



May 2009

Stress for Success: The Bank Stress Tests Buy Time

By Peter J. Wallison

The stress tests of the nineteen largest U.S. banks, finally made public in early May, turned out to be a successful effort to instill market confidence. If the assumptions underlying the tests prove accurate, it will be a turning point in the economic recovery, and Treasury Secretary Timothy Geithner will have won a high-stakes bet. But if, as some contend, the stress tests were not stressful enough, there will be renewed doubts about the health of the banks, and the credibility of the Treasury Department and the administration will be severely eroded. Whatever happens, the publication of detailed information about the condition of the major banks changes market expectations for the future; throws light on prior Treasury decisions; and raises questions about the efficacy of mark-to-market accounting, the way the Troubled Assets Relief Program (TARP) was used and not used, and the prospects for the Public-Private Investment Program (PPIP) that has been proposed to purchase so-called toxic assets. Most significantly, the stress tests strongly suggest that greater and earlier disclosure by the supervisors about the financial conditions of the largest banks might have prevented a substantial amount of investor losses.

On May 7, Secretary Geithner revealed the results of the stress tests of nineteen major bank holding companies. To the surprise of many, the results showed that the banks were not near insolvency and that massive injections of capital would not be required to enable them to get through the difficult financial times that are likely to lie ahead. Instead, the report suggested that almost half of the group required no additional capital at all, and the remaining eleven required only \$75 billion, most of which could be made up by converting to common stock some or all of the preferred stock they had issued to the government in exchange for investments under TARP. There was some skepticism among observers about whether the stress tests were sufficiently stressful. "It sure sounds to me like they are designing this to make it sound like the banking system is in great shape," Paul J. Miller, a respected bank analyst, said.¹ News stories after the report indicated that final negotiations between the banks and the supervisors who conducted the tests resulted in a reduction in the size of the expected losses,² but

overall, the stock market viewed the results positively, with large gains for many of the institutions that were given the tests—including those shown to need more capital.

Key points in this Outlook:

- Although they were a long way from a worst-case scenario, the Treasury's bank stress tests incorporated significantly adverse economic forecasts.
- It is not likely that Geithner called for the tests without knowing that the banks were likely to pass them, but the market got important and reassuring information about the banks' current condition that was not available elsewhere.
- The stress tests relied on cash flow valuation methods and not mark-to-market accounting for establishing the value of the banks' asset-backed securities, which may account in part for results that were better than many outside observers had expected. Financial institutions have largely written off or written down the "toxic assets," such as mortgage-backed securities, on their balance sheets.

Peter J. Wallison (pwallison@aei.org) is the Arthur F. Burns Fellow in Financial Policy Studies at AEI.

Assuming that the likely outcome was not known in advance, the stress test results amounted to a major winning bet for Geithner and the administration. At the time the testing process began, in February 2009, many informed observers predicted a disastrous outcome. As a *New York Times* news analysis put it, “Some of the nation’s large banks, according to economists and other financial experts, are like dead men walking. A sober assessment of the growing mountain of losses from bad bets, measured in today’s marketplace, would overwhelm the value of the banks’ assets, they say. The banks, in their view, are insolvent.”³ Many pundits, such as the *Times*’ Paul Krugman, had predicted that the major banks were so insolvent that they would have to be nationalized.⁴ Nouriel

Roubini, who had established himself as a credible forecaster of disaster, estimated that the entire U.S. banking system was already insolvent, with \$1.4 trillion in new capital necessary to bring the system back to where it was before the financial crisis.⁵ With these predictions representative of what was common in the media and the blogosphere, it seemed to be a huge gamble to set up the stress tests without having funds at the ready to keep the banks solvent if the tests showed large gaps in their capitalization.

The stress tests were designed to determine the conditions of the banks under two differing scenarios—a base case that the Fed called a “consensus forecast” at the time the stress testing process began and a “more adverse scenario” that envisioned a deeper and more protracted downturn than the consensus. Both these terms are taken from a Federal Reserve paper that summarizes the tests and the results (both generally and with respect to each of the participating bank holding companies individually).⁶ Given the secrecy with which bank financial data had previously been treated, this is a remarkable document. However, as discussed below, it probably raises market expectations that will not necessarily be fulfilled in the future and significant questions about the assumptions and the decisions that have propelled the financial crisis for the last year.

The Results

Several things about the tests, as described in the Fed paper, are noteworthy. First, each participating institution was instructed to estimate its own potential credit losses over a two-year period, beginning with the year-end 2008

financial statement data. This means that all the losses that were taken by the end of 2008 had already been incorporated in the financial baseline. Second, with respect to their securities losses, the banks were asked to estimate “cash flow losses” instead of discounts arising from mark-to-market valuations. Third, the participants were provided with the supervisors’ own estimates of the likely range of losses for major asset classes (mortgages, commercial loans, commercial real estate, et cetera) for both the base case and the more adverse case. For example, the Fed’s estimates for credit card losses were 12–17 percent in the base case and 18–20 percent in the more adverse scenario. Most of the participants exceeded the Fed’s estimates for credit card and first lien mortgage

losses under the more adverse test but were in the range suggested by the supervisors for the commercial real estate and commercial loan losses under that set of assumptions. The losses estimated by the institutions are not expected losses, for which they might create reserves, but only losses that might be expected under the scenarios proposed. Moreover, and most important, the stress tests purported to cover only a two-year period—2009 and 2010, including reserves for anticipated losses in 2011—and say nothing about what might happen after that. Presumably, if the forecasts and the estimates of capital needs are correct, an anticipated upturn in the economy in and after 2010 will put the banks out of range of any difficulty, but, if actual conditions are materially worse than the forecast, most or all of these institutions could be in serious trouble.

Overall, the participants as a group estimated losses of \$600 billion over the next two years under the more adverse scenario. This amount is roughly consistent with the International Monetary Fund’s (IMF) estimate that U.S. banks could face collective writedowns of \$550 billion in 2009 and 2010.⁷ The banks as a group estimated heavy losses on single-family mortgages. According to the report, “Expected loss rates on first-liens and second/junior liens are well outside the historical experience of commercial banks.” This result is consistent with the fact that subprime and Alt-A loans constitute such a large proportion—probably 40–45 percent—of total single-family mortgages outstanding. “Together,” the Fed observed, “residential mortgages and consumer loans (including credit card and other consumer loans, not shown) account for \$332 billion, or 70 percent of the loan losses projected under the more

It is reasonable to believe (and hope!) that Geithner and Obama were not taking serious risks when the stress tests were begun; that, in effect, they already knew the likely results.

TABLE 1
ESTIMATED LOSSES FOR 2009 AND 2010 FOR THE MORE ADVERSE SCENARIO

Loan Category	Estimated Loss (in billions of dollars)	Percentage of Losses within Category
First lien mortgages	102.3	8.8
Second/junior lien mortgages	83.2	13.8
Commercial and industrial loans	60.1	6.1
Commercial real estate loans	53.0	8.5
Credit card loans	82.4	22.5
Securities (AFS and HTM)	35.2	N/A
Trading and counterparty	99.3	N/A
Other ^a	83.7	N/A
Total Estimated Losses (before purchase accounting adjustments)		\$599.2 billion

SOURCE: Board of Governors of the Federal Reserve System, "The Supervisory Capital Assessment Program: Overview of Results," May 7, 2009, available at www.federalreserve.gov/newsevents/press/bcreg/bcreg20090507a1.pdf (accessed May 29, 2009).

NOTE: a) Includes other consumer and nonconsumer loans and miscellaneous commitments and obligations.

adverse scenario." Interestingly, commercial real estate is not, according to the participating institutions, the problem many have expected: the anticipated losses come in below the supervisors' indicative estimates of 9–12 percent. Table 1 illustrates the dollar amounts that make up the \$600 billion estimated loss under the more adverse scenario, with related percentages of losses in each category.

One of the surprising elements of the Fed's report was the discussion of securities. The participating institutions were reported to hold only \$200 billion in nonagency (that is, "private label") mortgage-backed securities (MBS), "and only a portion of these were recent vintage or were backed by riskier nonprime mortgages. Remaining material exposures included corporate bonds, mutual funds, and other asset-backed securities." This amount is much smaller than most analysts had assumed because these MBS were considered to be the toxic assets that were driving down bank capital positions. The reason may be that substantial portions of the original holdings had been written down or written off, as noted below. If so, some of the most problematic bank assets—the ones that are supposed to be sold in the PPIP—have been eliminated as sources of uncertainty on the balance sheets of the largest banks. The supervisors reviewed whether there was adequate asset backing for these remaining MBS and ultimately concluded that only \$35 billion in charges to the banks was appropriate—"equal to the difference between book and market value, with almost one-half of the estimated losses coming from the non-agency MBS." Nonagency MBS are the private label securities, many of them based on subprime or other weak loans, that have

been considered the central cause of the banks' financial weakness. Here, the Fed report is saying that less than \$17.5 billion on the books of these nineteen banks had to be written down to market value.

All told, the Fed estimated that the nineteen institutions had written down or taken losses equal to \$400 billion by the end of 2008. "They include charge-offs, write-downs on securities held in the trading and in the investment accounts, and discounts on assets acquired in acquisitions of distressed or failed financial institutions." After giving the institutions credit for the losses already recorded in assets they acquired, the Fed estimated that the total losses of the nineteen institutions since the middle of 2007 (when the mortgage meltdown began) through the end of 2010 would be \$935 billion under the more adverse scenario. This, too, is roughly consistent with the IMF estimate that U.S. banks would have to take losses of about \$1.05 trillion over the same period.

Parameters of the Stress Tests

Despite doubts about the quality of the stress test, it was certainly not a sham. As the Fed paper noted, "the estimated loan loss rates under the more adverse scenario are very high by historical standards. The two-year cumulative loss rate on total loans equals 9.1 percent in the more adverse scenario. . . . [T]his loss rate is higher than two-year loss rates observed for commercial banks from 1920 to 2007/2008. In addition to the sharpest two-year drop in residential house prices since then . . . the rise in the unemployment rate in the scenario would be more severe than any U.S. recession since the 1930s." This scenario

may not reflect what will actually happen, but it was not a six-inch hurdle. The baseline forecast used the forecasts of well-known groups of forecasters; the more adverse forecast was intended to be somewhat worse, but still plausible. It was not intended to be a “worst-case” scenario, just a “plausible” one that was worse than the base case. The elements of the two forecasts are summarized in table 2.

Nevertheless, concerns about the assumptions used in the test are justified. For example, an unemployment rate of 10.3 percent in the more adverse scenario is actually what forecasters are now expecting for a base case in 2010. Indeed, the unemployment rate for May 2009 was already 8.9 percent—0.5 percent above the base case for all of 2009 used in the stress test assumptions and equal to the estimated level of 2009 unemployment used in the more adverse scenario. House prices are much more difficult to predict because they vary widely from market to market, but both scenarios are predicting a bottoming out in 2010, with the more adverse scenario less optimistic about how fast that bottoming may occur. GDP forecasts also vary widely, but *The Economist’s* estimate of a 3.2 percent decline in U.S. GDP, for example, is higher than the baseline contraction used in the stress test assumptions and very close to the more adverse scenario.⁸

Overall, it appears that the more adverse scenario is—as advertised—“plausible” but that it did not put the tested banks under stress significantly greater than today’s economic conditions. This and other elements of the tests raise a number of questions.

Were the Tests a Legitimate Inquiry or a Public Relations Effort?

The stress tests accomplished at least one objective that the administration dearly wanted: they persuaded investors, at least for a while, to believe that the banks are in better financial condition than the most widely quoted commentators had suggested. The fact that the tests succeeded as public relations does not mean they were not serious and valid inquiries that might turn out to be correct. There are two unknowables about the tests: whether reality will match the assumptions used in the scenarios and whether the supervisors and banks correctly estimated how their asset values would respond if the stress assumptions were correct.

There is also a question about the process. If Secretary Geithner went into these tests without having any idea how they would come out, he was engaged in an irresponsible gamble. The test results could conceivably have

TABLE 2
ECONOMIC SCENARIOS:
BASELINE AND MORE ADVERSE ALTERNATIVES

	2009	2010
Real GDP^a		
Average baseline ^b	-2.0	2.1
Consensus Forecasts	-2.1	2.0
Blue Chip	-1.9	2.1
Survey of Professional Forecasters	-2.0	2.2
Alternative more adverse	-3.3	0.5
Civilian Unemployment Rate^c		
Average baseline ^b	8.4	8.8
Consensus Forecasts	8.4	9.0
Blue Chip	8.3	8.7
Survey of Professional Forecasters	8.4	8.8
Alternative more adverse	8.9	10.3
House Prices^d		
Baseline	-14	-4
Alternative more adverse	-22	-7

SOURCE: Board of Governors of the Federal Reserve System, “The Supervisory Capital Assessment Program: Design and Implementation,” April 24, 2009, available at www.federalreserve.gov/newsevents/press/bcreg/bcreg20090424a1.pdf (accessed May 29, 2009).

NOTES: a) Percent change in annual average.

b) Baseline forecasts for real GDP and the unemployment rate equal the average of projections released by Consensus Forecasts, Blue Chip, and Survey of Professional Forecasters in February.

c) Annual average.

d) Case-Shiller 10-City Composite, percentage change, fourth quarter of the previous year to fourth quarter of the year indicated.

demonstrated that most of the major banks were deeply insolvent and triggered another heart-stopping sell-off in the equity markets. The notion that the Treasury might have risked this possibility as a way of forcing Congress to appropriate more funds for TARP seems highly implausible. That would not have been the only result of yet another meltdown; the others could have included a complete loss of confidence in the financial system and the U.S. government, both of which could have led to chaos. On the other hand, the bank supervisors were in the best position to know the actual condition of the banks. It is not implausible to think that they advised Geithner that the banks would survive adversity that was greater than the base case but not as adverse as some forecasters were suggesting. Under those circumstances, it would make sense for Geithner to order the stress tests as a way of cooling off the rampant speculation that was growing in the media in early 2009.

Accordingly, it is reasonable to believe (and hope!) that Geithner and Obama were not taking such serious risks when the stress tests were begun; that, in effect, they already knew the likely results. This is not a bad thing. Until the results of the tests were revealed, information about the actual condition of the banks was only known to the supervisors, and by tradition, this information has been considered highly confidential. The result was widespread speculation and fear. If, in these conditions, the supervisors can offer a bit more information, the market's outlook can clearly be improved. And in this case it was. However, all these actions have consequences. The next time there is doubt about the condition of the banks, the market will expect more information from the supervisors and the Treasury, and if it is not forthcoming, the market participants will draw negative conclusions. In other words, this particular ploy will work once, but it narrows the administration's options in the future. This was indeed a gamble, but not of the kind many thought. It was unlikely that the stress tests would produce a sharply negative outcome, but if the tests do not produce a return of confidence that stimulates an economic recovery and the resulting economic downturn is significantly worse than the more adverse scenario, the credibility of the administration and the Treasury will have been seriously damaged.

What Do the Tests Say about Mark-to-Market Accounting?

As noted above, the stress tests did not generally value the banks' assets by suggesting that they be marked to market. Only a small portion of the total of \$200 billion in MBS were marked down to market levels, and then only if the supervisors did not believe that these assets had sufficient collateral backing to avoid further credit losses. The rest were valued on the basis of their cash flows. As many commentators had been arguing over the course of the mortgage meltdown, it was the process of marking bank securities assets to market that made them appear so weak. By valuing MBS on the basis of their cash flows, the stress tests made the consequences of this difference in treatment abundantly clear. If all the securitized

assets had been valued at what they could be sold for in the market, the banks would indeed have looked seriously troubled. Instead, the overwhelming majority were treated as temporarily impaired. In addition, the Fed

The fact that the securities markets took the stress test cash flow valuations in stride suggests that the Financial Accounting Standards Board should revise its requirements for bank accounting so that bank securities assets can be valued on the basis of cash flows rather than market values.

reported that a significant portion of the \$400 billion in losses that the nineteen banks recognized in the last six quarters were securities assets that had already been written down or written off. We do not know whether those write-downs—which were probably consistent with the requirements of fair value accounting at the time they occurred—covered securities holdings that were still receiving significant cash flows. If so, they might have received much higher values if the supervisors had stepped in earlier to require cash flow-based valuation. There is no way of knowing at this point whether the supervisors would have made the same judgments about write-offs or write-downs that the banks themselves made under the accounting rules in place at the time. However, the decision of the supervisors to ask for cash flow valuations could be one reason that the banks look healthier than many analyst estimates, and the fact that these assessments were accepted as valid

by the market suggests that investors do not require market-to-market valuations in order to consider banks financially sound.

It has never been clear why marking assets to market made any sense for financial institutions such as commercial banks. Their depositors and counterparties want to know the value of their cash flows and how those cash flows contribute to their long-term stability, not what their assets could be sold for if they had to liquidate at a given point in time. The fact that the securities markets took the stress test cash flow valuations in stride—and in fact reacted positively with a sharp rise in the valuations of the banks involved—suggests that the Financial Accounting Standards Board should revise its requirements for bank accounting so that bank securities assets can be valued on the basis of cash flows rather than market values. This would also have salutary countercyclical effects when the economy returns to growth in the future. At that time, asset prices in the market may rise again on the usual exuberance, and banks that mark their assets to market will look healthier than they really are.

Why Did Current and Former Treasury Secretaries Back Away from Valuing Bank Assets?

When former treasury secretary Henry Paulson went to Congress with his initial request for \$700 billion in TARP funds in September 2008, he apparently intended to use the funds to buy bad or doubtful assets from the banks and in this way restore confidence in their financial condition. But after the appropriation was voted, he moved instead toward recapitalizing the banks with preferred stock investments. Similarly, while recognizing the need to buy the bad assets from the banks, Geithner developed the PPIP structure, which provides financing to private groups that would purchase the assets after negotiating prices with the banks. Since the taxpayers would be taking most of the risk in these arrangements, but splitting the profits with the private groups, the natural question is why the Treasury did not decide to purchase the assets itself.

One of the theories for why this did not occur either under Paulson or Geithner is that neither official wanted to pay more for the assets than market prices and then be accused of subsidizing the big Wall Street banks at the expense of the taxpayers. Another view was that the process was too complex and time-consuming to be done by the Treasury. After the stress tests, neither of these arguments seems to justify the Treasury's refusal to use the TARP funds as originally intended. It could well be true that neither Paulson nor Geithner wanted to be accused of subsidizing the banks with taxpayer funds, but if so, it reflects not only a want of political courage to do the right thing but a mistaken judgment about how such an action would be viewed in the markets. Of course, there would be some who would have claimed that the taxpayers were ripped off, but the market reaction to the stress test valuations suggests that most analysts would have seen the pricing at cash flow values as justifiable. Similarly, the argument about complexity does not seem valid after the stress tests, in which the supervisors simply asked the banks to value their securities assets, including their MBS, at their cash flow values and then made independent valuations of those cases in which the credit losses were likely to exceed the value of the collateral.

Apparently, it could be done by the supervisors in two months without the need to engage outside consultants.

What Did We Learn about the Banks' MBS Holdings?

The fact that there are only \$200 billion of MBS on the books of the nineteen participating banks—and that much of that is not made up of the subprime loans that were presumably the “toxic assets” we have heard so much about—was another surprise of the Fed's stress test report. What it means is that between mid-2007 and the end of 2008, the nineteen largest banks had substantially written off or written down most of their most problematic

Between mid-2007 and the end of 2008, the nineteen largest banks had substantially written off or written down most of their most problematic assets—the assets that analysts cited as the source of their financial problems. This news would have gone a long way toward restoring confidence in the markets.

assets—the assets that analysts cited as the source of their financial problems. This was a very important fact and would have gone a long way toward restoring confidence in the markets if it had been made public by the supervisors. Instead, by establishing PPIP, the Treasury implied that these assets were still a problem.

Moreover, with the MBS no longer a significant source of weakness, the vast majority of the questionable assets of the largest banks are quite conventional items, like first and second lien mortgages, commercial and industrial loans, commercial real estate loans, and credit card loans. Losses can and will occur in all these areas, of course, but bank analysts are quite capable of estimating these losses based on past history. What we had been told was different and more problematic about this banking crisis was that the losses were in MBS and collateralized debt obligations that were so complex that they were impossible to value. Now we find that even if they all had been written

down to zero, the big banks would still have sufficient capital to carry them through a normal downturn—and maybe even the more adverse downturn used by the supervisors in the stress tests.

This, too, raises a question about why all this information was not made public while the market was led to believe that things were far worse than they turned out to be. Like the stress tests themselves, information of this kind could have calmed the fear in the markets and given analysts the information they needed to better assess the condition of the banks. Without it, everyone was left

guessing, and some of the guessing was counterproductive to the recovery of the economy.

It will also tell us something if the PPIP proceeds. After successfully passing the stress tests, the banks will have much less incentive to sell the securities assets that supervisors have seen fit not to criticize or write down. These assets are probably producing significantly more cash than they cost to carry. Accordingly, since it is doubtful that there are an abundance of new profitable loans to make in a recessionary economy, these holdings can probably be excluded from the securities the banks are going to be willing to sell at this point. On the other hand, the assets that have been written down, which could be close to \$400 billion in original value, might be candidates for sale. They may still remain on bank balance sheets (it is unlikely that they have actually been sold) but substantially written down. If the banks can get prices for these that reflect the value of their continuing cash flows, it will improve their capital position and could be a windfall. If the PPIP actually gets off the ground—that is, if there is sufficient interest in the private sector and the banks to enter these transactions—we will have an interesting test. If the banks will not sell their written-down assets at the prices the private groups are willing to pay, it will mean that the cash flows on these assets are strong enough that they remain profitable assets. That in itself will be a signal that the write-downs have been excessive.

Conclusion

If we take the stress test report seriously, and we should, it is difficult to avoid the conclusion that a lot of losses—for bank shareholders as well as investors generally—could have been avoided if bank supervisors had provided

more information, sooner, about the financial condition of the largest banks. The Fed and the Treasury have taken many unprecedented steps to stem the steep economic decline that began with the mortgage meltdown almost two years ago. The one unprecedented thing they did not do—disclosing more fully the information they as supervisors had about the financial condition of the largest banks—would likely have been the cheapest and most effective.

Notes

1. Edmund L. Andrews and Eric Dash, “Government Offers Details of Bank Stress Test,” *New York Times*, February 26, 2009. See also “Buffett Criticizes Bank Stress Tests,” Reuters, May 4, 2009.

2. David Enrich, Dan Fitzpatrick, and Marshall Eckblad, “Banks Won Concessions on Tests,” *Wall Street Journal*, May 9, 2009.

3. Steve Lohr, “Ailing Banks May Require More Aid to Keep Solvent,” *New York Times*, February 13, 2009.

4. Paul Krugman, “Wall Street Voodoo,” *New York Times*, January 19, 2009.

5. Nouriel Roubini, “Nationalize Insolvent Banks,” *Forbes*, February 12, 2009.

6. Board of Governors of the Federal Reserve System, “The Supervisory Capital Assessment Program: Overview of Results,” May 7, 2009, available at www.federalreserve.gov/newsevents/press/bcreg/bcreg20090507a1.pdf (accessed May 29, 2009).

7. Mark Landler, “I.M.F. Puts Bank Losses from Global Financial Crisis at \$4.1 Trillion,” *New York Times*, April 22, 2009.

8. “Outlook for 2009–10,” Economist Intelligence Unit, available at www.economist.com/countries/USA/profile.cfm?folder=Profile-Forecast (accessed May 29, 2009).