

BUSINESS RISK MITIGATION AND PRICE STABILIZATION
ACT OF 2012

FEBRUARY 8, 2012.—Committed to the Committee of the Whole House on the State
of the Union and ordered to be printed

Mr. LUCAS, from the Committee on Agriculture,
submitted the following

R E P O R T

together with

ADDITIONAL VIEWS

[To accompany H.R. 2682]

[Including cost estimate of the Congressional Budget Office]

The Committee on Agriculture, to whom was referred the bill (H.R.2682) to provide end user exemptions from certain provisions of the Commodity Exchange Act and the Securities Exchange Act of 1934, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment is as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the “Business Risk Mitigation and Price Stabilization Act of 2012”.

SEC. 2. MARGIN REQUIREMENTS.

(a) **COMMODITY EXCHANGE ACT AMENDMENT.**—Section 4s(e) of the Commodity Exchange Act (7 U.S.C. 6s(e)), as added by section 731 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, is amended by adding at the end the following new paragraph:

“(4) **APPLICABILITY WITH RESPECT TO COUNTERPARTIES.**—The requirements of paragraphs (2)(A)(ii) and (2)(B)(ii) shall not apply to a swap in which a counterparty qualifies for an exception under section 2(h)(7)(A) or satisfies the criteria in section 2(h)(7)(D).”

(b) **SECURITIES EXCHANGE ACT AMENDMENT.**—Section 15F(e) of the Securities Exchange Act of 1934 (15 U.S.C. 78o–10(e)), as added by section 764(a) of the Dodd-

Frank Wall Street Reform and Consumer Protection Act, is amended by adding at the end the following new paragraph:

“(4) APPLICABILITY WITH RESPECT TO COUNTERPARTIES.—The requirements of paragraphs (2)(A)(ii) and (2)(B)(ii) shall not apply to a security-based swap in which one of the counterparties to the security-based swap is not a financial entity as described in section 3C(g)(3), and such counterparty is eligible for the exception under section 3C(g)(1).”.

SEC. 3. IMPLEMENTATION.

The amendments made by this Act shall be implemented—

- (1) without regard to—
 - (A) chapter 35 of title 44, United States Code; and
 - (B) the notice and comment provisions of section 553 of title 5, United States Code; and
- (2) through the promulgation of an interim final rule.

BRIEF EXPLANATION

The bill amends Section 4s(e) of the Commodity Exchange Act (CEA) as added by Section 731 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (P.L. 111–203) (the Dodd-Frank Act) to provide an explicit exemption from margin requirements for swap transactions involving end-users that qualify for the clearing exception under 2(h)(7)(A). The bill includes mirroring provisions to Section 15F(e) of the Securities Exchange Act with respect to security-based swap transactions.

PURPOSE AND NEED

End-users are the thousands of businesses across the country that use derivatives to hedge the risks associated with their day-to-day operations. Because end-users’ swap transactions do not pose a systemic risk to the financial system, Congress provided an exemption for over-the-counter swap transactions from the margin requirements in Title VII of the Dodd-Frank Act.

During floor debate on the conference report for the Dodd-Frank Act, two colloquies among the then-chairmen of the four committees with primary jurisdiction over Title VII clarified Congressional intent that the Dodd-Frank Act did not grant regulators the authority to impose margin requirements on end-user derivatives transactions. Subsequently, the principal authors of Title VII, Senators Blanche Lincoln and Senators Chris Dodd sent a letter to Reps. Barney Frank and Collin Peterson to set forth and clarify congressional intent. In the letter they state: “The legislation does not authorize the regulators to impose margin on end users, those exempt entities that use swaps to hedge or mitigate commercial risk. If regulators raise the costs of end user transactions, they may create more risk. It is imperative that the regulators do not unnecessarily divert working capital from our economy into margin accounts, in a way that would discourage hedging by end users or impair economic growth.”

Nevertheless, some regulators have interpreted Title VII as a grant of new authority to impose margin requirements on end-users merely because they are counterparties to swaps with a regulated entity, such as a swap dealer or financial institution. The prudential regulators are responsible for setting margin requirements for transactions involving swap dealers that are banks. It is important to note that most end-users enter into hedging transactions with bank swap dealers, so it is the prudential regulators that will be setting the margin requirements for most end-user

transactions. In April of 2011, the prudential regulators issued a joint proposal that would in fact require non-financial end-users to post margin to their bank counterparties.

Although not a concern shared widely, some have argued that the prudential regulators have authority to impose margin on end-user transactions that is independent of any new authority in Dodd-Frank, and that these agencies will impose margin on end-users despite enactment of H.R. 2682.

However, it is clear in the prudential regulators' joint rule proposal that their interpretation of Title VII of the Dodd-Frank Act requires that they impose margin on end-users, and that the requirement is the reason for proposing that non-financial end-users post margin to their bank swap counterparties. As stated in the rule (<http://www.fdic.gov/regulations/laws/federal/2011/11proposedAD79.pdf>):

Following passage of the Dodd-Frank Act, various observers expressed concerns regarding whether sections 731 and 764 of the Dodd-Frank Act authorize or require the CFTC, SEC and Agencies to establish margin requirements with respect to transactions between a covered swap entity and a "commercial end user" (i.e. a nonfinancial counterparty that engages in derivatives activities to hedge commercial risk), and have argued that swap and security-based swap transactions with these types of counterparties should be excluded from the scope of margin requirements imposed under sections 731 and 764 because commercial firms engaged in hedging activities pose a reduced risk to their counterparties and the stability of the U.S. financial system. In addition, statements in the legislative history of sections 731 and 764 suggest that Congress did not intend, in enacting these sections, to impose margin requirements on nonfinancial end users engaged in hedging activities, even in cases where they entered into swaps or security-based swaps with swap entities.

In formulating the proposed rule, the Agencies have carefully considered these concerns and statements. The plain language of sections 731 and 764 provides that the Agencies adopt rules for covered swap entities imposing margin requirements on all non-cleared swaps. Those sections do not, by their terms, exclude a swap with a counterparty that is a commercial end-user.

By the agencies' own terms, their proposal to require margin stems directly from what they view to be a legal obligation under Title VII. By providing an explicit exemption under Title VII through enactment of HR 2682, the agencies will no longer have a legal obligation, and congressional intent as they acknowledge in the proposed rule will be implemented.

Several end-users that testified before the Committee in 2011 spoke to the harmful economic impact a margin requirement would have for end-users and the need for Congress to clarify its intent.

On February 10, 2011, Scott C. Morrison, Chief Financial Officer for the Ball Corporation, testifying on behalf of the Coalition for Derivatives End-Users stated: "A requirement for end-users like Ball Corporation to post margin to its counterparties would have a serious impact on our ability to invest in and grown our business. For example, Ball Corporation is currently investing significant amounts of capital in plant expansions we are currently executing in Texas, Indiana, California and Colorado. Those expansions alone

are investments totaling well in excess of \$150 million and will add several hundred jobs when complete. Tying up capital for initial and variation margin could put those types of projects at risk at a time when our economy can ill afford it.”

On July 21, 2011, Neil Schloss, Vice President and Treasurer of Ford Motor Company stated: “Similar to other end-user corporations and manufacturers, we are concerned that imposing margin requirements would significantly increase our cash requirements and costs, and provide a disincentive to hedge legitimate business risks, which would seemingly increase systemic risk.”

On October 12, 2011, Scott Cordes, President of Country Hedging, on behalf of the National Council of Farmer Cooperatives stated: “Under the proposed rule requiring end users to post margin, costs to businesses will increase as more cash is tied up to maintain those hedges. The additional capital requirements will be siphoned away from activities and investment in cooperatives’ primary business ventures. Furthermore, cash for margin is often borrowed from lenders through the use of credit lines. As a result, we could see a situation where a commercial end-user would have to borrow cash from its lender, and pay interest on it, just to give it back to the same lender to hold as margin.”

H.R. 2682 clarifies congressional intent to provide an explicit exemption for swap transactions involving non-financial end-users from the margin requirements under Title VII of the Dodd-Frank Act.

SECTION-BY-SECTION

Section 1 is the short title of the bill, “The Business Mitigation and Price Stabilization Act of 2012.”

Section 2(a) amends section 4s(e) the Commodity Exchange Act (as added by section 731 of the Dodd-Frank Act) to clarify that initial and variation margin requirements shall not apply to a swap in which one of the counterparties to the swap is not a financial entity, and qualifies for the end-user clearing exception in Section 2(h)(7)(A).

Section 2(b) is a similar amendment to the Securities and Exchange Act.

Section 3 excludes the amendments made by this bill from the requirements of the Paperwork Reduction Act and from notice and comment requirements of the Administrative Procedure Act.

COMMITTEE CONSIDERATION

I. HEARINGS

In the 112th Congress, the Committee has held seven hearings, four Full Committee and two General Farm Commodities and Risk Management Subcommittee hearings to examine the implementation of Title VII of the Dodd-Frank Act and one Full Committee hearing to examine legislative proposals related thereto, including H.R. 2682. The Committee took testimony from witnesses that represented a broad spectrum of participants in the derivatives markets.

In the following hearings, witnesses testified to the importance of a clear, explicit margin exemption for end-users.

Public hearing to review implementation of title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act: February 10, 2011

Defining the Market: Entity and Product Classifications Under Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act: March 31, 2011

Derivatives Reform: The View from Main Street: July 21, 2011

To review legislative proposals amending Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act: October 12, 2011

On October 12, 2011, Mr. Scott Cordes, President of Country Hedging testified on behalf of the National Council of Farmer Cooperatives:

“Under the proposed rule requiring end-users to post margin, costs to businesses will increase as more cash is tied up to maintain those hedges. The additional capital requirements will be siphoned away from activities and investment in cooperatives’ primary business ventures. . . . Congressional intent was clear on this point—end-users were not to be required to post margin. We support legislation that would reaffirm this intent.”

On October 12, 2011, Ms. Brenda Boulton, of Constellation Energy on behalf of the Coalition for Derivatives End-Users testified:

“ A survey conducted by the Coalition found that companies would have to hold aside an average of \$269 million of cash or immediately available bank credit to meet a 3% margin requirement. . . . the . . . study extrapolated the effects across the S&P 500 to predict the consequent loss of 100,000 to 130,000 direct and indirect jobs. . . . We need Congress to step in and clarify the ability of end-users and banks to continue to manage counterparty risk without unnecessary initial and variation margin requirements.”

II. FULL COMMITTEE

The Committee on Agriculture met, pursuant to notice, with a quorum present, on January 25, 2012, to consider H.R. 2682, to provide end user exemptions from certain provisions of the Commodity Exchange Act of 1934, and other pending business. Chairman Lucas offered an opening statement, as did Ranking Member Peterson.

By unanimous consent, the Subcommittee on General Farm Commodities and Risk Management was discharged from further consideration and the bill, H.R. 2682 was placed before the Committee for consideration and without objection a first reading of the bill was waived and it was opened for amendment at any point. The Chairman offered an Amendment in the Nature of a Substitute to the bill, and counsel provided a brief explanation of the amendment.

Mr. Peterson was recognized to offer and explain an amendment to expedite implementation by excluding the amendments made by the bill from the requirements of the Paperwork Reduction Act and from notice and comment requirements of the Administrative Procedure Act. By a voice vote the Peterson amendment was adopted.

There being no further amendments, the Peterson motion to approve the Amendment in the Nature of a Substitute to H.R. 2682, as amended was adopted by a voice vote.

By a voice vote, the Peterson motion to report the bill favorably to the House with the recommendation that it do pass was adopted.

The Committee then moved onto other pending business, where at the conclusion of the meeting, Chairman Lucas advised Members that pursuant to the rules of the House of Representatives that Members have 2 calendar days to file such views with the Committee.

Without objection, staff was given permission to make any necessary clerical, technical or conforming changes to reflect the intent of the Committee.

Chairman Lucas thanked all the Members and adjourned the meeting.

REPORTING THE BILL—ROLL CALL VOTES

In compliance with clause 3(b) of rule XIII of the House of Representatives, H.R. 2682 was reported by voice vote with a majority quorum present. There was no request for a recorded vote.

COMMITTEE OVERSIGHT FINDINGS

Pursuant to clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, the Committee on Agriculture's oversight findings and recommendations are reflected in the body of this report.

BUDGET ACT COMPLIANCE (SECTIONS 308, 402, AND 423)

The provisions of clause 3(c)(2) of rule XIII of the Rules of the House of Representatives and section 308(a)(1) of the Congressional Budget Act of 1974 (relating to estimates of new budget authority, new spending authority, new credit authority, or increased or decreased revenues or tax expenditures) are not considered applicable. The estimate and comparison required to be prepared by the Director of the Congressional Budget Office under clause 3(c)(3) of rule XIII of the Rules of the House of Representatives and sections 402 and 423 of the Congressional Budget Act of 1974 submitted to the Committee prior to the filing of this report are as follows:

FEBRUARY 7, 2012.

Hon. FRANK D. LUCAS,
*Chairman, Committee on Agriculture,
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 2682, the Business Risk Mitigation and Price Stabilization Act of 2011.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Susan Willie.

Sincerely,

DOUGLAS W. ELMENDORF.

Enclosure.

H.R. 2682—Business Risk Mitigation and Price Stabilization Act of 2012

H.R. 2682 would allow certain nonfinancial entities that are counterparties in a swap or a security-based swap transaction to be exempted from provisions in current law that require such entities to meet certain margin requirements. (A swap is a contract that calls for an exchange of cash between two participants, based on an underlying rate or index or on the performance of an asset.) Both the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC) are developing regulations relating to margin requirements in swap transactions as the result of the enactment of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Public Law 111–203); however, neither agency has finalized such regulations. (Margin requirements are minimum amounts of collateral that must be deposited, often with a broker or exchange, to cover some or all of the risk of a counterparty.)

Based on information from the two agencies, CBO expects that incorporating the provisions of H.R. 2682 at this point in the regulatory process would not require a significant increase in the workload of either agency. Therefore, CBO estimates that any change in net discretionary spending to implement the legislation, which would be subject to the availability of appropriated funds, would not be significant. Further, under current law, the SEC is authorized to collect fees sufficient to offset its appropriation each year; CBO expects that the agency would set fee rates each year to offset amounts provided in appropriation acts. Enacting H.R. 2682 would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

H.R. 2586 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act and would not affect the budgets of state, local, or tribal governments.

On December 14, 2011, CBO transmitted an estimate for H.R. 2682, the Business Risk Mitigation and Price Stabilization Act of 2011, as ordered reported by the House Committee on Financial Services on November 30, 2011. The Financial Services Committee version of the bill would make similar changes in margin requirements for certain counterparties in swap transactions. CBO estimates that the cost to implement either version of the legislation would be insignificant.

The CBO staff contact for this estimate is Susan Willie. The estimate was approved by Theresa Gullo, Deputy Assistant Director for Budget Analysis.

PERFORMANCE GOALS AND OBJECTIVES

With respect to the requirement of clause 3(c)(4) of rule XIII of the Rules of the House of Representatives, the performance goals and objections of this legislation are to provide end user exemptions from certain provisions of the Commodity Exchange Act and the Securities Exchange Act of 1934, and for other purposes.

CONSTITUTIONAL AUTHORITY STATEMENT

The Committee finds the Constitutional authority for this legislation in Article I, section 8, clause 18, that grants Congress the power to make all laws necessary and proper for carrying out the powers vested by Congress in the Constitution of the United States or in any department or officer thereof.

COMMITTEE COST ESTIMATE

Pursuant to clause 3(d)(2) of rule XIII of the Rules of the House of Representatives, the Committee report incorporates the cost estimate prepared by the Director of the Congressional Budget Office pursuant to sections 402 and 423 of the Congressional Budget Act of 1974.

ADVISORY COMMITTEE STATEMENT

No advisory committee within the meaning of section 5(b) of the Federal Advisory Committee Act was created by this legislation.

APPLICABILITY TO THE LEGISLATIVE BRANCH

The Committee finds that the legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

FEDERAL MANDATES STATEMENT

The Committee adopted as its own the estimate of Federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act (Public Law 104–4).

EARMARK STATEMENT REQUIRED BY CLAUSE 9 OF RULE XXI OF THE
RULES OF HOUSE OF REPRESENTATIVES

H.R. 2682 does not contain any congressional earmarks, limited tax benefits, or limited tariff benefits as defined in clause 9(e), 9(f), or 9(g) of rule XXI of the Rules of the House Representatives.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (new matter is printed in italic and existing law in which no change is proposed is shown in roman):

COMMODITY EXCHANGE ACT

* * * * *

**SEC. 4s. REGISTRATION AND REGULATION OF SWAP DEALERS AND
MAJOR SWAP PARTICIPANTS.**

(a) * * *

* * * * *

(e) CAPITAL AND MARGIN REQUIREMENTS.—

(1) * * *

* * * * *

(4) *APPLICABILITY WITH RESPECT TO COUNTERPARTIES.*—*The requirements of paragraphs (2)(A)(ii) and (2)(B)(ii) shall not apply to a swap in which a counterparty qualifies for an exception under section 2(h)(7)(A) or satisfies the criteria in section 2(h)(7)(D).*

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SECURITIES EXCHANGE ACT OF 1934

TITLE I—REGULATION OF SECURITIES EXCHANGES

* * * * *

SEC. 15F. REGISTRATION AND REGULATION OF SECURITY-BASED SWAP DEALERS AND MAJOR SECURITY-BASED SWAP PARTICIPANTS.

(a) * * *

* * * * *

(e) **CAPITAL AND MARGIN REQUIREMENTS.**—

(1) * * *

* * * * *

(4) *APPLICABILITY WITH RESPECT TO COUNTERPARTIES.*—*The requirements of paragraphs (2)(A)(ii) and (2)(B)(ii) shall not apply to a security-based swap in which one of the counterparties to the security-based swap is not a financial entity as described in section 3C(g)(3), and such counterparty is eligible for the exception under section 3C(g)(1).*

* * * * *

ADDITIONAL VIEWS

For the past year, our Committee has held several hearings and listened to a host of stakeholders who are concerned about how the Dodd-Frank Act is being implemented with regard to improving oversight and accountability in derivative markets. I recommended patience and caution for those seeking to change the law. It is premature to move on legislation until we see the final rules. Looking at the Dodd-Frank rules that have already been finalized by the CFTC, it is safe to say that, so far, the CFTC has done a pretty good job.

When we crafted the derivatives title in this Committee and on the House floor, we wanted those responsible for the financial collapse of 2008, or those who could cause another collapse, to back their swap trades with more of their own money so the American taxpayer would not have to bail them out again. For those not responsible, we wanted them to be able to continue to use swaps to hedge the risk associated with their commercial businesses.

Despite our legislative drafting, despite our colloquies, despite the letters written back and forth, the Prudential Regulators—i.e. the banking regulators—have chosen to ignore the intent of Congress. They are instead proposing that end-users post margin with regard to their swaps with swap dealers and major swap participants who are regulated by the Prudential Regulators. The CFTC, correctly understanding Congress' intent, did not impose any such obligation.

For some reason, despite repeated requests to the Majority, the Prudential Regulators have not appeared before our Committee to answer why they have ignored Congress' intent. Why? What possible reason do we have to fear from bringing them here? Maybe it is to avoid an uncomfortable truth. Despite this legislation, the Prudential Regulators—through their other statutory power to ensure the safety and soundness of the banks under their jurisdiction—have the authority to require those they oversee to collect margin on the swaps they enter into, even from end users.

Attached to these additional views are three letters from the Prudential Regulators—i.e. the Federal Reserve, the Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency—outlining their authorities. While these authorities were not previously utilized to require end users to post cash margin for their swaps with banking institutions, the fact that the Prudential Regulators have blatantly disregarded Congressional intent indicates a change in thinking among the Prudential Regulators that perhaps such margin is necessary. Given the criticism they faced in the aftermath of the 2008 meltdown, it is possible they do not want fingers pointing at them again should another meltdown occur.

If such thinking holds, enacting H.R. 2682 into law does not guarantee that Prudential Regulators will not utilize their other authorities to achieve a similar outcome as suggested in their proposed rule concerning margin. I support the intent of H.R. 2682 to protect end users from having to meet crippling margin requirements for their swap activity. The question remains, will it work?

When crafting financial reform legislation, some of us did not want the Prudential Regulators involved in any part of the swap regulation, much less setting margin standards; we can all see why. If the Prudential Regulators fail to correct their error on their own, there is little doubt that the swap market will very quickly adjust. We'll see fewer banks in the swap dealing business as end users look to non-bank swap dealers to meet their risk management needs without having to post margin. That would not necessarily be a bad outcome.

Finally, the Committee approved the Peterson amendment, which includes language that should look very familiar to Farm Bill veterans. It is the exact same provisions that we incorporate in each Farm Bill for implementation of the Title I commodity programs. In that context, it exempts USDA from provisions of the Paperwork Reduction Act and notice and comment provisions of the Administrative Procedures Act.

With this change, comments can still be sent to the CFTC. Anyone would still be able to meet with CFTC officials to share their thoughts on how these bills should be implemented. Farm groups certainly did not have any trouble sharing their views on Farm Bill implementation. Given the openness the CFTC has already demonstrated, this provision will not hurt anyone's ability to provide input to the CFTC.

COLLIN C. PETERSON.
JOE COURTNEY.
JAMES P. MCGOVERN.
CHELLIE PINGREE.
JIM COSTA.
PETER WELCH.



Comptroller of the Currency
Administrator of National Banks

Washington, DC 20219

January 24, 2012

The Honorable Collin Peterson
Ranking Member
Committee on Agriculture
United States House of Representatives
Washington, DC 20515

Dear Ranking Member Peterson:

Thank you for your letter dated January 12, 2012, concerning legislation under consideration by the Committee on Agriculture that would amend the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) with regard to the authority of prudential regulators to establish both initial and variation margin requirements on uncleared swaps held by swap dealers and major swap participants under their jurisdiction.

To assist the Committee in preparing for an upcoming markup, you requested an answer to the following question: Prior to the enactment of the Dodd-Frank Act, did the Office of the Comptroller of the Currency - either by rule, guidance for compliance with safety and soundness standards, or part of its supervisory process - have the authority to require entities under its jurisdiction to demand initial and/or variation margin from their counterparties with regard to the uncleared swaps they held?

The OCC is responsible for assuring the safety and soundness of the national banking system of national banks and federal savings associations (collectively banks) and has authority to require banks to collect margin from OTC swap counterparties that is independent of and predates Dodd-Frank. (See 12 U.S.C. § 1, as amended by Dodd-Frank section 314). To that end, one of the OCC's core powers, and core supervisory functions, is to supervise banks' credit risk management, i.e., the risk that the counterparty will fail to perform on its obligation either during the life of the contract or at settlement. Derivatives exposures are a credit exposure and, as such, are subject to OCC safety and soundness authority. OCC Banking Circular 277 (BC-277) requires banks that engage in derivatives transactions to do so in accordance with safe and sound banking practices.

OCC supervision of credit risk management focuses on the bank's process for managing overall credit risk; derivatives-related exposure to a particular counterparty may be just a portion of such risk where a bank has a broad credit relationship with a customer. The determination of whether or not margin is collected under this regulatory structure is a credit decision. Where credit exposure and the risk to the institution are low, as is the case with commercial end users, margin has typically not been necessary. Where credit exposure and risk exposure to the institution are high, as with a hedge fund, margin has typically been appropriate.

The OCC has longstanding guidance that requires banks to manage credit exposure from derivatives activities in conjunction with overall credit exposure. For example:

- Credit risk management for derivatives should parallel the prudent controls expected in traditional lending activities (BC-277).
- Reports to senior management should consolidate derivatives exposure with all other lending exposure that a bank may have to a particular customer (BC-277).
- Derivative credit lines should be approved using the same credit discipline as credit exposures from traditional lending products (BC-277).
- Management of derivatives risks should be integrated into the bank's overall risk management structures (Risk Management of Financial Derivatives, Comptroller's Handbook, January 1997).
- Risk management systems should be sufficiently flexible to allow for timely aggregation of all counterparty credit risk exposures from derivatives and other pre-settlement exposures, as well as aggregation of other forms of credit risk to the same counterparty (e.g., loans, bonds and other credit risks) (Interagency Supervisory Guidance on Counterparty Credit Risk Management, June 2011 ("Interagency Guidance")).
- Collateral (i.e., margin) is a fundamental counterparty credit risk mitigant. Banking organizations should ensure that they have adequate margin and collateral haircut guidelines for all products with counterparty credit risk (Interagency Guidance).

I hope this information has been responsive to your inquiry. Should you have further questions, please contact Carrie Moore, Deputy Director, Congressional Liaison, at 202-874-1881.

Sincerely,



John Walsh
Acting Comptroller of the Currency



FEDERAL DEPOSIT INSURANCE CORPORATION, Washington, DC 20429

OFFICE OF THE CHAIRMAN

January 23, 2012

Honorable Collin C. Peterson
House of Representatives
Washington, D.C. 20515

Dear Congressman Peterson:

Thank you for your letter concerning H.R. 2682, *The Business Risk Mitigation and Price Stabilization Act of 2011*. The bill would exempt certain derivatives of a commercial end user from the margin and capital regulations required to be issued pursuant to Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act). Your letter asks whether the Federal Deposit Insurance Corporation had the authority prior to the Dodd-Frank Act to require entities under its jurisdiction to demand initial or variation margin from their counterparties with regard to the uncleared swaps they held. We appreciate the opportunity to respond to your inquiry.

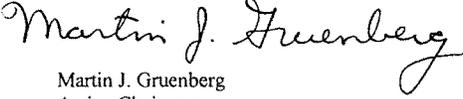
The FDIC is the primary federal regulator for state banks that are not members of the Federal Reserve System (state nonmember banks). These banks are usually community banks and typically have limited derivatives activities, if any. However, the FDIC is the primary federal regulator for some institutions that engage in derivatives activities principally for hedging purposes or to accommodate customer needs.

Prior to the enactment of the Dodd-Frank Act, there was no specific statutory authority for the FDIC to prescribe initial or variation margin. However, the FDIC as the primary federal regulator for state nonmember banks, has general rulemaking authority over those institutions, and could regulate margin requirements under its general power to prescribe safety and soundness requirements (12 U.S.C. 1819(a)(Seventh) and (Tenth)). Relying upon similar authorities, some other banking regulators responsible for larger, more complex insured banks have adopted guidance to address the credit risk associated with derivatives activities. Similarly, prior to the Dodd-Frank Act, any requirement for a specific institution to impose initial or variation margin on its counterparties would have been based on the institution's internal credit exposure limits and the necessity to collateralize exposures in excess of those limits. Moreover, under its statutory safety and soundness authority (12 U.S.C. 1818(b)), the FDIC similarly can take enforcement action on a case-by-case basis if a state nonmember bank's failure to obtain adequate margin rose to the level of an unsafe or unsound practice.

Finally, we believe it is important to adopt consistent regulations governing margin requirements across different regulated companies. We certainly share the goal of avoiding unproductive opportunities for regulatory arbitrage. We also wish to ensure that any regulatory requirements in this area appropriately address the interests of all participants in this important part of our financial system.

Thank you again for contacting the FDIC about this important matter, and I hope this information is helpful. If you have further questions, please feel free to contact me at (202) 898-3888 or Paul Nash, my Deputy for External Affairs, at (202) 898-6962.

Sincerely,

A handwritten signature in cursive script that reads "Martin J. Gruenberg". The signature is written in black ink and is positioned to the right of the typed name.

Martin J. Gruenberg
Acting Chairman



BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

BEN S. BERNANKE
CHAIRMAN

January 23, 2012

The Honorable Collin Peterson
Ranking Member
Committee on Agriculture
House of Representatives
Washington, D.C. 20515

Dear Congressman:

Thank you for your letter dated January 12, 2012, inquiring as to the Board's authority, prior to the Dodd-Frank Act, to require entities under our jurisdiction to demand initial or variation margin from their counterparties in uncleared swap transactions.

In general, apart from the Dodd-Frank Act, the Board has broad and flexible authority to take supervisory and formal or informal enforcement actions to require entities under our jurisdiction to operate in a safe and sound manner. The Board has used this authority to require those entities to take a variety of actions to ensure that they monitor and manage the risks from their swap activities. In particular, the Board currently requires entities we supervise to manage the credit risk of the swaps aspect of their counterparty relationships, just as those entities are required to manage the risks of other credit relationships, and to manage the combined credit risks of each customer or counterparty on an aggregate basis. That credit risk management must include steps such as performing independent credit underwriting of new customers or counterparties to set a combined credit exposure limit for the particular customer or counterparty, measuring the credit exposure with appropriate metrics, monitoring the customer's or counterparty's financial condition and creditworthiness on an ongoing basis, and reporting all credit exposures with each customer or counterparty to management on an aggregate basis in a single report. A key aspect of this risk management also includes establishing appropriate margin and collateral haircut practices for all swap counterparties. The existing guidance does not specify requirements for initial and variation margin, but instead requires entities themselves to evaluate the risk of each counterparty and swap position and establish prudent collateral and other risk-mitigating protections as appropriate. A copy of recent Board (and other bank regulatory agency) guidance related to credit risk management is enclosed.

I hope this information is helpful to your deliberations.

Sincerely,

A handwritten signature in black ink, appearing to be "BSB", written over a horizontal line.

Enclosure

Interagency Supervisory Guidance on Counterparty Credit Risk Management

June 29, 2011

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COUNTERPARTY CREDIT RISK MANAGEMENT**I. Introduction**

This guidance discusses critical aspects of effective management of counterparty credit risk (CCR), and sets forth sound practices and supervisory expectations for an effective CCR management framework. CCR is the risk that the counterparty to a transaction could default or deteriorate in creditworthiness before the final settlement of a transaction's cash flows. Unlike the credit risk for a loan, when only the lending banking organization¹ faces the risk of loss, CCR creates a bilateral risk of loss because the market value of a transaction can be positive or negative to either counterparty. The future market value of the exposure and the counterparty's credit quality are uncertain and may vary over time as underlying market factors change. The guidance is intended for use by banking organizations, especially those with large derivatives portfolios, in setting their risk management practices, as well as by supervisors as they assess and examine such institutions' management of CCR. For other banking organizations without large derivatives portfolios, risk managers and supervisors should apply this guidance as appropriate, given the size, nature, and complexity of the CCR risk profile of the banking organization.

CCR is a multidimensional form of risk, affected by both the exposure to a counterparty and the credit quality of the counterparty, both of which are sensitive to market-induced changes. It is also affected by the interaction of these risks, for example the correlation² between an exposure and the credit spread of the counterparty, or the correlation of exposures among the banking organization's counterparties. Constructing an effective CCR management framework requires a combination of risk management techniques from the credit, market, and operational risk disciplines.

CCR management techniques have evolved rapidly over the last decade, along with increased complexity of derivative instruments under management. Banking organizations substantially improved their risk management practices during this time; however, in some cases, implementation of sound practices has been uneven across business lines and counterparty types. Further, the financial crisis of 2007-2009 revealed weaknesses in CCR management at many banking organizations, such as shortcomings in the timeliness and accuracy of exposure aggregation capabilities and inadequate measurement of correlation risks. The crisis also highlighted deficiencies in the ability of banking organizations to monitor and manage counterparty exposure limits and concentration risks, ranging from poor selection of CCR metrics to inadequate system infrastructure.

To address these weaknesses, this guidance reinforces sound governance of CCR management practices, through prudent board and senior management oversight, management reporting, and risk management functions. The guidance discusses relevant topics in risk measurement, including metrics, exposure aggregation and concentration management, stress testing, and associated characteristics of adequate systems infrastructure. It also covers risk control functions, such as counterparty limits, margin practices, validating and backtesting models and systems, managing close-outs,³ managing

¹ Unless otherwise indicated, "banking organizations" refers to national banks in the case of the Office of the Comptroller of the Currency (OCC); federal and state savings associations and savings and loan holding companies in the case of the Office of Thrift Supervision (OTS); state member banks and bank holding companies in the case of the Federal Reserve Board (Board); and state nonmember banks in the case of the Federal Deposit Insurance Corporation (FDIC). The U.S. branches and agencies of foreign banks supervised by the OCC, the Board and the FDIC also are considered to be banking organizations for purposes of this guidance.

² In this guidance, "correlation" refers to any form of linear or non-linear inter-relationship or dependence between factors.

³ A close-out is the process undertaken by a banking organization following default of a counterparty to fully collect on all items due from that counterparty.

central counterparty exposures, and controlling legal and operational risks arising from derivatives activities.

CCR management guidelines and supervisory expectations are delineated in various individual and interagency policy statements and guidance,⁴ which remain relevant and applicable. This guidance offers further explanation and clarification, particularly in light of developments in CCR management. However, this guidance is not all-inclusive and banking organizations should reference sound practices for CCR management, such as those advanced by industry, policymaking and supervisory forums.⁵

II. Governance

1. Board and Senior Management Responsibilities

The board of directors or a designated board-level committee (board) should clearly articulate the banking organization's risk tolerance for CCR, by approving relevant policies, including a framework for establishing limits on individual counterparty exposures and concentrations of exposures. Senior management should establish and implement a comprehensive risk measurement and management framework consistent with this risk tolerance that provides for the ongoing monitoring, reporting, and control of CCR exposures.

Senior management should adhere to the board's established risk tolerance and establish policies and risk management guidelines appropriately.⁶ At a minimum, policies should outline CCR management standards that are in conformance with this guidance. More specifically, they should address the subjects discussed in this document, such as risk measurement and reporting, risk management tools, and processes to manage legal and operational risk. Policies should be detailed and contain a clear escalation process for review and approval of policy exceptions, especially those pertaining to transaction terms and limits.

2. Management Reporting

Banking organizations should report counterparty exposures to the board and senior management at a frequency commensurate with the materiality of exposures and the complexity of transactions. Reporting should include concentration analysis and CCR stress testing results, to allow for an understanding of exposures and potential losses under severe market conditions. Reports should also include an explanation of any measurement weaknesses or limitations that may influence the accuracy and reliability of the CCR risk measures.

⁴See, for example, Supervisory Policy Statement on Investment Securities and End-User Derivatives Activities, 63 FR 20191, April 23, 1998. Examination guidance on CCR is contained in various agency publications including: FDIC, *Capital Markets Examination Handbook*; Federal Reserve, SR 99-03 and *Trading and Capital Market Activities Manual* (to be amended as appropriate to reflect this guidance); OTS, *Examiner Handbook*, Section 660, "Derivative Instruments and Hedging"; the OCC's Banking Circular 277, and "Risk Management of Financial Derivatives" (*Comptroller's Handbook*, January, 1997).

⁵Industry, policymaking, and supervisory groups include, but are not limited to, the Counterparty Risk Management Policy Group (CRMPG), Committee on Payment and Settlement Systems (CPSS), International Swaps and Derivatives Association (ISDA), Institute of International Finance (IIF), Group of Thirty (G30), Group of Twenty Finance Ministers and Central Bank Governors (G-20), International Organization of Securities Commissions (IOSCO), Senior Supervisors Group (SSG), and Basel Committee on Banking Supervision (BCBS). Documents produced by all of these groups were drawn upon in developing this guidance.

⁶Relevant supervisory guidance discusses establishment of CCR policies and procedures.

Senior management should have access to timely, accurate, and comprehensive CCR reporting metrics, including an assessment of significant issues related to the risk management aspects discussed in this guidance. They should review CCR reports at least monthly, with data that are no more than three weeks old. It is general practice for institutions to report:

- Total counterparty credit risk aggregated on a firm-wide basis and at significant legal entities.
- Counterparties with the largest exposures, along with detail on their exposure amounts.
- Exposures to central counterparties (CCPs).
- Significant concentrations, as outlined in this guidance.
- Exposures to weak or problem counterparties.
- Growth in exposures over time. As a sound practice, metrics should capture quarterly or monthly changes, supplemented (where relevant) by year-over-year trend data.
- Exposures from over-the-counter (OTC) derivatives. When they are material, additional product class break-outs (for example, traditional lending, securities lending) should be included.
- A sufficiently comprehensive range of CCR metrics, as discussed in the CCR metrics section.
- A qualitative discussion of key risk drivers of exposures or conditions or factors that would fundamentally change the risk profile of CCR. An example would be assessment of changes in credit underwriting terms and whether they remain prudent.

3. Risk Management Function and Internal Audit

A banking organization's board and senior management should clearly delineate the respective roles of business lines versus risk management, both in terms of initiating transactions that have CCR, and of ongoing CCR management. The board and senior management should ensure that the risk management functions have adequate resources, are fully independent from CCR related trading operations (in both activity and reporting), and have sufficient authority to enforce policies and to escalate issues to senior management and the board (independent of the business line).

The board should direct internal audit to regularly assess the adequacy of the CCR management framework as part of the regular audit plan. Such assessments should include credit line approval processes, credit ratings, and credit monitoring. Such an assessment should opine on the adequacy of the CCR infrastructure and processes, drawing where appropriate from individual business line reviews or other internal and external audit work. Please see the relevant section of this guidance regarding the role of CCR model validation or review. The board should review annual reports from internal audit and model validation or review, assessing the findings and confirming that management has taken appropriate corrective actions.

III. Risk Measurement

1. CCR Metrics

Given the complexity of CCR exposures (particularly regarding OTC derivatives), banking organizations should employ a range of risk measurement metrics to promote a comprehensive

understanding of CCR and how it changes in varying environments. Metrics should be commensurate with the size, complexity, liquidity, and risk profile of the CCR portfolio. Banking organizations typically rely on certain metrics as a primary means of monitoring, with secondary metrics used to create a more robust view of CCR exposures. Banking organizations should apply these metrics to single counterparty exposures, groups of counterparties (for example, by internal rating, industry, geographical region), and the consolidated CCR portfolio. Banking organizations should assess their largest exposures, for instance their top 20 exposures, using each primary metric.

Major dealers and large, sophisticated banking organizations with substantial CCR exposure should measure and assess:

- Current exposure (both gross and net of collateral).
- Forward-looking exposure (that is, potential exposure).
- Stressed exposure (broken out by market risk factors, and/or by scenario).
- Aggregate and stressed credit valuation adjustment (CVA) as well as CVA factor sensitivities.
- Additional relevant risk measures, such as (for credit derivatives) jump-to-default risk on the reference obligor, and economic capital usage.
- The largest exposures by individual business line and product types.
- Correlation risks, such as wrong-way risk, as well as the credit quality of collateral.

Refer to Appendix A for definitions of basic metrics and descriptions of their purposes.

2. Aggregation of Exposures

Banking organizations should have the capacity to measure their exposure at various levels of aggregation (for example, by business line, legal entity, or consolidated by industry). Systems should be sufficiently flexible to allow for timely aggregation of all CCR exposures (that is, OTC derivatives, securities financing transactions (SFTs), and other pre-settlement exposures), as well as aggregation of other forms of credit risk to the same counterparty (for example, loans, bonds, and other credit risks). The following are sound CCR aggregation principles:

- Counterparty-level current exposure and potential exposure should be calculated daily, based on the previous day's position data and any exchange of collateral.
- For each organizational level of aggregation, all trades should be included.
- There should be sufficient flexibility to aggregate exposure at varying levels of granularity, including industries, regions, families of products (for example, OTC derivatives, SFTs), or other groupings to identify concentrations.
- While banking organizations are not required to express all forms of risk in a common metric or basis, management should be able to view the various forms of exposures to a given counterparty in a single report and/or system. Specifically, this could include current outstanding exposure across different categories (e.g., current exposure for OTC derivatives and drawn-down lines of commitment for loans). Exposure reports should also include the size of settlement and clearing lines.

- Banking organizations should be consistent in their choice of currency and exchange rate, and take into account the validity and legal enforceability of any netting agreements they may have with a counterparty.
- Management should understand the specific approach used to aggregate exposures for any given risk measure, in order to properly assess the results. For instance, some measures of risk (such as current exposure) may be readily added together, while others (such as potential exposure) are less meaningful when they are added to form an aggregate view of risk.
- Internal capital adequacy models should incorporate CCR.

3. Concentrations

Concentrated exposures are a significant concern, as CCR can contribute to sudden increases in credit exposure, which in turn can result in unexpectedly large losses in the event of counterparty default. Accordingly, banking organizations should have enterprise-wide processes to effectively identify, measure, monitor, and control concentrated exposures on both a legal entity and enterprise-wide basis.

Concentrations should be identified using both quantitative and qualitative means. An exposure or group of related exposures (for example, firms in the same industry), should be considered a concentration in the following circumstances: exposures (individually or collectively) exceed risk tolerance levels established to ensure appropriate diversification; deterioration of the exposure could result in material loss; or deterioration could result in circumstances that are detrimental to the banking organization's reputation. All credit exposures should be considered as part of concentration management, including loans, OTC derivatives, names in bespoke and index CDO credit tranches, securities settlements, and money market transactions such as fed funds sold. Total credit exposures should include the size of settlement and clearing lines, or other committed lines.

CCR concentration management should identify, quantify, and monitor:

- Individual counterparties with large potential exposures, when those exposures are driven by a single market factor or transaction type. In these circumstances, banking organizations should supplement statistical measures of potential exposure with other measures, such as stress tests, that identify such concentrations and provide an alternative view of risks associated with close-outs.
- Concentrations of exposures to individual legal entities, as well as concentrations across affiliated legal entities at the parent entity level, or in the aggregate for all related entities.
- Concentrations of exposures to industries or other obligor groupings.
- Concentrations of exposures to geographic regions or country-specific groupings sensitive to similar macroeconomic shocks.
- Concentrations across counterparties when potential exposure is driven by the same or similar risk factors. For both derivatives and SFTs, banking organizations should understand the risks associated with crowded trades,⁷ where close-out risk may be heightened under stressed market conditions.

⁷ For purposes of this guidance, a "crowded trade" is a large balance of open trading positions in a given asset or group of assets relative to its daily trading volume, when other market participants have similar positions that would need to be liquidated should any adverse price change occur. Coincident sale of these assets by a large number of market participants could lead to significant price declines and dramatic increases in uncollateralized exposures.

- Collateral concentrations, including both risk concentrations with a single counterparty, and risks associated with portfolios of counterparties. Banking organizations should consider concentrations of non-cash collateral for all product lines covered by collateral agreements;⁸ including collateral that covers a single counterparty exposure and portfolios of counterparties.⁹
- Collateral concentrations involving special purpose entities (SPEs). Collateral concentration risk is particularly important for SPEs, because the collateral typically represents an SPE's paying capacity.
- Banking organizations should consider the full range of credit risks in combination with CCR to manage concentration risk, including; risks from on- and -off-balance-sheet activities, contractual and non-contractual risks, contingent and non-contingent risks, as well as underwriting and pipeline risks.

4. Stress Testing

Banking organizations with significant CCR exposures should maintain a comprehensive stress testing framework, which is integrated into the banking organization's CCR management. The framework should inform the banking organization's day-to-day exposure and concentration management, and it should identify extreme market conditions that could excessively strain the financial resources of the banking organization. Regularly, but no less than quarterly, senior management should evaluate stress test results for evidence of potentially excessive risk, and take risk reduction strategies as appropriate.

The severity of factor shocks should be consistent with the purpose of the stress test. When evaluating solvency under stress, factor shocks should be severe enough to capture historical extreme market environments and/or extreme but plausible stressed market conditions. The impact of such shocks on capital resources and earnings should be evaluated. For day-to-day portfolio monitoring, hedging, and management of concentrations, banking organizations should also consider scenarios of lesser severity and higher probability. When conducting stress testing, risk managers should challenge the strength of assumptions made about the legal enforceability of netting and the ability to collect and liquidate collateral.

A sound stress-testing framework should include:

- Measurement of the largest counterparty-level impacts across portfolios, material concentrations within segments of a portfolio (such as industries or regions), and relevant portfolio- and counterparty-specific trends.
- Complete trade capture and exposure aggregation across all forms of trading (not just OTC derivatives) at the counterparty-specific level, including transactions that fall outside of the main credit system. The time frame selected for trade capture should be commensurate with the frequency with which stress tests are conducted.
- Stress tests, at least quarterly, of principal market risk factors on an individual basis (for example, interest rates, foreign exchange, equities, credit spreads, and commodity prices) for all material counterparties. Banking organizations should be aware that some counterparties may be material on a consolidated basis, even though they may not be material on an individual legal entity basis.

⁸ Banking organizations should also track concentrations in volatile currencies.

⁹ This analysis is particularly important with repo-style transactions and other forms of SFTs for which the ability of market participants to liquidate large collateral positions may be difficult during periods of market turbulence.

- Assessment of non-directional risks (for example, yield curve exposures and basis risks) from multi-factor stress testing scenarios. Multi-factor stress tests should, at a minimum, aim to address separate scenarios: severe economic or market events; significant decrease in broad market liquidity; and the liquidation of a large financial intermediary of the banking organization, factoring in direct and indirect consequences.
- Consideration, at least quarterly, of stressed exposures resulting from the joint movement of exposures and related counterparty creditworthiness. This should be done at the counterparty-specific and counterparty-group (for example, industry and region) level, and in aggregate for the banking organization. When CVA methodologies are used, banking organizations should ensure that stress testing sufficiently captures additional losses from potential defaults.¹⁰
- Basic stress testing of CVA to assess performance under adverse scenarios, incorporating any hedging mismatches.
- Concurrent stress testing of exposure and non-cash collateral for assessing wrong-way risk.
- Identification and assessment of exposure levels for certain counterparties (for example, sovereigns and municipalities), above which the banking organization may be concerned about willingness to pay.
- Integration of CCR stress tests into firm-wide stress tests.¹¹

5. Credit Valuation Adjustments (CVA)

CVA refers to adjustments to transaction valuation to reflect the counterparty's credit quality. CVA is the fair value adjustment to reflect CCR in valuation of derivatives. As such, CVA is the market value of CCR and provides a market-based framework for understanding and valuing the counterparty credit risk embedded in derivative contracts. CVA may include only the adjustment to reflect the counterparty's credit quality (a one-sided CVA or just CVA), or it may include an adjustment to reflect the banking organization's own credit quality. The latter is a two-sided CVA, or CVA plus a debt valuation adjustment (DVA). For the evaluation of the credit risk due to probability of default of counterparties, a one-sided CVA is typically used. For the evaluation of the value of derivatives transactions with a counterparty or the market risk of derivatives transactions, a two-sided CVA should be used.

Although CVA is not a new concept, its importance has grown over the last few years, partly because of a change in accounting rules that requires banking organizations to recognize the earnings impact of changes in CVA.¹² During the 2007-2009 financial crisis, a large portion of CCR losses were because of CVA losses rather than actual counterparty defaults.¹³ As such, CVA has become more important in risk management, as a mechanism to value, manage, and make appropriate hedging

¹⁰ Exposure testing should include single-factor, multi-factor and material non-directional risks.

¹¹ CCR stress testing should be consistent with overall banking organization-wide stress testing and follow the principles set forth in the "Principles for Sound Stress Testing Practices and Supervision" issued by the Risk Management and Modeling Group of the Basel Committee in May 2009.

¹² Accounting literature pertinent to CVA includes FAS Statement 157, and Accounting Standards Codification (ASC) Topic 820. In addition, other transaction fair value adjustments should be conducted. For example, those involving a banking organization's own credit risk, or differences in funding costs based on whether transactions are collateralized or not.

¹³ Basel Committee on Banking Supervision, "Strengthening the resilience of the banking sector – consultative document," December 2009. <http://bis.org/publ/bcbs164.htm>

decisions, to mitigate banking organizations' exposure to the mark-to-market (MTM) impact of CCR.¹⁴ The following are general standards for CVA measurement and use of CVA for risk management purposes:

- CVA calculations should include all products and counterparties, including margined counterparties.
- The method for incorporating counterparty credit quality into CVA should be reasonable and subject to ongoing evaluation. CVA should reflect the fair value of the counterparty credit risk for OTC derivatives, and inputs should be based on current market prices when possible.
 - Credit spreads should be reflected in the calculation where available, and banking organizations should not overly rely on non-market-based probability of default estimates when calculating CVA.
 - Banking organizations should attempt to map credit quality to name-specific spreads rather than spreads associated with broad credit categories.
 - Any proxy spreads should reasonably capture the idiosyncratic nature of the counterparty and the liquidity profile.
 - The term structure of credit spreads should be reflected in the CVA calculation
- The CVA calculation should incorporate counterparty-specific master netting agreements and margin terms; for example, the CVA calculation should reflect margin thresholds or minimum transfer amounts stated in legal documents.
- Banking organizations should identify the correlation between a counterparty's credit-worthiness and its exposure to the counterparty, and seek to incorporate the correlation into their respective CVA calculation.

Management of CVA

CVA management should be consistent with sound risk management practices for other material mark-to-market risks. These practices should include the following:

- Business units engaged in trades related to CVA management should have independent risk management functions overseeing their activities.
- Systems that produce CVA risk metrics should be subject to the same controls as used for other MTM risks, including independent validation or review of all risk models, including alternative methodologies.¹⁵
- Upon transaction execution, CVA costs should be allocated to the business unit that originates the transaction.
 - As a sound practice, the risk of CVA should be incorporated into the risk-adjusted return calculation of a given business.

¹⁴ An accurate measure of CVA is critical to prudent risk-taking, as part of effectively understanding the risk-reward tradeoff in a given derivatives transaction. The more comprehensively CVA is measured, the more transparent the economics of a given transaction.

¹⁵ Liquidity in credit markets has varied significantly over time. As liquidity conditions change, banking organizations should calculate CVA using methodologies appropriate to the market pricing information available for each counterparty and transaction type.

- CVA cost allocation provides incentive for certain parties to make prudent risk-taking decisions, and motivates risk-takers to support risk mitigation, such as requiring strong collateral terms.
- Banking organizations should measure sensitivities to changes in credit and market risk factors to determine the material drivers of MTM changes. On a regular basis, but no less frequently than quarterly, banking organizations should ensure that CVA MTM changes are sufficiently explained by these risk factors (for example, through profit and loss attribution for sensitivities, and backtesting for value at risk (VaR)).
- Banking organizations hedging CVA MTM should gauge the effectiveness of hedges through measurements of basis risk or other types of mismatches. In this regard, it is particularly important to capture non-linearities, such as the correlation between market and credit risk, and other residual risks that may not be fully offset by hedging.

CVA VaR

Banking organizations with material CVA should measure the risk of associated loss on an ongoing basis. In addition to stress tests of the CVA, banking organizations may develop VaR models that include CVA to measure potential losses. While these models are currently in the early stages of development, they may prove to be effective tools for risk management purposes. An advantage of CVA VaR over more traditional CCR risk measures is that it captures the variability of the CCR exposure, the variability of the counterparty's credit spread, and the dependency between them.

Developing VaR models for CVA is significantly more complicated than developing VaR models for a banking organization's market risk positions. In developing a CVA VaR model, a banking organization should match the percentile and time horizon for the VaR model to those appropriate for the management of this risk, and include all significant risks associated with changes in the CVA. For example, banking organizations may use the same percentile for CVA VaR as they use for market risk VaR (for example, the 95th or 99th percentile). However, the time horizon for CVA VaR may need to be longer than for market risk (for example, one quarter or one year) because of the potentially illiquid nature of CVA. The following are important considerations in developing a CVA VaR model:

- All material counterparties covered by CVA valuation should be included in the VaR model.
- A CVA VaR calculation that keeps the exposure or the counterparty probability of default static is not adequate. It will not only omit the dependence between the two variables, but also the risk arising from the uncertainty of the fixed variable.
- CVA VaR should incorporate all forms of CVA hedging. Banking organizations and examiners should assess the ability of the VaR measure to accurately capture the types of hedging used by the banking organization.

6. Wrong-Way Risk

Wrong-way risk occurs when the exposure to a particular counterparty is positively correlated with the probability of default of the counterparty itself. Specific wrong-way risk arises when the exposure to a particular counterparty is positively correlated with the probability of default of the counterparty itself because of the nature of the transactions with the counterparty. General wrong-way risk arises when the probability of default of counterparties is positively correlated with general market risk factors. Wrong-way risk is an important aspect of CCR that has caused major losses at banking organizations.

Accordingly, a banking organization should have a process to systematically identify, quantify, and control both specific and general wrong-way risk across its OTC derivative and SFT portfolios.¹⁶ To prudently manage wrong-way risk, banking organizations should:

- Maintain policies that formally articulate tolerance limits for both specific and general wrong-way risk, an ongoing wrong-way risk identification process, and the requirements for escalation of wrong-way risk analysis to senior management.
- Maintain policies for identifying, approving, and otherwise managing situations when there is a legal connection between the counterparty and the underlying exposure or the associated collateral.¹⁷ Banking organizations should generally avoid such transactions because of their increased risk.
- Perform wrong-way risk analysis for OTC derivatives, at least at the industry and regional levels.
- Conduct wrong-way risk analysis for SFTs on broad asset classes of securities (for example, government bonds, and corporate bonds).

IV. Systems Infrastructure Considerations

Banking organizations should ensure that systems infrastructure keeps up with changes in the size and complexity of their CCR exposures, and the OTC derivatives market in general. Systems should capture and measure the risk of transactions that may be subject to CCR as a fundamental part of the CCR management framework.

Banking organizations should have strong operational processes across all derivatives markets, consistent with supervisory and industry recommendations.¹⁸ Management should strive for a single comprehensive CCR exposure measurement platform.¹⁹ If not currently possible, banking organizations should minimize the number of system platforms and methodologies, as well as manual adjustments to exposure calculations. When using multiple exposure measurement systems, management should ensure that transactions whose future values are measured by different systems are aggregated conservatively.

To maintain a systems infrastructure that supports adequate CCR management, banking organizations should:

Data Integrity and Reconciliation

- Deploy adequate operational resources to support reconciliations and related analytical and remediation processes.

¹⁶ A standard way of quantifying general wrong-way risk is to design and apply stress scenarios that detect wrong-way risk in the portfolio, record counterparty exposures most affected by the scenarios, and assess whether the creditworthiness of such counterparties is also negatively affected by the scenario.

¹⁷ Examples of this situation are single-name credit derivatives when there is a legal relationship between the counterparty and the reference entity underlying the transaction, and financing transactions when the counterparty pledges an affiliate's security as collateral.

¹⁸ Examples are recommendations made by the Senior Supervisors Group (SSG) and the Counterparty Risk Management Policy Group (CRMPG).

¹⁹ A single platform may in practice contain a number of separate systems and models. These would be considered a cohesive framework if they are operationally stable and accurate in risk estimation, particularly with regard to proper reflection of collateral and netting. A common programming language for these systems facilitates an effective measurement framework.

- Reconcile positions and valuations with counterparties.
 - Large counterparties should perform frequent reconciliations of positions and valuations (daily if appropriate).²⁰
 - For smaller portfolios with non-dealer counterparties where there are infrequent trades, large dealers should ensure the data integrity of trade and collateral information on a regular (but not necessarily daily) basis, reconciling their portfolios according to prevailing industry standards.
- Reconcile exposure data in CCR systems with the official books and records of the financial institution.
- Maintain controls around obligor names at the point of trade entry, as well as reviews of warehoused credit data, to ensure that all exposures to an obligor are captured under the proper name and can be aggregated accordingly.
- Maintain quality control over transfer of transaction information between trade capture systems and exposure measurement systems.
- Harmonize netting and collateral data across systems to ensure accurate collateral calls and reflection of collateral in all internal systems. Banking organizations should maintain a robust reconciliation process, to ensure that internal systems have terms that are consistent with those formally documented in agreements and credit files.
- Remediate promptly any systems weaknesses that raise questions about the appropriateness of the limits structure. If there are a significant number of limit excesses, this may be a symptom of system weaknesses, which should be identified and promptly remediated.
- Eliminate or minimize backlogs of unconfirmed trades.

Automation and Tracking

- Automate legal and operational information, such as netting and collateral terms. Banking organizations should be able to adjust exposure measurements, taking into account the enforceability of legal agreements.
- Automate processes to track and manage legal documentation, especially when there is a large volume of legal agreements.
- Increase automation of margin processes²¹ and continue efforts to expand automation of OTC derivatives post-trade processing. This should include automation of trade confirmations, to reduce the lag between trade execution and legal execution.
- Maintain systems that track and monitor changes in credit terms and have triggers for relevant factors, such as net asset value, credit rating, and cross-default.
- Maintain default monitoring processes and systems.

²⁰ Large dealer counterparties should perform portfolio reconciliation on a daily basis, as set forth in relevant industry standards, such as the ISDA "Collateralised Portfolio Reconciliation Best Operational Practices" (January, 2010).

²¹ Banking organizations should consider the recommendations in the "Standards of Electronic Exchange of OTC Derivative Margin Calls," issued by ISDA Collateral Committee on November 12, 2009.

Add-Ons

For large derivatives market participants, certain trades may be difficult to capture in exposure measurement systems, and are therefore modeled outside of the main measurement system(s). The resulting exposures, commonly referred to as add-ons, are then added to the portfolio potential exposure measure. In limited cases, the use of conservative add-on methodologies may be suitable, if the central system cannot reflect the risk of complex financial products. However, overreliance on add-on methodologies may distort exposure measures. To mitigate measurement distortions, banking organizations should:

- Review the use of add-on methodologies at least annually. Current or planned significant trading activity should trigger efforts to develop appropriate modeling and systems, prior to or concurrent with these growth plans.
- Establish growth limits for products with material activities that continue to rely on add-ons. Once systems are improved to meet a generally accepted industry standard of trade capture, these limits can be removed.

V. Risk Management

I. Counterparty Limits

Meaningful limits on exposures are an integral part of a CCR management framework, and these limits should be formalized in CCR policies and procedures. For limits to be effective, a banking organization should incorporate these limits into an exposure monitoring system independent of relevant business lines. It should perform ongoing monitoring of exposures against such limits, to ascertain conformance with these limits, and have adequate risk controls that require action to mitigate limit exceptions. Review of exceptions should include escalation to a managerial level that is commensurate with the size of the excess or nature of mitigation required. A sound limit system should include:

- Establishment and regular review of counterparty limits by a designated committee. Further, a banking organization should have a process to escalate limit approvals to higher levels of authority, depending on the size of counterparty exposures, credit quality, and tenor.
- Establishment of potential future exposure limits, as well as limits based on other metrics. It is a sound practice to limit the market risk arising through CVA, with a limit on CVA or CVA VaR. However, such limits do not eliminate the need to limit counterparty credit exposure with a measure of potential future exposure.
- Individual CCR limits should be based on peak exposures rather than expected exposures.
 - Peak exposures are appropriate for individual counterparty limit monitoring purposes because they represent the risk tolerance for exposure to a single counterparty.
 - Expected exposure is an appropriate measure for aggregating exposures across counterparties in a portfolio credit model, or for use within CVA.
- Consideration of risk factors such as the credit quality of the counterparty, tenor of the transactions, and the liquidity of the positions or hedges.
- Sufficiently automated monitoring processes to provide updated exposure measures at least daily.

- Monitoring of intra-day trading activity for conformance with exposure limits and exception policies. Such controls and procedures can include intra-day limit monitoring, trade procedures and systems that assess a trade's impact on limit utilization prior to execution, limit warning triggers at specific utilization levels, and restrictions by credit risk management on allocation of full limits to the business lines.

2. Margin Policies and Practices

Collateral is a fundamental CCR mitigant. Indeed, significant stress events have highlighted the importance of sound margining practices. With this in mind, banking organizations should ensure that they have adequate margin and collateral "haircut"²² guidelines for all products with CCR.²³ Accordingly, banking organizations should:

- Maintain CCR policies that address margin practices and collateral terms, including, but not limited to:
 - Processes to establish and periodically review minimum haircuts.
 - Processes to evaluate the volatility and liquidity of the underlying collateral. Banks should strive to ensure that haircuts on collateral do not decline during periods of low volatility.
 - Controls to mitigate the potential for a weakening of credit standards from competitive pressure.
- Set guidelines for cross-product margining. Banking organizations offer cross-product margining arrangements to clients to reduce required margin amounts. Guidelines to control risks associated with cross-product margining would include limiting the set of eligible transactions to liquid exposures, and having procedures to resolve margin disputes.
- Maintain collateral management policies and procedures to control, monitor and report:
 - The extent to which collateral agreements expose a banking organization to collateral risks, such as the volatility and liquidity of the securities held as collateral.
 - Concentrations of less liquid or less marketable collateral asset classes.
 - The risks of re-hypothecation or other reinvestment of collateral (both cash and noncash) received from counterparties, including the potential liquidity shortfalls resulting from the re-use of such collateral.
 - The CCR associated with the decision whether to require posted margin to be segregated. Organizations should perform a legal analysis concerning the risks of agreeing to allow cash to be commingled with a counterparty's own cash and of allowing a counterparty to re-hypothecate securities pledged as margin.
- Maintain policies and processes for monitoring margin agreements involving third-party custodians. As with bilateral counterparties, banking organizations should:
 - Identify the location of the account to which collateral is posted, or from which it is received.

²² A haircut is the difference between the market value of an asset being used as collateral for a loan and the amount of money that a lender will advance against the asset.

²³ See guidelines issued by ISDA, SIFMA and MFA, including the "Market Review of OTC Derivative Bilateral Collateralization Practices (Release 2.0)," March 2010, and "Best Practices for Collateral Management," June 30, 2010.

- Obtain periodic account statements or other assurances that confirm the custodian is holding the collateral in conformance with the agreement.
- Understand the characteristics of the account where the collateral is held (for example, whether it is in a segregated account), and the legal rights of the counterparty or any third-party custodian regarding this collateral.

3. Validation of Models and Systems:

A banking organization should validate its CCR models initially and on an ongoing basis. Validation of models should include: an evaluation of the conceptual soundness and developmental evidence supporting a given model; an ongoing monitoring process that includes verification of processes and benchmarking; and an outcomes-analysis process that includes backtesting. Validation should identify key assumptions and potential limitations, and it should assess their possible impact on risk metrics. All components of models should be subject to validation along with their combination in the CCR system.

Evaluating the conceptual soundness involves assessing the quality of the design and construction of the CCR models and systems, including documentation and empirical evidence that supports the theory, data, and methods used.

Ongoing monitoring confirms that CCR systems continue to perform as intended. This generally involves process verification, an assessment of model data integrity and systems operation, and benchmarking to assess the quality of a given model. Benchmarking is a valuable diagnostic tool in identifying potential weaknesses. Specifically, it is the comparison of a banking organization's CCR model estimates with those derived using alternative data, methods, or techniques. Benchmarking can also be applied to particular CCR model components, such as parameter estimation methods or pricing models. Management should investigate the source of any differences in output, and determine whether benchmarking gaps indicate weakness in the banking organization's models.

Outcomes analysis compares model outputs to actual results during a sample period not used in model development. This is generally accomplished using backtesting. It should be applied to components of CCR models (for example the risk factor distribution and pricing model), the risk measures, and projected exposures. While there are limitations to backtesting, especially for testing the longer time horizon predictions of a given CCR model, it is an essential component of model validation. Banking organizations should have a process for the resolution of observed model deficiencies detected by backtesting. This should include further investigation to determine the problem, and appropriate course of action, including changing a given CCR model.

If the validation of CCR models and infrastructure systems is not performed by staff that is independent from the developers of the models, then an independent review should be conducted by technically competent personnel to ensure the adequacy and effectiveness of the validation. The scope of the independent review should include: validation procedures for all components, the role of relevant parties, and documentation of the model and validation processes. This review should document its results, what action was taken to resolve findings, and its relative timeliness.

Senior management should be notified of validation and review results and should take appropriate and timely corrective actions to address deficiencies. The board should be apprised of summary results, especially unresolved deficiencies. In support of validation activities, internal audit should review and test models and systems validation, and overall systems infrastructure as part of their regular audit cycle.

For more details on validation, please see Appendix B.

4. Close-Out Policies and Practices

Banking organizations should have the ability to effectively manage counterparties in distress, including execution of a close-out. Policies and procedures outlining sound practices for managing a close-out should include:

- Requirements for hypothetical close-out simulations at least once every two years for one of the banking organization's most complex counterparties.
- Standards for the speed and accuracy with which the banking organization can compile comprehensive counterparty exposure data and net cash outflows. Operational capacity to aggregate exposures within four hours is a reasonable standard.
- The sequence of critical tasks, and decision-making responsibilities, needed to execute a close-out.
- Requirements for periodic review of documentation related to counterparty terminations, and confirmation that appropriate and current agreements that specify the definition of events of default and the termination methodology that will be used are in place.
 - Banking organizations should take corrective action if documents are not current, active and enforceable.
 - Management should document their decision to trade with counterparties that are either unwilling or unable to maintain appropriate and current documentation.
- Established closeout methodologies that are practical to implement, particularly with large and potentially illiquid portfolios. Dealers should consider using the "close-out amount" approach for early termination upon default in inter-dealer relationships.²⁴
- A requirement that the banking organization transmit immediate instructions to its appropriate transfer agent(s) to deactivate collateral transfers, contractual payments, or other automated transfers contained in "standard settlement instructions" for counterparties or prime brokers that have defaulted on the contract or for counterparties or prime brokers that have declared bankruptcy.

VI. Managing Central Counterparty Exposures

A central credit counterparty (CCP) facilitates trades between counterparties in one or more financial markets by either guaranteeing trades or novating contracts, and typically requires all participants to be fully collateralized on a daily basis. The CCP thus effectively bears most of the counterparty credit risk in transactions, becoming the buyer for every seller and the seller to every buyer. Well-regulated and soundly-managed CCPs can be an important means of reducing bilateral counterparty exposure in the OTC derivatives market. However, CCPs also concentrate risk within a single entity. Therefore, it is important that banking organizations centrally clear through regulated CCPs with sound risk management processes, and strong financial resources sufficient to meet their obligations under extreme stress conditions.

²⁴ The close-out amount approach is defined in CRMPG III, Containing Systemic Risk: Road to Reform (August 6, 2008), pp. 122-125. Also, ISDA has published a closeout amount protocol to aid in the adoption of the close-out amount approach.

To manage CCP exposures, banking organizations should regularly, but no less frequently than annually, review the individual CCPs to which they have exposures. This review should include performing and documenting due diligence on each CCP, applying current supervisory or industry standards²⁵ (and any subsequent standards) as a baseline to assess the CCP's risk management practices.

- For each CCP, an evaluation of its risk management framework should at a minimum include membership requirements, guarantee fund contributions, margining practices, default-sharing protocols, and limits of liability.
- Banking organizations should also consider the soundness of the CCP's policies and procedures, including procedures for handling the default of a clearing member, obligations at post-default auctions, and post-default assignment of positions.
- Banking organizations should also maintain compliance with applicable regulatory requirements, such as ensuring contingent loss exposure remains within a banking organization's legal lending limit.

VII. Legal and Operational Risk Management

Banking organizations should ensure proper control of, and access to, legal documentation and agreements. In addition, it is important that systems used to measure CCR incorporate accurate legal terms and provisions. The accessibility and accuracy of legal terms is particularly critical in close-outs, when there is limited time to review the collateral and netting agreements. Accordingly, banking organizations should:

- Have a formal process for negotiating legal agreements. As a best practice, the process would include approval steps and responsibilities of applicable departments.
- At least annually, conduct a review of the legal enforceability of collateral and netting agreements for all relevant jurisdictions.
- Maintain policies on when it is acceptable to trade without a master agreement,²⁶ using metrics such as trading volume or the counterparty's risk profile.
 - Trading without a master agreement may be acceptable in cases of minimal volume or when trading in jurisdictions where master agreements are unenforceable. As applicable, policies should outline required actions, to undertake and monitor transactions without an executed master agreement.
- Use commonly recognized dispute resolution procedures.²⁷

²⁵ For instance, "Recommendations for Central Counterparties," a consultative report issued by the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions under the auspices of the Bank for International Settlements (March 2004).

²⁶ The capital rules in the United States refer to master agreements. These include: The Federal Reserve's "Risk-Based Capital Standards: Advanced Capital Adequacy Framework — Basel II", 12 CFR 208; Appendix F, and 12 CFR 225; Appendix G." For the FDIC, it is 12 CFR 325, Appendix D. For the OCC, it is 12 CFR Part 3, Appendix C. For the OTS, it is 12 CFR Parts 559, 560, 563, and 567.

²⁷ An example of such procedures would be the ISDA "2009 Dispute Resolution Protocol" (September 2009).

- Banking organizations should seek to resolve collateral disputes within recommended timeframes.
- Senior management should receive reports listing material and aged disputes, as these pose significant risk.
- Include netting of positions in risk management systems, only if there is a written legal review (either internally or externally) that expresses a high level of confidence that netting agreements are legally enforceable.
- Maintain ongoing participation in both bilateral and multilateral portfolio compression efforts. Where feasible, banking organizations are encouraged to elect compression tolerances (such as post-termination factor sensitivity changes and cash payments) that allow the widest possible portfolio of trades to be terminated.
- Adopt and implement appropriate novation protocols.²⁸

1. Legal Risk Arising from Counterparty Appropriateness²⁹

While a counterparty's ability to pay should be evaluated when assessing credit risk, credit losses can also occur when a counterparty is unwilling to pay, which most commonly occurs when a counterparty questions the appropriateness of a contract. These types of disputes pose not only risk of a direct credit loss, but also risk of litigation costs and/or reputational damage. Banking organizations should maintain policies and procedures to assess client and deal appropriateness. In addition, banking organizations should:

- Conduct initial and ongoing due diligence, evaluating whether a client is able to understand and utilize transactions with CCR as part of assessing the client's sophistication, investment objectives, and financial condition.
 - For example, although some clients may be sophisticated enough to enter into a standardized swap, they may lack the sophistication to fully analyze the risks of a complex OTC deal.
 - Banking organizations should be particularly careful to assess appropriateness of complex, long-dated, off-market, illiquid, or other transactions with higher reputational risk.
- Include appropriateness assessments in the new product approval process. Such assessments should determine the types of counterparties acceptable for a new product, and what level of counterparty sophistication is required for any given product.
- Maintain disclosure policies for OTC derivative and other complex transactions, to ensure that risks are accurately and completely communicated to counterparties.
- Maintain guidelines for determination of acceptable counterparties for complex derivatives transactions.

²⁸ An example would be the ISDA novation protocol.

²⁹ For guidance on counterparty appropriateness, see the Federal Reserve's "Trading and Capital Markets Activity Manual," section 2070, pp. 6-7, and the "Interagency Statement on Sound Practices Concerning Elevated Risk Complex Structured Finance Activities" (January 11, 2007).

VIII. Conclusion

For relevant banking organizations, CCR management should be an integral component of the risk management framework. When considering the applicability of specific guidelines and best practices set forth in this guidance, a banking organization's senior management and supervisors should consider the size and complexity of its securities and trading activities. Banking organizations should comprehensively evaluate existing practices against the standards in this guidance and implement remedial action as appropriate. A banking organization's CCR exposure levels and the effectiveness of its CCR management are important factors for a supervisor to consider when evaluating a banking organization's overall management, risk management and credit and market risk profile.

Appendix A

GLOSSARY

This glossary describes commonly used CCR metrics. As discussed above, banking organizations should employ a suite of metrics commensurate with the size, complexity, liquidity, and risk profile of the organization's CCR portfolio. Major broker - dealer banking organizations should employ the full range of risk measurement metrics to enable a comprehensive understanding of CCR and how it changes in varying environments. Banking organizations of lesser size and complexity should carefully consider which of these metrics they need to track as part of their exposure risk management processes. At a minimum, all banking organizations should calculate current exposure and stress test their CCR exposures. Definitions marked with an asterisk are from the Bank for International Settlements.

Exposure Metrics:

Current Exposure

Definition: Current exposure is the larger of zero, or the market value of a transaction or a portfolio of transactions within a netting set with a counterparty that would be lost upon the default of the counterparty, assuming no recovery on the value of those transactions in bankruptcy. Current exposure is often also called replacement cost. Current exposure may be reported gross or net of collateral.

Purpose: Allows banking organizations to assess their CCR exposure at any given time, that is, the amount currently at risk.

Jump-to-Default (JTD) Exposure

Definition: JTD exposure is the change in the value of counterparty transactions upon the default of a reference name in CDS positions.

Purpose: Allows banking organizations to assess the risk of a sudden, unanticipated default before the market can adjust.

Expected Exposure

Definition: Expected exposure is calculated as average exposure to a counterparty at a date in the future.

Purpose: This is often an intermediate calculation for expected positive exposure or CVA. It can also be used as a measure of exposure at a common time in the future.

Expected Positive Exposure (EPE)

Definition: EPE is the weighted average over time of expected exposures when the weights are the proportion that an individual expected exposure represents of the entire time interval.*

Purpose: Expected positive exposure is an appropriate measure of CCR exposure when measured in a portfolio credit risk model.

Peak Exposure

Definition: Peak exposure is a high percentile (typically 95 percent or 99 percent) of the distribution of exposures at any particular future date before the maturity date of the longest transaction in the netting set. A peak exposure value is typically generated for many future dates up until the longest maturity date of transactions in the netting set.*

Purpose: Allows banking organizations to estimate their maximum potential exposure at a specified future date, or over a given time horizon, with a high level of confidence. For collateralized counterparties, this metric should be based on a realistic close-out period, considering both the size and liquidity of the portfolio. Banking organizations should consider peak potential exposure when setting counterparty credit limits.

Expected Shortfall Exposure

Definition: Expected shortfall exposure is similar to peak exposure, but is the expected exposure conditional on the exposure being greater than some specified peak percentile.

Purpose: For transactions with very low probability of high exposure, the expected shortfall accounts for large losses that may be associated with transactions with high tail risk.

Sensitivity to Market Risk Factors

Definition: Sensitivity to market risk factors, is the change in exposure because of a given market risk factor change (for example, DV01).

Purpose: Provides information on the key drivers of exposure to specific counterparties and on hedging.

Stressed Exposure

Definition: Stressed exposure is a forward-looking measure of exposure based on pre-defined market factor movements (non-statistically generated). These can include single-factor market shocks, historical scenarios, and hypothetical scenarios.

Purpose: Allows banking organizations to consider their counterparty exposure under a severe or stressed scenario. This serves as a supplemental view of potential exposure, and provides banking organizations with additional information on risk drivers. It is best practice to compare stressed exposure to counterparty credit limits.

CVA Related Metrics:

Credit Valuation Adjustment (CVA)

Definition: The credit valuation adjustment is an adjustment to the mid-market valuation (average of the bid and asked price) of the portfolio of trades with a counterparty. This adjustment reflects the market value of the credit risk resulting from any failure to perform on contractual agreements with a counterparty. This adjustment may reflect the market value of the credit risk of the counterparty or the market value of the credit risk of both the banking organization and the counterparty.*

Purpose: CVA is a measure of the market value of CCR, incorporating both counterparty creditworthiness and the variability of exposure.

CVA VaR

Definition: CVA VaR is a measure of the variability of the CVA mark-to-market value and is based on the projected distributions of both exposures and counterparty creditworthiness.

Purpose: Provides banking organizations with an estimate of the potential CVA mark-to-market loss, at a certain confidence interval and over a given time horizon.

CVA Factor Sensitivities

Definition: CVA factor sensitivities is the mark-to-market change in CVA resulting from a given market risk factor change (for example, CR01).

Purpose: Allows banking organizations to assess and hedge the market value of the credit or market risks to single names and portfolios and permits banking organizations to monitor excessive buildups in counterparty concentrations.

Stressed CVA

Definition: Stressed CVA is a forward-looking measure of CVA mark-to-market value based on pre-defined credit or market factor movements (non-statistically generated). These can include single market factor shocks, historical scenarios, and hypothetical scenarios.

Purpose: Serves as an informational tool, and allows banking organizations to assess the sensitivity of their CVA to a potential mark-to-market loss under defined scenarios.

Appendix B:
DETAIL ON MODEL VALIDATION AND SYSTEMS EVALUATION

A banking organization should validate its CCR models, initially and on an ongoing basis. Validation should include three components: an evaluation of the conceptual soundness of relevant models (including developmental evidence); an ongoing monitoring process that includes verification of processes and benchmarking; and an outcomes-analysis process that includes backtesting. The validation should either be independent, or subject to independent review.

Validation is the set of activities designed to give the greatest possible assurances of CCR models' accuracy and systems' integrity. Validation should also identify key assumptions and potential limitations, and assess their possible impact on risk metrics. CCR models have several components:

- Statistical models to estimate parameters, including the volatility of risk factors and their correlations;
- Simulation models to convert those parameters into future distributions of risk factors;
- Pricing models that estimate value in simulated scenarios; and
- Calculations that summarize the simulation results into various risk metrics.

All components of each model should be subject to validation, along with analysis of their interaction in the CCR system. Validation should be performed initially as a model first goes into production. Ongoing validation is a means of addressing situations where models have known weaknesses and ensuring that changes in markets, products, or counterparties do not create new weaknesses. Senior management should be notified of the validation results and should take corrective actions in a timely manner when appropriate.

A banking organization's validation process should be independent of the CCR model and systems development, implementation, and operation. Alternately, the validation should be subject to independent review, whereby the individuals who perform the review are not biased in their assessment because of involvement in the development, implementation, or operation of the processes or products. Individuals performing the reviews should possess the requisite technical skills and expertise to provide critical analysis, effective challenge, and appropriate recommendations. The extent of such reviews should be fully documented, sufficiently thorough to cover all significant model elements, and include additional testing of models or systems as appropriate. In addition, reviewers should have the authority to effectively challenge developers and model users, elevate concerns or findings as necessary, and either have issues addressed in a prompt and substantial manner or reject a model for use by the banking organization.

Conceptual Soundness and Developmental Evidence

The first component of validation is evaluating conceptual soundness, which involves assessing the quality of the design and construction of CCR models. The evaluation of conceptual soundness includes documentation and empirical evidence supporting the theory, data, and methods used. The documentation should also identify key assumptions and potential limitations and assess their possible impact. A comparison to industry practice should be done to identify areas where substantial and warranted improvements can be made. All model components are subject to evaluation, including simplifying assumptions, parameter calibrations, risk-factor diffusion processes, pricing models, and risk metrics. Developmental evidence should be reviewed whenever the banking organization makes material changes in CCR models. Evaluating conceptual soundness includes independent evaluation of

whether a model is appropriate for its purpose, and whether all underlying assumptions, limitations, and shortcomings have been identified and their potential impact assessed.

Ongoing Monitoring, Process Verification and Benchmarking

The second component of model validation is ongoing monitoring to confirm that the models were implemented appropriately and continue to perform as intended. This involves process verification, an assessment of models, and benchmarking to assess the quality of the model. Deficiencies uncovered through these activities should be remediated promptly.

Process verification includes evaluating data integrity and operational performance of the systems supporting CCR measurement and reporting. This should be performed on an ongoing basis and includes:

- The completeness and accuracy of the transaction and counterparty data flowing through the counterparty exposure systems.
- Reliance on up-to-date reviews of the legal enforceability of contracts and master netting agreements that govern the use of netting and collateral in systems measuring net exposures, and the accuracy of their representations in the banking organization's systems.
- The integrity of the market data used within the banking organization's models, both as current values for risk factors and as sources for parameter calibrations.
- The operational performance of the banking organization's counterparty exposure calculation systems, including the timeliness of the batch-run calculations, the consistent integration of data coming from different internal or external sources, and the synchronization of exposure, collateral management and finance systems.

"Benchmarking" means comparing a banking organization's CCR measures with those derived using alternative data, methods, or techniques. It can also be applied to particular model components, such as parameter estimation methods or pricing models. It is an important complement to backtesting and is a valuable diagnostic tool in identifying potential weaknesses. Differences between the model and the benchmark do not necessarily indicate that the model is in error because the benchmark itself is an alternative prediction. It is important that a banking organization use appropriate benchmarks, or the exercise will be compromised. As part of the benchmarking exercise, the banking organization should investigate the source of the differences and whether the extent of the differences is appropriate.

Outcomes Analysis Including Backtesting

The third component of validation is outcomes analysis, which is the comparison of model outputs to actual results during a sample period not used in model development. Backtesting is one form of out-of-sample testing. Backtesting should be applied to components of a CCR model, for example the risk factor distribution and pricing model, as well as the risk measures and projected exposures. Outcomes analysis includes an independent evaluation of the design and results of backtesting to determine whether all material risk factors are captured and to assess the accuracy of the diffusion of risk factors and the projection of exposures. While there are limitations to backtesting, especially for testing the longer horizon predictions of a CCR model, banking organizations should incorporate it as an essential component of model validation.

Typical examples of CCR models that require backtesting are expected exposure, peak exposure, and CVA VaR models. Backtesting of models used for measurement of CCR is substantially different than backtesting VaR models for market risk. Notably, CCR models are applied to each counterparty facing the banking organization, rather than an aggregate portfolio. Furthermore, CCR models should project the distribution over multiple dates and over long time horizons for each counterparty. These complications make the interpretation of CCR backtesting results more difficult than that for market risk. Because backtesting is critical to providing feedback on the accuracy of CCR models, it is particularly important that banking organizations exert considerable effort to ensure that backtesting provides effective feedback on the accuracy of these models.

Key elements of backtesting include the following activities:

- Back-testing programs should be designed to evaluate the effectiveness of the models for typical counterparties, key risk factors, key correlations and pricing models. Backtesting results should be evaluated for reasonableness as well as for statistical significance. This may serve as a useful check for programming errors, or cases in which models have been incorrectly calibrated.
- Backtesting should be performed over different time horizons. For instance, the inclusion of mean reversion parameters or similar time varying features of a model can cause a model to perform adequately over one time horizon, but perform very differently over a different time horizon. A typical large dealer should, at a minimum, perform backtesting over one day, one week, two weeks, one month and every quarter out to a year. Shorter time periods may be appropriate for transactions under a collateral agreement when variation margin is exchanged frequently, even daily, or for portfolios that contain transactions that expire or mature in a short timeframe.
- Backtesting should be conducted on both real counterparty portfolios and hypothetical portfolios. Backtesting on fixed hypothetical portfolios provides the opportunity to tailor backtesting portfolios to identify whether particular risk factors or correlations are modeled correctly. In addition, the use of hypothetical portfolios is an effective way to meaningfully test the predictive abilities of the counterparty exposure models over long time horizons. Banking organizations should have criteria for their hypothetical portfolios. The use of real counterparty portfolios evaluates whether the models perform on actual counterparty exposures, taking into account portfolio changes over time.

It may be appropriate to use back-testing methods that compare forecast distributions of exposures with actual distributions. Some CCR measures depend on the whole distribution of future exposures rather than a single exposure percentile (for example, EE and EPE). For this reason, sole reliance on backtesting methods that count the number of times an exposure exceeds a unique percentile threshold may not be appropriate.

Exception counting remains useful, especially for evaluating peak or percentile measures of CCR, but these measures will not provide sufficient insight for expected exposure measures. Hence, banking organizations should test the entire distribution of future exposure estimates and not just a single percentile prediction.

Banking organizations should have policies and procedures in place that describe when backtesting results will generate an investigation into the source of observed backtesting deficiencies, and when model changes should be initiated as a result of backtesting.

Documentation

Adequate validation and review are contingent on complete documentation of all material aspects of CCR models and systems. This should include all model components and parameter estimation or calibration processes. Documentation should also include the rationale for all material assumptions underpinning its chosen analytical frameworks, including the choice of inputs; distributional assumptions; and weighting of quantitative and qualitative elements. Any subsequent changes to these assumptions should also be documented and justified.

The validation or independent review should be fully documented. Specifically, this would include results, the scope of work, conclusions and recommendations, and responses to those recommendations. This includes documentation of each of the three components of model validation, discussed above. Complete documentation should be done initially and updated over time to reflect ongoing changes and model performance. Ability of the validation (or review) to provide effective challenge should also be documented.

Internal Audit

A banking organization should have an internal audit function, independent of business-line management, which assesses the effectiveness of the model validation process. This assessment should ensure the following: proper validation procedures were followed for all components of the CCR model and infrastructure systems; required independence was maintained by validators or reviewers; documentation was adequate for the model and validation processes; and results of validation procedures are elevated, with timely responses to findings. Internal audit should also evaluate systems and operations that support CCR. While internal audit may not have the same level of expertise as quantitative experts involved in the development and validation of the model, they are particularly well suited to evaluate process verification procedures. If any validation or review work is out-sourced, internal audit should evaluate whether that work meets the standards discussed in this section.

