

24



Supervisory Letter 2008-05

Comptroller of the Currency
Administrator of National Banks

National Bank Examiners
880 Third Avenue, Fifth Floor
New York, New York 10036

February 14, 2008

Mr. Vikram Pandit
Chief Executive Officer
Citigroup, Inc
399 Park Avenue
New York, New York 10043

Mr. Pandit:

The purpose of this letter is to summarize the results of reviews we conducted in light of the substantial financial losses realized in the third and fourth quarter of 2007. We conducted these reviews in the context of our supervision of Citibank, N.A. and the corporation's other national bank subsidiaries. The examinations were led by National Bank Examiners Alfred Crumlish and Ronald Frake.

SCOPE

We completed two examinations. The first examination consisted of a review of director and management oversight and governance relative to events of the third and fourth quarter of 2007. It focused on issues related to subprime mortgages, structured investment vehicles (SIVs), leveraged lending, and to some extent the adequacy of the allowance for loan and lease losses. We reviewed Board minutes and information provided directors of Citigroup and Citibank, N.A., the Audit and Risk Management Committee (ARMC), the Nominating Committee, and the Executive Committee covering the entire year 2007. Additionally, we incorporated information from discussions with senior management, including those that were part of other regulatory initiatives taken in response to market events in the second and third quarter of 2007. In forming our conclusions, we reviewed the company's actions against the various Matters Requiring Attention (MRA) detailed in supervisory letters and reports of examination over the past three years. The objective of this review was to evaluate the nature and adequacy of risk management information provided to the Board and the overall effectiveness of risk governance processes.

The second examination focused on the valuation and risk management practices against the Citigroup Markets and Banking Group (CMB) positions outlined in the bank's November 4, 2007 press release and 8K disclosure. These are primarily super-senior positions in

Collateralized Debt Obligations (CDO) and liquidity puts written for off-balance sheet investment vehicles. The exposure underlying many of these investments is subprime mortgages. The major objectives of this review were to determine how the bank positions arose, evaluate the valuation methods used to arrive at the range of losses announced, assess whether the valuations are reasonable in light of the risks and the depth of the bank's analysis of same, and determine the likelihood of additional charges.

CONCLUSIONS

- The Board and senior management have not ensured an effective and independent risk management process is in place. Risk management had insufficient authority or failed to exercise its authority to constrain business activities.
- The Board and ARMC were not provided meaningful or systematic information on material risk and compliance with limits, controls, or concentrations. The Citibank, N.A. Board had no effective oversight role specific to the risk profile of the bank.
- It appears management was more focused on short-term performance and profitability along with achieving top industry rankings across many major products rather than on risk or potential loss. Risk was insufficiently evaluated.
- Over-reliance was placed on credit rating agency ratings without considering the appropriateness of these ratings to specific products or the true risk of the underlying collateral.
- The present valuation methodology for CDOs is within the range of current market practice, but needs to also factor in the results of the collateral based approach. Additionally, weaknesses were noted with model documentation, validation, and control group oversight.

MATTERS REQUIRING ATTENTION

1) Corporate Governance and Risk Management

- **Strengthen the company's risk management, control, and governance processes, which have proven ineffective.**

We have based this MRA on an analysis of executive behavior and the documented activities of the Board and the ARMC, as well as business practices over the past several months. It is noted that after regulatory restraints against significant acquisitions were lifted, Citigroup embarked on an aggressive acquisition program. Additionally, with the removal of formal and informal agreements, the previous focus on risk and compliance gave way to business expansion and profits. During this time, risk management played the role more of enabling management to incur what proved to be untenable risks for the sake of profitability. For example, in addition to issues noted below regarding CDO exposure, examiners evaluating loan underwriting noted that, with respect to leverage lending, independent risk management approved almost tripling the limit for high yield bridge loans and mezzanine exposure from \$8B to \$20B, despite a known degradation of underwriting standards in this business. Additionally, there is no evidence that independent risk reported a more significant increase in pipeline limits to the ARMC or the Board. Total loan pipeline limits grew from \$35B in June 2005 to \$50B in September 2006, and then to \$100B in March 2007. As of March 2007, all of this could be used for leveraged loans.

In none of the major problem areas (subprime, leveraged finance, trading) did independent risk play a discernible role in tamping down risk appetites or risk levels. Reporting to the Board and the ARMC by independent risk management did not depict significant issues, exposures, or risk limits of eventual relevance. CDOs were allowed to expand unrestrained; underwriting standards for leveraged finance were lowered to conform to current market practice; and OCC concerns regarding reserve calculations in the consumer business were often presented as "regulatory issues" as opposed to core credit risk issues.

We note that during 2007 Citigroup's Leverage and Tier I capital ratios lagged peers and asset growth exceeded equity growth. Directors are not routinely provided peer information, so the extent to which they were aware of Citigroup's relative capital position is unclear. Additionally, the OCC downgraded Citibank, N.A.'s year-end 2006 capital rating to a "2" due principally to the deterioration in leverage ratios. During 2007, the pace and extent of corporate acquisitions, combined with leveraging the balance sheet to generate income or to fund contingent obligations, indicates that there was insufficient attention paid to key capital ratios. Analysis of risk versus capital is lacking. Exposure arising from acquisitions and other business activities must be more clearly presented and evaluated from a risk perspective.

Trends and peer comparisons should have increased focus on capital and risk levels, particularly as broader indicators of weaknesses in sub-prime lending became known in the first quarter. We found no direct evidence that directors challenged management's statements regarding the risk of subprime exposure to the bank. Directors do not appear to have been informed or questioned the impact of market indications of weaknesses in subprime mortgages on other aspects of the company's business or Citibank. Over the course of 2007, they were told that Citigroup's subprime exposure was much smaller than peers, as the more aggressive underwriting practices commonplace in this market had been purposely avoided in the consumer bank. However, risk management failed to consider or fully discuss sub-prime exposures pertaining to the activities in the investment bank, particularly with respect to CDO activities and positions. By focusing on a specific sector (consumer) as opposed to overall risk levels in the corporation, the Board was not provided a sense of the full exposure to subprime real estate until very recently. The Citibank, N.A. Board was also inadequately informed of material risks facing the bank.

In order to be effective, the Board and senior management must ensure that the independent risk function can and will challenge management assumptions. The function needs to be thoroughly reformulated in order to make it effective. Specifically, the Board and senior management need to:

- Raise the stature of risk management in the organization. Perform a thorough, top-down, assessment of the risk management function, its roles and responsibilities, staffing levels, management competencies, and risk tools to ensure it can be effective as a control function.
- Review the content of information provided to senior management and directors to ensure it is meaningful and relevant. It should include a strengthened and systematic discussion of sensitivity to various risk factors across business segments, compliance with limits and controls, and the evaluation of risk versus allocated capital.
- Evaluate Citibank, N.A. Board process to ensure it incorporates a full discussion and evaluation of risk implications of globally run businesses on Citibank, N.A.

II) CDO Valuation and Risk Management in the Capital Markets & Banking Group

• Strengthen Business Oversight Controls in the Capital Markets & Banking Group.

Factors contributing to CDO writedowns include the fact that management assumed that the risks underlying super-senior positions were acceptable in light of the subordination present in deals and agency ratings. More significant factors were a strong emphasis on generating income and on achieving top industry rankings, which triggered increases in risk exposure. The original business model of originating structured products to distribute was modified to permit holding significant portions of each deal. Super-senior exposures were retained, because the cost of either selling the exposure at inception or hedging would have reduced income.

In order to strengthen control in the CMB and ensure risk to Citibank, N.A. is managed in an effective manner, the following need to be addressed:

Ensure that independent risk management has complete authority and/or executes its responsibility to restrain businesses when appropriate.

Independent risk management needs to have the same level of authority and influence as the business units. To date that has not been the case. Our review indicated that independent risk management had insufficient authority and/or failed to exercise its authority to restrain the business. While the desk level market risk management staff seemed to appropriately escalate issues, decisions on risk were routinely deferred to the senior business unit management's wishes. For example, when the Asset Backed Securities (ABS) Correlation desk asked independent risk management for new limits to support their shift in business strategy, risk "stood down" when senior business management was in support of the increase. Additionally, senior management needs to ensure that independent control groups - specifically, independent risk management and product control - have the requisite staff, analytics, and expertise to understand and monitor the business.

Eliminate inconsistencies across business units.

The U.S. Cash CDO desk and ABS Correlation desk had different limit structures than the Mortgage business, where concentrations by collateral type were identified. The ABS Correlation desk moved away from bespoke single tranche CDOs and into the structuring business with an inadequate infrastructure that did not feed risk information into corporate systems. In contrast, the U.S. Cash CDO desk had an established infrastructure. There were no super-senior limits for the ABS correlation desk, while there were for the U.S. Cash CDO business. Limits on super-senior exposure in synthetic form should have existed in a manner analogous to those for cash instruments. Different valuation approaches were used for the structuring and single tranche exposures within the ABS Correlation desk. Control groups accommodated the businesses and worked around these issues, but even if they were to disagree they did not have the standing or support to improve consistency or effect change. While business units were individually responsible, their focus was on generating income.

These inconsistencies lead us to doubt that senior management was ever informed of all subprime exposures or understood their ramifications.

Our discussions indicate that the mortgage trading desk actively managed associated risks, and possessed the depth of personnel and experience in mortgage products to escape significant losses. However, at the same time other desks were permitted to structure, distribute, and retain subprime mortgage exposures without the expertise needed to manage them.

Consistently apply risk limits and ensure risk aggregation is effective.

In concert with the criticism above, there is inconsistency in limits applications and a lack of clearly aggregated exposures by underlying collateral type.

Control product expansion and evolution across trading desks.

Citigroup operates businesses with long histories of creating and distributing structured products. However, the decision to actively utilize subprime collateral should have been reviewed and evaluated by the Capital Markets Approval Committee (CMAC) and the CMB's Business Risk Practices Committee. While the creation of a product and the underlying risks in one business may be clearly understood, the same product on a different desk was not managed properly. The risk management process must be able to ensure that adequate expertise, depth, and infrastructure is in place, especially as similar products across desks became a significant risk exposure and concentration.

- **Strengthen CDO Valuation processes and practices.**

Factor in collateral-based valuation results into the overall valuation process.

While the current valuation method is broadly within the range of current market practice, collateral-based valuation results need to be factored into this analysis. The bank uses a discounted cash flow approach, which forecasts cash flows at the ABS level by pool level characteristics, builds up tranching cash flows by applying waterfalls, and discounts at a risk-adjusted rate. The cash flow forecasts use a simple approach that accounts for expected home price appreciation at a macro level; waterfall calculations are very involved and improving in precision. Given the simplicity of the model compared to actual cash flow dynamics, the discount rate (spread) becomes a key choice. The bank now uses judgmental ratings as a way to incorporate possible downgrades, and has moved closer to ABS market spreads over time, though it still relies on Collateralized Loan Obligations (CLO) spreads as a proxy. This choice is difficult to justify given the differences in the underlying collateral of ABS CDOs and CLOs; however, ABS CDO spreads are not observable while there are occasional CLO transactions. There is large degree of judgment involved and spreads are assigned by broad product type rather than being set to the particular characteristics of each deal.

An alternative method that starts by valuing collateral and then building up to CDO value, using a correlation model for some positions, has proponents within the bank and would have led to larger writedowns. It is more of a market-based approach and better aligns with how risk is hedged. It also involves substantial judgment, since the market for the instruments is not trading.

However, it is consistent with current marking procedures for the collateral. Collateral based valuation results should be part of regular reporting and factored into the assessment of final value. This includes use of the correlation model, an important analytical tool even if its results are not used for official valuation.

Fully engage all control groups.

Product Control does not have sufficient staff or quantitative resources to evaluate the various components of the valuation model. It is set up for checking marks directly against market observables, and has not adapted to situations where there are no direct quotes. Typical procedures such as checking sensitivity of marks to unobservable parameters have not been developed. The independent model review was cursory and descriptive. The Model Validation Group (MVG) documented the model for the business, rather than having the model developers provide detailed documentation. The reviewer seemed unfamiliar with the details of the model and did not assess potential impact of model limitations. Even for a Level 1 validation, the work was inadequate. The model is nominally high priority for Level 2 validation, but no work is being done at this time. In addition to being disjointed from the business, control groups were inadequately engaged with each other at a time when they should have been active partners.

Improve Discounted Cash Flow (DCF) model controls and transparency.

It is understandable that events during the year produced tremendous pressure on the business to deploy a new valuation model on short notice. However, several months after the first use of the DCF model there are several deficiencies that need to be addressed. While control groups could be criticized for their lack of engagement, the business is responsible for ensuring compliance with corporate policies and OCC requirements regarding model validation. The DCF model is not in a controlled environment. This introduces substantial operational risk, and invalidates the MVG validation. Developer documentation is sketchy, and testing results and analyses are limited. Model developers are unfamiliar with policies and procedures, particularly with respect to documentation (and the control environment as mentioned above). Ongoing changes are not being documented or communicated to MVG and risk management. There is substantial work remaining to be completed and independent risk management and MVG have some resources. However, the business seems determined to complete the process on its own. Accommodating the business played a role in setting up the current crisis; a change that incorporates control groups is essential.

FOLLOW-UP

The results of this examination will be incorporated into our annual report of examination to the Citibank, N.A. Board. Please provide a formal response to this letter by March 28, 2008, that details actions being taken to address the MRAs and issues noted above.

Sincerely,



John C. Lyons
Examiner-in-Charge
Large Bank Supervision

cc: C. M. Armstrong, J. Bermudez, G. Crittenden, J. Forese, M. Helfer, B. Howard, W. Rhodes, M. Wong, W. O'Mara (KPMG),
M. Richardson (FDIC), J. Ruocco (FRB NY), Chron

This document is the property of the OCC, and its contents are strictly confidential. Unauthorized disclosure of the contents of this document, including component and composite ratings, is generally prohibited. However, when necessary or appropriate for bank business purposes, a national bank is allowed to disclose the contents of this document to a person or organization officially connected with the bank as officer, director, employee, attorney, auditor, or independent auditor. Disclosure may also be made to the bank's holding company and, under certain conditions, to a consultant employed by the bank. These exceptions to the general prohibition on disclosure are described in OCC regulations, 12 CFR 4.37(b)(2). Any other disclosure of this document or its contents without the OCC's prior approval is a violation of 12 CFR 4.37(b) and subject to criminal penalties in 18 USC 641 for conversion of U.S. Government property.

