October 22, 2012

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Re: Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Minimum Regulatory Capital Ratios, Capital Adequacy, Transition Provisions, and Prompt Corrective Action (RIN 1557–AD46, Docket ID OCC-2012-0008; RIN 7100-AD87, Docket No. R-1442; RIN 3064-AD95); Regulatory Capital Rules: Standardized Approach for Risk-Weighted Assets; Market Discipline and Disclosure Requirements (RIN 1557–AD46, Docket ID OCC-2012-0009; RIN 7100-AD87, Docket No. R-1442; RIN 3064-AD96); and Regulatory Capital Rules: Advanced Approaches Risk-Based Capital Rule; Market Risk Capital Rule (RIN 1557–AD46, Docket ID OCC-2012-0010; RIN 7100-AD87, Docket No. R-1442; RIN 3064-AD97)

Dear Ladies and Gentlemen:

Better Markets[1] appreciates the opportunity to provide comments to the Board of Governors of the Federal Reserve System ("Board"), the Office of the Comptroller of the Currency ("OCC"), and the Federal Deposit Insurance Corporation ("FDIC") in response to the request for public comment in connection with the Notice of Proposed Rulemaking ("Proposed Rule") published on August 30, 2012, in connection with the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act").

These rules attempt to address a crucial weakness in the U.S. banking system. The financial crisis demonstrated that our banking system, which from a regulatory standpoint

[1] Better Markets is a nonprofit organization that promotes the public interest in the capital and commodity markets, including in particular in the rulemaking process associated with the implementation of the Dodd-Frank Act.

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appeared robust and well positioned to weather adverse developments, was in fact fragile and vulnerable to creditor runs.

To a great extent, that bank fragility derived from the manner in which banks finance their positions. Many U.S. banks use very little equity and an overwhelming amount of debt. Making matters worse, a meaningful proportion of that bank debt is very short term. Some of it – from repo borrowing or securities lending, for example – must be renewed daily.

Minimal equity meant that when the bursting house price bubble caused asset price declines, some banks were unable to cover the losses, even relatively small losses. Heavy dependence on capital markets meant that banks with losses, or with suspected losses, were vulnerable to creditor runs.

In such circumstances, those losses, plus a vulnerable liability structure, translated into bank failures. Those failures, in turn, added to the financial panic and the contraction of credit. The collapse of the financial system was averted only by massive federal intervention, which among other things meant unlimited financial support for large banks, providing financing that the markets would not provide under the existing conditions and which the banks themselves did not obtain prior to the runs.

The Proposed Rule would change the liability structure of banks somewhat. Banks would be required to finance a greater share of their lending, trading, and derivatives operations with common equity. Off balance sheet exposures will count more heavily as assets in the calculation of regulatory capital ratios. And the statistical models used to calculate dealer exposures are tweaked in the hope of making them more accurate.

Many of these regulatory changes are welcome. However, far more needs to be done to make banks less vulnerable to large asset price declines and creditor runs. For banks to be effectively self-insured against these events, and for the entire financial system to be protected from the spillovers that bank distress demonstrably brings (and to eliminate or greatly reduce the risk of government bailouts), their liability structures need to be fundamentally revamped.

To achieve that, leverage ratios of 20-25 percent are necessary, and the numerators and denominators of these ratios must be stripped of meaningless accounting elements. Moreover, the broader measures of derivatives exposure must be used for purposes of determining minimum equity levels because of the demonstrated ability of derivatives counterparties to run and create funding crises for banks with substantial derivatives books. Finally, to reduce run risk in the bank broker-dealers generally the bank incentives to fund these operations using short term liabilities must be changed.

COMMENTS:

I. Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Minimum Regulatory Capital Ratios, Capital Adequacy, Transition Provisions, and Prompt Corrective Action

1. The Minimum Tier 1 Leverage Ratio is too low

When a bank is highly leveraged – that is, when it has financed its assets with relatively small amounts of equity and large amounts of debt – its vulnerability to a decline in the value of its assets rises. If the bank's ratio of assets to equity is 5, then it will be insolvent if the value of its assets declines by 20 percent. If instead its leverage ratio is 40, it will be insolvent if the values decline by 2.5 percent.

Moreover, the more highly the bank is leveraged, the greater its potential contribution to overall financial stress. As a highly leveraged bank's asset values decline, and its solvency comes into question, it can easily lose access to capital markets. This can force the bank to sell assets, often very quickly and often at any price available. That is the definition of a "fire sale." If enough banks are in a similar position – if, for example, they are heavily exposed to a rapidly devaluing housing market – then their collective, usually desperate, need for cash can lead to asset fire sales and further price declines. Such a downward spiral can threaten overall financial stability, as was demonstrated over the past few years.

Therefore restricting bank leverage, i.e. requiring a bank to finance a sufficient amount of its assets with equity, can usefully reduce the likelihood of individual failure, and reduce the likelihood that any bank will contribute to overall financial market distress.

In the run up to the recent financial crisis, large U.S. banks were very highly leveraged. As Better Markets showed in an earlier comment letter on the proposed rule implementing §165 of the Dodd Frank Act, the ten largest bank holding companies had leverage ratios well over 30, and as the crisis developed those ratios rose to well over 40.[2] The extreme vulnerability of these banks to additional asset price declines caused the federal government to provide them with massive direct financial aid in the form of loans, purchases of preferred stock, debt guarantees, and asset guarantees. It also caused the government to publicly guarantee in 2009 that no additional large financial institutions would be allowed to fail.

This Proposed Rule[3] has two leverage requirements. The first, contained in Subpart B, §§ __.10(a)(4) and __.10(b)(4), applies to all banking organizations. It sets a minimum leverage requirement of 4 percent (a leverage ratio of 25). The numerator of this ratio is Tier 1 capital, and the denominator is total of balance sheet assets, net of deductions from regulatory capital.

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[2] *See* Better Markets comment letter "Enhanced Prudential Standards and Early Remediation Requirements for Covered Companies," April 30, 2012, *available at* http://bettermarkets.com/sites/default/files/FRS-%20CL-%20Enhanced%20Prudential%20Standards%204-30-12.pdf

[3] Federal Register, Vol. 77, No. 169, 52792.

The principal difficulty with this requirement is that it is too modest to achieve the needed reduction in single bank failures, or a reduction in asset fire sales when many banks experience a common reduction in the value of their assets. This can be seen by considering developments at four banks – Washington Mutual, Wachovia, Citigroup, and Bank of America– the failure or near failure of which contributed to financial crisis during 2007-2008. The relevant data are presented in Table 1 (attached).

Washington Mutual, which failed in 2008Q3 and was acquired by JPMorgan Chase, was, from a regulatory capital standpoint, in good shape in 2007Q2. It had total assets of $312 billion, and a ratio of Tier 1 capital to risk-weighted assets of 7 percent (giving a leverage ratio of 14.3). By another measure – which was considered the relevant measure during the crisis – Washington Mutual's was significantly less robust. The ratio of Washington Mutual's tangible common equity to tangible assets was 4.8 percent (giving a leverage ratio of 20.7).

As the financial crisis got under way, Washington Mutual began to acknowledge some of its losses, beginning in 2007Q3. Between 2007Q3 and 2008Q3 the cumulative value of Washington Mutual's net charge-offs and asset write-offs totaled $5.9 billion, and the ratio of tangible common equity to tangible assets fell to 3.6 percent. The bank's stock price fell, its borrowing capacity was reduced by the FHLB, and after Lehman collapsed there were significant deposit outflows.[4]

Even after all that, the situation at Washington Mutual was in fact much worse than the bank had acknowledged. When JPMorgan Chase acquired the remnants of the bank, it wrote off an additional $29 billion of Washington Mutual assets.[5] This brought total write-offs to nearly $35 billion, or 11.5 percent of Washington Mutual's 2007Q2 tangible assets.

A similar scenario played out in the case of Wachovia, one of the ten largest bank holding companies in 2007 with total assets of $703 billion. In 2007Q2 Wachovia's Tier 1 capital was 7.5 percent of its risk-weighted assets. However, its ratio of tangible common equity to tangible assets was 4.3 percent (giving a leverage ratio of 23). Between 2007Q2 and 2008Q3 it recognized cumulative net charge offs and other asset writedowns of $13.1 billion, only 1.9 percent of its 2007Q2 tangible assets. However, capital markets did not agree with Wachovia's sunny view of its positions, and in 2008Q3 the bank lost access to the capital markets and was about to fail.[6]

Wachovia was acquired by Wells Fargo, which wrote off an additional $47.3 billion in assets in 2008Q4. This brought total losses to $60.2 billion, nearly 9 percent of 2007Q2 tangible assets.

Citigroup was on a similar path before it was rescued by massive federal aid. Between 2007Q2 and 2008Q4, its ratio of tangible common equity to tangible assets fell from 3 percent (for a leverage ratio of 33) to 1.3 percent (for a leverage ratio of 78.8). This occurred while its regulatory capital ratio was **increasing** from 7.9 percent to 11.9 percent.

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4 Offices of the Inspectors General, U.S. Treasury and Federal Deposit Insurance Corporation (2010). Evaluation of Federal Regulatory Oversight of Washington Mutual Bank, Report No. EVAL-10-002, 12-13.

5 JPMorgan Chase (2008). Acquisition of assets, deposits and certain liabilities of Washington Mutual's banks by JPMorgan Chase, September 25, investor presentation.

6 Wachovia 10-Q, for the period ended September 30, 2008, 2.

Citigroup's cumulative charge offs and writedowns were 3.7 percent of 2007Q2 tangible assets over this period.

However, in 2008Q4 Citigroup had a massive injection of what was in essence government equity. Treasury purchased $45 billion in preferred stock, and the FDIC guaranteed $31.8 billion of Citigroup debt.[7] It clearly needed this public equity to survive.[8] Hence, by 2008Q4 the total of Citigroup's recognized losses and public equity injections totaled $156 billion, or 7.2 percent of 2007Q2 tangible assets.

Bank of America had a tangible common equity to tangible assets ratio of 4 percent (and a leverage ratio of 25) in 2007Q4. By 2008Q4 the ratio was down to 2.8 percent (for a leverage ratio of 35.3). Cumulative losses amounted to 5.6 percent of 2007Q2 tangible assets. By 2008Q4 Treasury had purchased $45 billion of Bank of America preferred stock, and FDIC guaranteed $10 billion of the bank's debt. So in 2008Q4, the sum of Bank of America's recognized losses and public equity injections totaled 9.3 percent of 2007Q2 tangible assets.

Taken together, these examples clearly indicate that banks require equity well in excess of 10 percent of their tangible assets to survive financial crises of the severity we have just witnessed. Losses alone can exceed this amount. And to assure counterparties that they are still viable after such a loss, the bank needs to demonstrate that it will remain viable if it experiences additional losses. Given the fact that assets may devalue rapidly during the crisis, equity equal to 20-25 percent of assets appear necessary for a bank to be self-insured against failure.

2. Leverage ratios ought to be specified using better definitions of equity and assets

The measures of equity and capital used above – tangible common equity and tangible assets – are simpler than the definitions proposed for the Minimum Tier 1 Leverage Ratio. Tangible common equity excludes preferred stock, which unlike common equity usually has a fixed claim in bankruptcy and therefore is likely to factor in to market evaluations of bank solvency. It also excludes the accounting values of goodwill and intangible assets. Tangible assets exclude the value of goodwill and intangibles.

In contrast, the definition of Tier 1 capital, given in Subpart A, § __.2 of the Proposed Rule, includes non-cumulative perpetual preferred stock and other elements beyond common equity. The denominator is equal to on balance sheet assets less regulatory deductions from Tier 1 capital, which allows inclusion of some deferred tax assets.

Although the proposed definition of Tier 1 capital in the Proposed Rule moves it closer to tangible common equity, it still allows the inclusion of elements that may have no value in a crisis. The definition of total assets has the same defect. Since markets

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7 By 2009Q2 debt guarantees rose to more than $72 billion.

8 The Treasury, Federal Reserve and FDIC also guaranteed $301 billion of Citigroup assets, and the bank was a large user of Federal Reserve emergency lending facilities. The Congressional Oversight Panel put total federal government exposure to Citigroup at $476.2 billion. *See*, Congressional Oversight Panel (2011). March Oversight Report, Figure 7, *available at* http://cybercemetery.unt.edu/archive/cop/20110401232213/http://cop.senate.gov/documents/cop-031611-report.pdf.

look at tangible common equity and tangible assets as measures of bank viability in a crisis, it is reasonable to set required leverage ratios looking at these or similar variables.[9]

3. The Supplementary Leverage Ratio for Advanced Approaches Banks is Too Low

The Proposed Rule, Subpart B, §§ __.10(a)(5) and __.10(c)(4), make Advanced Approaches Banking Organizations subject to a Supplementary Leverage Ratio of 3 percent. This ratio is to be calculated using a larger denominator than the Minimum Ratio. In addition to on balance sheet assets (minus Tier 1 deductions), these banks will need to include three other amounts:

(a) Potential future exposure to OTC derivative contracts

(b) 10 percent of the notional value of unconditionally cancellable commitments

(c) The notional value of other off balance sheet exposures (but excluding securities lending, securities borrowing, reverse repos, derivatives, and unconditionally cancellable commitments)

The recognition of off balance sheet exposures is necessary, given the role that off balance sheet exposures played in the financial crisis. However, there are gaps in the measurement of off balance sheet exposures.

The proposed treatment of derivatives would include the "potential future exposure" ("PFE") to derivatives, defined as the notional value multiplied by a conversion factor.[10] This is remarkably conservative. Even the Proposed Rule on the Standard Approach for Risk-Weighted Assets, discussed in Section II below, calculates exposure to OTC derivatives as the net current exposure to the derivative plus the PFE. It is unclear why derivatives should enter with a lower value in leverage calculations than they do in risk-weighted capital calculations. A better alternative would be to include a value determined by gross exposures (see the discussion of derivatives netting in Section II below).

Moreover, the decision to exclude securities lending and borrowing ignores the forced deleveraging that occurred during the financial crisis when hedge funds withdrew their securities from their prime brokers, eliminating rehypothecation as a source of broker-dealer finance.[11]

Similarly, the decision to exclude repurchase agreement ("repo") exposures ignores the impact of the run on the repo market during the crisis. The size of the rescue lending needed to counteract the run on the repo market during the crisis illustrates the risk posed by repo exposure. The loans made through the Term Securities Lending Facility, the

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9 *See* T. Hoenig (2012). Back to Basics: A Better Alternative to Basel Capital Rules, *available at* http://www.fdic.gov/news/news/speeches/chairman/spsep1412_2.html.

10 *See* §__.34(a) of the Proposed Rule.

11 M. Singh and James Aitken (2009). Deleveraging after Lehman – Evidence from Reduced Rehypothecation, IMF working paper WP/09/42.

Primary Dealer Credit Facility, and Federal Reserve repo lending reached a combined peak value of more than $460 billion during the financial crisis.[12]

As proved by the recent financial crisis, both repo and securities lending exposures need to be included in the denominator of a meaningful leverage ratio.

Finally, the selection of 3 percent as the Supplementary Ratio has not been explained either by an appeal to financial crisis experience or some other basis. Given the data presented in the discussion of the Minimum Ratio Leverage Ratio, in Section I.1 above, it is likely that this ratio should be in the 20 to 25 percent range.

II. Regulatory Capital Rules: Standardized Approach for Risk-Weighted Assets; Market Discipline and Disclosure Requirements

1. Risk-Weighting Is a Failed Regulatory Strategy

There is abundant evidence that the strategy of setting regulatory capital ratios relative to risk-weighted assets has been an abysmal failure. The data in Table 1 show that in regulatory capital terms, all was well at Washington Mutual, Wachovia, Citigroup, and Bank of America up until the moment that they either failed or were rescued from failure. Regulatory capital ratios failed to measure just how vulnerable those banks were to losses. There is also substantial regulatory and academic criticism of the risk-weighting approach.[13]

Risk-weighting ought to be replaced with simpler rules, including the higher leverage ratios advocated in Section I above, and other measures to reduce the run risk associated with bank reliance on very short term wholesale finance (see the discussions of run risk in Sections II.2 and III below).

However, given that risk-weighting is likely to continue in place for the foreseeable future, there are elements of the proposed risk-weighting scheme that ought to be improved if it is not replaced or prior to it being replaced.

2. The proposed measurement of derivatives will understate risk-weighted exposure because of the treatment of netting

Under the Proposed Rule[14], banks will determine the capital requirements for their OTC derivatives exposures by making two exposure calculations – net current credit exposure and potential future exposure. According to Subpart D, §__.34(a)(2)(i) of the Proposed Rule, if

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[12] *See* the discussion of run on repo lending in the Better Markets comment letter "Prohibition on Proprietary Trading and Certain Relationships with Hedge Funds and Private Equity Funds *available at* http://bettermarkets.com/sites/default/files/SEC-%20CL-%20Volcker%20Rule-%202-13-12.pdf and the graphical depiction of the TSLF and PDCF lending in the Better Markets blog post "Another Reason We Need a Strong Volcker Rule," *available at* http://bettermarkets.com/sites/default/files/SEC-%20CL-%20Volcker%20Rule-%202-13-12.pdf.

[13] *See* A. Haldane (2012). The dog and the Frisbee, *available at* www.bankofengland.co.uk/publications/Pages/speeches/default.aspx; M. Hellwig (2010). Capital Regulation after the crisis: Business as Usual?, *available at* http://ssrn.com/abstract=16456224; T. Hoenig, op. cit.

[14] Federal Register, Vol. 77, No. 169, 52888.

the derivatives are included in a master netting agreement, the net current credit exposure is equal to the net sum of the mark-to-market values of the contracts, taking account of collateral. Subpart D, §__.34(a)(2)(ii) also requires a PFE add-on, calculated as a fixed conversion factor multiplied by the notional principal amount of each contract. The sum of these exposures is then added to the bank's assets for purposes of calculating capital requirements.

Because these calculations rely primarily on net exposures as determined under master netting agreement, they are likely to understate actual exposures and the run risk they pose for large bank dealers. This will mean that insufficient capital will be required to back up the derivatives operations of large bank broker dealers. This can be seen by considering the way derivatives dealers actually behave.

Suppose that dealer A has in the money derivatives exposure to other dealers of $100. Suppose that A's counterparties have in the money derivatives exposure to A of $200. Assume that there are master netting agreements between A and its counterparties. Under the Proposed Rule, $100 would be used as the measure of A's net exposure.

However, there is good reason to believe that this measure of exposure does not reflect the risks posed by A's derivatives book, and that the measure of risk to the bank should be at least $200. For if A's derivatives counterparties suspect that A will have difficulty meeting its future obligations, those counterparties will take steps to reduce all their exposures to A.

Counterparty actions to reduce gross exposure can take several forms. A's counterparties can try to novate their contracts to other dealers, who thereby assume the risk. Novation is common industry practice. But if the volume of novation is taken as a signal of A's weakness, other dealers may refuse. Their refusal to novate will amplify the perception of weakness.

A's counterparties may also increase margin calls on their in the money contracts, or ask A to close out contracts (another industry practice). These actions will deplete A's collateral and cash resources.

Actions such as these can cumulate and start a run on A's funding. Repo lenders may cut back collateralized lending, and prime brokerage clients may reduce their cash and securities accounts, which would also reduce its funding. All this can happen very quickly, leading to a liquidity crisis.

This chain of events is more than a theoretical possibility. Something very much like it played out in the demise of Bear Stearns and Lehman Brothers. The Financial Crisis Inquiry Commission Report gives this description of the developing run on Bear Stearns during 2007:

> Derivatives counterparties were increasingly reluctant to be exposed to Bear. In some cases they unwound trades in which they faced Bear, and in others they made margin or collateral calls. In Bear's last few years as an independent company, it had substantially increased its exposure to derivatives. At the end of fiscal year 2007, Bear had $13.4 trillion in notional exposure on derivatives contracts, compared with $8.7 trillion at 2006 fiscal year-end and $5.5 trillion at the end of 2005.

Derivatives counterparties who worried about Bear's ability to make good on their payments could get out of their derivative positions with Bear through assignments or novations. Assignments allow counterparties to assign their positions to someone else: if firm X has a derivatives contract with firm Y, then firm X can assign its position to firm Z, so that Z now is the one that has a derivatives contract with Y.

Novations also allow counterparties to get out of their exposure to each other, but by bringing in a third party: instead of X facing Y, X faces Z and Z faces Y. Both assignments and novations are routine transactions on Wall Street. But on Tuesday, Brian Peters of the New York Fed advised Eichner at the SEC that the New York Fed was "seeing some HFs [hedge funds] wishing to assign trades the clients had done with Bear to other CPs [counterparties] so that Bear 'steps out.'" Counterparties did not want to have Bear Stearns as a derivatives counterparty any more.

Bear Stearns also encountered difficulties stepping into trades. Hayman Capital Partners, a hedge fund in Texas wanting to decrease its exposure to subprime mortgages, had decided to close out a relatively small $5 million subprime derivative position with Goldman Sachs. Bear Stearns offered the best bid, so Hayman expected to assign its position to Bear, which would then become Goldman's counterparty in the derivative. Hayman notified Goldman by a routine email on Tuesday, March 11, at 4:06P.M.

The reply 41 minutes later was unexpected: "GS does not consent to this trade."

That startled Kyle Bass, Hayman's managing partner. He told the FCIC he could not recall any counterparty rejecting a routine novation. Pressed for an explanation, Goldman the next morning offered no details: "Our trading desk would prefer to stay facing Hayman. We do not want to face Bear." Adding to the mystery, 16 minutes later Goldman agreed to accept Bear Sterns as the counterparty after all. But the damage was done. The news hit the street that Goldman had refused a routine transaction with one of the other big five investment banks. The message: don't rely on Bear Stearns.

CEO Alan Schwartz hoped an appearance on CNBC would reassure markets. Questioned about this incident, Schwartz said he had no knowledge of such a refusal and rhetorically asked, "Why do rumors start?" SEC Chairman Cox told reporters his agency was monitoring capital levels at Bear Stearns and other securities firms "on a constant basis" and has "a good deal of comfort about the capital cushions at these firms at the moment."

Still, the run on Bear accelerated. Many investors believed the Fed's announcement about its new loan program was directed at Bear Stearns, and they worried about the facility's not being available for several weeks. On

> Wednesday, March 12, the SEC noted that Bear paid another $1.1 billion for margin calls from 142 nervous derivatives counterparties.[15]

The Report also notes the run by repo lenders and hedge fund prime brokerage customers.[16] Professor Darrell Duffie gives a similar account of the refusal of dealers to novate Bear Stearns derivatives, and describes how runs by repo lender and prime brokerage customers create runs on dealers.[17]

The risk posed by a large derivatives book is therefore not accurately measured by its net exposures. If the dealer gets into trouble, its counterparties will not calmly wait until it fails. Instead, they will do everything they can to eliminate **any** exposure to the dealer. And this can quickly lead to runs, failure, and financial market spillovers.

Although the PFE is calculated using nominal derivative values, it does not compensate for the weakness of the net exposure measure. The conversion factors are quite small, never greater than .15. There are limitations on notional values. For example, the PFE of the protection provider of a credit derivative is capped at net present value of the unpaid premiums. And when derivatives are subject to a netting agreement, the conversion factors are reduced. A better measure of the risk faced by dealers, tied to **gross** exposure, is therefore needed.

3. Bank models should not be used to determine risk-weighted capital requirements for collateralized transactions

The Proposed Rule establishes capital requirements for certain collateralized exposures – collateralized derivatives, repo-style transactions (repo, reverse repo, and securities borrowing and lending), and eligible margin loans. Banks have several options for calculating exposures, including a "haircut" approach. This requires multiplying the absolute value of net positions by a market price volatility haircut, and by a currency mismatch haircut, and then adding these sums to the gross exposure less the value of collateral.

Banks have the option to calculate the two volatility measures themselves, and this raises the problem of conflict of interest. Individual banks could seek to reduce their regulatory capital requirements through underestimation of the two haircuts. It is unlikely that regulators would have the capacity to closely examine, duplicate and back-test these estimates (especially in real time or, worse, during the gathering storm of a crisis and a volatile market). Therefore capital charges against these exposures could be reduced below the level anticipated by this regulation.

Therefore, to prevent them from being gamed, capital requirements for these exposures should not be calculated by banks themselves.

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15 Financial Crisis Inquiry Commission (2011). The Financial Crisis Inquiry Report, U.S. Government Printing Office, Washington, D.C., 287-288. The collapse of Bear Stearns is also described in "Bringing Down Bear Stearns", Vanity Fair, August 1, 2008.

16 Financial Crisis Inquiry Commission, op. cit., 291.

17 D. Duffie (2010). The Failure Mechanics of Dealer Banks, Journal of Economic Perspectives, Volume 24, Number 1, 51-72.

These considerations apply a fortiori to Questions 14 and 15 in the Proposed Rule, which ask if banks should be allowed to use Value at Risk ("VaR") or internal models to estimate exposures. These options are proposed for large banks under the Advanced Approaches Proposed Rule, and are subject to the same criticisms: gaming, regulatory evasion, and wishful thinking, all leading to understating the risks and the capital.

It is hard to understate the importance of accurately accounting for the risk posed by these collateralized exposures. The run on repo financing, the collapse of rehypothecation as a source of finance, and losses related to derivatives all put important stress on the financial system during the crisis.

4. The inclusion of DTA's in Tier 1 capital increases risk and distorts bank incentives

The Proposed Rule limits the inclusion of deferred tax assets ("DTA") in Tier 1 capital, but does not completely eliminate them. Casual intuition suggests that DTA would be poor buffers against loss, because they are not useful in the moments when banks are under stress and may not be earning income against which DTA can be set off.

Recent empirical work, covering the period 2008-2010, confirms this intuition. Gallemore concludes that:

> "...[the] proportion of regulatory capital composed of DTA is positively associated with the risk of bank failure. Furthermore, market participants appear to incorporate the increased risk of failure associated with the DTA component of capital when assessing bank credit risk. Finally I find that the rules governing the inclusion of DTA into regulatory capital seem to have incentivized poorly capitalized banks to engage in increased risk-taking."[18]

Therefore there appears to good reason for eliminating DTA from measured regulatory capital.

III. Regulatory Capital Rules: Advanced Approaches Risk-Based Capital Rule; Market Risk Capital Rule

The reliance on bank VaR-based models to estimate trading book risk and capital requirements asks for a repetition of past miscalculations.

The Proposed Rule[19] retains the VaR-based procedures under which banks estimate the market risk of their trading book, and then convert that estimate into market risk equivalent assets against which regulatory capital must be held. The Proposed Rule now requires that the model-based estimates of risk include a "counterparty valuation adjustment" to account for the extra risk in OTC derivatives contracts, an adjustment for "wrong-way risk", and other amendments.[20] These changes, and the stressed-VaR and other requirements included in the final Market Risk Capital Rule[21], are intended to

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18 J. Gallemore (2012). Deferred Tax Assets and Bank Regulatory Capital, working paper.
19 Federal Register, Vol. 77, No. 169, 52977.
20 *See* §__.132.
21 Federal Register, Vol. 77, No. 169, 53060.

increase capital requirements for the trading book and thereby limit the potential of trading operations to sink a large bank.

There are several difficulties with this approach. First, it provides no way for regulators or market participants to judge whether bank calculations of "market risk" are meaningful or not. Banks have a financial incentive to keep the values low. No one can evaluate their estimates, since they run the models and no one else is truly familiar with them.

The recent decision of Morgan Stanley to recalibrate its VaR model is a case in point.[22] The change reduced the bank's average VaR in the third quarter of 2012 by approximately one third, compared to the value that would have been reported before the model was changed. Does this reflect a better measurement of VaR, or does it reflect an intent to economize on regulatory capital requirements? Can anyone outside Morgan Stanley answer this question with confidence?

Second, even if banks did not have a significant conflict of interest when running their risk models, there is little reason to believe that the VaR-based approach successfully measures risk. For example, in the run up to financial crisis, when the five stand-alone investment banks were rapidly increasing their leverage, their Unit VaR measures did not reflect increasing risk to the banks or to the financial system.[23] While the tweaked version of VaR in the Proposed Rule is different, its fundamental approach is unchanged.

Instead of relying on failed risk modeling techniques to account for the risks posed by large bank trading operations, regulators should establish standardized requirements that reflect the demonstrated vulnerabilities of large broker dealers. Measuring derivatives exposures in terms of gross positions, as discussed in Section II.2 above, is clearly necessary. Moreover, because of the risk to bank stability that arises from the unstable short term borrowing that typically finances bank broker dealers, regulations should increase the cost of excessive use of short term repo borrowing or prime brokerage securities lending to fund long maturity assets.[24] This could be achieved by a regulatory tax on overall liability structures, or by equity requirements that increase as the use of short term funding increases.

CONCLUSION

The Proposed Rule demonstrates a recognition that a safer financial system requires a very big change in the way that banks finance their positions. The Proposed Rule will increase the proportion of assets, on and off balance sheet, that are financed through common equity. This is a very positive starting point. However, as we have explained in our comments, the rules fall far short of requiring banks to adopt liability structures that will insure them and the public against devastating runs. We hope that the final rules will move closer to that goal.

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22 "M Stanley shows the 'flaky' side of value at risk model", Financial Times, October 19, 2012.

23 T. Adrian and H. Shin (2012). Procyclical Leverage and Value-at-Risk. Federal Reserve Bank of New York Staff Report no. 338, available at http://www.newyorkfed.org/research/staff_reports/sr338.pdf.

24 The unstable nature of dealer finance is discussed in detail in the Better Markets comment letter on the Volcker Rule *available at* http://bettermarkets.com/sites/default/files/SEC-%20CL-%20Volcker%20Rule-%202-13-12.pdf.

We hope these comments are helpful in your consideration of the Proposed Rule.

Sincerely,

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Table 1

Washington Mutual

quarter	Total Assets	Goodwill	Intangibles	Common Equity	Preferred Stock	Tangible Common Equity (TCE)	Tangible Assets (TA)	TCE/TA (percent)	TCE Leverage ratio	Tier 1 capital	Tier 1/(Risk Weighted Assets) (percent)
2007q2	312.2	9.1		24.2	0.5	15	303.2	4.84	20.7	21	7.0
2007q3	330.1	9.1		23.9	0.5	14	321.0	4.48	22.3	20	7.6
2007q4	327.0	7.3		24.6	3.4	14	319.7	4.35	23.0	22	8.3
2008q1	319.7	7.8		22.4	3.4	11	311.8	3.60	27.8	22	8.1
2008q2	309.7	7.3		26.1	3.4	15	302.4	5.10	19.6	21	8.4

quarter	Net Loan Charge-Offs	Other Asset Writedowns	Total Writedowns	Cumulative Writedowns	Cumulative Writedowns (percent)*
2007q2					
2007q3	0.206	1.0	1.4	1.4	0.6
2007q4	0.461	0.3	1.0	2.4	1.0
2008q1	0.765	2.1	1.0	3.4	1.3
2008q2	1.309	3.7	2.0	5.4	1.9
2008q3			29	34.4	11.5

* = 100*(cumulative writedowns/tangible assets 2007q2)

Data from SEC 10Q and 10K's, and FR Y9-C's. Unless otherwise noted, data in current $ billions.

Table 1, contd.

Bank of America

quarter	Total Assets	Goodwill	Intangibles	Common Equity	Preferred Stock	Tangible Common Equity (TCE)	Tangible Assets (TA)	TCE/TA (percent)	TCE Leverage ratio	Tier 1 capital	Tier 1/(Risk Weighted Assets) (percent)
2007q2	1,534.4	65.8	8.7	135.8	2.9	58.3	1,459.8	4.0	25.0	92.4	
2007q3	1,578.8	67.4	9.6	138.5	3.4	58.0	1,501.7	3.9	25.9	92.4	8.2
2007q4	1,715.7	77.5	10.3	146.8	4.4	54.6	1,627.9	3.4	29.8	89.2	6.9
2008q1	1,736.5	77.9	9.8	156.3	17.3	51.3	1,648.8	3.1	32.1	99.1	7.5
2008q2	1,716.9	77.8	9.6	162.7	24.2	51.2	1,629.5	3.1	31.8	106.9	8.3
2008q3	1,831.2	81.8	9.2	161.0	24.2	46.0	1,740.3	2.6	37.9	137.4	7.6
2008q4	1,817.9	81.9	8.5	177.1	37.7	48.9	1,727.5	2.8	35.3	118.8	8.9

quarter	Net Loan Charge-Offs	Other Asset Writedowns	Total Writedowns	Cumulative Writedowns	Cumulative Writedowns (percent)*
2007q3	6.8	2	8.7	8.7	0.6
2007q4	3.8	18.1	21.9	30.7	2.1
2008q1	3.8	10.8	14.6	45.3	3.1
2008q2	4.4	7.2	11.6	56.9	3.9
2008q3	4.7	6.5	11.2	68.1	4.7
2008q4	6.2	6.9	13.1	81.2	5.6

TARP Preferred Stock Purchases	TLGP Debt Guarantees	Cumulative Writedowns + TARP + TLGP	Cumulative Writedowns + TARP + TLGP (percent)**
45	10	60.6	4.2

* = 100*(cumulative writedowns/tangible assets 2007q2)

** = 100*((cumulative writedowns+TARP+TLGP)/tangible assets 2007q2)

Data from SEC 10Q and 10K's, and FR Y9-C's. Unless otherwise noted, data in current $ billions.

Table 1, contd.

Citigroup

quarter	Total Assets	Goodwill	Intangibles	Common Equity	Preferred Stock	Tangible Common Equity (TCE)	Tangible Assets (TA)	TCE/TA (percent)	TCE Leverage ratio	Tier 1 capital	Tier 1/(Risk Weighted Assets) (percent)
2007q2	2220.9	39.2	23.0	127.8	0.6	64.9	2158.7	3.0	33.2	92.4	
2007q3	2358.3	39.9	23.7	127.1	0.2	63.3	2294.7	2.8	36.2	92.4	7.3
2007q4	2187.6	41.2	22.7	123.0	1.0	58.1	2123.7	2.7	36.6	89.2	7.1
2008q1	2199.8	43.6	23.9	128.2	19.4	41.3	2132.3	1.9	51.7	99.1	7.7
2008q2	2100.4	43.3	24.5	136.4	27.4	41.2	2032.6	2.0	49.4	106.9	8.7
2008q3	2050.1	39.7	23.5	126.1	27.4	35.5	1987.0	1.8	56.0	137.4	8.2
2008q4	1938.5	27.1	19.8	141.6	70.7	24.0	1891.5	1.3	78.8	118.8	11.9

quarter	Net Loan Charge-Offs	Other Asset Writedowns	Total Writedowns	Cumulative Writedowns	Cumulative Writedowns (percent)*
2007q3	2.6	2	4.6	6.5	0.3
2007q4	3.8	18.1	21.9	28.5	1.3
2008q1	3.8	10.8	14.6	43.1	2.0
2008q2	4.4	7.2	11.6	54.7	2.5
2008q3	4.7	6.5	11.2	65.9	3.1
2008q4	6.2	6.9	13.1	79.0	3.7

TARP Preferred Stock Purchases	TLGP Debt Guarantees	Cumulative Writedowns + TARP + TLGP	Cumulative Writedowns + TARP + TLGP (percent)**
45	31.8	155.8	7.2

* = 100*(cumulative writedowns/tangible assets 2007q2)

** = 100*((cumulative writedowns+TARP+TLGP)/tangible assets 2007q2)

Data from SEC 10Q and 10K's, and FR Y9-C's. Unless otherwise noted, data in current $ billions.

Table 1, contd.

Wachovia

quarter	Total Assets	Goodwill	Intangibles	Common Equity	Preferred Stock	Tangible Common Equity (TCE)	Tangible Assets (TA)	TCE/TA (percent)	TCE Leverage ratio	Tier 1 capital	Tier 1/(Risk Weighted Assets) (percent)
2007q1	702.7	38.8	1.6	69.8		29	662.3	4.44	22.5	41.5	7.5
2007q2	715.4	38.8	1.5	69.3		29	675.2	4.30	23.3	41.9	7.1
2007q3	754.2	38.8	1.4	70.1		30	713.9	4.19	23.9	43.5	7.4
2007q4	782.9	43.1	2.1	76.9	2.3	29	737.7	3.98	25.1	43.5	7.4
2008q1	808.6	43.1	2.0	78.0	5.8	27	763.5	3.55	28.2	45.4	7.4
2008q2	812.4	37.0	1.9	75.1	5.8	30	773.5	3.93	25.5	49.5	8.0
2008q3	764.4	18.4	1.9	50.0	9.8	20	744.2	2.68	37.3	43.8	7.5

quarter	Net Loan Charge-Offs	Other Asset Writedowns	Total Writedowns	Cumulative Writedowns	Cumulative Writedowns (percent)*
2007q2			0.2		
2007q3	0.2		0.2	0.2	0.0
2007q4	0.5	2.7	3.2	3.4	0.5
2008q1	0.8	2.3	3.1	6.4	1.0
2008q2	1.3	0.9	2.2	8.7	1.3
2008q3	1.9	2.5	4.4	13.1	1.9
2008q4			47.3	60.4	8.9

* = 100*(cumulative writedowns/tangible assets 2007q2)

Data from SEC 10Q and 10K's, and FR Y9-C's. Unless otherwise noted, data in current $ billions.