April 1, 2015

Secretary, Board of Governors of the Federal Reserve System
20th St. and Constitution Ave., NW
Washington, DC 20551

VIA ELECTRONIC MAIL: regs.comments@federalreserve.gov

Re: "Risk-Based Capital Guidelines: Implementation of Capital Requirements for Global Systemically Important Bank Holding Companies" (the "**Proposed Rule**")

Dear Sir or Madam:

The Committee on Capital Markets Regulation (the "**Committee**") is grateful for the opportunity to comment on the Proposed Rule released by the Board of Governors of the Federal Reserve System ("**Federal Reserve**") on the Capital Requirements for Global Systemically Important Banks ("**G-SIBs**").[1] The Proposed Rule sets forth a process for designating U.S.-domiciled bank holding companies with assets over $50 billion ("**covered U.S. banking organizations**") as G-SIBs. It also sets forth two methods for determining the appropriate capital surcharge for these G-SIBs.

Founded in 2006, the Committee is dedicated to enhancing the competitiveness of U.S. capital markets and ensuring the stability of the U.S. financial system. Our membership includes thirty-seven leaders drawn from the finance, investment, business, law, accounting, and academic communities. The Committee is chaired jointly by R. Glenn Hubbard (Dean, Columbia Business School) and John L. Thornton (Chairman, The Brookings Institution) and directed by Hal S. Scott (Nomura Professor and Director of the Program on International Financial Systems, Harvard Law School). The Committee is an independent and nonpartisan 501(c)(3) research organization, financed by contributions from individuals, foundations, and corporations.

Although the Proposed Rule's approach for *designating* covered U.S. banking organizations as G-SIBs is consistent with the Basel Committee on Banking Supervision's ("**Basel Committee**") international standards,[2] the Proposed Rule's methods for determining the appropriate *capital surcharge* for these G-SIBs is not.

The Committee is concerned with the Proposed Rule for three primary reasons. First, the Proposed Rule effectively *doubles* the capital surcharge set forth by the Basel Committee,[3] without including an empirical analysis to support this significant departure from the international standards. No other country has adopted a similar approach. Second, the capital surcharge imposed on U.S. G-SIBs depends on a total basis point score that is

[1] http://www.financialstabilityboard.org/wp-content/uploads/TLAC-Condoc-6-Nov-2014-FINAL.pdf
[2] Basel Committee on Banking Supervision, Global systemically important banks: updated assessment methodology and the higher loss absorbency requirement 5 (Jul. 2013), http://www.bis.org/publ/bcbs207.pdf.
[3] Id.

derived from a comparison between the systemic risk measures of the U.S. G-SIBs and the same measures for the 75 largest global banks (as determined by the Basel Committee). The greater the proportion of the global aggregate that a U.S. G-SIB makes up, the higher the total basis point score and capital surcharge applicable to the U.S. G-SIB. However, because U.S. and foreign banks denominate their exposures in different currencies, the Proposed Rule requires the conversion of all foreign banks' systemic risk measures into U.S. dollars. Therefore, if the value of the U.S. dollar strengthens, as compared to foreign currencies, then U.S. G-SIBs will have higher capital surcharges. However, a strong U.S. dollar does **not** mean that U.S. banks pose greater risk to the financial system. We therefore recommend that the Proposed Rule should determine the appropriate capital surcharge for U.S. G-SIBs by comparing the systemic risk measures of a U.S. G-SIB to the aggregate of the systemic risk measures of all other U.S. banks, instead of the aggregate of the systemic risk measures of the 75 largest global banks. Third, the Proposed Rule ties the capital surcharge to a G-SIBs reliance on wholesale short-term funding. This is despite the fact that the Basel Committee explicitly *excluded* wholesale short-term funding as an appropriate measure for calculating the capital surcharge and no other country has adopted a similar approach. We do not believe that capital requirements are appropriate to address the risk posed by wholesale short-term funding and therefore the Proposed Rule should not tie a G-SIB's capital surcharge to a G-SIBs reliance on wholesale short term funding.

Summary of the Proposed Rule

Designation of U.S. bank holding companies as G-SIBs

As noted above, the Proposed Rule's approach for designating covered U.S. banking organizations as G-SIBs is consistent with the Basel Committee's approach for designating banks as G-SIBs.

The Proposed Rule determines the systemic importance of covered U.S. banking organizations by requiring covered U.S. banking organizations to submit data on their FR Y-15 filings related to five broad categories (with subcategories) of systemic risk: (i) size; (ii) interconnectedness; (iii) cross-jurisdictional activity; (iv) substitutability; and (v) complexity, as shown in Table 1. Each of these broad categories carries a weight of 20% towards a total score. All but the size category is broken down into subcategories. Appendix A includes a table summarizing the FR Y-15 line items that are incorporated into these categories.

According to the Federal Reserve, these five categories were selected because they are "good proxies for and correlated with the systemic importance of a [covered U.S. banking organization]."[4] Wholesale short-term funding is not relevant to the *designation* of a covered U.S. banking organization as a G-SIB.

[4] Proposed Rule at 75475

Table 1: Categories and Their Sub-Categories

Category	Sub-categories	Weight
Size	Total exposure	20%
Interconnectedness	Intra-financial system assets	6.67%
	Intra-financial system liabilities	6.67%
	Securities outstanding	6.67%
Substitutability	Payments activity	6.67%
	Assets under custody	6.67%
	Underwritten transactions in debt/equity markets	6.67%
Complexity	Notional amount of OTC derivatives	6.67%
	Trading and available-for-sale securities	6.67%
	Level three assets	6.67%
Cross-jurisdictional Activity	Cross-jurisdictional claims	10%
	Cross-jurisdictional liabilities	10%

A covered U.S. banking organization is then required to divide the total dollar value of its FR Y-15 data for each category (or sub-category) by the aggregate total dollar value of the 75 largest global banking organizations for the same category (or sub-category).[5] For example, suppose a covered U.S. banking organization has $2 trillion in "total assets" and the "total assets" of the 75 largest global banking organizations is $80 trillion. The Proposed Rule would require the covered U.S. banking organization to divide $2,000 by $80,000 and the covered U.S. banking organization would receive a fractional score of 0.025 for the "size" category.

The Proposed Rule then requires that this fractional score be multiplied by 10,000 to convert it to a basis point score of 250, which is then weighted in accordance with the 20% applied to each category. Based on this example, the covered U.S. banking organization's basis point score for "size" is 50. The same process is replicated for *all five categories* and the then these totals are summed. If the total sum exceeds 130 basis points then the covered U.S. banking organization is designated a G-SIB. According to the Federal Reserve, this method results in the designation of eight covered banking organizations as G-SIBs. Appendix B provides a detailed example of this method.

Determining the G-SIB Capital Surcharge

A covered U.S. banking organization that has been designated as a G-SIB is then required to compute two additional scores. The higher of these two scores will determine its capital surcharge. The "method one" approach simply links the above described basis point score to a corresponding capital surcharge, as demonstrated in Table 2. G-SIBs that have higher total basis point scores also have a higher G-SIB capital surcharge. This approach is consistent with the Basel Committee's international standards.

[5] This data is maintained by the BCBS.

Table 2: Method One

Score (bps)	Method 1 Surcharge (%)
< 130	0.0
130-229	1.0
230-329	1.5
330-429	2.0
430-529	2.5
530-629	3.5

The "method two" approach differs from the Basel Committee's international standards. Computation of the method two score proceeds in two steps. First, score two directly incorporates four of the five Basel categories that were used in score one, but replaces *substitutability* with a measure of a bank's reliance on short-term wholesale funding. Second, *the total score from method two is doubled*.[6] This total score is then linked to a corresponding G-SIB capital surcharge. As demonstrated in Table 3, G-SIBs that have a higher total score will also have a higher G-SIB capital surcharge.

Table 3: Method Two

Initial Score (bps)	Doubled Score (bps)	Method 2 Surcharge (%)
< 65	< 130	0.0
65-114.5	130-229	1.0
115-164.5	230-329	1.5
165-214.5	330-429	2.0
215-264.5	430-529	2.5
265-314.5	530-629	3.0
315-364.5	630-729	3.5
365-415.5	730-829	4.0
415-464.5	830-929	4.5
465-514.5	930-1029	5.0
515-564.5	1030-1129	5.5

Concerns with the Proposed Rule

1. The Proposed Rule doubles the capital surcharge with no empirical justification

Because the Proposed Rule doubles the method two score, method two will be the binding capital constraint for six of the eight G-SIBs. As shown in Table 4, the effective capital surcharge will thus be between 1% and 4.5% for each G-SIB,[7] instead of 1% to 2.5%.[8] Due to method two, the total G-SIB capital surcharge for all eight banks will be

[6] Cite the Proposed Rule.
[7] Federal Reserve Internal Memo.
[8] This is consistent with the Federal Reserve Staff's internal memo and the specifics of this chart are based in part on the research report by Buckingham Research Group. Importantly, the inputs required to compute score one are published in publically available FR Y-15 reports, so these estimates are likely to be accurate. The short-term funding inputs for score two are not publically available, and these estimates reflect the expert judgment of Buckingham Research Group. Buckingham analysts adopted methodology they believed likely to *overstate* the impact of short-term funding on the overall score.

$209.3 billion, instead of $114.7 billion. This represents a capital surcharge increase of $94.6 billion as compared to the aggregate surcharge under the Basel standard.[9]

Table 4: Estimated Scores and Surcharges

GSIB	Score 1	Score 2	Capital Surcharge: Method 1	Capital Surcharge: Method 2	Binding Method	Effective Capital Surcharge
B of A	305	555	1.5	3.0	2	3.0
BoNY	157	189	1.0	1.0	Both	1.0
C	426	727	2.0	3.5	2	3.5
GS	247	526	1.5	2.5	2	2.5
JPM	485	846	2.5	4.5	2	4.5
MS	307	569	1.5	3.0	2	3.0
STT	148	171	1.0	1.0	Both	1.0
WFC	171	336	1.0	2.0	2	2.0

Although the method two G-SIB capital surcharge is often described as an effort to address the systemic risk posed by wholesale short-term funding, we demonstrate below that this risk category accounts for less than 45% of the capital surcharge for all G-SIBs. As shown below in Table 5, the impact of each risk category (size, interconnectedness, complexity, cross-jurisdictional activity, and wholesale short-term funding) on the capital surcharge varies for each U.S. G-SIB. For six of the eight G-SIBs, complexity is the biggest contributor to the capital surcharge.

Table 5: Percent of Score 2 Associated to Risk Factors

GSIB	Size	Interconnect	Complexity	X-Juris	WSTF	Largest Factor
B of A	21.2	19.4	34.9	11.0	13.5	Complex
BoNY	9.5	23.1	14.6	13.1	39.6	WSTF
C	17.4	23.3	27.8	21.2	10.3	Complex
GS	12.6	15.8	35.5	12.3	23.8	Complex
JPM	18.5	20.5	36.4	15.8	8.9	Complex
MS	9.9	19.4	34.5	14.4	22.0	Complex
STT	8.9	19.6	17.4	10.1	44.0	WSTF
WFC	25.5	22.4	31.3	5.9	14.9	Complex

We are thus concerned that the Federal Reserve has virtually doubled the Basel Committee's capital surcharge without including an empirical analysis as to why a substantially higher capital surcharge is appropriate. Indeed, if the Federal Reserve believes that the Basel Committee's standards are inadequate for U.S. G-SIBs or that method two would materially reduce the systemic risk of U.S. G-SIBs then this should be supported by an informed empirical analysis. Importantly, no other country has proposed to implement G-SIB capital surcharges above 3%.[10]

[9] Table 2 surcharge estimates, multiplied by Basel III RWA as indicated on Q3 2014 FFIEC 101 Schedule A item 60.

[10] Switzerland, Sweden, and the Netherlands each require a capital surcharge of 3 percent of risk-weighted assets in common equity tier 1 capital for their largest banks.

We believe that such an empirical analysis should take into consideration other regulatory requirements including the Federal Reserve's capital and liquidity requirements and the total loss absorbing capital requirement ("TLAC"). Insofar that the U.S. G-SIB surcharge exceeds the appropriate minimum capital standards determined by such an empirical analysis, we believe that it should *not* be included as part of the Federal Reserve's Comprehensive Capital Analysis and Review ("CCAR") stress testing.

2. U.S. Dollar foreign exchange rate should not determine the capital surcharge

As described in detail in the *Summary of the Proposed Rule* section, the capital surcharge imposed on U.S. G-SIBs depends on a total basis point score derived from a comparison between the systemic risk measures of the U.S. G-SIBs and the same measures for the 75 largest global banks (as determined by the Basel Committee). The greater the proportion of the global aggregate that a U.S. G-SIB makes up, the higher the total basis point score and capital surcharge applicable to the U.S. G-SIB.

Because several of the 75 largest global banks are located in different jurisdictions (E.U., Japan, U.K., Canada, etc.) their systemic risk measures are often denominated in different currencies. Thus, in order to compare these banks, their systemic risk measures must be converted to a single common currency. The Basel Committee's international standards convert all currencies to Euros, whereas the Proposed Rule converts all currencies to U.S. dollars. Regardless of whether the Euro or U.S. dollar are used as the common currency for the capital surcharge, banks from home jurisdictions with strong currencies will make up a greater proportion of the global aggregate and thus have higher capital surcharges. For example, a U.S. bank will make up a larger proportion of the global aggregate for total assets than a Japanese bank, because of the relative strength of the U.S. dollar to the Japanese Yen.

This is counter-intuitive, as a strong or strengthening currency does not mean that a U.S. G-SIB poses greater risk to the financial system. It would be more appropriate for the Proposed Rule to determine a U.S. G-SIBs capital surcharge based on a comparison of the systemic risk measures of a U.S. G-SIB to the aggregate of the systemic risk measures of all U.S. banks, instead of the 75 largest global banks. The Federal Reserve should also include the systemic risk measures of derivatives clearinghouses for systemic risk measures related to derivatives. This would effectively preclude volatile foreign exchange rates from determining capital surcharges.

3. Capital requirements should not be tied to wholesale short-term funding

The Basel Committee on Banking Supervision (the "Basel Committee") initially linked the capital surcharge with wholesale short-term funding in November 2011 when it outlined the five indicators used to measure the global systemic importance of banks.[11] However, a number of commenters noted the inappropriateness of including a wholesale

[11] Basel Committee on Banking Supervision, *Global systemically important banks: assessment methodology and the additional loss absorbency requirement* (Nov. 2011), http://www.bis.org/publ/bcbs207.pdf.

funding ratio.[12] As a result, the Basel Committee removed wholesale short-term funding from the final version of its capital surcharge rules.[13] Indeed, since then no other country has tied the G-SIB capital surcharge to a wholesale short term funding measure.

However the Proposed Rule, reintroduced the link between capital and wholesale short-term funding, because doing so would "help the resiliency of the firm against runs on its short-term wholesale funding," thereby reducing the risk of the firm's failure, and help internalize the cost of using wholesale funding."[14] The Proposed Rule specifically cites the systemic risk arising from reliance on wholesale funding, noting that under difficult market conditions, institutions may be forced to conduct fire sales of assets to meet the withdrawals of short-term creditors. The resulting contagion from these fire sales is the source of systemic risk.[15]

In our view, wholesale funding is only a concern insofar as its presence facilitates contagion, i.e. panicked runs on banks. However, no reasonable amount of capital can absorb the mounting losses that can result from run-driven fire sales of assets, so capital requirements do very little to stem contagious runs. As a result, there is no justification to tie capital levels to short-term, run-able debt. While heightened capital requirements do have a role in addressing asset interconnectedness, they are not designed to address the systemic risks posed by contagion.

In general, risk-based capital surcharges may address asset interconnectedness by providing a cushion against losses resulting from credit exposure to an insolvent bank. A simple network structure of asset interconnectedness might appear as follows: Bank B has direct exposure to Bank A's debt, and Bank C has direct exposure to Bank B's debt. If Bank A fails, then the subsequent loss to Bank B causes Bank B to fail. Similarly, Bank C fails due to its exposure to Bank B. However, such an asset interconnectedness model of systemic failure has been extensively studied and universally rejected as a plausible cause of the 2008 financial crisis, which was about contagion.[16]

Furthermore, connectedness may be better addressed through more direct measures, such as the central clearing requirements and counterparty exposure limits in the Dodd-Frank Act. Central clearing of derivatives and other financial contracts may reduce the magnitude of asset interconnectedness. Under central clearing procedures, counterparty exposure is guaranteed by a central clearing counterparty, whose purpose is to stand between parties and assume the credit risk of buyers and sellers. Some scholars have concluded that participants in centrally cleared markets will have reduced incentives to flee

---

[12] *See* Basel Committee on Banking Supervision, cover note to *Global systemically important banks: assessment methodology and the additional loss absorbency requirements* (Nov. 2011), http://www.bis.org/publ/bcbs207cn.pdf.

[13] Basel Committee on Banking Supervision, Global systemically important banks: updated assessment methodology and the higher loss absorbency requirement 5 (Jul. 2013), http://www.bis.org/publ/bcbs207.pdf.

[14] Proposed Rule, Fed. Reg. 75479

[15] Proposed Rule, Fed. Reg. 75474

[16] Tobias Adrian & Hyun Song Shin, *Liquidity and Financial Contagion*, FIN. STABILITY REV. – SPECIAL ISSUE ON LIQUIDITY (Feb. 2008).

from a weak counterparty.[17] By making "counterparty runs" less likely, central clearing may forestall the failure of a weak financial institution,[18] and in the unlikely event of a financial institution's collapse, "[e]ffective clearing mitigates systemic risk by lowering the risk that defaults [will] propagate from counterparty to counterparty."[19]

In addition, the single-counterparty credit concentration limits required by the Dodd-Frank Act are also designed to address the systemic risks of asset interconnectedness.[20] Banks commonly monitor and limit their exposures to individual counterparties and have long been subject to state and federal laws limiting the amount of credit that may be extended to a single borrower. The Dodd-Frank Act requires the Federal Reserve to establish limits to prevent covered companies from having credit exposures to any unaffiliated company in excess of 25% of the capital stock and surplus of the covered company.[21] The Federal Reserve is authorized to reduce this limit if "necessary to mitigate risks to the financial stability of the United States."[22] In January 2012, the Federal Reserve proposed rules to implement this provision,[23] and in fact chose to lower the counterparty exposure threshold to 10% for entities with greater than $500 billion in consolidated assets.[24]

Capital requirements also play a role in cushioning losses due to "correlation risk," the risk of a common external shock with simultaneous, adverse consequences on many financial institutions. A correlated negative shock may cause large losses at many financial institutions at the same time. The more capital a financial institution has the better positioned it is to absorb such losses; so fewer firms will fail due to the external shock, thus reducing the systemic risk. Despite the limitations of capital requirements in addressing contagion, increased capital may provide a level of protection against correlation risk, since stronger banks can better withstand common external shocks. However, losses to financial institutions from exposure to correlated assets have little to do with funding structure, and thus a capital-based approach should not tie its methodology to short-term funding.

In addressing contagion, capital requirements attempt to achieve the unattainable goals of (i) deterring runs by assuring creditors that their borrowers are strong and (ii) enabling institutions to withstand a run if it does occur. However, during a crisis, running

---

[17] Darrell Duffie, *The Failure Mechanics of Dealer Banks*, J. ECON. PERSP. 51, 68 (Winter 2010).; *see* Darrell Duffie, Ada Li & Theo Lubke, *Policy Perspectives on OTC Derivatives Market Infrastructure* 11 (MFI Working Paper Series, No. 2010-002, Jan. 2010), http://mfi.uchicago.edu/publications/papers/policy-perspectives-on-otc-derivatives-market-infrastructure.pdf.

[18] *See* Duffie, Li & Lubke, *supra* note 17, at 11; *see also* Darrell Duffie & Haoxiang Zhu, *Does a Central Clearing Counterparty Reduce Counterparty Risk?* 2 (2010), http://www.stanford.edu/~duffie/DuffieZhu.pdf (noting that "[c]learing also reduces the degree to which the solvency problems of a market participant are suddenly compounded by a flight of its OTC derivative counterparties").

[19] Duffie & Zhu, *supra* note 18.

[20] Dodd-Frank Act § 165.

[21] Dodd-Frank Act § 164.

[22] Dodd-Frank Act § 165(e).

[23] Enhanced Prudential Standards and Early Remediation Requirements for Covered Companies, 77 Fed. Reg. 594 (proposed January 5, 2012).

[24] *Id*. (to be codified at 12 C.F.R. § 252.93(b))

is the only rational option for short-term creditors whose investments are exposed to potential losses. Better safe than sorry. Creditors know that no plausible amount of required capital, and certainly not even the level required by the U.S., can absorb the significant losses from fire sales. As we have seen, despite being effectively compliant under the Basel II framework before the financial crisis, major U.S. investment banks still did not hold enough capital to survive the crisis without public support. In addition, leading up to the financial crisis, the largest U.S. banks maintained average capital ratios 50% higher than regulatory minimums and held more common equity than what the Basel III proposal would now require. Each of the top 15 banks had tangible common equity to risk-weighted assets ratios of over 4.5% as the end of 2007.[25] All but one had a ratio of Tier 1 common equity to risk-weighted assets higher than the new Basel III requirement of 4.5% with many having higher than the 7% requirement that includes the 2.5% buffer.[26] The fact that minimum capital requirements did not capitalize U.S. financial institutions sufficiently to avoid the need for Federal Reserve liquidity support in the crisis, and would not do so in future crises, undercuts the case for tying capital to short-term funding.

In addition, the move to create a link between capital requirements and short-term liquidity is premature. At a minimum, the Federal Reserve should consider the risk-mitigating effect of its "total loss absorbency capacity" rule, a recent proposal by the FSB that may reduce the potential cost of bank failures to the public, investors, and shareholders.[27] Similarly, Basel III capital requirements have made banks far more capital resilient today than in 2008 and Basel III liquidity requirements already address liquidity concerns through its Net Stable Funding Ratio, designed to secure institutions with enough liquidity support for one year, and Basel's liquidity metric, known as the "liquidity coverage ratio," which requires banks to hold unencumbered high quality assets sufficient to meet all outstanding 30-day-or-fewer liabilities.[28]

The heaviest consideration weighing against reliance on capital requirements to control contagion, however, is that as long as a financial institution is reliant on short-term funds, to support long-term investment, short-term creditors who supply those funds are exposed to potential losses incurred through fire sales. In a crisis, the rational option will be to run. When that happens, capital requirements can certainly lower public costs by ensuring that deeper reserves of private funding and capital are available to the distressed institution. What they cannot do is prevent the run in the first place, or stop it from becoming generalized to the financial system.

---

[25] Sourced from Bloomberg and company annual filings (10Ks) (Dec. 31, 2007).

[26] Tier I Common Equity is calculated by adding Accumulated Other Comprehensive Income to Tangible Common Equity. Each capital ratio is calculated based on Basel I risk weights.

[27] Ian Katz, Tarullo Says Systemic Risk Possible Without Too-Big-to-Fail, Bloomberg (Oct. 9, 2014), http://www.bloomberg.com/news/2014-10-09/tarullo-says-systemic-risk-possible-without-too-big-to-fail.html; see also Jacob J. Lew, Treasury Secretary, Remarks at G-20 Press Conference (Sep. 21, 2014), http://www.treasury.gov/press-center/press-releases/Pages/jl2643.aspx.

[28] BIS, *Revisions to the Net Stable Funding Ratio proposed by the Basel Committee*, Jan. 12, 2014; BASEL COMM. ON BANKING SUPERVISION, INTERNATIONAL FRAMEWORK FOR LIQUIDITY RISK MEASUREMENT, STANDARDS AND MONITORING: CONSULTATIVE DOCUMENT 5-19 (Dec. 2009), http://www.bis.org/publ/bcbs165.pdf.

One might argue that increased capital requirements tied to short-term funding are intended to discourage short-term funding itself. Since contagion occurs through the withdrawal and withholding of short-term funding, the proposal could be justified on discouraging short-term funding. But if the objective is to limit short-term funding, one must consider other measures to accomplish the same objective—such as caps or expanded use of Fed reverse repos (which diminishes short-term funding available from the private sectors and therefore raises the cost of short-term funding, thus discouraging it). However, these reforms may have their own drawbacks. We should not back into this policy through elevated capital requirements.

* * * * *

Thank you very much for your consideration of our views. Should you have any questions or concerns, please do not hesitate to contact the Committee's Director, Prof. Hal S. Scott (hscott@law.harvard.edu), or Interim Executive Director of Research, John Gulliver (jgulliver@capmktsreg.org), at your convenience.

Respectfully submitted,

R. Glenn Hubbard	John L. Thornton	Hal S. Scott
CO-CHAIR	CO-CHAIR	DIRECTOR

Appendix A: (FR-15Y Schedule A Data)

Size Indicators	Line Items
Total Exposure	1. On balance sheet items a. Total assets b. Securities financing transactions (SFTs) i. Net value of SFTs ii. Gross value of SFTs iii. Securities received as collateral in security lending iv. Cash collateral received in conduit securities lending transactions c. Derivatives i. Derivative exposure with positive NPV ii. Cash collateral netted against exposure in c(i) d. Total on-balance sheet items 2. Derivatives and off-balance sheet items a. Counterparty risk exposures i. Counterparty exposure of SFTs ii. Potential future exposure of derivatives b. Credit derivatives i. Notional amount credit derivatives sold ii. Net credit derivatives sold iii. Net credit derivatives sold with maturity adjustment c. Notional amount of off-balance sheet items with 0% credit conversion factor (CCF) i. Cancellable credit card commitments ii. Other cancellable commitments d. Notional amount of off-balance sheet items with a 20% CCF e. Notional amount of off-balance sheet items with a 50% CCF f. Notional amount of of-balance sheet items with a 100% CCF g. Total off-balance sheet items 3. Regulatory adjustments 4. Total exposures

Appendix B: Illustrative Example of G-SIB designation methodology

Category	Indicator	Bank Dollar Value	Basel Aggregate Divisor	Fraction	Indicator Score (bps)	Weight	Score
Size	Total exposure	2,000	80,000	.0250	250	.20	50.0
Interconnect	Intra-system asset	300	10,000	.0300	300	.067	20.1
	Intra-system liability	100	8,000	.0125	125	.067	8.4
	Securities out	200	10,000	.0200	200	.067	13.4
Substitute	Payment activity	100,000	2,000,000	.0500	500	.067	33.5
	Assets under custody	20,000	100,000	.2000	2000	.067	134.0
	Underwritten trans.	5	5,000	.0010	10	.067	.7
Complexity	Notional OTC deriv.	30,000	800,000	.0375	375	.067	25.1
	Trading securities	200	5,000	.0400	400	.067	26.8
	Level 3 assets	40	1,000	.0400	400	.067	26.8
X-jurisdict. Activity	X-jurisdiction claims	150	20,000	.0075	75	.010	.8
	X-jurisdiction liab.	100	20,000	.0050	50	.010	.5
Total Score							**340.1**