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Dodd-Frank: Derivatives and Lending Limits for US and Foreign Banks

The traditional lending limits applicable to US banks have been tightened by the Dodd-Frank Act by requiring that derivatives and securities financing transactions be included in the calculation. Pursuant to this requirement, the supervisor of national banks has implemented the change with a requirement that national banks be in conformity by the end of 2012. Among other results, this may impose restrictions on many banks' provision of credit to their customers if they are already close to the limit under existing requirements. Also, the new limits apply to US branches of foreign banks, a fact not mentioned in the announcement.

Banks have the opportunity to comment on the new rule and should consider whether the requirements are unduly burdensome or otherwise have unnecessary negative effects. This note summarizes the background of the tightening, the requirements of the new regulation, and some potential consequences of the change.

National and State-chartered banks and savings associations in the United States have historically been subject to limits on the amount of credit extended to a single borrower in order to encourage diversification and reduce risk. Section 610 of the Dodd-Frank Act amends the national bank lending limit to include credit exposure arising from derivative and securities financing transactions, which heretofore had generally not been included, but does not specify how banks should make this calculation.¹ The Office of the Comptroller of the Currency ("OCC"), the supervisor of national banks, has issued an interim final rule ("Interim Final Rule") providing detail on how to do so.²

The national bank lending limit caps the total loans and extensions of credit that a national bank may make on an unsecured basis to any one person to 15 percent of the bank's unimpaired capital and surplus plus an additional 10 percent if the loan is

¹ Section 610(a) and (c) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, P.L. 11-203, 124 Stat. 1611, July 21, 2010 (the "Dodd-Frank Act"), which will be codified upon effectiveness at subsection (b) of Section 5200 of the Revised Statutes, 12 USC. 84 ("Section 84").

² *Lending Limits*, 77 Fed. Reg. 37265 (June 21, 2012) (hereinafter "Lending Limits").

fully secured, with some exceptions. This limit also applies to US branches of foreign banks based on the foreign bank's global capital and surplus.³ With some exceptions, it also applies to Federal and State-chartered savings associations.⁴

Definitions, Scope and Effective Date

The Interim Final Rule amends the phrase "loans and extensions of credit" to include "any credit exposure", calculated pursuant to the regulation, arising from a derivative transaction, repurchase agreement, reverse repurchase agreement, securities lending transaction, or securities borrowing transaction between a national bank and a person. In addition:

- A "borrower" includes "a person to whom a [national bank] has credit exposure arising from a derivative transaction."
- A "derivative transaction" is defined as "any transaction that is a contract, agreement, swap, warrant, note or option that is based, in whole or in part, on the value of, any interest in, or any quantitative measure or the occurrence of any event relating to, one or more commodities, securities, currencies, interest or other rates, indices, or other assets."
- A "securities financing transaction" is defined as "a repurchase agreement, reverse repurchase agreement, securities lending transaction, or securities borrowing transaction."⁵

The Interim Final Rule becomes effective on July 21, 2012, when the Dodd-Frank Act provision becomes effective, with a deferral of compliance until January 1, 2013, to give affected banks time to adjust their systems to comply with the new requirements.⁶ There is a 45-day comment period ending August 5, 2012, after which the OCC may amend the Interim Final Rule, leading possibly to further adjustments in the requirements and compliance dates.

Methods of Making the Calculations

The key provisions in the Interim Final Rule are the methods to calculate a bank's credit exposure on derivatives and securities financing transactions. For non-credit derivatives, banks are allowed to choose among three methods. A more complex calculation is required for credit derivatives. The OCC reserves the right to mandate the use of any one of the methods to promote safety and soundness. Whatever choice a bank makes must be used consistently for all transactions.

Derivatives

The credit exposure arising from derivatives involves two basic components, the current credit exposure and the potential future exposure. Mark-to-market valuations are a proxy for measuring current credit exposures. A negative mark-to-market

³ Section 4(b) of the International Banking Act of 1978, 12 USC. 3102(b), requires Federally-licensed branches of foreign banks to comply, and the OCC's regulation implementing the requirement is at 12 C.F.R. 28.13(a). Section 7(h)(2) of that Act, 12 USC. 3105(h)(2), applies the lending limit to State branches of foreign banks. *See also* 12 C.F.R. 211.28 (aggregation of Federal branch exposures with those of State branches of the same foreign bank).

⁴ Section 5(u) of the Home Owners' Loan Act, 12 USC. 1464(u). For purposes of this Note, unless the context otherwise requires, references to national banks also include savings associations.

⁵ Lending Limits at 37275-77, to be codified at 12 C.F.R. 32.2 (b), (k), (q) and (aa).

⁶ 12 USC. 84(d)(1) authorizes the OCC to adopt this temporary exception.

valuation has no current credit exposure, while a positive valuation translates to a current credit exposure in the same amount. The potential future exposure component captures changes in mark-to-market valuations over time. The Interim Final Rule implicitly uses these components in each of the three methods.⁷

Internal Model Method

The Internal Model Method allows a national bank to use its own internally devised model to estimate the credit exposure of derivatives. A bank may use any model that either has been previously approved under capital adequacy regulations or approved by the OCC.⁸ A bank may net the credit exposure of all derivatives arising under one qualifying master netting agreement. This method will likely be the least burdensome for banks that already have an approved model. Increases in credit exposure for a particular derivative during its life would not be a violation of the lending limits so long as the transaction was within the lending limit at execution.⁹ However, increases in value subsequent to execution would have to be taken into account where the bank considers entering into new transactions.

Conversion Factor Matrix Method

The Conversion Factor Matrix Method (“CFM”) allows a bank to calculate the credit exposure for a derivative simply by multiplying the notional amount by a conversion factor set forth in a look-up table provided in the regulation. The resulting number is effectively the potential future exposure for any derivative based on its maturity date and type. The look-up table is similar to the OCC’s table for calculating derivative credit exposure under the Risk-Based Capital Guidelines and covers interest rate contracts, foreign exchange rate and gold contracts, equity contracts, and a catch-all category for all other types of derivatives. The conversion factor in the table is multiplied by the remaining number of payments for derivatives involving multiple exchanges of principal. In the case of derivatives with periodic settlement dates on which the outstanding exposure is reset to zero, the maturity date corresponds to the next settlement date.

The CFM generally is less burdensome than the Internal Model Method. It captures the potential future exposure of a derivative at the date of calculation and fixes that exposure over the life of the contract, and therefore provides a straightforward way to lock in the exposure at the execution of a contract. Unlike the Internal Model Method, the credit exposure of the derivative does not have to be re-calculated as time goes on, and accordingly is relatively simple. The OCC has acknowledged that the estimate of potential future exposure under this method may be less accurate than with other methods and could cause a bank to exceed its lending limit, but finds the risks of such a scenario to be limited.

⁷ Lending Limits at 37280-82, to be codified at 12 C.F.R. 32.9(b).

⁸ 12 C.F.R. part 3, Appendix C, Section 53 (national banks), 12 C.F.R. part 167, Appendix C, Section 53 (federal savings associations), and 12 C.F.R. part 390, subpart Z, Appendix A, Section 53 (state savings associations). The Federal Deposit Insurance Corporation provides approval in the case of state savings associations.

⁹ Lending Limits at 37271, to be codified at 12 C.F.R. 32.(6)(a)(3).

Example: Bank A enters into a \$10 million, 5-year interest rate swap under which it pays a floating rate. The maturity for this transaction will fall into the “1 year or less” category on the look-up table (due to the periodic payments of outstanding exposure being made at least once a year); the conversion factor is 0.015. Bank A will have credit exposure equal to \$150,000, the notional amount multiplied by the conversion factor of 0.015 (\$10 million × 1.5%).

Remaining Maturity Model

The Remaining Maturity Model also relies on a look-up table, with the calculation of credit exposure capturing the diminishing maturity of a derivative as well as its present mark-to-market value. The theory is that as the maturity of a contract decreases, the credit exposure also will decrease, permitting a bank to make additional credit extensions to the same borrower.

The credit exposure is calculated by adding the current mark-to-market value of the derivative at the time of calculation to the product of

- the notional amount of the transaction,
- the remaining maturity (in years), and
- a fixed conversion factor obtained from the look-up table reflecting the category of the derivative.

The OCC believes that the burden of ascertaining the mark-to-market value of a derivative will be outweighed by the decrease in credit exposure over the life of the contract, which will create a corresponding increase in lending capacity as time goes on.

Example: Bank A enters into a \$100,000, 5-year interest rate swap. The mark-to-market value at execution is \$0. The credit exposure at execution for year one would be \$7,500, the sum of the mark-to-market value (\$0) plus \$7,500 (\$100,000 × 5 years × 1.5%). For year 2, assuming the mark-to-market value of the derivative at that time is \$1,000, the credit exposure would be \$5,500, the sum of \$1,000 plus \$4,500 (\$100,000 × 3 years × 1.5%).

Special Calculation for Credit Derivatives

The Interim Final Rule sets forth a special method for calculating credit exposure for credit derivatives. Instead of using mark-to-market values and conversion factors, the bank uses notional amounts of the credit derivatives; the only exception is for a bank using the Internal Model Method described above that has margining agreements requiring counterparties to collateralize a portion of the net credit exposure owed to the bank.¹⁰ The OCC explanation for the difference in treatment

¹⁰ Lending Limits at 37281, to be codified at 12 C.F.R. 32.9(b)(2). An “effective margining agreement” is defined as “a master legal agreement governing derivative transactions between a bank . . . and a counterparty that requires the counterparty to post, on a daily basis, variation margin to fully collateralize that amount of the bank’s net credit exposure to the counterparty that exceeds \$1 million created by the derivative transactions covered by the agreement.” 12 C.F.R. 32.2(l).

from other derivatives is very obscure, but it appears that the OCC wants to do two things. It wants to avoid national banks having huge credit derivative books simply because of the problems that credit derivatives posed during the height of the financial crisis, primarily to overseas dealers. It also wants to capture a bank's exposure to loss on the reference entity. If the bank issues credit protection to a counterparty, the bank's exposure to loss is if the reference entity defaults on the reference asset (the bank's counterparty does not default, but rather receives payment from the bank). This concern does not apply when the bank purchases credit protection; rather, if the reference entity defaults, the bank's exposure is to the counterparty on the derivative.¹¹

For credit derivatives that provide credit protection to the *bank*, the credit exposure of the bank is the sum of the net notional value of all credit protection purchased from the counterparty *for each reference entity*.

For credit derivatives that provide credit protection to the *counterparty*, the credit exposure of the bank is the sum of the net notional value of all credit protection sold *to all counterparties for each reference entity*, but that credit exposure to a particular reference entity may be reduced by entering into an eligible credit derivative purchased on that reference entity from an eligible protection provider. "Eligible" credit derivatives and "eligible protection providers" are terms defined in the Interim Final Rule.¹²

Example: Bank A buys and sells credit protection from and to Bank B on Firms X, Y and Z. Bank A purchases net notional credit protection from Bank B equal to \$50 for Firm X and \$100 for Firm Y, while Bank A's net protection sold to Bank B is \$35 for Firm Z. The lending limit exposure of Bank A to Bank B is calculated based solely on the amount of net protection that is purchased by Bank A, here \$150. Bank A's credit exposure to Firm Z is \$35.

Thus, the amount of credit exposure to a particular reference entity (not the counterparty) for protection sold by the bank would be added to any other loans or extensions of credit by the bank to the same reference entity. If the bank has a loan outstanding to a reference entity, it must add the credit exposure on credit protection sold by the bank on that particular reference entity to the other credit outstanding to that entity in order to determine whether the bank's total credit to that entity is within the lending limit.

Securities Financing

The Interim Final Rule allows the use of approved internal models to calculate credit exposure for securities financing transactions. If a bank does not have an approved model or chooses not to use it, then it must use the non-model methods outlined below.¹³

¹¹ Lending Limits at 37272, fifth column under "Credit Derivative".

¹² An "eligible" credit derivative includes a single-name credit derivative or a standard, non-tranched index credit derivative. An "eligible protection provider" includes sovereign entities and certain categories of financial institutions, bank holding companies, savings and loan holding companies, registered securities brokers or dealers, insurance companies, foreign banks and qualifying central counterparties. Lending Limits at 37276, to be codified at 12 C.F.R. 32.2(m) and (o).

¹³ Lending Limits at 37281-82, to be codified at 12 C.F.R. 32.9(c)(1).

The Interim Final Rule provides an exception to the lending limit for all securities financing transactions involving certain government-issued securities.¹⁴ The OCC says that its purpose is to reduce the regulatory burden on community and midsize banks.

Repurchase Agreement

For a repurchase agreement, where a bank borrows by simultaneously selling securities it owns and agreeing to repurchase the same securities at a later date at a set price, credit exposure equals the market value at execution less any cash received in return. For example, if a bank borrows \$100 by selling securities worth \$102, the credit exposure for this transaction will be \$2 (\$102 *minus* \$100).

Securities Lending

Securities lending involves a bank lending securities to a counterparty, with the loan typically collateralized by either cash or other securities. The credit exposure arising from the transaction where the collateral is cash equals the market value of the securities transferred at execution less cash received.

Example: A bank lending a security with a \$102 market value, and receiving \$100 cash as collateral, has credit exposure of \$2 (\$102 minus \$100).

Where the securities loan is collateralized by securities, the credit exposure calculation relies on a look-up table with haircuts that capture the risk of market price volatility, consistent with the standard supervisory market price volatility haircuts in the OCC's Risk-Based Capital Guidelines. Credit exposure for securities lending transactions when the collateral is securities equals the product of (x) the higher of the two haircuts associated with the two securities, and (y) the higher of the two par values of the securities.

Example: A bank lends a \$100 par value security, having a \$101 fair market value and a 2% haircut, and the bank receives as collateral a \$100 par value security, with a \$102 fair market value and a 5% haircut. Credit exposure equals \$5 (the product of (x) the higher of 2% and 5% and (y) \$100 since the par value of both securities is the same).

Securities Borrowing

Similar to securities lending transactions, the method for calculating credit exposure in securities borrowing transactions depends on whether the collateral is cash or securities. Where the collateral is cash, the credit exposure equals the product of the haircut on the collateral received and the amount of cash transferred to the other party.

¹⁴ These are so-called Type I securities, which include obligations of the United States Government, a department or agency, obligations issued by a US state or an agency or political subdivision of a state, municipal bonds, and others, subject to various restrictions. 12 C.F.R. 1.2(j). For savings associations, see securities listed in section 5(c)(1)(C), (D), (E), (F) and (H) of HOLA, 12 USC. 1464(c)(1)(C), (D), (E), (F) and (H).

Example: A bank borrows a security with a fair market value of \$102 and pledges \$100 cash collateral. Assuming a 5% haircut, the credit exposure is \$5 ($5\% \times \100).

When securities serve as collateral, the credit exposure equals the product of (x) the higher of the two haircuts for the two securities and (y) the higher of the two par values of the securities.

Example: A bank borrows a \$100 par value security with a fair market value of \$101 and pledges a \$100 par value security. The haircut on the borrowed security is 2% and the haircut on the pledged security is 5%. The credit exposure is \$5 (the product of (x) 5%, which is the higher of 2% and 5%, and (y) \$100 since the par value of both securities is the same).

Reverse Repurchase Agreements

The Interim Final Rule's haircuts also apply in calculating credit exposure in reverse repurchase agreements, typically involving a bank making a secured loan to a counterparty by simultaneously purchasing securities and agreeing to sell the same securities at a fixed price in the future. Credit exposure for reverse repurchase agreements equals the product of (x) the haircut for the collateral received and (y) the amount of cash transferred.

Example: A bank lends \$100, secured by securities worth \$102 and having a haircut of 5%. The credit exposure would be \$5 ($\$100 \times 5\%$).

Implications and Concerns

The Interim Final Rule raises a number of issues and concerns that should be focused on by all banks.

National Banks

- The OCC has required national banks to calculate their credit exposure on derivatives as part of their controls of their derivatives businesses ever since it allowed national banks to engage in them in the 1980s. Thus, calculating credit exposure is not a new concept. However, banks were not required to formally incorporate their derivatives credit exposure with their lending limit calculations. Under the Interim Final Rule, they will have to do so. This may have a significant change in how many banks manage this business as well as affect the amount of credit that a single borrower may receive on all credit transactions.
- The explanation in the Interim Final Rule why credit exposure for credit derivatives is calculated differently from other derivatives is obscure, but it appears clear that the exposure of the bank to a reference entity, not the counterparty on the derivative, is the credit exposure to be calculated when the bank sells credit protection. This is intuitively logical since the bank would have to make a payment if the reference entity defaults. However, the point probably should have been made much more clearly and directly in the OCC explanation.
- The limit applies to exposures to other banks; currently there is an exception for overnight Federal funds sales. Some banks may find that they will have to scale back their derivatives and financing transactions with particular dealer banks in light of this limit.

State Banks

- State banks are not subject to the OCC regulation as their lending limits are governed by the laws of their respective states. However, effective in January 2013, the Dodd-Frank Act prohibits FDIC-insured state banks from engaging in derivative transactions unless the laws of the state in which the bank is chartered takes into account credit exposures in connection with derivative transactions.¹⁵ Not all states have incorporated the lending limits applicable to national banks, out of considerations relating to competitiveness, and some states may adopt provisions similar to the Interim Final Rule.

US Branches of Foreign Banks

- Though the Interim Final Rule ostensibly governs lending limits only for national banks, these amendments will apply to US branches and agencies of foreign banks. The Interim Final Rule applies directly to Federally-licensed branches and agencies, and another statute applies all limits applicable to Federal branches and agencies to State-licensed branches and agencies. Accordingly, US branches and agencies will face the same issues as US banks.¹⁶
- Existing lending limits are rarely a problem for US branches and agencies because the limit is calculated on the foreign bank's global capital, which is usually a very large number, and it does not apply to loans by non-US branches, such as loans booked at an offshore "shell" branch. However, the OCC and Federal Reserve may require that each branch and agency modify whatever procedures are in place to calculate lending limit amounts to incorporate the Interim Final Rule.
- There is a question whether a US branch or agency can use the Internal Model Method described above. That method requires that any model must be approved by a US supervisor. Since these models are used for risk-based capital purposes, and US branches and agencies do not have to comply with US capital rules, it appears that they will not have internal models approved by a US supervisor. If a bank wants to use this method, on the theory that its home country supervisor has approved its models, it should make this argument in a comment letter to the OCC.

Consistency with Other Limits

- Banks may find themselves faced with different methods of calculating credit exposures under different provisions of Dodd-Frank. A proposal issued last December to implement Section 165, requiring that the Federal Reserve develop enhanced requirements for large institutions at the consolidated holding company level, would require that derivative exposures be calculated in ways different from those of the Interim Final Rule.¹⁷
 - The OCC option to use the Internal Model Method is not made available to holding companies in the Section 165 Proposal. Many commenters have severely criticized that part of the proposal.

¹⁵ Dodd-Frank Act, section 611(a).

¹⁶ Credit exposures of both Federal and State branches and agencies of the same foreign bank must be aggregated for purposes of these limits. See the Federal Reserve's regulation at 12 C.F.R. 211.28. The regulation simply imports the OCC's regulations, and accordingly it would not need to be amended by the Federal Reserve in order for the Interim Final Rule to apply.

¹⁷ The Federal Reserve's proposal is at 77 Fed.Reg. 587 (Jan. 5, 2012) (hereinafter "[Section 165 Proposal](#)").

- The conversion factor matrix for OTC derivatives in the Section 165 Proposal varies from the values in the equivalent matrix of the Interim Final Rule.
- Other provisions, such as the definition of an “eligible protection provider” for purposes of netting derivatives exposures and the collateral haircut exposures, are the same.¹⁸ Query why the OCC could not have more closely conformed the Interim Final Rule to that proposal. However, since the proposal may well be changed due to comments, this may not be a difficulty.
- The equivalent Section 165 proposal for foreign banks has not been issued, so that point cannot even be discussed at this time.
- The definition of “derivative” in the Interim Final Rule, which tracks the statutory definition in Dodd-Frank, is not exactly the same as the definition used in Title VII of the Dodd-Frank Act, under which the Commodity Futures Trading Commission and the Securities and Exchange Commission have issued proposed and final regulations to generally regulate the derivatives market.
 - As a result, the Title VII coverage of “derivative” may not exactly match the scope of derivatives captured by the Interim Final Rule, and thereby increase the complexity of designing compliance systems.¹⁹
 - Query whether the inclusion of derivatives within bank lending limits will have an impact on banks’ decisions how to address so-called “swaps pushout” required by Section 716 of the Dodd-Frank Act, effective in July 2013. While the Title VII rulemaking process may have a greater impact on decisions where to conduct a derivatives business within an organization, avoiding the additional complication of national bank lending limits may be a reason tending toward moving the business outside of the bank.
- Derivatives also are defined to be “covered transactions” for purposes of Section 23A of the Federal Reserve Act, and “credit exposure” of a bank to its affiliates on derivatives will become subject to the quantitative and qualitative restrictions of Section 23A for the first time.
 - This provision also becomes effective on July 21, 2012, but the Federal Reserve has not yet proposed a revision to Regulation W, which provides guidance on compliance with Section 23A.
 - Because the term “credit exposure” is the same for purposes of the single-borrower lending limits and for Section 23A, it may be that the Federal Reserve will adopt a definition that is the same as that of the Interim Final Rule.

In summary, the Interim Final Rule will require national banks and US branches and agencies of foreign banks to ascertain the best method for calculating credit exposure arising from their derivative and securities financing transactions and then adjust their internal compliance policies and systems to appropriately calculate credit exposure by January 1, 2013. Though

¹⁸ Section 165 Proposal at 650 (proposed Section 252.92(u)) and 653-54 (proposed Section 252.94).

¹⁹ If you wish to review further information regarding this topic, you may refer to our Client Publication entitled “Dodd-Frank Act: Derivatives as Credit Extensions of Banks” which can be found at: <http://www.shearman.com/dodd-frank-act-derivatives-as-credit-extensions-of-banks-08-17-2010/>.

the Interim Final Rule identifies clear choices for calculating credit exposures, it remains to be seen how arduous compliance will be. We will continue to monitor and report on the rule, including any future modifications and the impact of compliance.

This memorandum is intended only as a general discussion of these issues. It should not be regarded as legal advice. We would be pleased to provide additional details or advice about specific situations if desired.

If you wish to receive more information on the topics covered in this publication, you may contact your regular Shearman & Sterling contact person or any of the following:

Bradley K. Sabel
New York
+1.212.848.8410
bsabel@shearman.com

Donald N. Lamson
Washington, DC
+1.202.508.8130
donald.lamson@shearman.com

Azad Ali
London
+44.20.7655.5659
azad.ali@shearman.com

Azam H. Aziz
New York
+1.212.848.8154
aaziz@shearman.com

Patrick Clancy
London
+44.20.7655.5878
patrick.clancy@shearman.com

Thomas Donegan
London
+44.20.7655.5566
thomas.donegan@shearman.com

Geoffrey B. Goldman
New York
+1.212.848.4867
geoffrey.goldman@shearman.com

Donna M. Parisi
New York
+1.212.848.7367
dparisi@shearman.com

Barnabas W.B. Reynolds
London
+44.20.7655.5528
barney.reynolds@shearman.com

Gregg L. Rozansky
New York
+1.212.848.4055
gregg.rozansky@shearman.com