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**A Credible Case for Resolving Through Bankruptcy**

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conference on  
Financial Stability After Dodd Frank: Have We Ended Too Big to Fail?

*The views expressed are those of the author and not necessarily those of the FDIC.*

## Speech Highlights

- The Dodd-Frank Act of 2010 designates bankruptcy – not Title II Orderly Liquidation -- as the chosen resolution method for the largest U.S. financial institutions and requires that the firms show themselves capable of going through bankruptcy without bringing down the economy.
- For bankruptcy plans to be credible, in my judgment, firms must be far more realistic in their assumptions and approaches regarding capital, liquidity, structure, and cross-border impediments to an orderly bankruptcy.
- Dealing with these issues as they arise is not a solution. Potential obstacles to bankruptcy must be identified and dealt with well before a financial firm fails and turns what might have been an idiosyncratic failure into a global crisis. Management must anticipate challenges and assure that in a failure their firms' structures can be managed, disassembled, and reorganized to assure an orderly bankruptcy.
- If it is determined that a firm cannot feasibly be put through bankruptcy due to its structure and operations, then the law requires changes within the firm.

## **Introduction**

The U.S. and global financial systems are the definition of concentrated risk. They are composed of systemically important financial institutions (SIFIs) that are highly leveraged, heavily reliant on wholesale funding, and unduly interconnected. When even one of these institutions fails, its impact on world economies can be devastating.

To mitigate this impact, the Dodd-Frank Act of 2010 requires that each SIFI show itself capable of going through bankruptcy without bringing the economy down with it. This is no simple task, especially when such firms have assets at risk that rival the size of the home country's GDP.

Within this context, I want to take the next few minutes to address the topic of resolution through bankruptcy. I will outline from my perspective why the largest SIFIs' second-round bankruptcy plans were noncredible, and what in my mind might be necessary to change this outcome in the next round.

## **Origins of Too Big To Fail**

As the accompanying chart<sup>1</sup> illustrates, the United States has witnessed a systematic increase in the concentration of resources and risk within the banking and financial sectors. In 1984, the distribution of balance-sheet assets among the different bank-size groups was nearly proportional, from the largest firms with more than \$10 billion of assets to those with less than \$1 billion. However, in the ensuing decades, control of assets has become disproportional as the largest group has perpetually increased its control to more than 80 percent of industry assets, an amount equal to approximately 75 percent of U.S. GDP.

As banks have evolved into SIFIs, growing in size, complexity, and influence, the failure of any one can be catastrophic to the broader economy, as we have recently experienced. These outsized effects and fear of their consequences have led governments around the world to prop up these SIFIs when they have teetered on failure, rather than let them enter bankruptcy.

## **Living Wills**

In an effort to end this outcome that inevitably involves taxpayer support, Congress in the Dodd-Frank Act requires that each SIFI show how, in the event of an idiosyncratic failure, it could be resolved in bankruptcy without precipitating a crisis. Bankruptcy has

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<sup>1</sup> Consolidation of the Credit Channel  
<https://www.fdic.gov/about/learn/board/hoenig/creditchannel.pdf>

a long history as the resolution vehicle for most U.S. companies. Even so, under the best of circumstances it is no easy solution to failure. This is especially so for firms that have evolved into a tangle of complex structures and opaque operating systems, and whose resolution involves a host of difficult choices and actions.

Recognizing these complexities and challenges, the law requires each SIFI to provide plans, called living wills, to the FDIC and Federal Reserve demonstrating how it could successfully untangle itself and enter bankruptcy should it fail. This process has been ongoing since the enactment of Dodd-Frank, but with limited success. Although the law is clear that bankruptcy is the principle resolution vehicle, there may have been confusion among some firms that failure would be dealt with under Dodd-Frank's Title II Orderly Liquidation provisions, which involve government assistance, rather than liquidation through bankruptcy.<sup>2</sup>

On August 5, 2014 the FDIC sent notices to 11 of the largest SIFIs operating in the U.S., informing them that the second round of living wills they had filed were not credible.<sup>3</sup> Some plans, for example, unrealistically assumed that capital and funding would remain available from existing sources long enough to facilitate an orderly bankruptcy. They often assumed that host and home authorities would take no defensive actions, such as ring fencing local affiliates, should bankruptcy appear imminent. Such actions, which have occurred in past crises, interfere with the flow of funds across borders and impair liquidity and critical operations.

Such shortcomings in the planning process tend to perpetuate uncertainties that arise around a SIFI's failure and, as we learned in past crises, this negatively affects asset values, raises concerns of contagion, and exacerbates crisis. Thus, the FDIC was compelled to judge the second round of living wills for the 11 SIFIs as non-credible.

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<sup>2</sup> Title II of Dodd-Frank, known as Orderly Liquidation Authority, is subordinate to bankruptcy and triggered when the Secretary of Treasury, with the concurrence of the President, declares that a financial firm is in danger of default and that its failure would be systemic and detrimental to financial stability and harmful to the public. The law provides that the FDIC be appointed receiver to carry out the liquidation of not only the commercial bank but also the financial company. In bankruptcy, the cost of the resolution goes against the stockholders and uninsured creditors. In a government resolution, costs go against stockholders, some creditors, and eventually to the financial industry through assessments. The taxpayer also plays a role in providing necessary funding during the transition.

<sup>3</sup> The FDIC on August 5, 2014 determined that the living wills submitted by the 11 largest complex banking organizations were not credible and do not facilitate an orderly resolution under the U.S. Bankruptcy Code. The Federal Reserve Board determined that the 11 banking organizations must take immediate action to improve their resolvability and reflect those improvements in their 2015 plans. The agencies agreed that in the event that the first-wave filers have not, on or before July 1, 2015, submitted plans responsive to the identified shortcomings, the agencies expect to use their authority...to determine that a resolution plan does not meet the requirements of the Dodd-Frank

Act. <https://www.fdic.gov/news/news/press/2014/pr14067.html>

## **Building Credibility**

Efforts to remedy these issues are ongoing. The firms at this moment are working with the FDIC and Federal Reserve to rebuild the plans and restore confidence in the financial system's ability to withstand the shock of a SIFI's failure. As the process proceeds, CEOs and directors must be fully engaged and confident in their ability to take their firms through bankruptcy. As part of this effort, therefore, I would like to highlight some of the more important issues that I suggest require attention by the firms. The issues concern adequate capital and liquidity, a manageable structure, and a solution to cross-border impediments to orderly bankruptcy.

## **Capital**

No amount of equity capital can save an individual firm from the consequences of poor management. However, sufficient equity does enable good managers to survive errors in judgment and allows an industry to absorb the effects of a poorly managed firm's failure. One of the difficulties during the crisis of 2008 was that nearly all of the largest firms, and thus the industry, were marginally capitalized and lacked resilience. When a firm like Lehman Brothers failed, both markets and the regulatory authorities were hard pressed to distinguish solvent from insolvent firms. All firms were suspect, a liquidity crisis followed, and governments felt compelled to support the firms. If bankruptcy is to be the resolution mechanism, then both individual firms and the industry as a whole must be made far more resilient than they were in 2008, or are today.

The accompanying table<sup>4</sup>, titled the Global Capital Index (GCI), suggests why firm and industry resilience is still sorely lacking. Column 3 of the GCI shows Tier I capital to risk weighted assets (RWA) for the largest global firms. The ratios for all banks, largest to smallest, are above 10 percent and some of the largest have ratios of more than 15 percent. Impressive? Not when you study these measures more closely.

This RWA capital ratio relies on a regulator's ex-ante assignment of risk weights to various assets. Its effect is to permit firms literally to reduce the size of their balance sheets. This process, called the Basel Capital Standards, artificially boosts capital ratios, reducing these firms' apparent leverage. No other industry is allowed to do this, and its results have been disastrous. In 2008 firms reported "strong" risk weighted ratios of 10 percent or higher, but this was of little support when problems surfaced and a crisis ensued.

Recognizing that the RWA capital ratio does not adequately capture a SIFI's balance sheet risk and is misleading, a colleague at the Federal Reserve Bank of Kansas City<sup>5</sup> and I developed the Global Capital Index. This index relies on International Financial

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<sup>4</sup> Global Capital Index

<https://www.fdic.gov/about/learn/board/hoenig/capitalizationratios2q14.pdf>

<sup>5</sup> Charles Morris, Vice President and Economist at the Federal Reserve Bank of Kansas City

Reporting Standards (IFRS) to measure a firm's tangible equity (equity loss-absorbing capital) against on- and off-balance sheet assets, as shown in column 8 of the table. It provides a far more accurate measure of balance sheet assets and risk than the balance sheet reported under either GAAP or Basel.<sup>6</sup>

The GCI shows a capital ratio (known inversely as the leverage ratio) that is less than half that reported under the risk-weighted approach. The average ratio falls to near 5 percent, with some firms closer to 3 percent. The irony of the finding should be lost on no one. The portion of the financial industry with the greatest concentration of assets is the least well prepared to absorb loss. With relatively little capital within individual firms, the industry as a whole also is undercapitalized. The effect is that the probability of a SIFI failing is relatively higher than we currently perceive it to be and should one fail, the probability of the industry being dragged down with it is higher as well. Thus, the industry continues to be vulnerable to contagion and systemic crisis, and the lack of adequate tangible capital remains among the greatest impediments to successful bankruptcy and resolution.<sup>7</sup>

To finish the point, the largest regional and community banks, shown in the last three rows of column 8 of the GCI, have tangible capital ratios that are nearly double those of the largest SIFIs. The market requires these smaller firms, which are not too big to fail, to carry this greater capital.

## Liquidity

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<sup>6</sup> Differences in accounting requirements for netting and offsetting of assets and liabilities result in significant differences in banks' total assets. The ability to offset under International Financial Reporting Standards (IFRS) is limited in comparison with Generally Accepted Accounting Principles (GAAP), especially for derivatives traded with the same counterparty under an International Swaps and Derivatives Association (ISDA) Master Netting Agreement. U.S. GAAP permits the netting of derivative receivables and payables, and the related cash collateral received and paid when a legally enforceable master netting agreement exists between a firm and a derivative counterparty. U.S. GAAP discloses gross derivative assets and liabilities and the offset amount applied to derivatives in the notes to the consolidated financial statements rather than in the consolidated balance sheet. To narrow the difference in total assets between IFRS and U.S. GAAP reporting institutions, the U.S. G-SIBs IFRS estimates follow the methodology used by ISDA in its Netting and Offsetting Report (May 2012, <http://www2.isda.org/functional-areas/research/studies/>) and adds the disclosed offsetting amount applied to derivatives back to total assets in order to calculate total assets. Total assets are as reported in the consolidated balance sheet while the offset applied to derivatives is as reported in the notes to the consolidated financial statements on derivatives in each firm's 10-Q report.

<sup>7</sup> International regulators are working to address Total Loss Absorbency Capacity (TLAC) by developing methods that include both equity and debt to facilitate resolution without public support. It is important that the amount of equity, and the amount of debt and its conversion to equity, will work in bankruptcy and are calibrated to assure confidence in this approach as a means to facilitate an orderly resolution under bankruptcy.

Liquidity, the ability to access funds or convert assets to cash quickly, is key to a successful bankruptcy. On a global level, SIFIs engage not only in deposit taking and lending, but also in an array of other on- and off-balance sheet leveraged activities. Funding for these operations is most often short term and, moreover, continued funding depends on public confidence in a firm's solvency. When confidence is lost, it often results in a liquidity crisis as the market and public seek safer ground.

In anticipating bankruptcy, each firm should assume its liquidity shock will be severe. It should not assume it has weeks or even days to wind down its funding operations. It should assume the worst: that it is insolvent; that its bank will be sold or taken into a FDIC receivership; and that its broker-dealer will enter bankruptcy. It should outline how in bankruptcy the broker-dealer and other affiliates will access sufficient unencumbered assets to provide debtor-in-possession financing.

Recently, 18 of the largest firms globally agreed to change protocols around bankruptcy that will facilitate the placement of "stays" when closing out derivatives.<sup>8</sup> These stays delay parties from rushing to take collateral and provide time for trustees to resolve creditor positions as bankruptcy unfolds. More of this kind of work is needed to mitigate the liquidity challenges that inevitably follow failure and the loss of confidence in firms and markets. Similar actions, for example, may be needed for those parts of the repo book that use long-term assets to secure short-term funding.

### **Structure and Cross-Border Challenges**

A SIFI's corporate structure almost certainly influences whether and how it can be taken through bankruptcy. The complexities of its global reach, operational interdependencies, inter- and intracompany transactions, and cross-border activities only increase in bankruptcy. Countries have their own laws, courts, and regulatory environment. Contracts enforceable in one country might not be so in another. Depositor preference, wholesale funding arrangements, derivatives, and repurchase agreements often are treated differently among countries when a firm enters bankruptcy.

One danger from such circumstances is that a SIFI, its affiliates and branches could be subject to sovereign ring fencing of local funds. This has the unfortunate effect of tying up funds when it is least expected and when access to liquid assets is most needed. This is particularly relevant for broker-dealer activities where volatile wholesale funding is most vulnerable to runs across borders and institutions.

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<sup>8</sup> The International Swaps and Derivatives Association announced October 11, 2014 that its Resolution Stay Protocol will impose a stay on cross-default and early termination rights within standard ISDA derivatives contracts between G-18 firms in the event one of them is subject to resolution action in its jurisdiction. The stay is intended to give regulators time to facilitate an orderly resolution of a troubled bank. <http://www2.isda.org/newsroom/press-releases/>

A SIFI cannot assume these challenges away or anticipate that regulators or politicians will solve them. It will need to carefully prepare for the legal and operational demands to sell or unwind branch and corporate affiliates. It should outline how it would disentangle the bank from the parent and broker-dealer affiliates, and how it would support operations and its link to the payments system as it navigates bankruptcy and relationships across borders.

To avoid an idiosyncratic failure becoming a global crisis, these issues and others like them must be dealt with well before a SIFI fails. I would note, for example, that some firms have gone so far as to choose a corporate structure of subsidiarization to manage various cross-border issues.<sup>9</sup> In the end, whatever structure is chosen, it should not impede bankruptcy and should facilitate order over panic.

## **Conclusion**

The U.S. financial system has become increasingly concentrated, as have related financial risks. Following the most recent crisis, an effort is underway globally to address these risks. The purpose is not to take appropriate risk out of the financial system. Rather, it is to address risk levels that have become excessive and that are sustainable only with public support. Our success in achieving this goal depends in large part on how we deal with failing firms. The choice we make – bankruptcy, government-assisted resolution, or bailout -- will determine the financial system's future and whether it remains primarily market driven.

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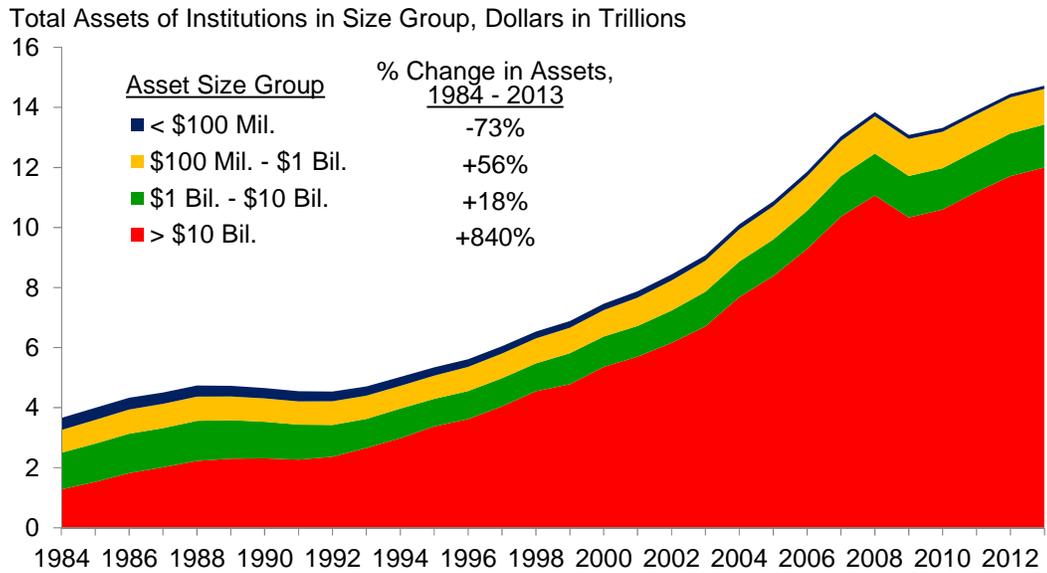
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<sup>9</sup> Under a subsidiarization structure, a banking entity is incorporated and chartered in the country in which it operates and is subject to local capital and liquidity requirements.

## Consolidation of the Credit Channel

### Change in Assets by Bank Size Groups (1984-2013)



Source: FDIC. Reflects the aggregation of total assets of FDIC-insured institutions by bank holding company and also includes charter-level assets for banks with no holding company.

# Global Capital Index

Capitalization Ratios for Global Systemically Important Banks (GSIBs)

Data as of June 30, 2014

Institution <sup>1</sup>	Basel Risk-Based Capital			Self-Reported Basel III Leverage <sup>2</sup> Ratio <sup>3</sup> (Percent)	Tangible Capital				Components of Tangible Capital			Price-to-Book	
	Tier 1 Capital <sup>2</sup> (\$Billions)	Risk-Weighted Assets (\$Billions)	Tier 1 Capital Ratio <sup>3</sup> (Percent)		GAAP		IFRS ESTIMATE <sup>5</sup>		Total Equity <sup>7</sup> (\$Billions)	Goodwill and Other Intangibles (\$Billions)	Deferred Tax Assets <sup>11</sup> (\$Billions)	Price-to-Book Ratio <sup>8</sup> (Percent)	Price-to-Adjusted Tangible Book Ratio <sup>8</sup> (Percent)
					Total Assets (\$Billions)	Leverage Ratio <sup>4</sup> (Percent)	Total Assets (\$Billions)	Leverage Ratio <sup>4</sup> (Percent)					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
<b>U.S. G-SIBs</b>													
Bank of America	161	1,285	12.51	5.00	2,172	6.21	2,930	4.54	237	79	30	0.76	1.49
Bank of New York Mellon	21	133	15.54		401	4.17	416	4.01	38	23	0	1.20	3.10
Citigroup	164	1,124	14.62	5.70	1,910	7.02	2,549	5.20	211	32	51	0.77	1.31
Goldman Sachs	76	466	16.35	4.50	860	8.55	1,630	4.49	82	4	4	1.08	1.23
JPMorgan Chase	180	1,459	12.33	5.40	2,520	6.80	3,558	4.78	227	58	2	1.07	1.49
Morgan Stanley	65	403	16.02	4.60	827	6.82	1,397	4.01	71	10	6	1.02	1.33
State Street	16	89	17.73	6.10	282	4.81	289	4.70	22	8	0	1.49	2.55
Wells Fargo	152	1,193	12.72		1,539	8.69	1,650	8.42	181	46	0	1.66	2.31
<b>U.S. G-SIBs (\$ Total, % Average)</b>	<b>834</b>	<b>6,151</b>	<b>13.55</b>		<b>10,571</b>	<b>7.00</b>	<b>14,421</b>	<b>5.09</b>	<b>1,069</b>	<b>260</b>	<b>94</b>	<b>1.07</b>	<b>1.49</b>
<b>Foreign G-SIBs</b>													
Banco Santander (Spain)	83	764	10.92	4.50	1,624	3.04	1,624	3.04	117	40	30	1.19	3.72
Bank of China Limited (China)	155	1,531	10.13		2,512	6.29	163	2	3	0	0.81	0.84	
Barclays (UK)	69	692	9.92	3.40	2,213	3.36	94	13	7	0	0.63	0.80	
BBVA (Spain)	53	460	11.58	5.80	819	5.30	64	9	13	1	1.21	1.87	
BNP Paribas (France)	95	854	11.17	3.50	2,606	3.30	112	17	9	0	0.82	1.09	
BPCE Group (France)	67	552	12.16	4.00	1,575	4.36	84	8	0	0	0.66	0.78	
Credit Agricole Group (France)	84	685	12.28	4.10	2,274	3.92	117	21	8	0	0.52	0.75	
Deutsche Bank (Germany)	85	548	15.53	3.40	2,277	2.93	94	19	8	7	1.10	1.36	
HSBC (UK)	154	1,249	12.32	4.30	2,754	5.52	187	30	7	2	0.77	1.10	1.36
ING Bank (Netherlands)	48	401	11.97		1,119	3.87	47	2	2	0	1.36	1.54	
Nordea bank (Sweden)	34	297	11.39	4.30	870	4.02	39	4	0	5	0.69	0.92	
Royal Bank of Scotland (UK)	80	660	12.05	3.70	1,702	4.06	94	20	5	0	0.66	0.84	
Société Générale (France)	60	479	12.46	3.60	1,808	2.81	64	6	8	1	0.66	0.78	
Standard Chartered (UK)	41	352	11.77	4.80	690	6.11	49	6	9	1	1.24	1.74	
UBS (Switzerland)	47	259	18.21	4.20	1,106	3.64	56	7	7	0	0.71	1.25	
UniCredit (Italy)	62	545	11.28		1,146	3.78	71	7	0	0	0.81	1.25	
<b>Foreign IFRS (\$ Total, % Average)</b>	<b>1,217</b>	<b>10,328</b>	<b>11.79</b>		<b>27,095</b>	<b>4.18</b>	<b>1,452</b>	<b>214</b>	<b>119</b>	<b>0</b>	<b>0.81</b>	<b>1.25</b>	
<b>Other Foreign G-SIBs</b>													
Credit Suisse (Switzerland; CHF, U.S. GAAP)	51	321	15.95		1,003	3.22	47	9	6	1	1.01	1.52	
Mitsubishi UFJ FG (Japan; JPY, Local GAAP)	123	992	12.37		2,540	3.67	105	12	1	0	0.70	0.78	
Mizuho FG (Japan; JPY, Local GAAP)	69	586	11.76		1,780	2.95	56	5	1	0	0.80	0.89	
Sumitomo Mitsui FG (Japan; JPY, Local GAAP)	73	531	13.80		1,580	3.47	64	8	2	0	0.82	0.95	
<b>All Foreign G-SIBs (\$ Total, % Average)</b>	<b>1,534</b>	<b>12,759</b>	<b>12.02</b>		<b>34,008</b>	<b>4.01</b>	<b>1,726</b>	<b>248</b>	<b>129</b>	<b>0</b>	<b>0.81</b>	<b>0.94</b>	
<b>U.S. BHC by Size Group<sup>9</sup></b>													
U.S. G-SIBs	834	6,151	13.55		10,571	7.00	14,421	5.09	1,069	260	94	1.07	1.49
Ten Largest Non-G-SIBs	194	1,600	12.12		1,987	8.98	1,996	8.94	248	70	6	1.18	1.90
Ten Largest Less Than \$50 Billion <sup>10</sup>	27	218	12.53		322	7.69	322	7.69	35	9	2	1.38	2.16
Ten Largest Less Than \$1 Billion <sup>10</sup>	1	7	13.86		10	8.57	10	8.57	1	0	0		

Source: Bankscope (Data updated as of August 28, 2014), Bloomberg LP, Federal Reserve Y-9C Reports, International Monetary Fund, and 10-K reports.

## Notes:

<sup>1</sup> Global systemically important banks (G-SIBs) are defined by the Financial Stability Board and include eight U.S. bank holding companies (BHC). Foreign G-SIBs report in local currencies, which are converted into U.S. dollars using IMF International Financial Statistics exchange rates.

<sup>2</sup> Tier 1 Capital is equity capital less unrealized gains on available-for-sale debt securities, unrealized losses on available-for-sale equity securities, disallowed preferred stock, disallowed goodwill, disallowed servicing assets, disallowed deferred tax assets, and other tier 1 capital components.

<sup>3</sup> Tier 1 capital ratios and underlying data are calculated and reported under the Capital Rules for Commercial Banks for the Bank of China, under Basel I capital standards for U.S. Banks, under Basel II for Banco Santander, BBVA, ING Bank, Nordea Bank, Standard Chartered, and Unicredit, under Basel 2.5 for Barclays, BNP Paribas, BPCE Group, Credit Agricole, Deutsche Bank, HSBC, Royal Bank of Scotland, and Societe Generale, and under Basel 3 for Credit Suisse, Mitsubishi UFJ, Mizuho FG, Sumitomo Mitsui, and UBS.

<sup>4</sup> Basel III leverage ratios are self-reported by institutions in published financial statements and presentations. They have not been reviewed for accuracy.

<sup>5</sup> Differences in accounting requirements for netting and offsetting of assets and liabilities result in significant differences in banks' total assets. The ability to offset under International Financial Reporting Standards (IFRS) is limited in comparison with Generally Accepted Accounting Principles (GAAP), especially for derivatives traded with the same counterparty under an International Swaps and Derivatives Association (ISDA) Master Netting Agreement. U.S. GAAP permits the netting of derivative receivables and payables, and the related cash collateral received and paid when a legally enforceable master netting agreement exists between a firm and a derivative counterparty. U.S. GAAP discloses gross derivative assets and liabilities and the offset amount applied to derivatives in the notes to the consolidated financial statements rather than in the consolidated balance sheet. To narrow the difference in total assets between IFRS and U.S. GAAP reporting institutions, the U.S. G-SIBs IFRS estimates follow the methodology used by ISDA in its Netting and Offsetting Report (May 2012, <http://www2.isda.org/functional-areas/research/studies/>) and adds the disclosed offsetting amount applied to derivatives back to total assets in order to calculate total assets. Total assets are as reported in the consolidated balance sheet while the offset applied to derivatives is as reported in the notes to the consolidated financial statements on derivatives in each firm's 10-Q report.

<sup>6</sup> The Leverage Ratio is the ratio of adjusted tangible equity to adjusted tangible assets. Adjusted tangible equity, adjusted tangible assets, and adjusted tangible book subtract goodwill, other intangibles, and deferred tax assets.

<sup>7</sup> Equity Capital is the basic GAAP measure of net worth, defined as total assets minus total liabilities.

<sup>8</sup> Median price-to-book ratios and price-to-adjusted tangible book ratios are used instead of averages for subgroups and for U.S. BHC size groups. Data are not available for six bank holding companies with assets less than \$1 billion, as well as for BPCE Group and Credit Agricole Group.

<sup>9</sup> Bank holding companies that are owned by a foreign parent or reported a net loss in fourth quarter 2013, and thrift holding companies that did not file a full FRY-9C report as of fourth quarter 2013 were excluded.

<sup>10</sup> The ten largest U.S. bank holding companies with assets less than \$50 billion and the ten largest U.S. bank holding companies with assets less than \$1 billion reported de minimis derivative exposures.

We assume that total assets and the adjusted tangible equity to adjusted tangible assets ratio are essentially the same under U.S. GAAP and the IFRS estimate.

<sup>11</sup> Deutsche Bank and Societe Generale do not report deferred tax assets separately at mid-year. Deferred tax assets presented for Deutsche Bank and Societe Generale use the ratio of deferred tax assets to income tax assets at the prior year-end applied to the income tax assets reported at mid-year.