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Implications of the Bank Stress Tests

The results of the “stress tests” on the 19 largest banking groups were released at the end of last week. They were good news and were generally received as such, although it is important not to take excessive comfort from what remains essentially a highly educated guess as to the future of the banks in a very uncertain environment.

The test appears to be somewhat tougher than the base case of the International Monetary Fund (IMF), but not nearly as harsh as the most pessimistic analyses. This implies that while we may well have turned the corner, we can be far from certain that the solvency crisis in banking is over. Even if it is, the stubborn credit crunch will last for considerably longer. The banks will be in a better position to lend more freely as a result of the modest influx of new capital and the greater benefit of the confidence boost from passing the tests. However, the depth of this recession and the shattering of the securitization market will keep credit tight for some time.

This paper will address the following questions:

- How tough was the test compared to other analyses?
- Is the banking crisis over?
- Does it really do any good to shuffle the capital between preferred and common stock?
- Will the banks have enough capital to lend more freely?
- What does this mean for the programs to deal with toxic assets?

How tough was the test compared to other analyses?

The stress test results are best understood by comparing them with other detailed analyses of the financial state and prospects of the banks. My earlier piece, “[Interpreting the Bank Stress Test Results](#),” was written in advance of the publication of the results to provide a quick basis of comparison with two other credible sources: the IMF and NYU’s Nouriel Roubini. Both analyses are thorough and grounded in clear economic views. The IMF’s economic assumptions are within the broad consensus of economists, while Roubini is widely viewed as the most pessimistic of the respected analysts. Now that we have the results in hand, it is possible to compare the three views more effectively.

Table 1 shows the key comparisons for the 19 banks, in aggregate, relevant to the net reduction in capital expected by these banks through 2010. As can be seen, the hit to capital from credit losses is significantly offset by net revenues to be earned by the banks, but all the parties anticipate losses greater than those revenues.

The stress test was for the 19 banking groups, which hold about 70% of the assets in the U.S. banking system, while the other analyses are for the entire system. In order to usefully compare the figures, I scaled down the IMF and Roubini figures commensurately. There are significant differences between the big banks and the smaller ones, so these figures should be viewed as only a rough approximation. In addition, the row I have labeled “19 bank earnings” is prior to tax effects and preferred dividends payments in the stress test results, but after them for the other two analyses. Fortunately, the tax and dividend effects are likely to be of opposite sign and to cancel out to a significant extent. There should be some positive effect on earnings from taxes, given the large losses, while preferred dividends would clearly reduce retained earnings.

Table 1: Expected loan and securities losses and expected profitability, (\$ billions)

	Regulators	IMF	Roubini
System-wide loan and securities losses for 2009 and 2010	NA	550	1250
Portion of system-wide losses absorbed by the 19 banks ¹	NA	70%	70%
19-bank loan and securities losses for 2009 and 2010	599	385	875
Portion already in capital figures (purchase acc'ting. adjust.) ²	64	64	64
Net loan losses	535	321	811
System-wide bank earnings in 2009 and 2010, after dividends	NA	300	300
Portion of system-wide profits from 19 banks ³	NA	70%	70%
19-bank earnings including loan provisioning for 2011 losses	363	210	210
Reduction in capital through Dec 2010	172	111	601
Planned capital actions and excess Q1/2009 earnings ⁴	110	110	110
Net reduction in capital through Dec 2010	62	1	491

1. Author estimate, based on rough proportion of system-wide assets owned by the 19 banks
2. From reported stress test results. Reflects U.S. accounting rules for loan losses in bank acquisitions
3. Author estimate, based on rough proportion of system-wide assets owned by the 19 banks.
4. From reported stress test results. Represents higher Q1/2009 profits than implied by full year estimate built into 2009 and 2010 profit figures, plus capital raising already committed or executed.

The overall pattern is clear: the reported stress test results incorporate significantly more conservative loss assumptions than does the IMF, but most of this relative conservatism is offset by an assumption of stronger bank earnings. Not surprisingly, the stress tests are significantly less conservative on both loan losses and expected profits than the estimates of Dr. Roubini.

It may be worth explaining how the IMF's \$4.1 trillion estimate for total credit losses in this crisis translates to the \$550 billion figure shown in Table 1. (Both figures are taken directly from the IMF's April Global Financial Stabilization Report.) Only \$2.7 trillion of the \$4.1 trillion represents losses from U.S. credit instruments. The U.S. banks have much lower exposure to the \$1.4 trillion of European and Japanese credit losses and these will be offset further by earnings from foreign operations. Of the \$2.7 trillion of U.S. credit losses, less than half stayed with U.S. banks, the rest having been passed on to foreigners and non-banks. Further, about half of the remaining credit losses have already been taken as

a reduction to capital, leaving “only” \$550 billion to hit future earnings through 2010, including loan loss provisions for expected losses in 2011. There might be some further losses to be taken in 2012 and later, but the industry’s earning power will presumably absorb those more easily than the larger recent losses.

Is the banking crisis over?

It is possible, although far from certain, that the larger solvency crisis is over. Certainly the stock market has treated the news, and the leaks leading up to it, that way. Even if that turns out to be true, we are clearly not past the credit crunch that is the reason why public policy has focused so sharply on the banking crisis. As explained later, the banks may begin to feel freer to lend, but they are still operating under serious capital constraints. In addition, the securitization market was a major end-supplier of loans and this market remains dramatically impaired. The banks do not have nearly enough capital to fill that gap. The larger hope is that the massive Federal Reserve program to encourage securitization will work with natural market forces to restore substantial securitization activity.

However, we cannot be confident that even the solvency crisis is over. If Roubini were to be proven correct, it would turn out that the required capital for the stress test would need to be higher by about half a trillion dollars. Even if he is too pessimistic, it is important to remember that the banking groups in the stress test have about \$10 trillion of assets. If the tests mis-estimated the value of those assets at the end of 2010 by just 3%, it would require another \$300 billion of capital.

What the tests tell me is that there is a fair chance that the solvency crisis is over and that core bank earnings may almost cover the coming loan losses through the end of 2010. Unfortunately, we are dealing with an unprecedented set of conditions and no one should feel too confident in their forecasts, so there is also a substantial chance that the path will be much rockier than the stress tests suggest.

Does it really do any good to shuffle the capital between preferred and common stock?

Many observers have noted that the great bulk of the \$75 billion of new required minimum capital could actually be raised simply by shuffling the capital around, rather than adding external capital. This does not make the capital requirements an empty gesture. It’s true that raising incremental capital would have considerably more effect than moving capital between categories, but there are reasons to desire a higher proportion of common stock.

The regulators provided the banks with two figures: (1) the total level of capital required and (2) the portion of that which must be in the form of common equity. In particular, common equity will need to be 2/3 of the minimum capital. Regulators have always paid some attention to the composition of Tier 1 capital, but this represents a sizable increase in the importance placed on it.

As explained in “[Bank Capital and the Stress Tests](#),” there is no single perfect measure of bank capital. Regulators have traditionally focused principally on the total level of Tier 1 capital, consisting principally of common stock and certain types of preferred stock. This is mainly driven by the fact that all forms of Tier 1 capital protect the constituencies that are the main focus of the regulators: depositors, other customers, and trading counterparties. All of these parties are ahead of common and preferred

stockholders in the bankruptcy queue and therefore are largely indifferent as to how much of the protection comes from each.

It is difficult to pin down, but I believe that the main reason for the new emphasis on common equity is actually driven by the stock market itself. There have been periods in the current crisis in which bank investors went from worrying about the potential dilutive effects of new issuance of common stock to an even more basic concern. They worried that the level of common stock was so low that the solvency of certain banks was threatened. Even if the bank remained marginally solvent, major losses would be shared solely among common stockholders, so there would be comfort in having a larger base across which to split the losses.

Normally, bank regulators do not care much about the stock price of a bank. However, this crisis has shown that a large fall in the price of a bank's stock can cause customers, rating agencies, and trading counterparties to begin to flee the affected bank. The stock price has frequently been treated as a general measure of the bank's health, making it desirable to guard against sharp declines. One way to help do this is to ensure there is a sufficiently wide base of common stock, such as by imposing the new test.

There are some other advantages from a regulator's perspective to having a higher proportion of common stock. Preferred stockholders expect to be paid substantial dividends, which flow out of capital, while common shareholders are mostly making do with minimal dividends at the moment. Most banks are indeed still paying dividends on their preferred stock, even in these troubled times. As a related point, ceasing to pay those dividends, as is allowed for all preferred shares that qualify for Tier 1 treatment, is seen by the markets as an admission of serious trouble. The regulators would prefer to eliminate as many potential causes of panic as possible.

Finally, common equity provides a buffer that protects preferred shareholders. Having more common equity will make it easier to raise additional preferred stock, should it be needed. Thus, it could translate at some point to a greater level of total Tier 1 capital, even if the initial step is to shuffle between categories.

Will the banks have enough capital to lend more freely?

The stress test results should increase the willingness of banks to lend, although probably not by as much as we might hope. If we do find ourselves in an environment as bad as the stress tests, or worse, as the more pessimistic analysts expect, most of the banks will need all of their existing capital to maintain current loan levels, without being able to step up to increase their lending as the economy starts to recover. On the positive side, if the economy performs as expected, the banks will have greater earnings than implied by the stress tests, which will eventually allow the regulators to ease the capital requirements again by backing away from the stress test buffer.

Again, the main effect should be to increase somewhat the willingness of the banks to lend. First, there will be incremental capital in the system as a result of the tests. A significant amount of the \$75 billion

will be raised from private investors or the government, although some banks will also be relying on “excess” earnings over the next six months, beyond those assumed in the stress test. The regulators have apparently agreed to count this against the capital requirements, when and if these excess earnings occur. In addition, some of the capital will be converted from preferred stock to common stock, rather than raised as incremental capital. On the positive side, some of the banks are raising capital from investors beyond the required minimum.

This touches on the second benefit of the stress tests. There has been a significant increase in the market’s comfort with the banks now that the stress test results are out and are substantially more positive than feared. That greater confidence should make banks more willing to deploy their capital without the same degree of temptation to hoard it to reassure their various constituencies.

Partially offsetting this is the “sting in the tail” of the stress test process. There is less wiggle room for regulators to accept lower capital levels if the economy suffers more than anticipated in the stress test assumptions. They have put some clear markers out there, from which it will be hard for them to back away. One of these is the requirement to have Tier 1 common equity of at least 4% of risk-weighted assets. This effectively means that incremental losses will need to be funded by raising common stock, the hardest and most expensive form of capital to sell. Before this, the focus on Tier 1 capital in toto would have allowed banks to plug much of any gap with preferred stock, which does not have the same dilutive effect on common stockholders, the owners of the banks.

What does this mean for the programs to deal with toxic assets?

The stress tests appear to work against the success of the Public-Private Investment Partnership (PPIP) and the Legacy Loan Program, which are designed to encourage investors to buy toxic assets from the banks, reducing the uncertainty about the true value of those banks. First, the government’s reassurance that these banks have, or will soon have, the capital to handle even the stress scenario without selling their toxic assets makes it harder for the regulators to pressure the banks to actually sell. This matters because the banks generally believe that even with government incentives the private investors are looking to pay unreasonably low prices for these assets. The banks would generally prefer to hold onto them at the prices likely to be on offer.

Second, most of the banks will not have any appreciable capital to spare in excess of that required by the stress tests. If they take a hit to capital by selling toxic assets for less than the value currently on their books, it would mean having to go to the markets to raise expensive new capital in an amount equal to the accounting hit. This will clearly be true for the next six months, the period the banks have been given to raise the capital. It is also likely to be true in practice for some time beyond that, as various parties continue to look back to the stress tests as a way to see if the banks still have enough capital.