Good afternoon Ms. Chairman Capito, Ms. Chairman Biggert, Ms. Ranking Member Maloney, Mr. Ranking Member Gutierrez, and members of the committee. Thank you for the invitation to Better Markets to testify today.

Better Markets is a nonprofit, nonpartisan organization that promotes the public interest in the domestic and global capital and commodity markets. It advocates for transparency, oversight, and accountability with the goal of a stronger, safer financial system that is less prone to crisis and failure, thereby, eliminating or minimizing the need for more taxpayer funded bailouts. Better Markets has filed more than 100 comment letters in the U.S. rulemaking process related to implementing the financial reform law and has had dozens of meetings with regulators. Our website, www.bettermarkets.com, includes information on these and the many other activities of Better Markets.

My name is Marc Jarsulic and I am the Chief Economist at Better Markets. I have previously served as a Chief Economist of the Senate Banking Committee and Chief Economist and Deputy Staff Director of the Joint Economic Committee. Prior to that I was an academic economist and an attorney specializing in antitrust and securities law.

1. Introduction

I will discuss in detail below the impact of the proposed rules to implement Basel III capital standards and the balance between ensuring financial institutions are properly capitalized and preserving the ability of financial institutions to fulfill their lending and other functions. However, I will first address some of the questions raised by the Committees in their November 16, 2012 letter inviting us to testify.

- **How well capitalized are U.S. financial institutions?**

In large measure, the 2008 financial crisis happened because the too big to fail banks had too much debt and too little equity. Their highly leveraged positions made them vulnerable to asset price declines and creditor runs. When the crisis hit, that massive debt and lack of
equity caused them to fail or almost fail, which required government bailouts that were, in substance, direct or indirect injections of equity.

Capital requirements are the mechanism to address this key flaw in the funding practices of the too big to fail banks. If they are set at adequate levels, then the likelihood of another financial crisis is reduced and, most importantly, the need for taxpayer funded or backed bailouts would be reduced even further.

The crisis also demonstrated that the broker dealers operated by large banks have exceptionally high risk of very rapid counterparty runs. Such broker dealer trading is heavily reliant on repo funding – which is collateralized short term borrowing, often for periods as short as overnight or a single day. These broker dealers with large OTC derivatives books are subject to rapid runs, in which counterparties move the contracts to other dealers, close them out altogether or make margin calls at the first sign of trouble. Because the broker dealers are so highly leveraged, this can create a “cash crunch”, forcing assets sales (often leading to “fire sales” at any price to raise the needed cash), which depresses asset prices which forces more sales and causes more collateral calls. This contagion can spread rapidly to other firms, contributing to a systemic event.

Unfortunately, the proposed capital rules do not adequately address these weaknesses. The proposed capital rules do not require too big to fail banks to use sufficient equity finance to insure that they will remain solvent in the face of large asset price declines. Nor do the proposed capital rules require such banks with large broker dealers to self-insure against the run risk posed by OTC derivatives books or repo-financed trading books.

Evidence from the financial crisis indicates that banks must finance 20-25 percent of their assets with equity if they are to survive large asset price declines. The crisis also demonstrated that banks with large broker dealers face run risk that is a function of gross repo borrowing and gross OTC derivative exposure. Therefore, equity requirements must reflect the risk of these exposures, not some net amount that assumes everything is fully and timely paid.

- **Are uniform capital standards suitable for the diverse financial system in the U.S.?**

The proposed rules do not apply a uniform standard for the diverse U.S. financial system. In fact, the capital standards are tailored to different sizes and types of institutions. For example, the countercyclical capital buffer and other parts of the "Advanced Approaches" rules do not apply to banks with less than $250 billion in assets or $10 billion in on balance sheet foreign exposure.
However, community banks have raised some legitimate concerns about the application of those tailored rules. As discussed below, a few changes to the proposed capital rules should help assure continued community bank credit supply for businesses and households, without significantly increasing the risks to the overall financial system. However, such changes should apply only to genuine community banks, those with assets of $10 billion or less.

- **What will be the cost of compliance if proposed rulemakings go into effect?**

Empirical evidence indicates that there would not be a social cost to requiring banks to adequately self-insure against large asset price declines or the run risk created by large broker dealer operations. That is to say, evidence does not support the claim that the cost of bank credit will rise if large banks finance their positions with higher proportions of equity and lower proportions of debt.

Historical evidence suggests that industry claims of excessive or burdensome compliance costs need to be discounted. Moreover, any actual costs need to be balanced against the extraordinary harm inflicted by the financial crisis.

- **Do the proposed rulemakings appropriately address the differences in business models between financial institutions and insurance companies?**

By applying consolidated capital requirements to insurance holding companies, the agencies’ Basel III proposal intends to achieve comparable treatment of similar risks across banks and insurers. The example of AIG demonstrates that the behavior of the savings and loan holding companies that own insurers can easily pose threats to overall financial stability. Therefore the proposed treatment of savings and loan holding companies seems very reasonable.

2. **The financial crisis revealed important weaknesses of the U.S. banking system.**

- First, the U.S. banks use far too much debt, and far too little equity, to finance their positions and operations. This high leverage makes them vulnerable to asset price declines and creditor runs.

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 in the Appendix.
Washington Mutual

Washington Mutual, which failed in the third quarter of 2008 and was acquired by JPMorgan Chase, was, from a regulatory capital standpoint, in good shape as of June 30, 2007. 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). But, by another measure – which was considered the relevant measure during the crisis – Washington Mutual’s capital was significantly less robust. The ratio of Washington Mutual’s tangible common equity to tangible assets was 4.8 percent (making the leverage ratio, the ratio of assets to equity, 20.7).

As the financial crisis got under way, Washington Mutual began to acknowledge some of its losses, beginning in the third quarter of 2007. Between the third quarter of 2007 and the third quarter of 2008 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 (giving a leverage ratio of 27.8). The bank’s stock price fell, its borrowing capacity was reduced by the Federal Home Loan Banks and, after Lehman collapsed, there were significant deposit outflows.¹

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 in September 2008, it wrote off an additional $29 billion of Washington Mutual assets.² This brought total write-offs to nearly $35 billion, or 11.5 percent of Washington Mutual’s tangible assets in June 2007.

Wachovia

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 the second quarter of 2007 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 the second quarter of 2007 and the third quarter of 2008 it recognized cumulative net charge offs and other asset writedowns of $13.1 billion, only 1.9 percent of its second quarter 2007 tangible assets. However, capital markets did not agree with

² JPMorgan Chase (2008). Acquisition of assets, deposits and certain liabilities of Washington Mutual’s banks by JPMorgan Chase, September 25, investor presentation.
Wachovia’s sunny view of its positions, and in the third quarter of 2008 the bank could no longer borrow in the capital markets and was about to fail.³

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

Citigroup was on a similar path before it was rescued by massive federal aid. Between the second quarter of 2007 and end of 2008, 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. Citigroup’s cumulative charge offs and writedowns were 3.7 percent of its second quarter 2007 tangible assets over this period.

However, in the fourth quarter of 2008 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.⁴ It clearly needed these public equity injections to survive.⁵ Hence, by the fourth quarter of 2008 the total of Citigroup’s recognized losses and public equity injections totaled $156 billion, or 7.2 percent of second quarter 2007 tangible assets.

Bank of America

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

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³ Wachovia 10-Q, for the period ended September 30, 2008, 2.
⁴ By 2009Q2 debt guarantees rose to more than $72 billion.
Taken together, these four examples of Washington Mutual, Wachovia, Citigroup and Bank of America clearly demonstrate 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 a crisis, equity equal to 20-25 percent of assets appear necessary for a bank to be self-insured against failure.

• Second, the broker dealers operated by large bank holding companies are highly exposed to risk of very rapid counterparty runs.

Large bank broker dealer trading is heavily reliant on repo funding – which is collateralized short term borrowing, often for periods as short as overnight or a single day. It was estimated that in 2007 the 5 largest investment banks funded 42 percent of their assets with repo borrowing. These broker dealers are therefore vulnerable to literal overnight runs when there is severe financial market stress or even the mere threat of stress.\(^6\)

In early 2008 there was a general “run on repo” as firms and asset classes became suspect, even for overnight loans. By the end of the 2008 outstanding repo debt held by primary dealers contracted from a peak value of $4.6 trillion to $2.4 trillion. It is estimated that during the crisis Merrill Lynch, Goldman Sachs, Morgan Stanley and Citigroup lost about 50 percent of their tri-party repo funding, which supported non-agency mortgage backed securities, asset-backed securities and corporate debt.

The collapse of the repo market prompted the Federal Reserve to intervene with the Primary Dealer Credit Facility, Term Securities Lending Facility, and to expand its own repo lending. At its peak, outstanding Federal Reserve lending from these three sources amounted to more than $450 billion.

Broker dealers with large OTC derivatives books are subject to rapid runs, in which counterparties have other dealers step in as counterparties in contracts, close out contracts altogether, or make margin calls.\(^7\) Runs of this kind materialized during the financial crisis at Bear Stearns and Lehman Brothers, contributing to the collapse of those firms. Other


large bank broker dealers faced similar risk, which is what necessitated such massive bailouts and rescue programs.

3. The proposed capital rules do not adequately address these weaknesses.

The proposed capital rules do not require banks to use nearly enough equity finance and will allow continued excessively high debt financing, which will continue to pose serious risks of runs that will almost certainly result in the need for bailouts in the future. For example, the proposed rules require banks to hold common equity equal to just 4 percent of on balance sheet assets.\(^8\) But evidence clearly indicates that banks require common equity equal to at least 20-25 percent of their tangible assets to survive a financial crisis of the severity we have just witnessed.\(^9\)

The proposed capital rules do not require banks to self-insure against the run risk posed by OTC derivatives trading or repo borrowing, which means that taxpayers will – again – have to provide the equity for bank bailouts when the next financial crisis happens. For example, the proposed rules allow banks to calculate repo exposures net of the collateral used to borrow, and to calculate derivatives exposures net of counterparty exposures (with a small “potential future exposure” add-on). These net calculations do not reflect the fact that runs on repo finance will mean a loss of gross repo financing. And, a run by OTC derivatives counterparties will mean an attempt to eliminate gross exposure to the weakened dealer. With a financial crisis looming or unfolding, no lender is going to wait until a counterparty nets all its gross positions and exposures to determine if, on a net basis, they are financially sound or not. Any lender is going to call the debt, get their cash and eliminate their exposure as fast as possible.

Instead, equity requirements should rise as trading operations increase their use of repo borrowing or securities lending to fund long maturity assets. They should also rise with gross derivatives exposures. This would require banks to effectively self-insure against runs, and provide some protection against the funding runs that brought down Lehman and Bear Stearns and threatened all the large dealers. It is also a key method to reduce the risk of and need for taxpayer funded or backed bailouts, which were required last time because the too big to fail banks simply did not have enough equity to avoid failure and bankruptcy.

\(^8\) Federal Register, Vol. 77, No. 169, 52792, Subpart B, §§ __.10(a)(4) and __.10(b)(4).

4. The social cost of adequate self-insurance against large asset price declines, or the run risk created by large broker dealer operations, is limited.

Empirical evidence indicates that there would not be a social cost to requiring banks to adequately self-insure against large asset price declines or the run risk created by large broker dealer operations. If there were, then we should be able to observe a historical correlation between bank equity levels and the cost of bank credit. That is, as bank leverage rises, the markup that banks charge on loans should decline. But as Hanson, Kashyup, and Stein have pointed out, there is no observable correlation between overall bank leverage and bank credit spreads. Therefore there is little reason to expect that the cost of credit for businesses and households would increase if banks were required to finance a larger proportion of their positions and operations with equity.

5. The banking industry has overstated the costs of complying with more stringent standards governing equity finance and controls on run risk. In any event, these heightened requirements are an essential component of reforms designed to prevent another financial crisis.

- History proves that industry claims of excessive compliance costs from financial reform are false

Since the emergence of financial market regulation, the financial services industry has claimed that new regulatory requirements will have a devastating impact by imposing excessive compliance costs or prohibiting profitable activities. Yet the industry has always absorbed the cost of those new regulations and has consistently remained one of the most profitable sectors in our economy. For example, a century ago, when securities regulation first emerged at the state level, Wall Street staunchly opposed it as an “unwarranted” and “revolutionary” attack upon legitimate business that would cause nothing but harm. However, in the years following this early appearance of financial regulation, banks and their profits grew handsomely.

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10 S. Hanson et al. (2011). A Macroprudential Approach to Financial Regulation. *Journal of Economic Perspectives*, Volume 25, Number 1, 3-28. See also A. Admati and M. Helliwig (2013). *The Bankers’ New Clothes*, forthcoming, for a thorough explanation of why, on the basis of established economic theory, we should expect the liability structure of banks to have very limited impact on the cost of credit.


12 Paul G. Mahoney, *The Origins of the Blue-Sky Laws: A Test of Competing Hypotheses*, 46 J.L. & ECON. 229, 249 (2003) (“In the 5 years following adoption of a merit review statute [the most stringent type of blue sky law statute], bank profits increased on average by nearly 5 percentage points . . .”).
The same pattern has been repeated with each new effort to strengthen financial regulation, including passage of the federal securities laws, deposit insurance, the Glass-Steagall Act, mutual fund reform, and the national market initiatives of the mid-1970s. It continues with full force today, as banks and other financial institutions argue strenuously that many of the reforms in the Dodd-Frank Act will hamper capital formation and credit availability, thus stifling economic recovery. And typically, the industry provides little or no credible data or substantive support for their assertion that regulatory costs will prove to be excessive and unmanageable.

For example, a frequent industry claim is that financial reform rules will “reduce market liquidity, capital formation and credit availability, and thereby hamper economic growth and job creation.” Yet the industry fails to mention that the financial crisis did more damage to those concerns than any rule or reform possibly could: Starting in September 2008 and continuing into 2009, there was no “market liquidity, capital formation [or] credit availability” and, since then, there has been little “economic growth” and even less “job creation” due to the financial collapse and economic crisis.

The lesson to be learned from this history is that when faced with new regulations, members of the regulated industry routinely argue that the costs and burdens are too heavy—but then they invariably adapt and thrive. Thus, to the extent that banks resist the imposition of more stringent equity ratios and run risk controls on the basis of compliance costs, those arguments must be appropriately discounted.

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13 Marcus Baram, supra note 82; see also Nicholas Economides et al., The Political Economy of Branching Restrictions and Deposit Insurance: A Model of Monopolistic Competition Among Small and Large Banks, 39 J. L. & ECON. 667, 698 (1996) (“The American Bankers Association fights to the last ditch deposit guarantee provisions of Glass-Steagall Bill as unsound, unscientific, unjust and dangerous. Overwhelmingly, opinion of experienced bankers is emphatically opposed to deposit guarantee which compels strong and well-managed banks to pay losses of the weak. . . .The guarantee of bank deposits has been tried in a number of states and resulted invariably in confusion and disaster . . . and would drive the stronger banks from the Federal Reserve System.”) (quoting Francis H. Sisson, president of the American Bankers Association).

14 Those seeking to block reform are not only exaggerating the impact of regulation, but also submitting incomplete, misleading, or inaccurate cost estimates. See, e.g., John E. Parsons & Antonio S. Mello, Nera Doubles Down, Betting Against the Business, Mar. 19, 2012, http://bettingthebusiness.com/2012/03/19/nera-doubles-down/ (challenging industry estimates of the cost of margin requirements in derivatives transactions)


• Even if more stringent equity ratios and run risk controls were to impose increased compliance costs on banks, those costs would be warranted to help protect the banking system and the entire economy from another financial crisis.

Over a three-year period beginning in 2007 and culminating in the passage of the Dodd-Frank Act on July 21, 2010, Congress and the President witnessed the financial and economic destruction caused by the financial crisis, implemented emergency measures to contain it, and then made the judgment that comprehensive reforms were essential to protect the financial system and the economy from another financial crisis. The Legislative and Executive Branches determined that the industry would have to bear substantial regulatory burdens to achieve this overriding objective. Those burdens include initial and ongoing compliance costs as well as the elimination of some profitable but high-risk business activities. Congress and the President recognized these consequences but nevertheless imposed them to re-regulate the recently de-regulated financial industry, to close regulatory gaps, and to strengthen existing requirements for the benefit of investors, the public, and the entire economy.17

Illustrating this approach, the Dodd-Frank Act imposes a broad set of regulatory reforms on bank holding companies and nonbank financial institutions, with the focus on systemically important institutions. They will pay compliance costs from new requirements relating to registration, reporting, recordkeeping, public disclosures, risk committees, examinations, fees, capital and leverage requirements, and other enhanced supervisory and prudential standards.18 Key provisions of the statute will also eliminate some immensely profitable trading activities.19 These statutory bans on profitable

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18 §§ 112(d) (reporting by Bank Holding Companies & Nonbank Financial Institutions); 114 (registration of Covered Nonbank Companies); 116(a) (Bank Holding Companies with consolidated assets of $50 billion, or Covered Nonbank Companies to submit certified information reports); 161 (reporting by and government examinations of Covered Nonbank Companies); 165(b) (enhanced prudential standards for Covered Bank Holding Companies and Covered Nonbank Companies); 165(d) (reporting by Covered Bank Holding Companies and Covered Nonbank Companies); 165(f) (public disclosures by Covered Bank Holding Companies and Covered Nonbank Companies); 165(h) (risk committee requirements for Publicly Traded Covered Nonbank Companies and Publicly Traded Bank Holding Companies); 165(i) (stress tests to be performed on Bank Holding Companies with consolidated assets of $50 billion, or Covered Nonbank Companies); 210(o) (Orderly Liquidation Fund fees from Bank Holding Companies with consolidated assets of $50 billion, or Covered Nonbank Companies); 619 (Insured Depository Institutions, Bank Holding Companies, and Covered Nonbank Companies to keep records to comply with Volcker Rule).

19 See, e.g., Provisions on capital requirements for Covered Nonbank Companies, §§ 165(b)-(c), 171; Covered Bank Holding Companies, § 165(b)-(c); Depository Institutions and Depository Institution
activities will effectively eliminate billions of dollars in annual revenue for the largest banks.

These reforms are necessary to bring integrity and stability to the financial markets. It is clear that these reforms would be impossible to implement without imposing compliance costs on market participants, who will be required to pay filing fees, hire new staff, upgrade and maintain information technologies, reallocate capital, and alter their business procedures. In passing the Dodd-Frank Act, both Congress and the President decided that the enormous collective benefits of the law far exceeded any costs or lost profits that industry would have to absorb. Similarly, the imposition of heightened standards governing equity finance and run risk controls on banks is clearly warranted as a key component of the reforms that must be implemented to more effectively safeguard our markets and our economy from another crisis.

6. **Any adjustments to the capital requirements for “community banks” should be restricted to a properly defined set of banks.**

The banking agencies have indicated that the capital rules may need some changes to account for issues that are specific to community banks. For example, in a speech on October 23, Comptroller Thomas Curry cited two issues that might merit additional consideration.²⁰ The Comptroller noted that “some aspects of provisions pertaining to mortgages could impose a serious burden on community banks and thrifts, particularly when applied to existing mortgages or if phased in too quickly.” He also said that the proposed treatment of unrealized gains and losses on available for sale securities could create volatility in regulatory capital that would be difficult to manage for banks that “...do not regularly access the short term capital markets.” Also, Federal Reserve Governor Elizabeth A. Duke argued on November 9 for providing a separate set of rules for mortgage lending by community banks.²¹

Some rule changes may help assure continued community bank credit supply for businesses and households without significantly increasing the risks to the overall financial system. For example, it may be reasonable to grandfather existing portfolios of mortgages from proposed new risk weights for mortgages outside “category 1.” It may also make sense to phase in the requirement that fair value changes in “available for sale securities” holdings are reflected in calculations of Tier 1 capital. That would give community banks

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time to adjust their securities holdings and to reduce potential regulatory capital volatility. And there may be circumstances where the definition of qualified mortgages can be adjusted to meet the special circumstances faced by community banks. For example, the Dodd-Frank Act allows, under certain circumstances, “balloon” mortgages made by banks operating in rural or underserved areas to be treated as qualified mortgages.  

However, such changes should apply only to genuine community banks. To prevent too-big-to-fail banks that pose systemic risks from avoiding regulation appropriate to them by hiding behind community bank concerns, it is essential to properly define a community bank. If community banks are defined as those with assets less than $1 billion, then community banks comprise 91 percent of all FDIC insured institutions. If the asset threshold for a community bank were to be generously raised to $10 billion, then community banks comprise more than 98 percent of all banks.  

For present purposes, Better Markets would suggest that individual banks or bank holding companies with assets of $10 billion or less should be considered community banks. Such a definition would mean that, with the exception of some small banks in multiple-bank holding companies, 98 percent of all individual banks would be considered community banks.  

Thus, 98 percent of all individual banks would have the impact of implementing Basel III addressed as discussed above.

7. Consolidated capital requirements for insurance holding companies will enhance overall financial stability

By applying consolidated capital requirements to insurance holding companies, the agencies’ Basel III proposal intends to achieve comparable treatment of similar risks across banks and insurers. This is an important goal. Even if major subsidiaries in a holding

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22 Dodd-Frank Act, section 1412(2)(E).
23 Researchers often define community banks as those that serve limited geographical markets, depend on retail deposits for much of their funding, and have assets of $1 billion or less. See, e.g., G. Kahn et al. (2003). The Role of Community Banks in the U.S. Economy, Economic Review, Federal Reserve Bank of Kansas City, Second Quarter, 17; T. Critchfield et al. (2004). Community Banks: Their Recent Past, Current Performance, and Future Prospects, FDIC Banking Review, 2.
24 See the data in Table 2, attached. The data in the Table cover individual banks. Some banks may be subsidiaries of holding companies that control more than one bank. Hence the number of holding companies would be somewhat smaller than the number of individual banks, and the distribution of holding company assets will differ somewhat from the data presented here. Data on smaller bank holding companies are not readily available.
company engage in property casualty insurance or asset management, they can also engage in securities trading, OTC derivatives transactions, and securities lending at the holding company level.

The example of AIG – where high risk investments financed with securities lending, and a huge portfolio of CDS unsupported by equity both contributed to a systemically damaging failure – demonstrates that the behavior of such holding companies can easily pose threats to overall financial stability.

The proposed regulations do take account of the differences between insurers and others. Separate accounts that do not guarantee results to investors have a zero risk weights for regulatory capital purposes, and policy loans receive a low risk weight.

Therefore, the proposed treatment of savings and loan holding companies seems very reasonable.
### Table 1

**Washington Mutual**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Total Assets</th>
<th>Goodwill</th>
<th>Intangibles</th>
<th>Common Equity</th>
<th>Preferred Stock</th>
<th>Tangible Common Equity (TCE)</th>
<th>Tangible Assets (TA)</th>
<th>TCE/TA (percent)</th>
<th>Tier 1 capital</th>
<th>Tier 1/(Risk Weighted Assets) (percent)</th>
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<tr>
<td>2007q2</td>
<td>312.2</td>
<td>9.1</td>
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<td>302.4</td>
<td>316.0</td>
<td>5.10</td>
<td>19.6</td>
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<th>Quarter</th>
<th>Net Loan Charge-Offs</th>
<th>Other Asset Writedowns</th>
<th>Total Writedowns</th>
<th>Cumulative Writedowns</th>
<th>Cumulative Writedowns (percent)*</th>
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<td>2007q3</td>
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<td>2008q1</td>
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<td>2.0</td>
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<td>29</td>
<td>34.4</td>
<td>11.5</td>
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</table>

* = 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**

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<thead>
<tr>
<th>Quarter</th>
<th>Total Assets</th>
<th>Goodwill</th>
<th>Intangibles</th>
<th>Common Equity</th>
<th>Preferred Stock</th>
<th>Tangible Common Equity (TCE)</th>
<th>Tangible Assets (TA)</th>
<th>TCE/TA (percent)</th>
<th>Tier 1 capital</th>
<th>Tier 1/(Risk Weighted Assets) (percent)</th>
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<tr>
<th>Quarter</th>
<th>Net Loan Charge-Offs</th>
<th>Other Asset Writedowns</th>
<th>Total Writedowns</th>
<th>Cumulative Writedowns</th>
<th>Cumulative Writedowns (percent)*</th>
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<tbody>
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* = 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.
### Citigroup

<table>
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<tr>
<th>quarter</th>
<th>Total Assets</th>
<th>Goodwill</th>
<th>Intangibles</th>
<th>Common Equity</th>
<th>Preferred Stock</th>
<th>Tangible Common Equity (TCE)</th>
<th>Tangible Assets (TA)</th>
<th>TCE/TA (percent)</th>
<th>TCE Leverage ratio</th>
<th>Tier 1 capital</th>
<th>Tier 1/(Risk Weighted Assets) (percent)</th>
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### Wachovia

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<th>Total Assets</th>
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<th>Intangibles</th>
<th>Common Equity</th>
<th>Preferred Stock</th>
<th>Tangible Common Equity (TCE)</th>
<th>Tangible Assets (TA)</th>
<th>TCE/TA (percent)</th>
<th>TCE Leverage ratio</th>
<th>Tier 1 capital</th>
<th>Tier 1/(Risk Weighted Assets) (percent)</th>
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</thead>
<tbody>
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</table>

### Table 1, contd.

**Table 1, contd.**

**Citigroup**

- **Net Loan Charge-Offs**: 0.2
- **Other Asset Writedowns**: 0.2
- **Total Writedowns**: 0.2
- **Cumulative Writedowns (percent)**: 0.2

**Wachovia**

- **Net Loan Charge-Offs**: 0.2
- **Other Asset Writedowns**: 0.2
- **Total Writedowns**: 0.2
- **Cumulative Writedowns (percent)**: 0.2

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

---

* = 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 2

<table>
<thead>
<tr>
<th>All FDIC Insured Institutions</th>
<th>Less than $100 Million</th>
<th>$100 Million to $1 Billion</th>
<th>$1 Billion to $10 Billion</th>
<th>Greater than $10 Billion</th>
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</thead>
<tbody>
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<tr>
<td>total assets (in billions)</td>
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</tbody>
</table>

Banks with assets of $1 billion or less comprise 91 percent of all banks and hold 10 percent of total assets.

Banks with assets of $10 billion or less comprise 98.6 percent of all banks and hold 20.3 percent of total assets.

Source: FDIC Quarterly Banking Profile, Second Quarter 2012