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January 23, 2007

Ms. Jennifer J. Johnson
Secretary
Board of Governors of the Federal Reserve System
20th Street and Constitution Avenue, N.W.
Washington, DC 20551

Re: Docket Number R-1265

Office of Comptroller of the Currency
250 E Street, S.W.
Mail Stop 1-5
Washington, DC 20219

Re: Docket Number 06-10

Mr. Robert E. Feldman
Executive Secretary
Attention: Comments
Federal Deposit Insurance Corporation
550 17th Street, N.W.
Washington, DC 20429

Re: RIN 3064-AD10

Regulation Comments
Chief Counsel's Office
Office of Thrift Supervision
1700 G Street, N.W.
Washington, DC 20552
Attention: No. 2006-34

Re: Docket Number 2006-34

Dear Sir or Madam,

Citigroup remains supportive of the objectives of the market risk capital rules and welcomes this opportunity to comment on the enhancements to these rules as proposed by the Agencies in their joint notice of proposed rulemaking issued on September 26, 2006.

Our detailed response to this NPR, which aims to revise the market risk capital rules to enhance its risk sensitivity and to introduce requirements for public disclosure of certain qualitative and quantitative information about the market risk of a bank or a bank holding company, is set out in the annex to this letter.

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Overall our key comments are that:

a) The rules should be based on broad principles as was the case for the initial market risk rules rather than prescribed detailed rules as is proposed with these amendments.
b) We oppose the imposition of a broad split of the trading portfolio into "covered" and "non-covered" positions. So long as a bank has a complete, validated process for calculating VAR and has built a robust calculation of incremental default risk by the required deadline, there is no need for the proposed bifurcation. All positions in trading portfolios, with the exception of economic hedges of banking book risk, should be covered by the market risk rules for calculating RWA.
c) The definition of the benchmark, against which the affects of Basel II are measured, should be the RWA calculated by the current market and credit risk rules. The benchmark should not be defined to include the proposed rules of the Market Risk NPR.
d) For your immediate attention, we would request that there should be no bifurcation of implementation dates for the final rules for market risk and those for the credit and operational risk proposed in the current NPR on this topic. They should all be implemented on January 1, 2009.

We have commented in a separate letter on the market risk reporting NPR.

We appreciate the importance of continuing to enhance the existing capital rules and welcome the open approach for dialogue that the Agencies have encouraged as a part of this process. We trust that the US Agencies will be receptive to the carefully thought-out comments that are being suggested here.

Yours sincerely,

David C Bushnell

DETAILED COMMENTS on MARKET RISK NPR issued on September 25, 2006

General Issues

Citigroup has three general criticisms of the Market Risk NPR. Two concern the breakage between the Market Risk NPR and the Basel II Accord (and its international implementation). The third concerns the proposed bifurcation of the trading book into "covered" and "non-covered" positions.

Although the proposed bifurcation of the trading book was incorporated into the Basel II Accord as a result of the July, 2005, Basel/IOSCO "Trading Book Review"[1], we have taken advantage of the offer and opportunity to comment on it. In contrast to the credit and operational risk features of the Basel II Accord, the market risk section ("Strand 3") of the Trading Book Review was adopted with only a very short time for industry comment. Since its adoption we have had more time to reflect on its justification and likely consequences.

- **Principles vs. Rules for calculation of VAR and Incremental Default Risk**

  One of the best features of the original Market Risk Amendment to the Basel Accord was its focus on general principles and its specification of general parametric requirements for the calculation of VAR. In discussion with the industry, the drafters of the original Market Risk Amendment recognized that the method for modeling and calculating VAR was evolving. They recognized that even if, on any given date, there had been agreement on what constituted industry "best practice", the details of the "best practice" methodology should not be frozen into prescribed regulatory rules because of the evolving nature of the VAR methodology and the evolving characteristics of the instruments in trading portfolios.

  In contrast to the broad principles articulated in the original Market Risk Amendment the Market Risk NPR is more prescriptive in several ways:

  - In contrast to the original Market Risk Amendment, the Market Risk NPR bifurcates the trading book into the positions that are covered by the market risk rules and the positions subject to banking book rules.
  - The rules for what is "covered" and "non-covered" are vaguely formulated and open to subjective, inconsistent interpretation by firms and supervisors. As we comment again below, if the Market Risk NPR was more principles based it would not have an extensive set of requirements that needed clarification.
  - There is a requirement for firms to create an excessive amount of documentation about each trading portfolio that would serve no function other than regulatory compliance.
  - There is prescriptiveness with regard to the calculation of the incremental default risk.
  - The Market Risk NPR asks some enumerated questions regarding: a) proposed additional requirements for securities with prepayment risk and b) a proposal to include specific risk for commodities and foreign exchange positions. We do not think either proposal makes economic sense.

  The Market Risk NPR correctly emphasizes the importance of a) the completeness and comprehensive of the VAR calculation, b) its validation, and c) the importance of developing and implementing a robust calculation of incremental default risk which appropriately takes liquidity risk into account.

  The fundamental point is that, so long as a firm is accurately capturing and appropriately simulating the market risk of all of its trading portfolios the added prescriptiveness described above adds no value at substantial incremental cost.

[1] "The Application of Basel II to Trading Activities and the Treatment of Double Default Effects", Basel / IOSCO Working Group, July 2005. In particular, the changes in the market trading risk rules are contained in "Strand 3" of the July 2005 document.

- **Trading Book/Banking Book Boundary**

The market risk NPR proposes prescriptive rules which bifurcates the trading book into those positions that are covered by the proposed market risk rules and those positions that would have their risk weighted assets (RWA) calculated by banking book rules (e.g. rules for equity investments or securitization). This bifurcation could create a material breakage between the accounting and regulatory classification and treatment of positions. The magnitude of the breakage will depend on each bank's particular trading strategy. In contrast, the original Market Risk Amendment required all positions in the trading book to be captured by and included in the measurement of VAR.

We believe the proposed bifurcation is unnecessary so long as a bank a) accurately and completely captures its market risk, b) appropriately simulates the potential loss of market value and c) builds and implements a robust calculation of incremental default risk which appropriately takes into account the liquidity horizon of each position. If these conditions are met a bank will have a prudent measure of market risk. Once it has that measurement there is no need to split the trading book into "covered' and "non-covered" positions.

Let us now list other material problems with the proposed bifurcation, in addition to its not being necessary:

- The proposed rules create a material breakage between a) how a bank would categorize, measure, manage and internally report its market risk by and for its own business standards and b) how it would be required to categorize, measure and report its market risk to meet regulatory rules. All else held constant, the larger and more complex the trading portfolio, the more likely would be the breakage in classification.
- Thus the proposed bifurcation of the trading book will also increase the breakage between how a bank would calculate economic capital and how it would be required to calculate RWA for trading risk (given the relationship that RWA is equal to the Basel measure of economic risk multiplied by 12.5). An explicit goal of Basel II was to increase the convergence between economic capital and RWA. The proposed bifurcation of the trading book into "covered" and "non-covered" positions would achieve the opposite end.
- The proposed bifurcation of the trading book would impose on banks the additional cost of building and maintaining two parallel processes for classifying transactions and thus for calculating and reporting risk.
- While the Market Risk NPR mandates a far more extensive set of requirements for classification and documentation than the current Market Risk Amendment, it is actually quite vague in a number of areas as to the meaning of many of these new requirements, and in some cases the NPR is completely void of practical guidance. If the Market Risk NPR were more principles based it would not have an extensive set of requirements that needed clarification.
- The proposed bifurcation of the trading book will also create a breakage between GAAP and regulatory classification, which will create reconciliation and control difficulties.
- The proposed rules create a conflict with other US regulations governing the classification of trading book assets. For example:
  - US regulations prohibit bank legal vehicles from purchasing non-investment grade or distressed debt. Any such purchases by a financial service holding company, whether for trading or investment, must be held in a broker/dealer legal vehicle.
  - However, SEC rules require all such positions in the broker/dealer legal vehicle of a bank to be marked to market.
  - In contrast, the NPR would exclude a subset of the marked-to-market trading positions in the broker/dealer from the calculation of RWA for market risk. Those newly defined non-covered positions would be subjected instead to banking book rules, e.g. a) equity investments or b) securitization.
- Analysts and investors want to know the VAR of the positions in the trading book as a useful measure of the potential earnings volatility of the trading book. Therefore to provide analysts and investors with such information, a bank would need to calculate and disclose VAR for all positions in its trading

book. In addition, internal risk monitoring would also likely be based on a VAR for all positions in the trading book.

- The VAR that firms currently calculate and use for internal monitoring and reporting may of course differ from the VAR they use for regulatory reporting as a consequence of differences in confidence level or the event horizon over which market rates are shocked. However the market risk NPR would introduce a deeper split in terms of covered vs. non-covered transactions. It is that deeper split in categorization and the effect of that split on risk measurement and reporting which we object to.
- Pillar 3 will require banks to publicly report the VAR used to calculate RWA. Bifurcating the trading book into "covered" and "non-covered" positions will result in incompatible measurements of VAR for internal vs. regulatory use and will only add to a lack of transparency among investors and analysts.

As we state above, there is no need to split the trading book into "covered" and "non-covered" positions so long as a bank has a developed and implemented a complete, validated, VAR process, including a robust measurement of increment default risk. RWA should be based on the application of the validated VAR process and the robust measurement of incremental default risk to all positions in the trading book, including, naturally, loans in a warehouse pipeline for securitization that are managed as trading risk.

The only exceptions to the above are the derivative hedges of banking book risk that are marked-to-market as a consequence of FAS 133. Such derivatives are only in the trading book as an artifact of FAS 133. To include the derivative hedge in VAR but not the underlying positions that are being hedged would distort the measurement of economic risk. There are two equally viable solutions to this:

a) A bank should be allowed to include both the derivative hedge and the underlying banking book risk that is being hedged in its calculation of VAR for market risk.
b) A bank should be allowed to exclude both the derivative hedge and the underlying banking book risk that is being hedge from its calculation of VAR for market risk.

Option b) is consistent with the NPR proposal to exclude certain interest rate derivative and credit derivative hedges of banking book positions.

- **Effective Date of 2008 and Definition of Benchmark**

Background:

The NPR for Market Risk states: "The effective date of any final rule associated with the proposed revisions to the market risk capital rule would be January 1, 2008, with certain exceptions described below." In contrast, the NPR for Credit and Operational Risks states: "The agencies are proposing to make 2008 the first possible year for a bank to conduct its parallel run and 2009-2011 the first possible years for the three transitional floor periods."

In addition, although it is not explicitly stated in the NPR, we have been told that the <u>benchmark</u> calculation of RWA that will be used during the parallel testing of 2008 and the transition period from 2009-2011, will consist of:

- RWA for credit risk calculated under the current (i.e. as of 2006) Basel I rules in the US
- RWA for market risk calculated under the proposed NPR for Market Risk rules.

Both the bifurcation of the implementation dates of the new Market Risk rules and the rules for Credit and Ops risk, and the proposed definition of the benchmark are different from Basel II and its implementation in other international financial centers.

Comments:

We do not understand the motivation or justification for splitting the implementation date of the proposed market risk rules from the implementation date of the proposed credit and operational risk rules. We oppose the

split in the implementation dates. We also oppose the proposed definition of the benchmark. As these are related issues we shall discuss them together.

Logical issues: Some trading positions that are covered by the current market risk rules would not be covered under the proposed market risk rules, as a consequence of the proposed bifurcation of the trading book into "covered" and "non-covered" positions. . Under the Market Risk NPR the risk weighted assets (RWA) generated by these non-covered positions would be calculated instead according to the proposed banking book rules (e.g. the equity investment rules or securitization rules). However, since these proposed banking book rules will not go live until 2009, banks will initially have to fit these non-covered positions into the current banking book rules, as best as they can.

Implementation issues: Given that the comments to the Market Risk NPR must be received by January 23, 2007 we do not expect the final version of the US rules to be issued until mid-year, 2007, at the earliest. That would leave banks six months or less to implement the final version of the market risk rules before going live on January 1, 2008.

Prudence demands that before new regulatory capital rules go into effect, banks should have sufficient time to implement and test systems and supervisors should have sufficient time to ensure changes in rules do not have unintended consequences.

It must be noted that the bifurcation of the implementation date of the market risk rules vs. the credit and ops risk rules, when joined by the bifurcation of the trading book into "covered" and "non-covered" positions, creates a new, additional implementation burden for banks in the US. Banks would need to build two separate processes:

a) A process to calculate RWA for the newly defined non-covered positions under the <u>current banking book rules</u>, which would be needed for the "live" RWA used in 2008 and the proposed "benchmark" RWA to be used during the transition period (2009-2012 at a minimum).
b) A process to calculate RWA for the newly defined non-covered positions under the <u>proposed banking book rules</u>, which would be needed for the "parallel" calculation of 2008 and the live calculation after 2009.

Burden a) is created by the combination of the bifurcation of the trading book into "covered" and "non-covered" positions and the bifurcated implementation date. It is a new implementation burden, unique to the US implementation, which is not in the Basel II Accord. When one takes into account the vagueness of the standards for splitting the trading book into "covered" and "non-covered" positions, the implementation of this process in time for 2008 is problematical.

Burden b) is created by bifurcation of the trading book into "covered" and "non-covered" positions. It is an exaggerated form of the burden that exists in the Basel II Accord because of the added prescriptiveness of the Market Risk NPR with regard to documentation of the classification of trading portfolios.

Untying the Basel/IOSCO package: In addition to the logical inconsistencies and additional implementation burden of two implementation dates, we have another fundamental objection. One of our primary objections to both the bifurcated implementation dates and the definition of the benchmark is that the changes to the market risk rules are only one component of the Basel/IOSCO Working Group's Trading Book Review, referred to above. This document was formulated as an integrated "package". We think it is a mistake to tear that package apart and implement its components at different times. We also think it is a mistake to include one component of the package in the benchmark against which the entire set of Basel II changes will be compared

The changes in the market risk rules essentially reflect "Strand 3" of the Basel/IOSCO Trading Book Review. The Trading Book Review was composed of three "Strands", reflecting the three sub-groups of the Basel/IOSCO Working Group:

- "Strand 1" focused on counterparty credit risk including the treatment of cross-product netting.

- "Strand 2" focused on the treatment of double default effects and the treatment of the short-term maturity adjustment.
- "Strand 3" focused primarily on market risk in the trading book but also included the capital treatment of unsettled and failed transactions.

We in the industry have repeated been told that the three "Strands" of the Basel/IOSCO Trading Book Review need to be looked at as an integrated "package". Indeed, we have been told that regulators expect that Strands 1 and 2, on average, will cause a decrease in RWA while Strand 3, on average, will cause in an increase in RWA. The increase in RWA is expected because: a) those trading book positions that are "not-covered" will be treated by the generally more onerous banking book rules, and b) the implementation of the measurement of incremental default risk will tend to increase RWA. (Incremental default risk must be implemented no later than January 1, 2010.)

Therefore it is very puzzling and bothersome that the US regulators want to incorporate one component (Strand 3) of the Basel/IOSCO Trading Book Review into the denominator (benchmark) of the measurement of the relative effect of Basel II while all three components (Strand 1, 2, and 3), will be incorporated into the numerator. If all else were held constant, the proposed definition of the benchmark would introduce a downward bias to the measurement of the ratio of RWA under Basel II relative to the benchmark. This is because the denominator of the ratio would include the one component of the Trading Book Review that is expected to increase while the numerator would include all three components of the Trading Book Review, whose net effect is expected to be approximately neutral.

We have raised this issue only because the Credit and Operational risk NPR makes clear the high level of attention and scrutiny the US regulators will place on the ratio – i.e. on the comparison of RWA under Basel II relative to the benchmark. Although we see many fundamental problems in using Basel I as a benchmark to evaluate Basel II (i.e. because the risk weights assigned by Basel I are arbitrary and risk insensitive), the proposed definition of the benchmark would only exacerbate an already bad problem.

We therefore propose that:

- There should be no bifurcation of implementation dates for the market risk NPR vs. the Credit and Operational Risk NPR. They should be implemented at the same time
- The benchmark for evaluating the effect of Basel II should only include the RWA calculated under the current market and credit risk rules.

Enumerated Questions

Question 1: The agencies seek comment on the thresholds for the application of the market risk capital rule and, if they should be changed, on what appropriate thresholds might be.

Reference in NPR:

"Thus, the proposed rule would continue to apply to any bank with aggregate trading assets and liabilities equal to 10 percent or more of total assets, or $1 billion or more. The proposed revisions would apply to a bank meeting the market risk capital rule applicability threshold regardless of whether the bank would adopt the proposed advanced capital adequacy framework or remain under the general risk-based capital rule."

Response:

Citigroup has no comment on this issue other than to state that we would have no objection if the threshold were increased to take into account inflation and industry consolidation since the Market Risk Amendment was first adopted.

Question 2: The agencies request comment on all aspects of the proposed definition of covered position. The agencies are particularly interested in comment on additional safeguards that the agencies might implement to prevent abuse of the hedge component of the definition of covered position and increase transparency for supervisors.

Reference in NPR:

> "The NPR modifies the definition of a covered position to include only trading assets and trading liabilities (as reported on schedule RC-D of the Call Report, Schedule HC-D of the Consolidated Financial Statements for Bank Holding Companies, or as defined in the instructions to the Thrift Financial Report) that are trading positions. The definition also includes trading assets and liabilities that hedge covered positions. In addition, the trading asset or liability must be free of any restrictive covenants on its tradability or the bank must be able to hedge its material risk elements in a two-way market. A trading position would be defined as a position that is held by the bank for the purpose of short-term resale or with the intent of benefiting from actual or expected price movements or to lock in arbitrage profits. The proposed definition of a trading position recognizes that the accounting definition of trading assets and liabilities includes positions that are not held with the intent or ability to trade."
>
> "A trading asset or liability that hedges a trading position is a covered position only if the hedge is within the scope of the bank's hedging strategy (discussed below). The agencies encourage the sound risk management of trading positions and therefore include hedges that offset their risk in the definition of covered position and thus in the measure for market risk. The agencies are concerned, however, that a bank could craft its hedging strategies in order to bring non-trading positions that are more appropriately treated under the credit risk capital rules into the bank's covered positions. The agencies will scrutinize a bank's hedging strategies to ensure that they are not being manipulated in this manner. For example, mortgage-backed securities that are not held with the intent to trade, but that are hedged with interest rate swaps to mitigate interest rate risk, would be subject to the credit risk capital rules."

Response:

> Please see our response above in the "General Issues - Trading Book/Banking Book Boundary" section of our letter.

Question 3: The agencies request comment on whether there is a better approach that matches more effectively the true economic impact of these transactions (This is in reference to excluding credit derivatives, which are entered into to hedge the credit risk of non-covered (i.e. non-trading book) positions).

This is a good proposal. However a problem may arise from a new form of credit risk mitigation, contingent credit default swaps (CCDS), which have started to be used to hedge counterparty credit risk. A CCDS is similar to a credit default swap (CDS) in that upon default of the referenced obligor, the seller of the CCDS will pay the buyer the contract notional, which in the case of the CCDS is the market value of a referenced derivative transaction.

From a more general perspective, just as a CDS enables the buyer to hedge against an increase in the credit risk premium of a bond or loan, a CCDS enables the buyer to hedge against an increase in the credit risk premium of a derivative contract. The credit risk premium of a derivative contract is its Credit Value Adjustment (CVA). The CVA is an adjustment made to the market value of a derivative contract to take into account the credit risk of the counterparty.

The market value of the CCDS is dependent on the credit spread of the referenced obligor and the expected positive exposure profile of the referenced derivative. The buyer of the CCDS who hedges counterparty exposure is reducing his overall economic risk because:

- A deterioration of the credit quality of the underlying counterparty will result in an increase in the CVA (i.e. a decrease in the risk-free market value of the underlying derivative) and an increase in the market value of the CCDS.
- An increase in the expected positive exposure profile of the underlying derivative will result in an increase the CVA (i.e. decrease the risk-free market value of the underlying derivative) and an increase the market value of the CCDS.

Thus the CCDS enables the buyer to hedge against increases in the CVA, whether those increases occur because of increases in the underlying obligor's credit spread or because of increases in the expected exposure profile of the underlying derivative.

The derivative referenced by the CCDS contract will typically be a plain vanilla, simple derivative. The underlying derivative the CCDS is hedging may be a plain vanilla, simple derivative or a derivative with more complex terms and conditions. In the former case the change in the market value of the CCDS may fully offset the change in the CVA of the underlying derivative. In the latter case, there may be some residual change in the CVA of the underlying derivative that is not fully hedged by the CCDS.

There are only two logically consistent ways of treating CCDSs that are purchased from third parties in VAR:

a) Recognize that counterparty credit risk has been transformed into market risk. Include in VAR both the potential change of the CVA of the underlying derivative and the potential change of the market value of the CCDS that has been purchased from a third party. Assign no RWA for the counterparty credit risk of the underlying derivative. In addition, calculate RWA for the counterparty credit risk of the CCDS.

    - Include the potential change in the market value of the CCDS and the potential change in the CVA of the underlying derivative into VAR. As explained above, if the underlying derivative is simple in its structure, the net contribution to VAR of the CCDS and the CVA of the underlying derivative would be zero in most cases. In other cases there will be some residual risk that would be captured in VAR.
    - If the CVA of the underlying derivative is included in VAR then there logically should be no RWA for counterparty credit risk generated by the underlying derivative, because its credit risk premium (its CVA) is captured in VAR. This is exactly analogous to why the credit risk of corporate bonds is either included in VAR (when the bonds are in a trading portfolio) or generates RWA for credit risk (when the bonds are in an Available for Sale portfolio in the banking book) but not both. The only residual RWA for counterparty credit risk would be that which was generated by the counterparty credit risk to the seller of the CCDS.
    - The inclusion of both the CVA of the underlying derivative and the CCDS in VAR is to recognize that the counterparty credit risk of the underlying derivative (which is measured by its CVA) has been transformed into market risk.

b) Exclusion of the CCDS and the CVA of the underlying derivative from VAR. RWA for the underlying derivative would be captured by the substitution approach (or potentially the double default approach). This approach does not recognize the transformation of counterparty credit risk into market risk.

    - The CCDS and the CVA of the underlying derivative would both be excluded from VAR.
    - The counterparty credit risk of the underlying derivative would be decomposed into counterparty credit risk that was hedged by the CCDS and, potentially, a residual counterparty credit risk to the underlying obligor that is not hedged by the CCDS. The component of counterparty credit risk that is hedged would be treated by the substitution approach (or potentially the double default formula).
    - The above would be exactly analogous to the treatment of a loan in the banking book when its credit risk was hedged by a CDS. Neither the credit risk premium of the loan nor the offsetting market value of the CDS is included in VAR. In the case of loans, the RWA for the combination of loan and CDS are determined by the substitution approach or the double default formula.

We have argued for a parallel treatment of

a) The CVA of the underlying derivative and the CCDS that is purchased as a hedge from a third party.
b) The credit risk premium of a loan and the CDS that is purchased as a hedge from a third party.

The only problem is the potential ambiguous meaning of "covered" transaction. Most CCDSs will be entered into in order to hedge the counterparty credit risk of covered positions in the trading portfolio. However although the hedged instruments are "covered" positions, the risk that is being hedged is counterparty credit risk not market risk. A literal interpretation of the NPR would require the inclusion of the CCDSs in the VAR for market risk. As argued above, if the CCDS is included in VAR for market risk then the potential change in the CVA of the underlying derivative should also be included in VAR. When that occurs the underlying derivative would not generate any RWA for counterparty credit risk because there would be recognition that counterparty credit risk has been transformed into market risk.

Although the current volume of CCDS is not large, it is likely to grow materially over the next several years. We propose that banks should be allowed the choice of one of the two alternatives presented above:

a) Counterparty credit risk is transformed into market risk; VAR includes both the third party CCDS and the potential change in the CVA of the underlying derivative; the underlying derivative does not generate RWA for counterparty credit risk; the CCDS generates RWA for counterparty credit risk to the seller of the CCDS.
b) Counterparty credit risk is not transformed into market risk: VAR excludes both the third party CCDS and the potential change in the CVA of the underlying derivative; the underlying derivative combined with the CCDS can be decomposed into hedged and non-hedged residual exposure. The RWA for the combination of hedged exposure and CCDS should be calculated in accordance to the substitution approach (or potentially the double default approach). We recognize that regulators may need some time to become comfortable with CCDSs to before allowing the double default approach to be used.

Question 4: The agencies request comment on the extent and materiality of any distortion of the VaR-based measure due to the inclusion of some, but not all, offsetting transactions, and on any appropriate approaches to address this distortion in the final rule, including, subject to certain restrictions, (1) permitting a bank to include in its VaR-based measure the interest rate risk associated with certain non-covered positions that are hedged by covered positions (while remaining subject to a credit risk capital requirement for the non-covered positions) or (2) permitting a bank to include in its VaR-based measure certain internal interest rate derivatives hedging non-covered positions. The agencies also request comment on any operational considerations such approaches would entail.

Response:

We agree with this proposal. The problem it seeks to address essentially is only an artifact of FAS 133. Many interest rate derivative transactions entered into for the purpose of hedging the interest rate risk of an accrual portfolio are required to be marked-to-market by FAS 133 because they do not meet FAS 133's exceedingly narrow definition of an economic hedge. Some banks put these derivative hedges into their trading account only because they are required to be marked-to-market by FAS 133. If the interest rate risk of the derivative (but not the interest rate risk it is hedging) is included in VAR, it will exaggerate the total VAR. The solution to this distortion is to either a) exclude both the interest rate factor sensitivities of the underlying accrual positions and that of their derivative hedges or b) include both in VAR. The proposal to exclude both would rectify that problem.

Question 5: The agencies seek comment on the proposed definition of residual securitization position, and on the market maker exception and the conditions to use that exception. With respect to positions that do not qualify for the market maker exception, the agencies request comment on the treatment of those positions under the credit risk capital rules and whether such treatment could give rise to any operational or other issues.

Reference in NPR:

"Under the proposed rule, the definition of a covered position would exclude any securitization position that is a residual securitization position,[15] subject to a limited market maker exception."

[15] A residual securitization position is any securitization position subject to deduction under the proposed advanced capital adequacy framework or subject to the following provisions under the general risk-based capital rules: 12 CFR part 3, Appendix A, sections 4 (b) and (f) (national banks); 12 CFR part 208, Appendix A.III.B.3.b and III.B.3.e (state member banks); 12 CFR part 225, Appendix A.III.B.3b and III.B.3.e (bank holding companies); 12 CFR part 325, Appendix A.II.B.5 (state nonmember banks); and 12 CFR 567.6(b)(1) and (2) (savings associations).

Response:

This is similar to the Basel/IOSCO Trading Book Review of July, 2005, which stipulated that securitization positions subject to deduction would generate Risk Weighted Assets for market risk at least equal to the RWA calculated under the securitization approach.

However, because a comment was requested we want to go on record that the incremental RWA generated by residual securitization positions should not be subject to floors or minima, so long as a bank has a complete, validated calculation of VAR and of incremental default risk. Our position is based on the same reason that we oppose the proposed bifurcation of the trading book into "covered" and "non-covered" positions, once a bank has a complete, validated calculation of VAR and of incremental default risk. Once that condition has been met the imposition of floors on the measurement of incremental RWA is unnecessary and only distorts the measurement of economic risk.

Question 6: The agencies seek comment on these requirements and on whether different or additional policies and procedures would be beneficial for ensuring appropriate identification of positions to which the market risk capital rule should be applied and appropriate risk management of covered positions.

Reference in NPR:

"The proposal introduces new requirements for the identification of trading positions and the management of covered positions. The agencies believe that these new requirements are warranted based on the trend towards the inclusion of more credit risk-related, less liquid, and less actively traded products in banks' covered positions. The risks of these positions may not be fully reflected in the requirements of the market risk capital rule and may be more appropriately captured under the credit risk capital rules.

"A bank would be required to have clearly defined policies and procedures for determining which of its trading assets and trading liabilities are trading positions. In determining the scope of trading positions, the bank would be required to consider (i) the extent to which a position (or a hedge of its material risks) could be marked-to-market daily by reference to a two-way market, and (ii) possible impairments to the liquidity of a position.

"In addition, the bank must have clearly defined trading and hedging strategies. The bank's trading and hedging strategies for its trading positions must be approved by senior management. The trading strategy must articulate the expected holding period of and the market risk associated with each portfolio of trading positions. The trading strategy must also articulate whether the purpose of each portfolio of trading positions is to accommodate customer flow, to engage in proprietary trading, or to make a market in the positions. The hedging strategy must articulate for each portfolio the level of market risk the bank is willing to accept and must detail the instruments, techniques, and strategies the bank will use to hedge the risk of the portfolio. The hedging strategy must clearly articulate which positions are being hedged and which positions serve as hedging instruments.

"A bank would be required to have clearly defined policies and procedures for actively managing all covered positions. In the context of nontraded commodities and foreign exchange positions, active management could focus on managing the risks of those positions within the bank's risk limits. For all covered positions, these policies and procedures would be required to address, at a minimum, marking positions to market or model on a daily basis; assessing on a daily basis the bank's ability to hedge position and portfolio risks and the extent of market liquidity; and the establishment and daily monitoring of position limits by a risk control unit independent of the trading business unit. Senior management would be required to monitor all of this information on a daily basis. The policies and procedures would be required to provide for reassessment by senior management of established position limits on at least an annual basis, as well as annual assessments by qualified personnel of the quality of market inputs to the valuation process, the soundness of key assumptions, the reliability of parameter estimation in pricing models, and the stability and accuracy of model calibration under alternative market scenarios.

Response:

It is appropriate for a bank to have "product programs" or "trading strategies" for each of its trading desk, to define the purpose of trading, the types of instruments that may be traded and so forth. However the documentation requirements of this section go far beyond what is appropriate. As we argued above, so long as a bank has a complete, validated VAR process and a robust calculation of incremental default risk, there is no need to bifurcate the trading book into "covered" and "non-covered" positions. If there were no bifurcation requirement there would be no need for the imposition of the proposed costly documentation requirement for each desk.

Several components of the documentation requirement do not make sense:

- *Hedging vs. hedged.*

  The NPR states that:

  > "The hedging strategy must clearly articulate which positions are being hedged and which positions serve as hedging instruments."

  In liquid markets there often is no clear distinction between which instruments on a trading desk are "being hedged" and which ones are the "hedging instrument". For example, a simple USD interest rate derivative desk might have factor sensitivity limits for USD LIBOR and USD Treasury yields to maturity of different tenors (or sensitivity limits for forward interest rates, for different forward time buckets), as well as limits on the LIBOR/Treasury spread. On such a desk, LIBOR FRAs, LIBOR interest rate swaps, Eurodollar futures, Treasury securities and Treasury future contracts may all be traded. It would not be meaningful for such a desk to specify which are the hedged and which are the hedging instruments because an essential purpose of the desk is taking and managing "base rate risk" – risk of changes to the level, shape and spread between the LIBOR and Treasury yield curves.

  In contrast, the distinction between hedged and hedging contracts is easier to identify for a desk that trades relatively illiquid contracts, which it then hedges with more liquid contracts.

- *Customer flow vs. trading*

  The NPR states that:

  > "The trading strategy must also articulate whether the purpose of each portfolio of trading positions is to accommodate customer flow, to engage in proprietary trading, or to make a market in the positions."

  The clean segregation of trading portfolios into customer flow, proprietary trading or market making is often not meaningful. All customer flow desks necessarily must engage in some degree of proprietary trading. Trading and customer flow go hand-in-hand. A bank cannot actively quote prices to

customers unless it is in the market trading. Trading provides the bank with access to liquidity and with price discoveries it can use for its customer flow.

Therefore virtually all desks that engage in customer flow will engage in some degree (including potentially a large degree) of proprietary trading. The converse, however, is not true. A desk may engage in pure proprietary trading (e.g. based on analysis of arbitrage opportunities, or based on program trading) without engaging in customer flow.

Question 7: The agencies request comment on all aspects of prepayment risk, including the extent and materiality of prepayment risk, whether material prepayment risk specific risk, and the interplay between prepayment risk and default risk for purposes of determining the bank's overall measure for market risk. The agencies also seek comment may warrant a further explicit requirement that banks hold capital against prepayment risk over a one-year horizon under both the internal models and standard approaches to on how an explicit capital requirement for prepayment risk could be designed.

Response:

This is actually an issue concerning the degree of specificity of the market factor sensitivities used to simulate the potential change in value of mortgage backed securities and any other securities with pre-payment risk. A robust VAR calculation for mortgage backed securities would include simulating such market factors as a) option adjusted spreads (general and specific) and b) prepayment speeds. The option adjusted spreads for mortgage backed securities incorporate the market's uncertainty in the prepayment rate over the life of the transaction. The volatility of that spread reflects the potential change in the market's uncertainty of prepayment rates over the life of the transaction.

The proposal to hold capital for pre-payment risk over a one-year horizon would in essence be double counting prepayment risk. The mortgage backed security (or more generally, the tranche of a mortgage backed security) already incorporates uncertainly in prepayment rates over the life of the transaction in its option adjusted spread i.e. its expected cash flows are discounted at a higher rate than the risk free rate. Daily changes in the uncertainty in prepayment rates <u>over the life of the transaction</u> are reflected in daily changes in the option adjusted spread.

The need to accurately model the general and specific risk of mortgage backed securities, including their prepayment risk, is not different than the need to model the general and specific risks of other types of securities. The degree of specificity and granularity required for the market factors used to calculate VAR will depend on the context of the portfolio and should be tested as part of the general VAR validation, for example, by means of hypothetical backtesting of test portfolios with different degrees of risk concentration.

Question 8: The agencies request comment on the exclusion of fees, commissions, reserves, and net interest income for the trading profit or loss used for regulatory backtesting, including the appropriateness and feasibility of these exclusions, and whether additional items should also be excluded. The agencies also request comment on the role of hypothetical backtesting-- specifically, whether hypothetical backtesting is feasible as part of model validation; whether other forms of backtesting should also be used; and whether regulatory backtesting should be based on hypothetical backtesting.

Background:

There are two types of VAR backtesting required in the NPR:

a) Validating VAR by means of hypothetical backtesting (i.e. comparing ex-ante VAR with ex-post "hypothetical P&L") using test portfolios of different degrees of risk concentration (this is not something that was part of the original Market Risk Amendment to the Basel Accord). The definition of "hypothetical P&L" is given below.

b) The determination of the number of "exceptions" to daily VAR that has occurred over the prior 250 business days. If the number of exceptions exceeds a low threshold, the scaling factor used to transform the 99%, ten-day VAR into RWA is increased.
   - At the time the Market Risk Amendment to Basel was adopted in the US (mid-1990's) an "exception" was defined as the condition when ex-post actual P&L was negative and larger in magnitude to the prior end-of-day's ex-ante VAR.
   - Under the NRP, an exception will be defined as the condition when the ex-post hypothetical P&L is negative and larger in magnitude than the prior end-of-day's ex-ante VAR.

Response:

We think this question mixes two related but different issues: a) the validation of VAR as an estimate of potential loss of a constant portfolio, vs. b) appropriateness of the scaling factor used to transform VAR into a measure of economic risk for the purpose of assessing capital adequacy.

a) The validation of VAR

VAR is an order statistic that measures the potential loss of economic value of a fixed portfolio, at some specified confidence level, for an N-day instantaneous shock in market rates. The standard VAR calculation usually does not entail measuring the consequence of the passage of time.

As is well known, the actual daily P&L of a trading desk has many contributing components:

i) The change in value of a constant or "frozen" portfolio, due to the changes in market rates over a specified time interval, under the assumption that the changes in market rates occurred instantaneously (i.e. without the effects of the passage of time). This component of the actual daily revenue is usually referred to as "hypothetical P&L".
ii) The change in the value of a fixed portfolio, purely due to the passage of time.
iii) Intraday trading.
iv) Intraday customer flow.
v) Net interest income (NII) that is not already included in ii, above.
vi) Fees and other income not included above.

A one-day VAR typically measures the potential loss in economic value of a constant portfolio, at a specified confidence level, due to an instantaneous change in market rates. It therefore corresponds only to the first component (i) of the daily trading revenue.

It should therefore be noted that if a VAR process does incorporate the change in portfolio value due to the change in time, the hypothetical P&L that such a VAR is compared to should also include the change in portfolio due to the passage of time. In other words, if VAR includes the effect of the passage of time, the appropriate component of NII should be included in the hypothetical P&L against which VAR is compared.

In this context, if VAR is to be validated by backtesting, then the validation should consists in comparing ex-ante VAR against the ex-post hypothetical P&L (i.e. component i) above) of an actual or test portfolio. While it is feasible to validate a 99% one-day VAR by hypothetical backtesting, it is not practically feasible to validate a one day VAR at a 99.9%CL (there would only be a few exceptions every ten years). It is correspondingly even more infeasible to validate a 99.9%CL VAR for a ten-day shock in rates by hypothetical backtesting of test portfolios against hypothetical P&L. For the later, only a few exceptions would be expected every hundred years of daily data.

A one-day 99%CL VAR should be validated periodically for each asset class by means a) analysis of the VAR process and b) hypothetical backtesting test portfolios of different degrees of risk concentration (or whatever other standard validation has been agreed to by the supervisor and the bank). A VAR that is defined at a confidence level greater than 99%, for instantaneously shocks greater than one day, needs to be validated more indirectly then by hypothetical backtesting.

b) Capital Adequacy

Once VAR has been validated, and once a process has been established to validate VAR periodically, there should not be a need to also compare the ex-ante daily VAR to the ex-post daily actual P&L to ascertain the validity of the VAR process. Such daily testing would be redundant to a robust validation process.

On the other hand, there is a virtue in continuing to require banks to compare ex-ante VAR to the ex-post actual P&L of the trading desk. This is a useful test of capital adequacy of the trading business. For example, if the trading desk tends to lose money on intraday trading and has little customer flow, this would increase the likelihood of an "exception" when ex-ante VAR is compared to ex-post actual P&L. Conversely, a trading business with a strong customer franchise will tend to generate strong customer revenues which, when included in actual P&L, acts as a cushion to absorb losses. In fact a bank with a strong customer franchise will tend to benefit from increased customer flow precisely when markets become more volatile and choppy and will thus reduce their actual trading risk.

We strongly support the validation of VAR. We strongly recommend that for the purpose of ascertaining the scaling factor that transforms the 99%CL ten-day VAR into economic risk, banks should have the option of defining an exception in terms of a comparison of either:

- Ex-ante VAR to ex-post actual P&L (as per the current rules)
- Ex-ante VAR to ex-post hypothetical P&L

The choice should be made in consultation with the bank's principal regulator and should be based on a consideration of what is the most appropriate measurement given the nature of the firm's business.

Question 9: The agencies request comment on the proposed timeframe for phasing out partial modeling of specific risk and on whether it would allow banks enough time to implement the proposed changes.

Reference in NPR:

"The proposed phase-out of partial modeling of specific risk would not preclude a bank from using an internal model to calculate the specific risk of some, but not all, portfolios of covered debt and equity positions and using the standard approach to calculate the specific risk of other portfolios. Rather, effective January 1, 2010, a bank would not be permitted to use an internal model to calculate the specific risk add-on of a portfolio if the model did not capture all material aspects of specific risk for that portfolio. The bank would be required to use the standard approach to calculate the specific risk add-on for the portfolio until it receives written approval from its primary Federal supervisor to measure the specific risk for the portfolio using its internal model. "

Response:

January 1, 2010 seems sufficient time to design and build a model of incremental default risk as well as meeting the other VAR requirements.

Question 10: The agencies seek comment on the extent and materiality of specific risk for commodities and foreign exchange positions and on whether and how a specific risk capital requirement for those positions could be developed under both the internal models and standard approaches.

Response:

Commodities and foreign exchange do not have issuer risk in the sense of debt and equity securities. There is a valid issue regarding whether the number of market factors used in the VAR calculation is large enough and sufficiently granular to capture the market risk of the portfolio, desk or firm being analyzed. These are questions that should be addressed in the validation of VAR not by muddying the waters by using the term specific risk to refer to commodity and foreign exchange contracts.

Question 11: The agencies request comment on how a bank should adjust the incremental default risk capital requirement to adjust for the impact of liquidity, concentrations, hedging, and optionality.

Response

This is still under discussion by the ISDA/IIF/LIBA working group, which Citigroup is a very active member of, with the appropriate regulators. We defer our comments to that ongoing dialogue.

Question 12: The agencies request comment on all aspects of the proposal to reflect in the market risk capital requirement a measure of incremental default risk. Specifically, the agencies seek comment on the feasibility of measuring incremental default risk at a one-year, 99.9 percent confidence level and the appropriateness of the assumption of a constant level of risk.

Proposed Response

As per question 11, this is still under discussion.

Question 13: The agencies request comment on the extent to which banks, at present, measure incremental default risk and the prospects for development of methodologies to capture this risk

Response

As per question 11, this is still under discussion

Question 14: The agencies seek comment on all aspects of the proposed public disclosure requirements.

Response:

Section 8 of the Market Risk NPR lists the requirements for public disclosure of market risk information

Section 8(c) 3 of the NPR proposes that banks disclose "A comparison of VaR-based estimates with actual gains or losses experienced by the bank, with analysis of important outliers."

As described above, one-day 99%CL VAR is a measure of the potential loss over one day and it may be validated by hypothetical backtesting, or some other process. For a thoroughly valid process, a one-day 99% VAR would have an average of 2.5 exceptions per year. However, even for a thoroughly valid process, the actual number of exceptions in any year will fluctuate above or below that expected number because of statistical noise. In a thoroughly validated VAR the number of exceptions would have a binomial distribution. If one uses hypothetical backtesting to validate VAR then it will be necessary to perform backtesting on many, many independent portfolios over a one-year horizon and to compare the observed distribution of exceptions to the theoretical binomial distribution.

Here are the questions we have with the above statement from the NPR:

i) VAR measures potential loss. Why would we compare VAR to potential gains? That assumes the P&L outcome is perfectly symmetric, which will not necessarily be the case.
ii) Are we supposed to compare VAR to actual P&L or to hypothetical P&L?
iii) Are we supposed to summarize the result of backtesting many, many independent hypothetical test portfolios or are we suppose to disclose the number of exceptions for the actual portfolio over the last year. If the number of exceptions corresponds to the number of expected exceptions within the precision of statistical noise, what is the point of the disclosure?

We therefore request clarification of what the proposed disclosure is.

Section 8(d) of the NPR proposes a number of requirements for "Qualitative disclosures for internal models". Depending on the level of detail expected these requirements may impose an excessive reporting burden. For example, the NPR proposes disclosure of "the composition of material portfolios of covered positions." Banks with large trading businesses may have hundreds of portfolios comprising hundreds of different types of positions. A detailed description of even the most material subset of these may produce a large reporting burden, while providing at best uncertain information value to potential users of this information.

We therefore request additional explanation pertaining to the definitions of the proposed qualitative disclosures, and the level of detail that is expected.