January 15, 2015

**MEMORANDUM TO:** 

The Board of Directors

FROM:

Diane Ellis

flean Elin 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) authorize publication of the attached notice of proposed rulemaking (revised NPR or revised proposal) with a 30-day comment period. The revised NPR would revise an earlier notice of proposed rulemaking adopted by the Board on June 10, 2015 (the 2015 NPR) to amend 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).

In the 2015 NPR, the FDIC proposed revising the method of calculating assessments for established small banks so that it would be based on a statistical model estimating the probability of failure over three years; updating the financial measures to be consistent with the statistical model; and eliminating risk categories for established small banks and using 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).

The 2015 NPR was published in the Federal Register on July 13, 2015. The FDIC received a total of 484 comment letters, 45 from trade groups and 439 from individuals or banks. The majority of commenters expressed concern regarding the proposed treatment of reciprocal deposits in the 2015 NPR.

In response to comments received on the 2015 NPR, staff is recommending that the Board adopt a revised NPR. The revised NPR differs from the 2015 NPR in two principal ways. First, in response to comments, the revised NPR alters 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 revised NPR substitutes a brokered deposit ratio in the financial ratios method in place of the previously

Concur:

General Counsel

<sup>&</sup>lt;sup>1</sup> See 80 FR 40838 (July 13, 2015).

proposed core deposit ratio, treats reciprocal deposits as they are treated under current rules, and removes the existing brokered deposit adjustment for established small banks. These and other revisions and the reasons for them are discussed in more detail below.

Backtesting of the revisions to the established small bank assessment system proposed in this revised NPR reveals that the revisions would have differentiated between banks that failed and those that did not fail during the recent crisis just as well as the revisions proposed in the 2015 NPR and considerably better than current small bank deposit insurance assessment system did.

The FDIC also received comments on parts of the proposal in the 2015 NPR that have not changed in this revised NPR. These comments included suggestions to more heavily weight CAMELS supervisory ratings over various financial ratios and to tailor the loan mix index to individual banks, and assertions that the proposed minimum and maximum assessment rates are inappropriate. These comments are not discussed in this revised NPR. The revised NPR provides that the FDIC will consider all comments submitted in response to the 2015 NPR, as well as comments submitted in response to this revised NPR, in developing a final rule. Thus, to reduce burden, those who submitted a comment on the 2015 NPR need not resubmit the comment for it to be considered by the FDIC in developing the final rule. The revised NPR also provides, however, that comments on any aspect of the revised NPR are welcome.

Staff recommends that a final rule based on the revised proposal take effect the quarter after the Deposit Insurance Fund (DIF) reserve ratio reaches 1.15 percent (or the first quarter after a final rule is adopted that the rule can take effect, whichever is later). Like the 2015 NPR, the revised proposal would preserve the overall reduction in assessment rates that, under current regulations, will take effect when that reserve ratio has been reached. Aggregate assessment revenue collected from established small banks under the revised proposal 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. Over 90 percent of established small banks would pay lower assessment rates under the revised NPR than they do at present. If the reserve ratio reaches 1.15 percent and overall assessment rates decline before a final rule takes effect, the final rule would either leave unchanged or further reduce assessment rates for approximately 80 percent of small banks.

The revised proposal would not result in any additional burden on established small banks because assessments will continue to be based on data currently collected in Reports of Condition and Income (Call Reports). To help banks understand the effect of the revised NPR, staff plans to place an assessment calculator on the FDIC's website that will allow an established small bank to determine its assessment rates under the revised proposal.

# **DISCUSSION**

### **Policy Objectives**

The policy objectives of this revised NPR are unchanged from the 2015 NPR. The primary purpose of the proposed rule, like the 2015 NPR, is to improve the risk-based deposit insurance assessment system applicable to 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 September 30, 2015, there were 6,270 commercial banks and savings institutions. Of the total, 6,159 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).<sup>2</sup>

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 base 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.<sup>3</sup> 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 depository institution (the depository institution debt adjustment or DIDA); or (2) it is either less than well capitalized or does not have a CAMELS composite rating of 1 or 2, and relies significantly on brokered deposits (the brokered deposit adjustment). The revised proposal would remove the brokered deposit adjustment for established small banks, as discussed in further detail below.

# The Revised Proposal

Description of the Revised Proposal

The broad outline of this revised proposal remains the same as the 2015 NPR, but this revised NPR revises the proposal by: (1) using a brokered deposit ratio (that treats reciprocal

<sup>&</sup>lt;sup>2</sup> 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 revised proposal does not change how assessments are determined for either new small banks or insured branches of foreign banks.

<sup>&</sup>lt;sup>3</sup> 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.

deposits the same as under current regulations) as a measure in the financial ratios method for calculating assessment rates for established small banks instead of the previously proposed core deposit ratio; (2) removing the existing brokered deposit adjustment for established small banks; (3) revising the previously proposed one-year asset growth measure; (4) re-estimating the statistical model underlying the established small bank deposit insurance assessment system in light of the revisions to the proposal; (5) revising the uniform amount and pricing multipliers used in the financial ratios method; and (6) providing that any future changes to the statistical model underlying the established small bank deposit insurance assessment system would go through notice-and-comment rulemaking.

The financial ratios method as proposed to be revised 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 revised proposal will not require small banks to report any new data in their Call Reports.

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

Current Financial Ratios Method Measures Used for Established Small Banks in Risk Category I	Proposed Financial Ratios Method Measures for al Established Small Banks		
Weighted Average CAMELS Component Rating	Weighted Average CAMELS Component Rating		
Tier 1 Leverage Ratio	Tier 1 Leverage Ratio		
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 proposed in this revised NPR are derived from a statistical analysis that estimates a bank's probability of failure within three years. Each of the measures is statistically significant in predicting a bank's probability of failure over that period. The statistical analysis used 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.

Two of the measures proposed in this revised NPR – the weighted average CAMELS component rating and the tier 1 leverage ratio – are identical to the measures currently used in the financial ratios method and are as proposed in the 2015 NPR. The net income before taxes/total assets measure in this revised NPR is virtually identical to the measure proposed in the 2015 NPR and is also almost identical to the current measure. The denominator in the

revised proposal is total assets rather than risk-weighted assets as under current rules. The current nonperforming assets/gross assets measure includes other real estate owned. In this revised NPR and in the 2015 NPR, other real estate owned/gross assets is a separate measure from nonperforming loans and leases/gross assets.

The remaining three proposed financial measures, described in detail below, differ from the measures in the current established small bank deposit assessment system.<sup>4</sup> Staff proposes to replace the adjusted brokered deposit ratio currently used in the financial ratios method with two separate measures: a brokered deposit ratio (rather than a core deposit ratio as proposed in the 2015 NPR) and a one-year asset growth measure. As stated above, these two financial measures – the brokered deposit ratio and the one year asset growth measure – differ from the measures proposed in the 2015 NPR. The third proposed new measure, the loan mix index, remains as proposed in the 2015 NPR.

# 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 brokered deposits that exceed 10 percent of its domestic deposits combined with a high asset growth rate. Reciprocal deposits are *not* included with other brokered deposits in the adjusted brokered deposit ratio.

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. 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. As the FDIC noted when it adopted the 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

<sup>&</sup>lt;sup>4</sup> Two measures in the current financial ratios method – net loan charge-offs/gross assets and loans past due 30-89 days/gross assets – are not used in the statistical analysis and are not among the measures in the 2015 NPR or this revised proposal.

<sup>&</sup>lt;sup>5</sup> The adjusted brokered deposit ratio can affect assessment rates only if a bank's brokered deposits (excluding reciprocal deposits) exceed 10 percent of its non-reciprocal brokered 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 September 30, 2015, the adjusted brokered deposit ratio affected the assessment rate of 95 banks.

<sup>6 12</sup> CFR 327.9(d)(3); 12 USC 1831f.

deposits, including reciprocal deposits. Market restrictions may also apply to these reciprocal deposits when an institution's condition declines."<sup>7</sup>

Staff proposes to replace the adjusted brokered deposit ratio currently used in the financial ratios method with a brokered deposit ratio, measured as the ratio of brokered deposits to total assets. As discussed below, staff also proposes to eliminate the existing brokered deposit adjustment for established small banks. Under the proposed brokered deposit ratio, brokered deposits would increase an assessment rate only for an established small bank that holds brokered deposits in excess of 10 percent of total assets. For a bank that is well capitalized and has a CAMELS composite rating of 1 or 2, reciprocal deposits would 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 would be included with other brokered deposits.

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. Some commenters encouraged the FDIC to revise the proposal in the 2015 NPR so that it reflects the current treatment of reciprocal deposits, which this revised proposal does. As described above, in the current system, the adjusted brokered deposit ratio, which applies to well-capitalized established small banks that have CAMELS composite ratings of 1 or 2, excludes reciprocal deposits. The brokered deposit adjustment, however, which applies to all established small banks that are less than well capitalized or have CAMELS composite ratings of 3, 4 or 5, includes reciprocal deposits. The proposed brokered deposit ratio makes the same distinction with respect to reciprocal deposits.

The FDIC also received 40 comment letters on the 2015 NPR arguing that reciprocal deposits should be treated as core deposits or are the functional equivalent of core deposits. 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 not be considered core* . . ."<sup>10</sup> (Emphasis added.) The proposed brokered deposit ratio, which deducts reciprocal deposits for well capitalized, well rated banks, is consistent with the Study on Core Deposits and Brokered Deposits and with the majority of comments received.

Sixteen commenters, including banking trade associations, cautioned against penalizing the use of Federal Home Loan Bank advances in determining assessment rates. Some commenters also argued that lowering assessments for core deposits, as proposed in the 2015 NPR, would make Federal Home Loan Bank advances relatively more expensive. Replacing the

<sup>&</sup>lt;sup>7</sup> 74 FR 9525, 9541 (Mar. 9, 2009).

<sup>&</sup>lt;sup>8</sup> 12 CFR Part 327 Appendix A to Subpart A.

<sup>9 12</sup> CFR 327.9(d)(3); 12 USC 1831f.

<sup>&</sup>lt;sup>10</sup> FDIC Study on Core Deposits and Brokered Deposits (2011), 54.

previously proposed core deposit ratio with a brokered deposit ratio would not change the current treatment of Federal Home Loan Bank advances in the small bank deposit insurance assessment system. In contrast, treating reciprocal deposits as core deposits in the core deposit ratio would create an incentive for established small banks to switch from Federal Home Loan Bank advances and other funding sources (other than core deposits) to reciprocal deposit funding, with unpredictable effects on banks' probability of failure.

# One-year asset growth measure

The FDIC received 18 comments on the proposed one-year asset growth measure in the 2015 NPR. Some commenters argued that the one-year asset growth rate should not penalize normal growth. One commenter suggested that asset growth should not affect assessments until it exceeds an industry-based norm, while other commenters suggested using the "A" ("Asset quality") CAMELS component instead of a one-year asset growth rate or taking mitigating factors into account in the growth rate.

In response to these comments, staff is proposing that the one-year asset growth measure increase the assessment rate only for an established small bank that has had one-year asset growth greater than 10 percent. With this modification, the 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.<sup>11</sup>

#### Loan mix index

The proposed loan mix index is unchanged from the 2015 NPR. As described in the 2015 NPR, 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 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 category of loan. 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.

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. For each loan category, the weighted-average charge-off rate weights each industry-wide charge-off rate for each year by the

<sup>&</sup>lt;sup>11</sup> From 1985 through 2014, one-year asset growth rates greater than 10 percent represented approximately the 70<sup>th</sup> 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.

<sup>&</sup>lt;sup>12</sup> 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. Consequently, credit card loans are omitted from the index.

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 insurance fund losses) have an appropriate influence on assessment rates.

# Calculating the Initial Assessment Rate

As in the current methodology for Risk Category I small banks, and as proposed in the 2015 NPR, under the revised proposal the weighted CAMELS components and financial ratios would be multiplied by statistically derived pricing multipliers, the products would be summed, and the sum would be added to a uniform amount that would be: (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 would equal the bank's initial assessment rate. If, however, the resulting rate were below the minimum initial assessment rate for established small banks, the bank's initial assessment rate would be the minimum initial assessment rate; if the rate were above the maximum, then the bank's initial assessment rate would be the maximum initial rate for established small banks. In addition, if the resulting rate for an established small bank were 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 would be the respective minimum or maximum assessment rate for an established small bank with its CAMELS composite rating. This approach would allow rates to vary incrementally across a wide range of rates for all established small banks. The conversion of the statistical model to pricing multipliers and the uniform amount is discussed further below and in detail in the proposed Appendix E. Appendix E also discusses the derivation of the pricing multipliers and the uniform amount.

### Adjustments to Initial Base Assessment Rates

As discussed above, staff proposes to eliminate the brokered deposit adjustment for established small banks. <sup>13</sup> Under current rules, the brokered deposit adjustment only applies to small banks if they are in Risk Category II, III, and IV. The brokered deposit adjustment increases a bank's assessment when it holds significant amounts of brokered deposits. To avoid assessing banks twice for holding brokered deposits (since the brokered deposit ratio would apply to all established small banks), staff proposes eliminating the brokered deposit adjustment for established small banks.

<sup>&</sup>lt;sup>13</sup> As under rules currently in effect, the brokered deposit adjustment would continue to apply to all new small institutions in Risk Categories II, III, and IV, and all large 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 would not apply to insured branches.

As under current rules, the DIDA would continue to apply to all banks, and the unsecured debt adjustment would continue to apply to all banks except new banks and insured branches of foreign banks (insured branches).<sup>14</sup>

# Proposed Assessment Rates

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

Table 2 - Initial and Total Base Assessment Rates\*

(In basis points per annum)

Once the reserve ratio reaches 1.15 percent<sup>15</sup>

	Established Small Banks  CAMELS Composite			Large & Highly Complex Institutions**
	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

<sup>\*</sup> Total base assessment rates in the table do not include the DIDA.

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 revised proposal converts its statistical model to

<sup>\*\*</sup> See 12 CFR 327.8(f) and (g) for the definition of large and highly complex institutions.

<sup>\*\*\*</sup> 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.

<sup>&</sup>lt;sup>14</sup> As under rules currently in effect, however, no adjustments would apply to bridge banks or conservatorships. These banks would continue to be charged the minimum assessment rate applicable to small banks.

<sup>&</sup>lt;sup>15</sup> The reserve ratio for the immediately prior assessment period must also be less than 2 percent.

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 revised proposal 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 revised proposal, 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.

Insured Branches of Foreign Banks and New Small Banks

This revised proposal makes no changes to the current rules governing the assessment rate schedules applicable to insured branches or to the assessment rate schedule applicable to new small banks. The revised proposal also makes no changes to the way in which assessment rates for insured branches and new small banks are determined.

# **Expected Effects of the Revised Proposal**

While the proposed rule would be revenue neutral for established small banks in aggregate, individual bank assessments would differ. To illustrate the effects of the revised proposal on small bank assessment rates, staff compared actual assessment rates of established small banks for the third quarter of 2015 with assessment rates under the revised proposal (shown in Table 2 above). Due in large part to the overall decline in rates once the reserve ratio reaches 1.15 percent, 93 percent of established small banks would have had lower total assessment rates and just under 7 percent of established small banks would have had rate increases. Assuming that the range of assessment rates for the third quarter of 2015 had been the same as under the revised proposal (that is, that the range of initial assessment rates had been 3 basis points to 30 basis points), just over 56 percent of established small banks would have had lower total assessment rates under the revised proposal and just under 21 percent would have had rate increases. These percentages do not differ materially from the corresponding percentages in the 2015 NPR.

Only those established small banks that would have had rate increases would have lower capital and earnings as a result. Of these banks, all but a very few (16) would have resulting declines in income (or increases in losses, where the bank is unprofitable) of 5 percent or less. The revised proposal would 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 proposed revisions to the risk-based deposit insurance assessment system for small banks, staff tested how well the revised system 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 proposed system 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. 16 A "perfect" projection would receive an accuracy ratio of 1; a random projection would receive an accuracy ratio of 0.

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

	(A)	(B)	
Year of	Accuracy Ratio for the Revised	Accuracy Ratio for the Current Small Bank Assessment	Accuracy Ratio for the Revised Proposal - Accuracy Ratio for the Current
Projection	Proposal*	System	System (A - B)
2006	0.6988	0.3491	0.3498
2007	0.7760	0.5616	0.2144
2008	0.9015	0.7825	0.1190
2009	0.9360	0.9015	0.0345
2010	0.9667	0.9394	0.0272
2011	0.9548	0.9323	0.0225

<sup>\*</sup> The accuracy ratio for the revised proposal is based on the conversion of the statistical model as estimated based on bank data through 2011 and failure data through 2014.

11

<sup>&</sup>lt;sup>16</sup> 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.

The table contains results that do not differ materially from the comparison between the assessment system proposed in the 2015 NPR and 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 proposed system would have not only done significantly better immediately before the recent crisis and at the beginning of the crisis, but also better overall. <sup>17</sup> In the early part of the crisis, when CAMELS ratings had not fully reflected the worsening condition of many banks, the proposed system 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 proposed system decreased, but it still performed better than the current system.

# Implementation of the Final Rule

Staff recommends that a final rule take effect the quarter after the Deposit Insurance Fund (DIF) reserve ratio has reached 1.15 percent (or the first quarter after a final rule is adopted that the rule can take effect, whichever is later).

Staff contacts:

DIR

Munsell St. Clair, Chief, Banking and Regulatory Policy Section, (202) 898-8967

Legal Division

Nefretete Smith, Senior Attorney, (202) 898-6851 Thomas Hearn, Counsel, (202) 898-6967

\_

<sup>&</sup>lt;sup>17</sup> As implied in the footnote to Table 3, the accuracy ratios in the table are based on in-sample backtesting. Insample 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 revised NPR, also shows that, while the current assessment system for small banks did relatively well at predicting failures in more recent years, the proposed system would have done significantly better immediately before the recent crisis and at the beginning of the crisis, but also better overall.