Midsize Bank Supervision
425 S. Financial Place, Suite 2700
Chicago, IL 60605

Supervisory Condition Letter #2021-02
April 2021
Supervisory Letter 2019-26

December 20, 2019

Audit Committee of the Board
BOKF, N.A.
One Williams Center
Tulsa, Oklahoma 74192-0172

Subject: Market Risk Rule – Conditional Approval

Members of the Committee:

This Supervisory Letter is in response to your request that the Office of the Comptroller of the Currency (OCC) provide BOKF, N.A. (BOKF or Bank) with supervisory approval to use a new internal value-at-risk (VaR) model to calculate general market risk capital requirements for covered positions pursuant to 12 CFR Part 3, subpart F (Market Risk Rule).

The Bank currently uses an approved internal VaR model to calculate its general market risk capital requirements for covered positions. However, to enhance its ability to measure general market risk, the Bank has begun the process of replacing its current internal VaR model with a new model: the Bloomberg Multi-Asset Risk System (MARS). Consistent with this change, the Bank is seeking approval to begin using the new model to calculate VaR and stressed VaR-based capital requirements for general market risk beginning in the first quarter of 2020.

Scope of Examination
We evaluated the Bank's proposed calculation of VaR and stressed VaR capital requirements for general market risk pursuant to the Market Risk Rule. The objective of this review consisted of evaluation of (1) the aforementioned capital requirements and associated models to determine whether an approval is appropriate, and (2) policies and procedures for calculating capital requirements under the Market Risk Rule.

This request was limited to the Bank's calculation of general market risk. The Bank takes the standardized charge for specific risk pursuant to 12 CFR 3.207(c) and 3.210; therefore, specific risk model related items under the Market Risk Rule at 12 CFR 3.207(b) do not apply. This letter summarizes our conclusions regarding the models, methods, and approaches that were reviewed and the necessary conditions required for compliance with the Market Risk Rule.

Discussion
Under 12 CFR 3.205, the Market Risk Rule requires the Bank to use one or more OCC-approved internal models to calculate a daily VaR-based measure of the general market risk of all of its

covered positions. On an ongoing basis, the Bank's internal VaR model must satisfy the internal model requirements set forth at 3.203(c) and 205(b), as well as the backtesting requirements set forth at 12 CFR 3.204(b).

Further, pursuant to 12 CFR 3.206, the Bank must, at least weekly, use the same internal model(s) used to calculate its VaR-based measure to calculate a stressed VaR-based measure. The stressed VaR-based measure is subject to the same general requirements applicable to the VaR-based measure, but with model inputs calibrated to historical data from a continuous 12-month period that reflects a period of significant financial stress appropriate to the Bank's current portfolio. The Bank must have policies and procedures that describe how it determines the period of significant financial stress used to calculate the stressed VaR-based measure and must be able to provide empirical support for the period used.

Pursuant to 12 CFR 3.203(c)(1), the Bank must obtain the prior written approval of the OCC before using any internal model to calculate risk-based capital requirements under the Market Risk Rule. Further, pursuant to 12 CFR 3.203(c)(2), the Bank must promptly notify the OCC if it plans to extend the use of an approved model to a new business line or product type; if it makes any changes to an approved model that would result in a material change in the Bank's risk weighted assets amount for a portfolio of covered positions; or if it makes any material change to its modeling assumptions. In addition, 12 CFR 3.206 requires the Bank to obtain the prior approval of the OCC before making any material changes to its policies and procedures describing how the Bank determines the period of significant financial stress used to calculate its stressed VaR measure.

Conclusions

- The Bank's proposed internal VaR model is appropriate for the volume and complexity of the Bank's activities and is adequate for capturing general market risk; however, the Bank has not accumulated sufficient trading data to complete the backtesting requirements set forth at 12 CFR 3.204(b) of the Market Risk Rule.
- The Bank's approach for calculating its stressed VaR measure is appropriate for the volume and complexity of the Bank's activities and is adequate for capturing general market risk under stressed conditions.

Based on these determinations, we conclude that it is appropriate to approve the Bank's use of its new internal VaR model to calculate its VaR and stressed VaR-based capital requirements, subject to the following conditions:

- The Bank applies a multiplier of "4" to its VaR and stressed VaR based measures for general market risk. Applying a multiplier of "4" is consistent with the multiplier required under Table 1 to 12 CFR 3.204 when backtesting reveals that a bank's internal VaR model failed to adequately predict actual daily net trading losses 10 or more times over the preceding 250 business days.
- The Bank submits satisfactory backtesting results after accumulating 250 days of trading data and to complete the model validation process as soon as practical.

The above-listed conditions of this approval are conditions "imposed in writing by the OCC in connection with an action on an application, notice, or other request" within the meaning of 12 USC 1818 and, as such, are enforceable under 12 USC 1818.

The OCC will conduct a supplemental review of the Bank's compliance with the Market Risk Rule after the Bank has accumulated 250 days of backtesting results and completed its model validation process. At that time, the OCC will consider whether the application of a multiplier of "4" remains appropriate. These determinations, and the activities and communications by OCC employees in connection with the determinations, do not constitute a contract, express or implied, or any other obligation binding upon the OCC, the United States, any agency or entity of the United States, or any officer or employee of the United States, and do not affect the ability of the OCC to exercise its supervisory, regulatory, and examination authorities under applicable law and regulations. The non-contractual nature of the OCC's communications with BOKF or with any of its affiliates, and the OCC's continuing ability to exercise its supervisory, regulatory, and examination authorities are terms and conditions that may not be waived or modified by any employee or agent of the OCC or the United States.

Should you have any questions regarding this letter, please contact Examiner-in-Charge **[ ]** at **[(xxx) xxx-xxxx]**, or Assistant Deputy Comptroller Matthew White at (312) 270-2358.

Sincerely,

/S/

William D. Haas
Deputy Comptroller for Midsize Bank Supervision