ratio would not be subject to criticism by most fair-minded observers.

Since 2008, as noted above, the

Fed has dramatically increased its holdings of assets laden with both credit-risk and interest-rate risk, while sharply increasing its leverage and cutting its capital-to-assets ratio roughly in half. In fact, the New York Fed, at year-end 2009, had a capital-to-assets ratio of only 1.3 percent, implying leverage of 76.3 to 1, even though it is the bank where most of the riskiest assets were created and booked before being spread around the system.

The foregoing changes involving large increases in leverage at the Fed banks are not particularly worrisome in terms of the survival-risk questions they engender when they occur at member banks or other truly private financial institutions. The Fed banks' failure to at least maintain their pre-crisis levels of capital, while taking on a trillion dollars' worth of assets carrying interest-rate and credit-risk, raises a serious transparency issue concerning the real impact of their reported earnings on the U.S. Treasury and

Table 2: The Fed's 2007 and 2009 Income Statement
(billions of dollars)

	2007	2009
Interest on U.S. Government Securities	40.3	22.9
Interest on GSE Mortgage-Backed Securities	-	20.4
Other Loans		4.5
Other Interest Income	0.6	15.3
Total Interest Income	40.9	63.1
Depository Institution Deposits	-	2.2
Interest Expense (REPOs)	1.7	0.1
Other Interest Expense	-	55.7
Net Interest Income	39.3	58.0
Total Operating Income (Service Fees, etc.)	3.4	-0.6
Assessments by the Board of Governors	0.9	0.9
Other Operating Expenses	3.4	4.1
Total Operating Expenses	4.3	5.0
Comprehensive Income	38.7	53.4
Dividends to Member Banks	1.0	1.4
Transfer to Surplus	3.1	4.6
Interest on Federal Reserve Notes	34.6	47.4
Total Distribution	38.7	53.4

Note: Numbers may not add owing to rounding.

Source: Board of Governors of the Federal Reserve System, *Annual Reports*, 2007 and 2009.

congressional oversight of the Fed's operations.

Consider, for example, how the Fed's reported \$50.3 billion of 2009 earnings would have been reallocated if it had restored its capital base to 4 percent at year-end 2009, rather than leaving it at 2.3 percent. In that case, an additional \$38.1 billion would have been "transferred to surplus" (read capital accounts) and—assuming no change in dividends paid to member banks—its seigniorage payment to the U.S. Treasury as "interest on Federal Reserve notes" would have fallen sharply from \$47.4 billion to \$13.9 billion. That, in turn, would arguably have provided a historically more consistent picture of the Fed's financial operations, and the reported costs and benefits of its operations to the U.S. Treasury.

Conclusions. Based on the foregoing analysis and discussion of Fed accounting issues, we argue that the U.S. Congress and the public deserve a more transparent and GAAP-consistent method of accounting for the Fed's financial operations.

After two and a half years of adopting and using a dramatically larger, different, and much riskier business model in its operations, the Fed would be better served by putting aside its in-house and arcane FAM accounting protocols. Then the 12 regional Fed banks would be held to the same GAAP-compliant bookkeeping rules that are already applied at the Board of Governors level and to the Fed's own member banks.

Also, rather than reporting its FAM-distorted earnings only once a year, in May or June, issuing timely and GAAP-consistent quarterly earnings reports would be a major step forward toward providing a more transparent and accurate picture of the financial costs and benefits of its new business model's impact on U.S. taxpayers.

The Evolution of Fed Operations

The operating procedures of the Federal Reserve System ("the Fed") have changed frequently since the central bank's creation by the Congress with the Federal Reserve Act of 1913. At its inception, the primary function of the Fed was to serve as the "lender of last resort," offering loans on demand to national banks to ensure the stability of the financial system. There was no consideration of "open market operations." Nobody knew what they were.

Early on, the Fed adhered to something known as the *real bills doctrine*, a notion that the central bank should only hold securities that directly finance real private sector commerce. That is, the Fed held private bills of exchange and private acceptances, and did *not* hold public debt. In fact, purchases of Treasury securities were seen as dangerous and potentially destabilizing to the currency by making the central bank an alternative funding source for the government.

Circumstances intervened. The Treasury expanded the supply of its paper to finance WWI, while the recessions of 1920-21 and 1929-33 led to contractions in the supply of private paper. This led the Fed to buy up Treasuries with the surprising effect of clear-cut expansions of the money supply. Benjamin Strong of the New York Fed decided to exploit this effect to head off a recession in 1923, and open market operations were born. In the 1930s, the Federal Reserve Act was amended to create the Federal Open Market Committee to control these operations as a monetary policy tool.

The Full Employment Act of 1946 pushed the Fed to use such tools to maintain full employment, while the Treasury Accord of 1951 freed the Fed from having to keep interest rates low. The 1970s drove the Fed to focus more on the growth rates of monetary aggregates to stem runaway inflation.

The Monetary Control Act of 1980 removed a number of restrictions on banks, allowing them to offer interest-bearing checking accounts and, later, to expand through interstate banking. The Fed was forced to think in terms of bank profitability and returned to a more traditional management of bank reserves.

The stock market crash of 1987 caused the Fed to focus more closely on the stock market, and asset markets in general. The question was asked repeatedly, "Should the Fed attempt to stabilize asset markets?" Following September 11, 2001, the discount window was used to loan over \$45 billion to financial institutions, averting potential disaster, but opening the door to other, more direct actions to support failing financial firms.

In our own day, the housing and mortgage-market collapse have led to an unprecedented crisis in the financial industry. As William Ford and Walker Todd point out in the accompanying article, the Fed recently committed to buy about \$300 billion in long-term Treasury paper, \$1.25 trillion in mortgage-backed securities backed by Freddie Mac, Fannie Mae, and others, and about \$175 billion of mortgage agency long-term debt. This has resulted in a Fed asset portfolio that is significantly riskier than ever before.

—Steven Cunningham, Ph.D., Director of Research and Education