Federal Deposit Insurance Corporation
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Division of Insurance and Research

April 12, 2016

MEMORANDUM TO: The Board of Directors

FROM: Diane Ellis
Director, Division of Insurance and Research

SUBJECT: Deposit Insurance Assessments for Small Banks

RECOMMENDATION AND SUMMARY

Staff recommends that the FDIC Board of Directors (the Board) adopt the attached final rule and authorize its publication in the Federal Register. The final rule refines the calculation of deposit insurance assessment rates for insured depository institutions with total assets of less than $10 billion that have been federally insured for at least five years (established small banks).

The final rule revises the method of calculating assessments for established small banks so that it is based on a statistical model estimating the probability of failure over three years; updates the financial measures used in the calculation to be consistent with the statistical model; and eliminates risk categories for established small banks and uses the revised calculation method to determine assessment rates for all such banks (subject to minimum or maximum initial assessment rates based upon a bank's CAMELS composite rating).

In a notice of proposed rulemaking adopted by the Board on June 16, 2015, and published in the Federal Register on July 13, 2015 (2015 NPR), the FDIC sought comment on every aspect of the proposed rule and on alternatives.[1] The FDIC received a total of 484 comment letters, 45 from trade groups and 439 from individuals or banks. These comments addressed many aspects of the proposal, including the loan mix index and the one-year asset growth measure, but the majority of comments expressed concern regarding the proposed treatment of reciprocal deposits in the 2015 NPR.

In response to comments received on the 2015 NPR, the Board adopted a second notice of proposed rulemaking on January 21, 2016 (2016 revised NPR). The 2016 revised NPR was

[1] See 80 FR 40838 (July 13, 2015).

Concur:

Charles Yi
General Counsel

published in the Federal Register on February 4, 2016.[2] The broad outline of the 2016 revised NPR remained the same as the 2015 NPR, but the 2016 revised NPR differed from the 2015 NPR in two principal ways. First, in response to comments, the 2016 revised NPR altered the proposed one-year asset growth measure for calculating assessment rates for established small banks so that the measure would increase assessment rates when one-year asset growth exceeds 10 percent, rather than when it exceeds zero as proposed in the 2015 NPR. Second, again in response to comments, the 2016 revised NPR substituted a brokered deposit ratio in the financial ratios method in place of the previously proposed core deposit ratio, and treated reciprocal deposits as they are treated under current rules.

The FDIC received a total of 19 comment letters in response to the 2016 revised NPR. Of these, 7 were from trade groups and 12 were from individuals or banks. Comments addressed both the revisions to the proposal made by the 2016 revised NPR and aspects of the proposal that remained unchanged from the 2015 NPR, such as the loan mix index. All comments – those received on the 2015 NPR and the 2016 revised NPR – were considered in developing the final rule. Major comments are discussed in the relevant sections that follow.

The final rule adopts the proposals in the 2016 revised NPR without change.

The final rule preserves the overall reduction in assessment rates that, under current regulations, will take effect when the deposit insurance fund (DIF or fund) reserve ratio reaches 1.15 percent. Aggregate assessment revenue collected from established small banks under the final rule is expected to be approximately the same as would be collected under the current method for calculating assessments after the reserve ratio reaches 1.15 percent. Staff expects that approximately ninety-three percent of established small banks will pay lower assessment rates under the final rule than they do at present. If the reserve ratio reaches 1.15 percent and overall assessment rates decline before a final rule takes effect, staff expects that the final rule will either leave unchanged or further reduce assessment rates for approximately 80 percent of small banks.

The final rule does not result in any additional reporting burden on established small banks because assessments will continue to be based on data currently collected in Reports of Condition and Income (Call Reports).

Staff recommends that the final rule become effective July 1, 2016. If the reserve ratio reaches 1.15 percent before that date, the assessment system described in the final rule will become operative July 1, 2016. If the reserve ratio has not reached 1.15 percent by that date, the assessment system described in this final rule will become operative the first day of the calendar quarter after the reserve ratio reaches 1.15 percent.

[2] See 81 FR 6108 (Feb. 4, 2016).

DISCUSSION

Policy Objectives

The policy objectives of this final rule are unchanged from the 2015 NPR and 2016 revised NPR. The primary purpose of the final rule is to improve the risk-based deposit insurance assessment system applicable to established small banks to more accurately reflect risk.

Background

The Federal Deposit Insurance Act (FDI Act) allows the FDIC to establish separate risk-based assessment systems for large and small institutions. As of December 31, 2015, there were 6,191 FDIC-insured institutions.[3] Of the total, 6,080 were established small banks for assessment purposes (which are generally defined as banks with assets of less than $10 billion that have been federally insured for five years or more).[4]

Under current assessment rules, an established small bank is assigned to one of four risk categories based on capital levels and supervisory ratings. Established small banks that are well capitalized and well managed (the majority of small banks) are assigned to Risk Category I – the group generally posing the lowest risk to the DIF. Initial assessment rates for established small banks in Risk Category I are determined by the *financial ratios method*, which combines supervisory CAMELS component ratings with six financial ratios based on a statistical model that predicts the probability of a downgrade from a CAMELS composite rating of 1 or 2 to a rating of 3 or worse within one year.[5] The probability of a CAMELS downgrade is intended as a proxy for the bank's probability of failure. When the model was developed in 2006, the FDIC decided not to attempt to determine a bank's probability of failure because of the lack of bank failures in the years between the end of the bank and thrift crisis in the early 1990s and 2006.

Established small banks not in Risk Category I – those in any of three higher risk categories – are charged one of three initial assessment rates that depend solely on the bank's CAMELS composite rating and capital level.

An established small bank's total assessment rate may be lower than its initial assessment rate if it has long-term unsecured debt outstanding (the unsecured debt adjustment), and may be higher than its initial assessment rate if: (1) it holds unsecured debt that is issued by another

[3] As of December 31, 2015, there were 6,182 insured commercial banks and savings institutions and 9 insured U.S. branches of foreign banks.

[4] Assessment rates for small banks that have been federally insured for less than five years (new small banks) are currently determined in a different manner. Assessment rates for insured branches of foreign banks are also determined in a different manner. The final rule does not change how assessments are determined for either new small banks or insured branches of foreign banks.

[5] Within Risk Category I, those institutions that pose the least risk are charged a minimum initial assessment rate and those that pose the greatest risk are charged an initial assessment rate four basis points higher. All other banks within Risk Category I are charged a rate that varies between these rates.

depository institution (the depository institution debt adjustment or DIDA); or (2) it relies significantly on brokered deposits and is either less than well capitalized or does not have a CAMELS composite rating of 1 or 2 (the brokered deposit adjustment).

The Final Rule

Description of the Final Rule

The final rule adopts the 2016 revised NPR as proposed. The final rule improves the assessment system applicable to established small banks by: (1) revising the financial ratios method so that it is based on a statistical model estimating the probability of failure over three years; (2) updating the financial measures used in the financial ratios method consistent with the statistical model; and (3) eliminating risk categories for all established small banks and using the financial ratios method to determine assessment rates for all such banks. CAMELS composite ratings, however, will be used to place a maximum on the assessment rates that CAMELS composite 1- and 2-rated banks can be charged and minimums on the assessment rates that CAMELS composite 3-, 4- and 5-rated banks can be charged.

The financial ratios method in the final rule uses the measures described in the right-hand column of Table 1 below. For comparison's sake, the measures currently used in the financial ratios method are set out on the left-hand column of the table. To avoid unnecessary burden, the final rule will not require established small banks to report any new data in their Call Reports.

Table 1 – Comparison of Current and Final Rule Measures in the Financial Ratios Method

Current Risk Category I Financial Ratios Method	Final Rule Financial Ratios Method
• Weighted Average CAMELS Component Rating	• Weighted Average CAMELS Component Rating
• Tier 1 Leverage Ratio	• Leverage Ratio[6]
• Net Income before Taxes/Risk-Weighted Assets	• Net Income before Taxes/Total Assets
• Nonperforming Assets/Gross Assets	• Nonperforming Loans and Leases/Gross Assets
	• Other Real Estate Owned/Gross Assets
• Adjusted Brokered Deposit Ratio	• Brokered Deposit Ratio
	• One Year Asset Growth
• Net Loan Charge-Offs/Gross Assets	
• Loans Past Due 30-89 Days/Gross Assets	
	• Loan Mix Index

All of the measures in the final rule are derived from a statistical model that estimates a bank's probability of failure within three years. Each of the measures is statistically significant

[6] The tier 1 leverage ratio is now known as the leverage ratio.

in predicting a bank's probability of failure over that period. The estimation of the statistical model generally uses bank financial data and CAMELS ratings from 1985 through 2011, failure data from 1986 through 2014, and loan charge-off data from 2001 through 2014.

Three of the measures – the weighted average CAMELS component rating, the leverage ratio, and the net income ratio measure – are identical or very similar to the measures currently used in the financial ratios method.[7] The current nonperforming assets/gross assets measure includes other real estate owned. In the final rule, other real estate owned/gross assets is a separate measure from nonperforming loans and leases/gross assets.

The remaining three financial measures - the brokered deposit ratio, the one-year asset growth measure and the loan mix index - are described in detail below.[8] The brokered deposit ratio and the one-year asset growth measure replace the current adjusted brokered deposit ratio.

Brokered deposit ratio

Under current assessment rules, brokered deposits affect a small bank's assessment rate based on its Risk Category. For established small banks that are assigned to Risk Category I (those that are well capitalized and have a CAMELS composite rating of 1 or 2), the adjusted brokered deposit ratio is one of the financial ratios used to determine a bank's initial assessment rate. The adjusted brokered deposit ratio increases a bank's initial assessment rate when a bank has both brokered deposits that exceed 10 percent of its domestic deposits and a high asset growth rate.[9] Reciprocal deposits are not included with other brokered deposits in the adjusted brokered deposit ratio.[10]

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[7] The denominator in the net income before taxes/total assets measure is total assets rather than risk-weighted assets as under current rules. Also, the numerator of the measure is income before applicable income taxes and discontinued operations for the most recent twelve months, rather than income before income taxes and extraordinary items and other adjustments for the most recent twelve months as in the 2015 NPR and current rules. In January 2015, the Financial Accounting Standards Board (FASB) eliminated from U.S. generally accepted accounting principles (GAAP) the concept of extraordinary items, effective for fiscal years and interim periods within those fiscal years, beginning after December 15, 2015.

[8] Two measures in the current financial ratios method – net loan charge-offs/gross assets and loans past due 30-89 days/gross assets – were analyzed but are not used in the final statistical analysis and are not among the measures in this final rule.

[9] The adjusted brokered deposit ratio can affect assessment rates only if a bank's brokered deposits (excluding reciprocal deposits) exceed 10 percent of its domestic deposits and its assets have grown more than 40 percent in the previous 4 years. 12 CFR 327 Appendix A to Subpart A.

Few Risk Category I banks have both high levels of non-reciprocal brokered deposits and high asset growth, so the adjusted brokered deposit ratio affects relatively few banks. As of December 31, 2015, the adjusted brokered deposit ratio affected the assessment rate of 111 banks.

[10] Reciprocal deposits are deposits that an insured depository institution receives through a deposit placement network on a reciprocal basis, such that: (1) for any deposit received, the institution (as agent for depositors) places the same amount with other insured depository institutions through the network; and (2) each member of the network sets the interest rate to be paid on the entire amount of funds it places with other network members. See 12 CFR 327.8(q).

Established small banks in Risk Categories II, III, and IV (those that are less than well capitalized or that have a CAMELS composite rating of 3, 4, or 5) are subject to the brokered deposit adjustment, one of three possible adjustments that can increase or decrease a bank's initial assessment rate. The brokered deposit adjustment increases a bank's assessment rate if it has brokered deposits in excess of 10 percent of its domestic deposits.[11] Unlike the adjusted brokered deposit ratio, the brokered deposit adjustment includes *all* brokered deposits, *including* reciprocal deposits, and is not affected by asset growth rates.

The final rule replaces the adjusted brokered deposit ratio currently used in the financial ratios method with a brokered deposit ratio, defined as the ratio of brokered deposits to total assets, and with a one-year asset growth measure, which is discussed later. The final rule also eliminates the existing brokered deposit adjustment applicable to established small banks outside Risk Category I. Under the new brokered deposit ratio applicable to all established small banks, brokered deposits in excess of 10 percent of total assets may increase assessment rates. For a bank that is well capitalized and has a CAMELS composite rating of 1 or 2, reciprocal deposits will be deducted from brokered deposits. For a bank that is less than well capitalized or has a CAMELS composite rating of 3, 4 or 5, however, reciprocal deposits will be included with other brokered deposits.

Most commenters on the 2016 revised NPR discussed the changes related to the brokered deposit ratio. Some commenters supported using a brokered deposit ratio and some expressed support for excluding reciprocal deposits from the brokered deposit ratio for banks that are well capitalized and have a CAMELS composite rating of 1 or 2. This treatment of reciprocal deposits is generally consistent with the 442 comment letters on the 2015 NPR arguing that reciprocal deposits should not be treated as brokered deposits for assessment purposes or, similarly, that the final rule should reflect the current treatment of reciprocal deposits.

The brokered deposit ratio as defined in the final rule is also consistent with the 16 comment letters on the 2015 NPR cautioning against penalizing the use of Federal Home Loan Bank advances in determining assessment rates. The final rule does not change the current treatment of Federal Home Loan Bank advances in the small bank deposit insurance assessment system. The FDIC received two comments on the 2016 revised NPR supporting the FDIC's responsiveness to these concerns.

The FDIC received two comment letters on the 2016 revised NPR reiterating the argument made in 40 comment letters on the 2015 NPR that reciprocal deposits should be treated as core deposits or are the functional equivalent of core deposits.

As stated in the 2016 revised NPR, however, the FDIC analyzed the characteristics of reciprocal deposits in its Study on Core Deposits and Brokered Deposits and concluded that, "While the FDIC agrees that reciprocal deposits do not present all of the problems that traditional brokered deposits present, they pose sufficient potential problems—particularly their dependence on a network and the network's continued willingness to allow a bank to participate, and the potential of supporting rapid growth if not based upon a relationship—that *they should*

[11] 12 CFR 327.9(d)(3); 12 U.S.C. 1831f.

not be considered core . . ."[12] (Emphasis added.) As the FDIC noted when it adopted the current brokered deposit adjustment and included reciprocal deposits with other brokered deposits in the adjustment, "The statutory restrictions on accepting, renewing or rolling over brokered deposits when an institution becomes less than well capitalized apply to all brokered deposits, including reciprocal deposits. Market restrictions may also apply to these reciprocal deposits when an institution's condition declines."[13] The brokered deposit ratio, which deducts reciprocal deposits for well-capitalized, well-rated banks, is consistent with these statutory restrictions and with the FDIC Study on Core Deposits and Brokered Deposits.

Three commenters on the 2016 revised NPR reiterated the argument they made in their comments on the 2015 NPR that the FDIC should not charge higher assessment rates to banks that hold brokered deposits, but should instead consider how banks use brokered deposits and whether they remain profitable and well capitalized. The FDIC also received letters on both the 2016 revised NPR and the 2015 NPR suggesting that specific types of brokered deposits be excluded from the brokered deposit ratio.

Small banks do not report data on subsets of brokered deposits (other than reciprocal deposits). Because of this lack of data, the FDIC cannot analyze individual types of brokered deposits statistically. In any event, the FDIC's statistical analyses and other studies have found that brokered deposits in general are correlated with a higher probability of failure and, as was acknowledged by one commenter, higher losses upon failure. Collecting additional data on particular types of brokered deposits is not likely to improve the assessment system's ability to distinguish risk enough to warrant the additional reporting burden it would impose on small banks.

One-year asset growth measure

In response to comments on the 2015 NPR that the one-year asset growth measure should not penalize normal asset growth, the final rule uses a one-year asset growth measure that increases an established small bank's assessment rate only if it has had one-year asset growth greater than 10 percent. The one-year asset growth measure will raise assessment rates for established small banks that grow rapidly (other than through merger or by acquiring failed banks), but will not increase assessments for normal asset growth.[14]

The FDIC received 6 comments on the 2016 revised NPR supporting the change from the asset growth measure as proposed in the 2015 NPR. Some commenters, however, still concerned that the measure inappropriately penalizes banks for growth that may not be risky, suggested alternatives to the measure.

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[12] FDIC Study on Core Deposits and Brokered Deposits (2011), 54.

[13] 74 FR 9525, 9541 (Mar. 9, 2009). 12 U.S.C. 1831f.

[14] From 1985 through 2014, one-year asset growth rates greater than 10 percent represented approximately the 70th percentile of small banks. A 10 percent one-year asset growth rate measure is generally consistent with the adjusted brokered deposit ratio in the current Risk Category I financial ratios method, which raises assessment rates only when small banks have both four-year asset growth rates in excess of 40 percent and high levels of brokered deposits.

Staff analyzed whether replacing the one-year asset growth measure with CAMELS component ratings, as suggested by some commenters, would improve the statistical model underlying the final rule. Staff's analyses show that, when the asset growth measure is replaced by the CAMELS components suggested by commenters, the components are highly statistically insignificant. Thus, these CAMELS components cannot be used to substitute for the one-year asset growth measure.

Combining the brokered deposit ratio and one-year asset growth measure

The FDIC received 4 comment letters on the 2016 revised NPR suggesting that the FDIC use a measure that increases assessments only for banks that have both rapid asset growth and high levels of brokered deposits, similar to the current adjusted brokered deposit ratio. Commenters asserted that using separate variables is not supported by the nature of brokered deposit risk or by the statistical model underlying the proposed small bank deposit insurance system. One commenter submitted the results of a statistical analysis it had undertaken that, in the commenter's view, demonstrates that a combined measure performed better in more recent years.

Staff conducted its own backtest of the assessment system in the final rule and compared it with a backtest of an assessment system using a combined measure, as suggested by commenters. Staff's comparison revealed that, overall, the assessment system in the final rule actually performed better in recent years, particularly immediately before the recent banking crisis, in discriminating between banks that failed within three years and those that did not.

Moreover, as discussed earlier, brokered deposits pose risks other than enabling banks to engage in rapid asset growth. Brokered deposits increase a bank's probability of failure (even after controlling for asset growth) and increase the loss to the DIF in the event of failure.[15] In addition, rapid asset growth can be funded by liabilities other than brokered deposits. Staff's analysis of the 354 banks that, during the recent crisis, grew rapidly in the years before they failed reveals that, while brokered deposits funded a significant amount of growth, other funding sources also contributed significantly to growth. Increasing assessments only for banks that have both high levels of brokered deposits and rapid asset growth would allow small banks to have large amounts of brokered deposits or rapid asset growth without any effect on their assessment rates.

Loan mix index

The loan mix index is a measure of the extent to which a bank's total assets include higher-risk categories of loans. The index uses historical industry-wide charge-off rates to identify loan types with higher risk. Each category of loan in a bank's loan portfolio is divided by the bank's total assets to determine the percentage of the bank's assets represented by that

[15] See FDIC Study on Core Deposits and Brokered Deposits (2011), 38-44 and 46-47.

category of loan.[16] Each percentage is then multiplied by that category of loan's historical weighted average industry-wide charge-off rate. The products are then summed to determine the loan mix index value for that bank.

For each loan category's weighted-average industry-wide charge-off rate, the weight for each year's charge-off rate is proportional to the number of bank failures in that year. Thus, charge-off rates from 2008 through 2014, during the recent banking crisis, have a much greater influence on the weighted-average charge-off rate than do charge-off rates from the years before the crisis, when few failures occurred. The weighted averages assure that types of loans that have high charge-off rates during downturns (*i.e.*, periods marked by significant DIF losses) have an appropriate influence on assessment rates.

The FDIC received 30 comments on the 2015 NPR and 11 comments on the revised 2016 NPR (10 from the same commenters who responded to the 2015 NPR) on the loan mix index. Several commenters argued for modifying or eliminating the loan mix index. The comments generally fell into one or more of the following groups:

- The loan mix index should rely on a bank's own indicators of loan quality and underwriting, including geographic variation, risk mitigating factors such as collateral or guarantees, and an individual bank's historical loss ratios, rather than relying on industry averages.

- The loan mix index, which uses charge-off rates from 2001 through 2014, is weighted too heavily by the most recent recession. The weighted charge-off rates assigned to C&D and C&I loans are inappropriately high.

- Charge-off rates in the loan mix index should not be weighted more heavily in years with many bank failures than in years with few bank failures.

- The use of the loan mix index as proposed could lead banks to reduce certain types of lending and increase others.

- The loan mix index assumes that the future will follow the path of the past, but future bank failures may be characterized by different portfolio mixes than in the last recession.

Staff's analysis of each of these points follows.

[16] The loan categories in the loan mix index were selected based on the availability of category-specific charge-off rates over a sufficiently lengthy period (2001 through 2014) to be representative. The loan categories exclude credit card loans. Credit card loans were excluded from the loan mix index because they produced anomalously high assessment rates for banks with significant credit card loans. Credit card loans have very high charge-off rates, but they also tend to have very high interest rates to compensate. In addition, few small banks have significant concentrations of credit card loans.

Comment: The loan mix should rely on a bank's own indicators of loan quality and underwriting.

For several reasons, the loan mix index does not incorporate a bank's quality of loan underwriting, geographic variation, risk mitigating factors, or individual historical loss rates on types of loans. First, the data that banks report in the Call Report are not sufficient or specific enough to distinguish these risk factors by loan category. Collecting the data needed to take these factors into account likely would not improve the assessment system's ability to distinguish for risk enough to warrant the additional reporting burden it would impose on small banks.

Second, underwriting quality directly or indirectly affects, and is reflected in, several other measures in the financial ratios method. Therefore, the final rule should not deter a bank from making well underwritten loans of any type, since good underwriting quality will be reflected in these measures and will reduce the bank's assessment rate.

Third, an individual bank's loss rates on the types of loans in the loan mix index do not necessarily demonstrate how the bank will fare in the future. Low loss rates may result from lending in areas that suffered less in the recent downturn. If a bank's low loss rates simply reflect comparatively less stressful conditions in the bank's primary lending area during the past crisis, they will not reveal how the bank would fare during a period of severe stress similar to that recently observed in other areas of the country. It is not possible to predict which areas of the country will be affected by the next downturn.

Although these reasons are sufficient to preclude replacing the loan mix index, staff nevertheless undertook statistical analyses of two suggestions from commenters on replacing the loan mix index with financial or supervisory measures of a bank's asset quality. In both of the suggestions that staff analyzed, however, the statistical model in the final rule performed better in estimating failure probability than the suggested alternatives.

Comment: The loan mix index is weighted too heavily by the most recent recession. The weighted charge-off rates assigned to C&D and C&I loans are too high.

The loan mix index uses loan charge-off data from 2001 through 2014 to calculate weights for each loan category because charge-off data for some of the loan categories in the loan mix index is not available before 2001. Nevertheless, asset concentrations in commercial real estate (CRE) loans – in particular, C&D loans – have been found to contribute to bank failures in *both* the recent crisis and the earlier crisis of the 1980s and early 1990s, as reflected, for example, in Material Loss Reviews and Reports to Congress from the FDIC Office of Inspector General (OIG) and in the FDIC's analysis of the banking crisis of the 1980s and early 1990s.[17] Staff's analysis finds that established small banks that had a ratio of C&D loans to assets of 50 percent or more as of the end of 2008 failed over the next five years at ten times the rate of established small banks with lower ratios.

[17] See FDIC Study on Core Deposits and Brokered Deposits (2011), Appendix A: Excerpts from Material Loss Reviews And Summaries of OIG Semiannual Reports to Congress, 66-68; and FDIC. (December 1997). History of the Eighties – Lessons for the Future, www.fdic.gov/bank/historical/history/contents.html.

Comment: Annual charge-off rates used in the loan mix index should weight each year equally.

Annual industry-wide charge-off rates for each type of loan in the loan mix index are weighted by the number of bank failures in each year to assure that types of loans that have high charge-off rates during downturns have an appropriate influence on assessment rates. Loss rates observed in periods characterized by a higher rate of bank failures are more relevant to the risk of loss to the DIF than loss experience in other periods.

Staff analyzed the use of a loan mix index based on a simple average of industry-wide, annual charge-off rates (where each year's charge-off rate is weighted equally) for each loan type, as suggested by a commenter, but determined that the assessment system in the final rule would have performed better, particularly in the early part of the last crisis, in discriminating between banks that subsequently failed within three years and those that did not fail within that period.

Comment: Using the loan mix index as proposed could lead banks to reduce certain types of lending and increase others.

The loan mix index reflects the performance of loan types over many years and appropriately assigns higher assessment rates to banks with concentrations in types of loans that have been demonstrated over two crises to be more costly to the DIF than to banks that do not have such concentrations. Staff's analysis finds that the loan mix index should not materially affect banks' lending decisions.

Comment: The loan mix index improperly assumes that the future will follow the path of the past.

While there is no guarantee that the risks that led to past failures will necessarily be identical to those that lead to future failures, past experience still provides a sound basis for evaluating risk. As also discussed above, each of the measures used in the final rule, including the loan mix index, is a statistically significant predictor of bank failure. Use of a loan portfolio measure is also consistent with the findings of numerous academic papers.[18]

Leverage ratio

The FDIC received 18 comments asserting that the weight (or multiplier) assigned to the leverage ratio was too high compared to the current system and "would unfairly penalize banks that meet the 'well capitalized' standard but do not hold excess capital . . ." Commenters argued that there is no statistical evidence that well managed banks with strong capital are significantly weakened by not holding more capital and further, excessive capital can be counterproductive.

Staff disagrees. The greater a bank's capital, the better the bank is able to withstand stress and avoid failure. Consequently, reducing the assessment rate for a bank that holds capital

[18] See 80 FR at 40858.

above the minimum level necessary to be considered well capitalized is appropriate. Further, as stated above, each of the measures in the established small bank assessment system is a statistically significant predictor of bank failure and the multipliers used in the final rule for the leverage ratio and for all of the measures are derived from an empirical, statistical analysis.

CAMELS ratings

The FDIC received 28 comments related to the role of CAMELS ratings in determining a bank's assessment rate. The commenters suggested that the FDIC should more heavily weight CAMELS supervisory ratings over other measures. Some commenters suggested using individual CAMELS component ratings in place of or to limit the effect of other measures.

For several reasons, these comments have not led to changes in the final rule. First, CAMELS ratings are among the useful predictors of a bank's probability of failure and, as under current rules, continue to be a significant determinant of assessment rates under the final rule. The final rule uses both a bank's financial measures and a weighted average of its CAMELS component ratings to determine its assessment rate. Financial ratios can provide updated information on an institution's risk profile between bank examinations and allow greater differentiation in risk. To take into account idiosyncratic and unquantifiable risks and risk mitigators that are reflected in CAMELS composite ratings, the final rule also establishes minimum and maximum assessment rates for established small banks based on these ratings. Thus, the final rule prevents the assessment system from assigning a rate that reflects either too little risk (for a bank with a CAMELS composite 3, 4, or 5 rating) or too much risk (for a bank with a CAMELS composite 1 or 2 rating).

Second, the variables selected and used in the underlying statistical model are consistent with other models of bank risk, including FDIC offsite monitoring models and academic literature.[19] Rapid asset growth, reliance on brokered deposits, and significant concentrations in riskier assets have all been found to contribute to bank failure.[20]

Third, as stated above, each of the measures in the established small bank assessment system is a statistically significant predictor of bank failure and the multipliers used in the final rule for weighted average CAMELS component ratings and for all of the financial measures are derived from an empirical, statistical analysis. Commenters did not cite or provide empirical evidence to support their suggestion that a greater weight be assigned to CAMELS supervisory ratings, or that a lower weight (or effectively no weight) be assigned to various financial measures.

In sum, the financial ratios method in the final rule, including the multipliers assigned to the financial measures and weighted average CAMELS component ratings, predicts failures significantly better than the current system.

[19] See 80 FR 40858.

[20] See FDIC Study on Core Deposits and Brokered Deposits (2011), Appendix A: Excerpts from Material Loss Reviews And Summaries of OIG Semiannual Reports to Congress (66-68).

Calculating the Initial Assessment Rate

As in the current methodology for Risk Category I small banks, under the final rule the weighted CAMELS components and financial ratios will be multiplied by statistically derived pricing multipliers, the products summed, and the sum added to a uniform amount that is: (a) derived from the statistical analysis; (b) adjusted for assessment rates set by the FDIC; and (c) applied to all established small banks. The total will equal the bank's initial assessment rate. If, however, the resulting rate is below the minimum initial assessment rate for established small banks, the bank's initial assessment rate will be the minimum initial assessment rate; if the rate is above the maximum, then the bank's initial assessment rate will be the maximum initial rate for established small banks. In addition, if the resulting rate for an established small bank is below the minimum or above the maximum initial assessment rate applicable to banks with the bank's CAMELS composite rating, the bank's initial assessment rate will be the respective minimum or maximum assessment rate for an established small bank with its CAMELS composite rating.

Adjustments to Initial Base Assessment Rates

As discussed above, because the brokered deposit ratio will apply to all established small banks, the final rule eliminates the existing brokered deposit adjustment for these banks to avoid assessing banks twice for holding brokered deposits.[21]

Assessment Rates

Table 2 below sets out the assessment rate schedule for established small banks that will go into effect under the final rule. Unless revised by the Board, these rates will remain in effect as long as the reserve ratio is less than 2 percent. Table 2 also includes a maximum assessment rate that will apply to CAMELS composite 1- and 2-rated banks and minimum assessment rates that will apply to CAMELS composite 3-rated banks and CAMELS composite 4- and 5-rated banks.

[21] As under rules currently in effect, the brokered deposit adjustment will continue to apply to all new small institutions in Risk Categories II, III, and IV, and all large and highly complex institutions, except large and highly complex institutions that are well capitalized and have a CAMELS composite rating of 1 or 2. As under rules currently in effect, the brokered deposit adjustment will not apply to insured branches.

Table 2 - Initial and Total Base Assessment Rates*
(In basis points per annum)
After the reserve ratio reaches 1.15 percent[22]

	Established Small Banks			Large & Highly Complex Institutions
	CAMELS Composite			
	1 or 2	3	4 or 5	
Initial Base Assessment Rate	3 to 16	6 to 30	16 to 30	3 to 30
Unsecured Debt Adjustment ***	-5 to 0	-5 to 0	-5 to 0	-5 to 0
Brokered Deposit Adjustment	N/A	N/A	N/A	0 to 10
Total Base Assessment Rate	1.5 to 16	3 to 30	11 to 30	1.5 to 40

* Total base assessment rates in the table do not include the DIDA.
** The unsecured debt adjustment cannot exceed the lesser of 5 basis points or 50 percent of an insured depository institution's initial base assessment rate; thus, for example, an insured depository institution with an initial base assessment rate of 3 basis points will have a maximum unsecured debt adjustment of 1.5 basis points and cannot have a total base assessment rate lower than 1.5 basis points.

In 2011, pursuant to its long-term fund management plan, the Board adopted the range of initial assessment rates in this rate schedule as the FDIC's best estimate of the assessment rates that would have been needed from 1950 to 2010 to maintain a positive fund balance during the past two banking crises. This assessment rate schedule remains the staff's best estimate of the long-term rates needed. Consequently, the final rule converts its statistical model to assessment rates within this 3 basis point to 30 basis point assessment range in a revenue neutral way.

In lieu of dividends, and pursuant to the FDIC's authority to set assessments and consistent with the FDIC's long-term fund management plan, the Board also adopted a lower schedule of assessment rates that will come into effect without further action by the Board when the fund reserve ratio at the end of the prior assessment period meets or exceeds 2 percent, but is less than 2.5 percent, and another, still lower, schedule of assessment rates that will come into effect, again without further action by the Board, when the fund reserve ratio at the end of the prior assessment period meets or exceeds 2.5 percent. The final rule preserves these assessment rate reductions while making conforming changes to the schedules for established small banks to show the elimination of risk categories and adoption of limits based on CAMELS composite ratings.

Under the final rule, the Board retains its authority to uniformly adjust assessment rates up or down from the total base assessment rate schedule without further rulemaking, as long as the adjustment does not exceed 2 basis points.

[22] The reserve ratio for the immediately prior assessment period must also be less than 2 percent.

Expected Effects of the Final Rule

While the final rule would have been revenue neutral as of the fourth quarter of 2015 for established small banks in aggregate, individual bank assessments would have differed. To illustrate the effects of the final rule on small bank assessment rates, staff compared actual assessment rates of established small banks for the fourth quarter of 2015 with assessment rates under the final rule (shown in Table 2 above). Due in large part to the overall decline in rates once the reserve ratio reaches 1.15 percent, under the final rule, 93 percent of established small banks would have had lower total assessment rates and 7 percent of established small banks would have had rate increases. Assuming that the range of assessment rates for the fourth quarter of 2015 had been the same as under the final rule (that is, that the range of initial assessment rates had been 3 basis points to 30 basis points), 56 percent of established small banks would have had lower total assessment rates under final rule and 20 percent would have had rate increases. These percentages do not differ materially from the corresponding percentages in the 2015 NPR or 2016 revised NPR.

Only those established small banks that would have had rate increases could have lower earnings as a result. Of these banks, all but a few are expected to have resulting declines in income (or increases in losses, where the bank is unprofitable) of 5 percent or less. The final rule is expected to cause no small banks to fall below a 4 percent or 2 percent leverage ratio that would otherwise be above these thresholds.

Backtesting

To evaluate the final rule, the FDIC tested how well the assessment system in the final rule would have differentiated between banks that failed and those that did not during the recent financial crisis compared to the current small bank deposit insurance assessment system.

Table 3 compares accuracy ratios for the assessment system in the final rule and the current system. An accuracy ratio compares how well each approach would have discriminated between banks that failed within the projection period and those that did not. The projection period in each case is the three years following the date of the projection (the first column), which is the last day of the year given. Thus, for example, the accuracy ratios for 2006 reflect how well each approach would have discriminated in its projection between banks that failed and those that did not from 2007 through 2009.[23] A "perfect" projection would receive an accuracy ratio of 1; a random projection would receive an accuracy ratio of 0.

[23] The current small bank deposit insurance assessment system did not exist at the end of 2006 and existed in somewhat different forms in years before 2011. The comparison assumes that the small bank deposit insurance assessment system in its current form existed in each year of the comparison.

Table 3 – Accuracy Ratio Comparison between the Revised Proposal and the Current Small Bank Deposit Insurance Assessment System

	(A)	(B)	
Year of Projection	**Accuracy Ratio for the Final Rule***	**Accuracy Ratio for the Current Small Bank Assessment System**	**Accuracy Ratio for the Final Rule - Accuracy Ratio for the Current System (A - B)**
2006	0.7000	0.3491	0.3509
2007	0.7756	0.5616	0.2141
2008	0.9003	0.7825	0.1178
2009	0.9354	0.9015	0.0339
2010	0.9543	0.9394	0.0265
2011	0.9543	0.9323	0.0219

* The accuracy ratio for the final rule is based on the conversion of the statistical model as estimated based on bank data through 2011 and failure data through 2014.

The table contains results that do not differ materially from the comparison between the assessment system proposed in the 2015 NPR and 2016 revised NPR with the current small bank deposit insurance assessment system. In each comparison, the table reveals that, while the current system did relatively well at capturing risk and predicting failures in more recent years, the system under the final rule would have not only done significantly better immediately before the recent crisis and at the beginning of the crisis, but also better overall.[24] In the early part of the crisis, when CAMELS ratings had not fully reflected the worsening condition of many banks, the system under the final rule would have recognized risk far better than the current system, primarily because the rates under the final rule are not constrained by risk categories. As the crisis progressed and CAMELS ratings more fully reflected crisis conditions, the superiority of the system under the final rule decreased, but it still performed better than the current system.

[24] As implied in the footnote to Table 3, the accuracy ratios in the table are based on in-sample backtesting. In-sample backtesting compares model forecasts to actual outcomes where those outcomes are included in the data used in model development. Out-of-sample backtesting is the comparison of model predictions against outcomes where those outcomes are not used as part of the model development used to generate predictions. Out-of-sample backtesting, discussed in Appendix 1 to the 2016 revised NPR, also shows that, while the current assessment system for small banks did relatively well at predicting failures in more recent years, the revised system would have done significantly better immediately before the recent crisis and at the beginning of the crisis, and also better overall.

Implementation of the Final Rule

Staff recommends that a final rule take effect on July 1, 2016. If the reserve ratio reaches 1.15 percent before that date, the assessment system described in the final rule will become operative on July 1, 2016. If the reserve ratio has not reached 1.15 percent by that date, the assessment system described in the final rule will become operative the first day of the calendar quarter after the reserve ratio reaches 1.15 percent.

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