

Financial Institutions Research

U.S. Banks: Estimated Basel III Capital Shortfalls Could Limit Bank Lending

Primary Credit Analyst:

Elie Heriard Dubreuil, New York (1) 212-438-2949; elie_heriard_dubreuil@standardandpoors.com

Secondary Contact:

Rodrigo Quintanilla, New York (1) 212-438-3090; rodrigo_quintanilla@standardandpoors.com

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U.S. Banks: Estimated Basel III Capital Shortfalls Could Limit Bank Lending

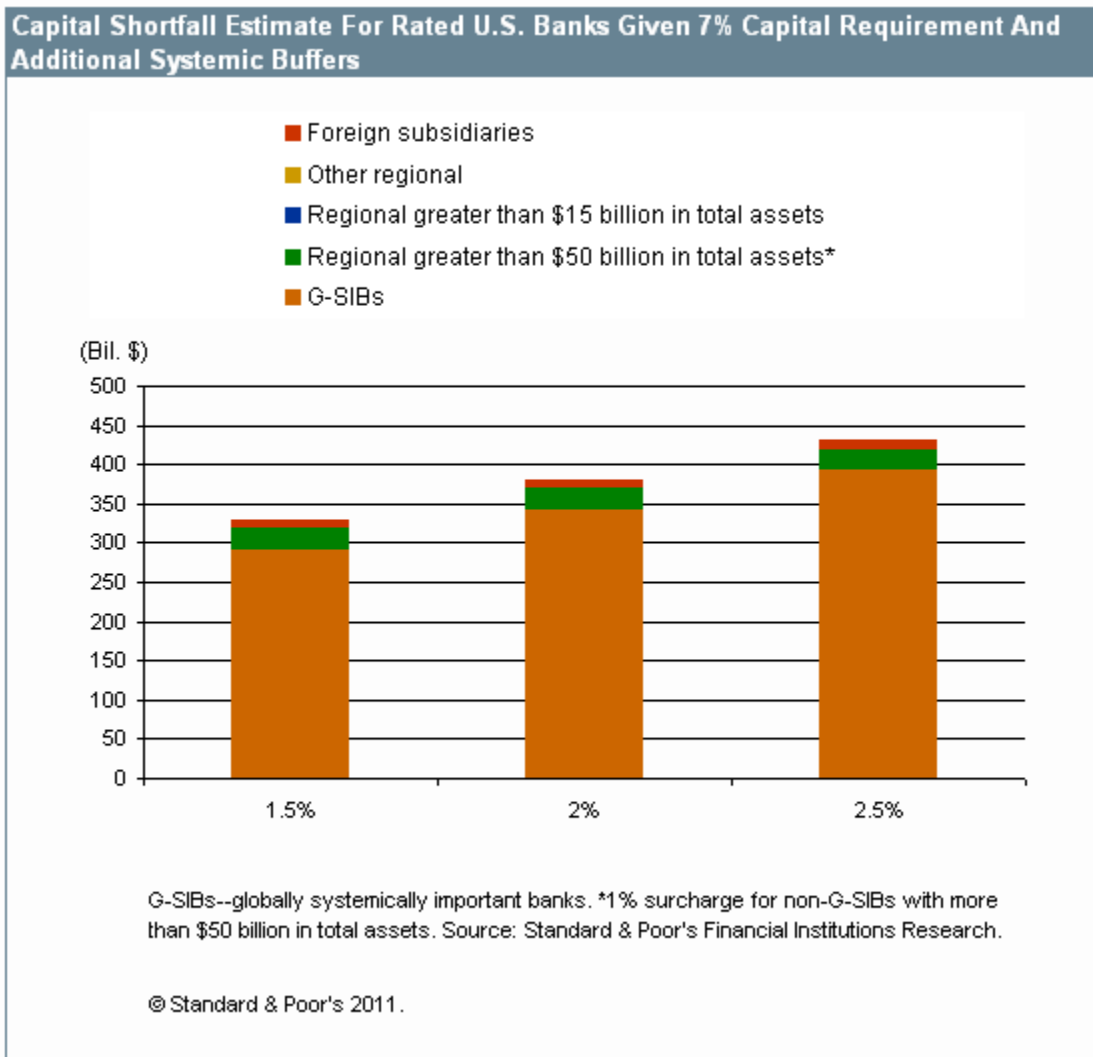
(Editor's Note: In the article titled "Standard & Poor's Risk-Adjusted Capital Framework Provides Insight Into Basel III," published June 9, 2011, Standard & Poor's compared its risk-adjusted capital framework with Basel III. This article builds upon this comparison to estimate Basel III shortfalls.)

Standard & Poor's estimates that rated U.S. banks could fall short by \$330 billion to \$430 billion of meeting Basel III CET1 minimums of 7% plus systemic buffers under certain conditions (see chart 1). In other words, this estimated shortfall would be met by a reduction in total assets of \$4 trillion to \$4.8 trillion for rated U.S. banks, or about one-third of the \$12.3 trillion in assets of all U.S. banks as of Nov. 23, 2011. To compute this estimated shortfall, we assumed that regulators would implement the new minimum regulatory capital standards immediately, whereas regulators are planning a transition period for Basel III that ends in 2019. Three different assumptions for capital buffers explain the range of potential shortfalls:

- A systemic buffer equal to 1.5% for the eight U.S. banks that the Financial Stability Board recently designated globally systemically important banks (G-SIBs) for Basel III, plus a 1% buffer for the non-G-SIBs with total assets greater than \$50 billion.
- A systemic buffer equal to 2% for the G-SIBs plus a 1% buffer for the non-G-SIBs with total assets greater than \$50 billion.
- A systemic buffer equal to 2.5% for the G-SIBs plus a 1% buffer for the non-G-SIBs with total assets greater than \$50 billion.

Our review of capital adequacy indicates that most rated U.S. banks will have no problem meeting the increases in minimum regulatory capital ratios by 2019. However, the eight G-SIBs constitute about 90% of our estimated shortfall for rated banks. Therefore, we expect these banks will continue retaining a significant amount of earnings, reduce the amount of risk-weighted assets (RWAs), or a combination of both to meet the fully phased-in Basel III minimums. Clearly, there is a spectrum of possible scenarios, but we highlight the following three under our base case projections of modest economic growth for the U.S. economy.

Chart 1



Hypothetical Shortfall Resolution Scenarios For U.S. G-SIBs

Scenario 1: Constant RWA and 15% dividend payout ratio

Assuming constant RWAs and a 15% dividend payout ratio, similar to what we expect in 2011, it would take U.S. G-SIBs an average of five to seven years—depending on the systemic buffer assumption—to fully cover this estimated shortfall using retained earnings only, though time estimates vary significantly for individual banks.

Scenario 2: Reduction of RWA and 100% dividend payout ratio

In the unlikely scenario in which G-SIBs would retain no earnings, they would need to shrink their total assets by \$3.4 trillion to \$4 trillion—depending on the systemic buffer assumption—to meet the Basel III minimums. Given loans constitute about a third of G-SIBs total assets, this is equivalent to an estimated loan reduction of about \$1.1 trillion to \$1.3 trillion or about 32%-39% of total loans outstanding.

Scenario 3: Combination of RWA reduction and 30% dividend payout ratio

Assuming a 30% dividend payout ratio (above which the Fed indicated that capital plan would "receive particularly close scrutiny"), U.S. G-SIBs would need to reduce their total assets by about \$2 trillion to cover the estimated shortfall by 2018. This is equivalent to an estimated loan reduction of about \$660 billion or 20% of total loans outstanding.

New share issuance may not be necessary if these banks maintain prudent earnings retention policies during the transition period ending in 2018. Some banks could, however, issue shares to address any shortfall. The implementation of the Dodd-Frank regulatory legislation has slowed the U.S.'s compliance with BCBS international recommendations compared with Europe and Asia. This delay, however, may ultimately aid U.S. banks in meeting fully phased-in capital requirements.

Transition To Basel III Could Result In Six-Fold Increase Of Minimum Core Equity Tier 1 Ratios

Banks around the world are bracing for higher minimum regulatory capital standards. For the largest banks, the increase could be up to six-fold in minimum regulatory Core Equity Tier 1 (CET1) ratios. The Basel Committee on Banking Supervision (BCBS) recommended several increases under the Basel III framework. First, the BCBS recommended raising the minimum CET1 from 2% to 4.5% between 2013 and 2019. Second, the BCBS suggested that banks maintain capital levels that are 2.5% in excess of the CET1 minimums (capital conservation buffers) to avoid restrictions on their dividends to shareholders or share buybacks. Third, systemically important banks (G-SIBs) should add an additional buffer of up to 2.5%. Fourth, the BCBS is currently calibrating a countercyclical buffer, which could also amount to up to 2.5%. Therefore, if regulators set the buffers to their maximum level, this could mean an increase to 12.5% from the current 2% minimum CET1 ratio for the largest banks by 2019. Excluding the countercyclical buffer still under development, banks would face a minimum CET1 of 7%, plus a systemic buffer for the institutions deemed systemically important.

BCBS recently released final rules for systemically important banks

On Nov. 5, the BCBS published the final rules for globally systemically important banks under Basel III. G-SIBs will need to hold an additional buffer of 1%-2.5% of CET1 depending on their systemic importance, with an additional buffer level of 3.5%. The BCBS recommends that banks initially not be in this 3.5% bucket, but should banks become larger and even more systemically important, regulators would impose this higher 3.5% buffer.

On the same day, the Financial Stability Board released a list of the 29 initial G-SIBs. Eight among them are U.S. banks: Bank of America, Bank of New York Mellon, Citigroup, Goldman Sachs, JP Morgan Chase, Morgan Stanley, State Street, and Wells Fargo. The Federal Reserve Board, the Treasury, and the Federal Deposit Insurance Corp. already identified these banks on Oct. 14, 2008, in a joint statement that announced a voluntary capital purchase program (CPP) in which financial institutions would sell preferred shares to the government. The Dodd-Frank Act already designates banks with more than \$50 billion in assets as "covered" financial institutions, which may incur higher minimum capital requirements and submission of capital plans under stress testing. Consequently, we assumed an additional systemic buffer of 1% for the non-G-SIBs with total assets greater than \$50 billion.

Methodology Used To Estimate The Basel III Capital Shortfall

We approximated Basel III CET1 ratios by dividing Standard & Poor's adjusted common equity (ACE) by Standard & Poor's RWAs as of June 2011 (see ratios in the appendix). This corresponds to Standard & Poor's RAC ratio excluding all admissible preferred and hybrids. We evaluated the effects that a buffer of 1.5%-2.5% would have on capital for the eight G-SIBs. Therefore, the minimum ratio for the G-SIBs is 8.5%-10%. For the non-G-SIBs with total assets greater than \$50 billion, we assumed a systemic buffer of 1%, hence a minimum ratio of 8%.

Although we built our risk-adjusted capital framework (RACF) independently from regulatory ratios, we believe it provides insight into Basel III regulatory ratios in a globally consistent manner (see "Standard & Poor's Risk-Adjusted Capital Framework Provides Insight Into Basel III," published June 9, 2011, on RatingsDirect). ACE is our definition of core capital that excludes all hybrids, similar to the CET1 under Basel III.

We derive our RACF RWAs from globally consistent risk charges capturing credit, market, insurance, and operational risk losses under a 'A' stress scenario. (Examples of Standard & Poor's stress scenarios are detailed in Appendix IV of "General Criteria: Understanding Standard & Poor's Rating Definitions," published June 3, 2009.) RACF RWAs are generally more conservative than the current regulatory RWAs, but Standard & Poor's already addresses several areas of Basel III, including multiplying market-risk capital charges by a factor of three, deducting tax losses carried forward from capital, deducting the change in the fair value of debt from capital, and imposing a 1,250% risk weight (i.e., one for one) to securitization equity tranches. We also have different opinions than the regulators on certain risk categories, such as operational risk for asset management and custody activities (see "U.S. Trust Banks' Off-Balance-Sheet Exposures Are Addressed In The Risk-Adjusted Capital Framework," published March 4, 2011).

See the "Related Research" section for the articles mentioned above.

The Majority Of Rated U.S. Banks Already Meets The 7% Threshold, But U.S. G-SIBs Are Lagging

Almost two-thirds of the 61 rated U.S. banks we studied already meet the 7% minimum threshold. However, all eight U.S. banks identified as G-SIBs will experience a shortfall when taking into account the additional buffer for systemically important banks, for all points in the assumed range between 1.5% and 2.5% (see table 1). Therefore, these G-SIBs represent about 90% of the overall estimated shortfall for rated U.S. banks. Nine of the 13 non-G-SIBs with assets of more \$50 billion have ACE to RWA ratios of less than 8%, contributing to a total estimated shortfall of about \$27 billion--about 7% of the total estimated shortfall.

Table 1

Estimated Shortfall Given 7% Capital Requirement And Additional Systemic Buffers			
(Mil. \$)	--G-SIB buffer--		
	1.5%	2%	2.5%
G-SIBs	291,806	342,108	392,409
Bank of America Corp.	79,995	91,092	102,189
Citigroup Inc.	52,489	62,171	71,853
The Goldman Sachs Group Inc.	21,678	26,740	31,802
JPMorgan Chase & Co.	75,384	86,906	98,428
Morgan Stanley	6,958	10,300	13,641
Wells Fargo & Co.	36,685	43,872	51,059

Table 1

Estimated Shortfall Given 7% Capital Requirement And Additional Systemic Buffers (cont.)			
Bank of New York Mellon Corp.*	13,386	14,816	16,245
State Street Corp.*	5,231	6,212	7,192
Regional greater than \$50 billion in total assets	26,567	26,567	26,567
PNC Financial Services Group	5,134	5,134	5,134
U.S. Bancorp	5,121	5,121	5,121
BB&T Corp.	2,764	2,764	2,764
Capital One Financial Corp.	6,367	6,367	6,367
M&T Bank Corp.	1,972	1,972	1,972
Fifth Third Bancorp	777	777	777
Regions Financial Corp.	1,852	1,852	1,852
SunTrust Banks Inc.	2,108	2,108	2,108
Zions Bancorporation	472	472	472
Regional greater than \$15 billion in total assets	400	400	400
Synovus Financial Corp.	145	145	145
First BanCorp	255	255	255
Other regional	89	89	89
Doral Financial Corp.	89	89	89
Foreign subsidiaries	10,502	10,502	10,502
BancWest Corp.	1,380	1,380	1,380
TD Bank US Holding Co.	9,122	9,122	9,122
Total shortfall	329,365	379,667	429,968

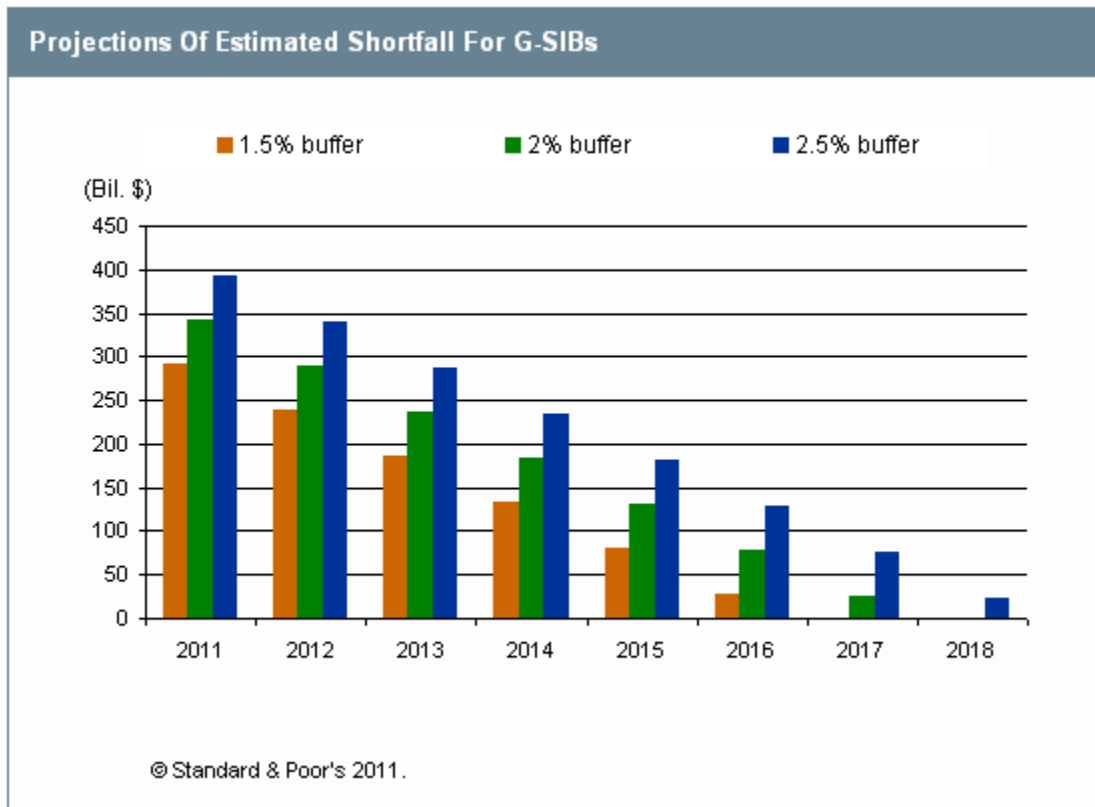
*Bank of New York Mellon Corp. and State Street Corp. numbers as of March 2011. Note: Shortfall calculated based on 7% capital ratio required by Basel III and an additional 1% surcharge for non-G-SIBs with more than \$50 billion in total assets. Estimated shortfall = (7%+ systemic buffer) * RWA - TAC. Source: Standard & Poor's Financial Institutions Research.

This estimated capital shortfall appears manageable for most banks provided that they continue deleveraging. In addition, we assume banks may need to increase earnings retention. During the first six months of 2011, the estimated shortfall decreased by more than \$50 billion, or about 14% of the total.

Scenario 1: Constant RWA and 15% dividend payout ratio

We expect that the G-SIBs could fully absorb this estimated shortfall without raising capital over the next five to seven years, assuming constant RWAs and a 15% average dividend payout ratio (see chart 2). We anticipate a similar payout ratio on average for U.S. G-SIBs in 2011.

Chart 2



In other words, we expect that the U.S. G-SIBs will be able to increase their ACE to RWA ratios by an average of about 55 basis points each year by retaining earnings only. We base these estimates on a through-the-cycle average pretax earnings buffer of almost 90 basis points for the G-SIBs under our base case scenario of modest growth for the U.S. economy. The earnings buffer is a metric within our new bank criteria that measures the capacity for earnings to cover normalized credit losses. Taking into account a tax rate of 30% and an average through-the-cycle projected dividend payout ratio of 15%, we estimate an earnings buffer adjusted for tax and dividends of about 55 basis points.

Scenario 2: Reduction of RWA and 100% dividend payout ratio

Another way for banks to improve their capital metrics is to reduce risk-weighted assets, the denominator of the capital ratio. Should G-SIBs retain no earnings, they would need to shrink their total assets by \$3.4 trillion to \$4 trillion to meet the Basel III minimums. This would be 30%-40% of current total assets of the eight G-SIBs and is equivalent to an estimated loan reduction of about \$1.1 trillion to \$1.3 trillion, or about 32%-39% of total loans outstanding, given that loans constitute about a third of G-SIBs total assets. Assuming no retained earnings is, however, an extreme scenario that we do not consider likely. Moreover, this estimate assumes that the business mix would remain unchanged, whereas banks aiming to reduce their risk-weighted assets would target first the activities which carry the highest risk weight under Basel III.

Scenario 3: Combination of RWA reduction and 30% dividend payout ratio

Should U.S. G-SIBs maintain an average 30% dividend payout ratio over the transition period ending in 2018, we estimate they would need to reduce their assets by \$2 trillion to fully absorb the shortfall. This reduction would

represent 20% of total assets for the eight G-SIBs. Assuming that the business mix remains unchanged, these banks would reduce their aggregate loan book by about \$660 billion under this scenario.

Delays Persist In The Implementation Of Basel II And II.5 In The U.S.

The implementation of Basel II and Basel II.5 is lagging in the U.S. compared to Europe and Asia because of the added complexity of coordination with the Dodd-Frank regulatory reform legislation. The Basel Committee has reported on the implementation of Basel III among its members as of Sept. 30. All U.S. banks required to adopt Basel II are under parallel run, meaning that they are still reporting Basel I regulatory ratios. The U.S. regulators are still developing the rules for Basel II.5, which essentially imposes higher capital requirements for the trading book and securitizations. The Federal Reserve Board issued proposed rules with request for public comment at the beginning of 2011 about market risk capital requirements and should issue proposed regulation for trading book securitizations and banking book re-securitizations by the end of the year. Finally, we expect U.S. regulators to issue a proposal for Basel III rules in 2011, which will also need to conform to the Dodd-Frank Act. (For more details on the transition period to Basel III recommended by the BCBS from 2013 to 2019, see "Basel's Global Quantitative Impact Study Exposes Large Banks' Regulatory Capital Shortfall," published Dec. 20, 2010.)

On Nov. 22, 2011, the Federal Reserve Board issued a final rule requiring top-tier U.S. bank holding companies with total consolidated assets of \$50 billion or more to submit annual capital plans for review. Submissions are required by Jan. 9, 2012, and the results of the Fed's review will be released publicly for the largest 19 bank holding companies by March 15. These requirements include the largest 31 bank holding companies, including the original 19 banks that participated in the 2011 Comprehensive Capital Analysis and Review (CCAR), and an additional 12 banks with more than \$50 billion in assets that will now be required to go through a formalized process for capital deployment next year (known as the Capital Plan Review or CapPR) (for a list of these banks, see the appendix). These banks need to submit capital plans that include pro forma capital analyses, including supporting projections, based on four scenarios: their own baseline forecast, the Fed's baseline outlook, their own stress case, and the Fed's stress case. The six largest banks (the G-SIBs except the trust banks) will also be required to estimate potential losses that could arise from a hypothetical global market shock. This shock will be based on market price movements similar to those observed during the second half of 2008 with adjustments made to incorporate potential sharp market price movements in European sovereign and financial sectors.

According to the Fed's rules, banks must demonstrate that they are able to maintain a pro forma tier 1 common ratio above 5% under all scenarios. The Fed also expects the bank to demonstrate it can achieve the capital ratios required by the Basel III framework as applied to the U.S. Therefore, the bank needs to include estimates of capital levels and composition, risk-weighted assets, exposures used to calculate minimum ratios, buffers, and any SIFI surcharge that may be required by the Basel III framework agreed to by the BCBS, under both the BHC Baseline and the Supervisory Baseline scenarios. Each BHC should include its Basel III capital composition, risk-weighted assets, leverage exposures, and planned actions, beginning Sept. 30, 2011, and through Dec. 31, 2016. These projections should include the firm's best estimate of any capital surcharge for systemically important financial institutions (SIFIs) and any planned capital actions including dividends and other distributions.

Finally, the Federal Reserve expects banks that do not yet meet the fully phased-in Basel III targets, including the systemic buffers, to demonstrate steady progress toward these minimums in their capital plan. Moreover, the Fed indicated that any capital plan with a dividend payout ratio in excess of 30% "will receive particularly close

scrutiny."

Related Research

- Banks: Rating Methodology And Assumptions, Nov. 9, 2011
- Most Asia-Pacific Banks Are In Better Shape Than Their Global Peers For Basel III, But Some May Need To Toughen Up Against New Rules, Oct. 20, 2011
- Standard & Poor's Risk-Adjusted Capital Framework Provides Insight Into Basel III, June 9, 2011
- U.S. Trust Banks' Off-Balance-Sheet Exposures Are Addressed In The Risk-Adjusted Capital Framework , March 4, 2011
- U.S. Banks' Risk-Adjusted Capital Has Improved, But Remains Neutral To Negative For Ratings, Jan. 18, 2011
- Basel's Global Quantitative Impact Study Exposes Large Banks' Regulatory Capital Shortfall, Dec. 20, 2010
- Bank Capital Methodology And Assumptions, Dec. 6, 2010

Appendix: ACE To RACF RWA Ratio For Rated U.S. Banks

Table 2

Adjusted Common Equity To RACF Risk-Weighted Assets Ratio For U.S. Banks		
G-SIBs	RWA (mil. \$)	ACE/RWA (%)
Bank of America Corp.	2,219,466	4.90
Citigroup Inc.	1,936,404	5.79
The Goldman Sachs Group Inc.	1,012,323	6.36
JPMorgan Chase & Co.	2,304,397	5.23
Morgan Stanley	668,318	7.46
Wells Fargo & Co.	1,437,413	5.95
Bank of New York Mellon Corp.*	285,876	3.82
State Street Corp.*	196,106	5.83
Regional greater than 50 billion in total assets		
PNC Financial Services Group	376,686	6.64
U.S. Bancorp	331,204	6.45
BB&T Corp.	169,617	6.37
Capital One Financial Corp.	245,943	5.41
Comerica Inc.	63,468	9.12
Fifth Third Bancorp	126,475	7.39
Huntington Bancshares Inc.	50,058	8.44
KeyCorp	93,491	8.97
M&T Bank Corp.	82,763	5.62
Regions Financial Corp.	116,213	6.41
Zions Bancorporation	55,676	7.15
BBVA USA Bancshares Inc.	58,990	8.74

Table 2

Adjusted Common Equity To RACF Risk-Weighted Assets Ratio For U.S. Banks (cont.)		
SunTrust Banks Inc.	173,976	6.79
Regional greater than 15 billion in total assets		
First Horizon National Corp.	27,309	9.64
Popular Inc.	40,352	7.02
Synovus Financial Corp.	27,850	6.48
Associated Banc Corp.	18,175	9.27
BOK Financial Corp.	22,671	11.14
City National Corp.	17,679	8.49
Commerce Bancshares Inc.	21,428	8.87
Cullen/Frost Bankers Inc.	13,320	10.59
First Citizens BancShares Inc.	18,500	9.41
First Niagara Financial Group Inc.	22,119	9.01
New York Community Bancorp Inc.	32,375	9.51
SVB Financial Group	17,357	11.35
TCF Financial Corp.	16,202	10.14
Webster Financial Corp.	14,038	8.79
First BanCorp	11,146	4.71
Other regional		
BancorpSouth Inc.	11,787	7.71
FirstMerit Corp.	13,357	8.16
First Midwest Bancorp Inc.	7,245	8.78
S&T Bancorp Inc.	3,872	8.31
Susquehanna Bancshares Inc.	12,502	8.21
Trustmark Corp.	7,767	11.07
UMB Financial Corp.	7,564	10.45
Valley National Bancorp	12,569	7.90
First National of Nebraska Inc.	16,888	7.29
Oriental Financial Group	3,806	15.45
Doral Financial Corp.	6,702	5.67
Foreign subsidiaries		
UnionBanCal Corp.	86,020	9.67
Banco Bilbao Vizcaya Argentaria Puerto Rico	3,499	10.52
Citizens Financial Group Inc.	116,736	10.93
BancWest Corp.	59,837	4.69
Santander BanCorp.	5,632	9.36
TD Bank US Holding Co.	201,244	2.47
Other specialized		
Ally Financial Inc.	186,875	7.02
American Express Co.	197,490	7.03
Discover Financial Services Inc.	90,288	8.16

*All data as of June 2011, except Bank of New York Mellon Corp. and State Street Corp., which are as of March 2011. Source: Standard & Poor's Financial Institutions Research.

Risk-weighted assets assumptions. To help preserve consistency, comparability, and transparency of our published RWAs, we made the following assumptions for this commentary, most of which we've based on publicly and consistently available information for the purpose of assisting reproducibility of this study. The assumptions are nearly identical to the ones we published in "U.S. Banks' Risk-Adjusted Capital Has Improved, But Remains Neutral To Negative For Ratings" on Jan. 18, 2011. We also took into account confidential information, mainly regarding financial collateral and securitization exposures.

- The exposure data mostly derive from the FR Y-9C disclosures, using our criteria (see appendix A of "Bank Capital Methodology And Assumptions," published Dec. 6, 2010).
- We also took into account assets under management and assets under custody from the 10-Q reports.
- When adjusting for tax-loss carry forwards in the numerator of the ACE to RWA ratio, we used the U.S. regulators' disallowed portion of the deferred tax assets number disclosed in schedule HC-R.
- We did not make explicit adjustments for guarantees obtained.
- We used the region "World excluding U.S." to represent U.S. banks' foreign-exposure classes identified in the FR Y-9C. We assumed other exposures were in the U.S. As of September 2010, this translated into a rating of 'A+' for foreign sovereign exposures, a Banking Industry Country Risk Assessment (BICRA) of '4' for foreign financial institutions exposures, and an economic risk score of '3' for foreign corporate exposures. We assumed all retail exposures were domestic. We assign average GDP-weighted BICRAs, economic risk scores, and long-term foreign-currency sovereign credit ratings to groups of countries and regions.
- Equity exposures were split between public and private using FR Y-9C schedules HC-B 7d for public equities and HC-F4 for private equity. We assumed all equity exposures had risk consistent with the equity market group 1 (to which the U.S. belongs).
- We did not use any explicit adjustment for latent gains.
- We assumed that banks use the internal-model approach (value at risk) to measure all of the general risk in the trading book and use the standardized approach to measure specific risk.
- We included information of financial collateral that trust banks provided, recognizing a mitigation of the credit risk, especially for securities-lending portfolios. We applied haircuts (i.e., value reductions) to the financial collateral according to the table 11 (below paragraph 76) of our criteria published on Dec. 6, 2011.
- We based securitization exposures risk weights on detailed breakdowns of exposures per rating, or on our default values disclosed in paragraph 70.

U.S. banks holding companies subject to capital plans submission to the Federal Reserve. The original 19 banks that participated in the 2011 Comprehensive Capital Analysis and Review (CCAR) are: Ally Financial Inc., American Express Company, Bank of America Corp., The Bank of New York Mellon Corp., BB&T Corp., Capital One Financial Corp., Citigroup Inc., Fifth Third Bancorp, The Goldman Sachs Group Inc., JPMorgan Chase & Co., Keycorp, MetLife Inc., Morgan Stanley, The PNC Financial Services Group Inc., Regions Financial Corp., State Street Corp., SunTrust Banks Inc., U.S. Bancorp, and Wells Fargo & Co.

The additional 12 banks with more than \$50 billion in assets that will now be required to go through a formalized process for capital deployment next year (known as the Capital Plan Review or CapPR) are: BBVA USA Bancshares Inc., BMO Financial Corp., Citizens Financial Group Inc., Comerica Inc., Discover Financial Services, HSBC North America Holdings Inc., Huntington Bancshares Inc., M&T Bank Corp., Northern Trust Corp., RBC USA Holdco Corp., UnionBanCal Corp., and Zions Bancorporation.

Additional Contact:

Michael Caggiano, New York; michael_caggiano@standardandpoors.com

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