



Federal Deposit Insurance Corporation

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Division of Insurance and Research

June 10, 2015

**MEMORANDUM TO:** The Board of Directors

**FROM:** Diane Ellis *Diane Ellis*  
Director, Division of Insurance and Research

**SUBJECT:** Deposit Insurance Assessments for Small Banks

### RECOMMENDATION

Staff recommends that the FDIC Board of Directors (the Board) authorize publication of the attached notice of proposed rulemaking (NPR or proposal) with a 60-day comment period. The NPR would revise the calculation of deposit insurance assessments 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 proposal would base assessments for these institutions on a model estimating the probability of failure using data from the recent crisis and earlier years, and will eliminate current risk categories (subject to minimum or maximum initial assessment rates based upon a bank's CAMELS composite rating). These revisions would allow assessments to better capture the risk that an established small bank poses to the Deposit Insurance Fund (DIF or fund).

Staff recommends that the proposed revisions become operative the quarter after the reserve ratio of the DIF reaches 1.15 percent. The proposal would preserve the overall reduction in assessment rates that, under current regulations, will take effect at that time. Therefore, the vast majority of established small banks would pay lower assessments after the reserve ratio reaches 1.15 percent. Aggregate assessment revenue collected from established small banks under the proposed revisions 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.

The proposed revisions would not result in any additional burden on established small banks because assessments will continue to be based on data currently collected in Call Reports. To help banks understand the effect of the 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 after the reserve ratio reaches 1.15 percent under the proposal.

Concur:

  
Charles Yi  
General Counsel

## SUMMARY

The proposal would: (1) revise the financial ratios method so that it would be based on a statistical model estimating the probability of failure over three years; (2) update financial measures used in the financial ratios method consistent with the statistical model; and (3) eliminate risk categories for established small banks and use the financial ratios method to determine assessment rates for all such banks (subject to minimum or maximum initial assessment rates based on an established small bank's CAMELS composite rating). The proposal leaves unchanged the range of assessment rates that will apply once the DIF reserve ratio reaches 1.15 percent, 2 percent and 2.5 percent; thus, under the proposal, as under current regulations, initial base assessment rates will fall when the reserve ratio reaches each of these thresholds.<sup>1</sup>

## DISCUSSION

### Policy Objectives

The Federal Deposit Insurance Act (FDI Act) requires that the FDIC establish a risk-based deposit insurance assessment system.<sup>2</sup> Pursuant to this requirement, the FDIC adopted a risk-based deposit insurance assessment system effective in 1993 that applied to all banks. A risk-based assessment system reduces the subsidy that lower-risk banks provide higher-risk banks and provides incentives for banks to monitor and reduce risks that could increase potential losses to the DIF. Since 1993, the FDIC has met its statutory mandate and has pursued these policy goals by periodically introducing improvements in the deposit insurance assessment system's ability to differentiate for risk. The primary purpose of the proposals in this NPR is to improve the risk-based deposit insurance assessment system applicable to small banks to more accurately reflect risk.

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<sup>1</sup> In 2011, pursuant to a long-term fund management plan adopted by the Board, the Board adopted three assessment rate schedules that will go into effect when the DIF reserve ratio reaches 1.15 percent, 2 percent and 2.5 percent. The long-term fund management plan is based on a historical analysis the FDIC undertook to determine how high the reserve ratio would have had to have been to have maintained both a positive balance and stable assessment rates from 1950 through 2010. The assessment rates that will go into effect when the DIF reserve ratio reaches 1.15 percent are lower than current assessment rates. Assessment rates will fall further when the reserve ratio reaches 2 percent and 2.5 percent. The Board has the authority to uniformly adjust rate assessment schedules up or down without further rulemaking, but the adjustment cannot exceed 2 basis points.

<sup>2</sup> 12 U.S.C. 1817(b). A "risk-based assessment system" means a system for calculating an insured depository institution's assessment based on the insured depository institution's probability of causing a loss to the DIF due to the composition and concentration of the IDI's assets and liabilities, the likely amount of any such loss, and the revenue needs of the DIF. See 12 U.S.C. 1817(b)(1)(C).

On January 1, 2007, the FDIC instituted separate assessment systems for small and large banks. 71 FR 69282 (Nov. 30, 2006). See 12 U.S.C 1817(b)(1)(D) (granting the Board the authority to establish separate risk-based assessment systems for large and small insured depository institution).

## Background

The FDI Act allows the FDIC to establish separate risk-based assessment systems for large and small institutions. As of December 31, 2014, there were just over 6,500 insured depository institutions. Of the total, almost 6,400 had assets of less than \$10 billion and had been federally insured for five years or more, which generally defines an established small bank for assessment purposes.<sup>3</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. 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.

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.

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, and may be higher than its initial assessment rate if: (1) it holds unsecured debt that is issued by another depository institution; 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 NPR will not change these adjustments to initial assessment rates.

## Justification for the Proposal

While the current deposit insurance assessment system effectively reflects the risk posed by small banks, it can be improved by incorporating newer data from the recent financial crisis and revising the methodology to directly estimate the probability of failure within three years. These improvements would allow the FDIC to more effectively price risk. The proposed

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<sup>3</sup> Assessment rates for small banks that have been federally insured for less than five years (new banks) are currently determined in a different manner. The proposal does not change how assessments are determined for these institutions.

improvements to the small bank risk-based assessment system would further the goals of reducing cross-subsidization of high-risk institutions by low risk institutions and help ensure that banks that take on greater risks will pay more for deposit insurance.

## **Description of the Proposal**

### *Updated Financial Measures, Elimination of Risk Categories for Established Small Banks*

As mentioned above, the NPR proposes to update the financial measures used in the financial ratios method consistent with the statistical model, eliminate risk categories for all established small banks, and use the financial ratios method to determine assessment rates for all such banks. CAMELS composite ratings would be used to place a maximum on the assessment rates that CAMELS composite 1- and 2-rated banks could be charged, and minimums on the assessment rates that CAMELS composite 3-, 4- and 5-rated banks could be charged.

The left hand column in Table 1 below shows the financial measures currently used in the financial ratios method to determine assessment rates for established small banks in Risk Category 1. The right hand column shows the proposed financial measures that would apply to all established small banks.

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

<b>Current Financial Ratios Method Measures Used for Established Small Banks in Risk Category I</b>	<b>Proposed Financial Ratios Method Measures for all Established Small Banks</b>
<ul style="list-style-type: none"> <li>• Weighted Average CAMELS Component Rating</li> </ul>	<ul style="list-style-type: none"> <li>• Weighted Average CAMELS Component Rating</li> </ul>
<ul style="list-style-type: none"> <li>• Tier 1 Leverage Ratio</li> </ul>	<ul style="list-style-type: none"> <li>• Tier 1 Leverage Ratio</li> </ul>
<ul style="list-style-type: none"> <li>• Net Income before Taxes/Risk-Weighted Assets</li> </ul>	<ul style="list-style-type: none"> <li>• Net Income before Taxes/Total Assets</li> </ul>
<ul style="list-style-type: none"> <li>• Nonperforming Assets/Gross Assets</li> </ul>	<ul style="list-style-type: none"> <li>• Nonperforming Loans and Leases/Gross Assets</li> </ul>
	<ul style="list-style-type: none"> <li>• Other Real Estate Owned/Gross Assets</li> </ul>
<ul style="list-style-type: none"> <li>• Adjusted Brokered Deposit Ratio</li> </ul>	<ul style="list-style-type: none"> <li>• Core Deposits/Total Assets</li> </ul>
	<ul style="list-style-type: none"> <li>• One Year Asset Growth</li> </ul>
<ul style="list-style-type: none"> <li>• Net Loan Charge-Offs/Gross Assets</li> </ul>	
<ul style="list-style-type: none"> <li>• Loans Past Due 30-89 Days/Gross Assets</li> </ul>	
	<ul style="list-style-type: none"> <li>• Loan Mix Index</li> </ul>

The proposed measures are derived from a statistical analysis that estimates a bank's probability of failure within three years. Each of the measures was 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 proposed measures – the weighted average CAMELS component rating and the tier 1 leverage ratio – are identical to the measures currently used in the financial ratios method. The proposed net income before taxes/total assets measure is also identical to the current measure, except that the denominator is total assets rather than risk-weighted assets. The current measure of nonperforming assets/gross assets includes other real estate owned. In the proposal, other real estate owned/gross assets is a separate measure from nonperforming loans and leases.

The remaining three proposed measures – core deposits/total assets, one-year asset growth, and the loan mix index – are new.<sup>4</sup>

The core deposits/total assets and the one-year asset growth measures would replace the adjusted brokered deposit ratio currently used in the financial ratios method. The adjusted brokered deposit ratio increases a Risk Category I small bank's assessment rate only if the bank has both large amounts of brokered deposits and high asset growth. Few banks have both, so the ratio affects few banks. One of the proposed replacement measures – core deposits/total assets – will tend to lower assessment rates for most small banks. The other proposed replacement measure – one-year asset growth – will tend to raise assessment rates for small banks that grow significantly over a year (other than through merger or by acquiring failed banks).

The loan mix index is a measure of the extent to which a bank's total assets include higher-risk categories of loans. 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.<sup>5</sup> For each loan category, the weighted average charge-off rate weights each industry-wide charge-off rate for each year by the number of bank failures in that year. Thus, charge-off rates from 2009 through 2014, during the recent banking crisis, have a much greater influence on the weighted average charge-off rate than 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 have an appropriate influence on assessment rates.

While the proposal would eliminate risk categories for established small banks, if the resulting rate for a small bank were below the minimum or above the maximum initial

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<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 proposed measures.

<sup>5</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, which the loan mix index can capture, but they also tend to have very high interest rates to compensate. In addition, few small banks have significant concentrations of credit card loans.

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 a 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.

Adjustments to initial assessment rates – for debt held that was issued by another bank (the depository institution debt adjustment or DIDA), for unsecured debt issued and for brokered deposits – would apply as under current rules. Thus, the brokered deposit adjustment would continue to apply only to small banks that are not well capitalized or do not have a CAMELS composite rating of 1 or 2.

*Proposed Assessment Rates*

Table 2 below sets out the assessment rate schedule for established small banks that, under the proposal, would go into effect when the reserve ratio reaches 1.15 percent. Unless revised by the Board, these rates would remain in effect so long as the reserve ratio was less than 2 percent. The proposal preserves the range of initial assessment rates (3 basis points to 30 basis points) and total assessment rates (1.5 basis points to 40 basis points) that the Board has previously determined will go into effect starting the quarter after the reserve ratio reaches 1.15 percent.

Table 2 – Proposed Initial and Total Base Assessment Rates \*  
(In basis points per annum)  
Once the reserve ratio reaches 1.15 percent

	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	0 to 10***	0 to 10	0 to 10	0 to 10
Total Base Assessment Rate	1.5 to 26	3 to 40	11 to 40	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.

\*\*\* The brokered deposit adjustment applies to established small banks with CAMELS composite ratings of 1 or 2 only if they are less than well capitalized.

In 2011, the Board adopted the range of assessment rates in this rate schedule pursuant to its long-term fund management plan 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 NPR proposes to convert 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 NPR would preserve 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 proposal, the Board would retain 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*

The NPR proposes to make no changes to the assessment rate schedules applicable to insured branches of foreign banks or to the assessment rate schedule applicable to new small banks. The NPR also proposes to make no changes to the way in which assessment rates for insured branches of foreign banks and new small banks are determined.

#### **Expected Effects of the Proposal**

While the proposal would be revenue neutral for established small banks in aggregate, individual bank assessments would differ. To illustrate the effects of the proposal on small bank assessment rates, staff compared actual assessment rates of established small banks as of the end of 2014 with assessment rates under the proposal (shown in Table 2 above). 92.5 percent of established small banks would have had rate decreases and only 7.5 percent of established small banks would have had rate increases (in part because the proposed assessment rates are lower than the assessment rates that were actually in effect at the end of 2014). Assuming that the range of assessment rates at the end of 2014 had been the same in actuality as under the proposal (that is, that the range of initial assessment rates had been 3 basis points to 30 basis points), just under 60 percent of established small banks would have had rate decreases under the proposal and just under 20 percent would have had rate increases.

Only those established small banks that would have rate increases would have lower capital and earnings as a result. Of these banks, only a few would have resulting declines in income (or increases in losses, where the bank is unprofitable) of 5 percent or more. The 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, staff tested how well the assessment system for established small banks, as proposed, would have differentiated between banks that failed and those that did not during the recent financial crisis compared to the current assessment system.

Table 3 compares accuracy ratios for the proposed system and the current small bank deposit insurance assessment 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.<sup>6</sup> 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 Proposal and the Current Small Bank Deposit Insurance Assessment System

	(A)	(B)	
Year of Projection	Accuracy Ratio for the Proposal*	Accuracy Ratio for the Current Small Bank Assessment System	Accuracy Ratio for the Proposal - Accuracy Ratio for the Current System (A - B)
2006	0.7029	0.3491	0.3539
2007	0.7779	0.5616	0.2163
2008	0.8930	0.7825	0.1105
2009	0.9398	0.9015	0.0383
2010	0.9657	0.9394	0.0262
2011	0.9485	0.9323	0.0161

\* The accuracy ratio for the proposal is based on the conversion of the statistical model as estimated through 2014.

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 done significantly better immediately before the recent crisis and at the beginning of the crisis, but also better

<sup>6</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.

overall.<sup>7</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 proposed system 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.

## **Alternatives Considered**

### *Alternative Minimum and Maximum Assessment Rates Based on CAMELS Composite Ratings*

In developing this proposal, staff considered, and the NPR discusses, a number of alternatives. For example, staff considered an unbounded variation, which would have allowed initial assessment rates to vary between the minimum and maximum initial assessment rates of the entire rate schedule without regard to a bank's CAMELS composite rating, as well as whether to include loss given failure in the statistical model or to leave the current small bank deposit insurance assessment system in place unchanged.

In addition, the NPR presents two alternatives on which comment is particularly sought. Both would distinguish between CAMELS composite 1- and 2-rated small banks. The first alternative would maintain the assessment rate schedule in Table 2 that would go into effect starting the quarter after the reserve ratio reaches 1.15 percent (with a range of initial assessment rates of 3 basis points to 30 basis points) and include the same maximum and minimum assessment rates based upon banks' CAMELS composite ratings, except that it would lower the maximum initial assessment rate for a CAMELS composite 1-rated bank from 16 basis points to 12 basis points.

The second alternative is the same as the first, except that, for the rate schedule that would go into effect the quarter after the reserve ratio reaches 1.15 percent, the minimum initial assessment rate applicable to CAMELS composite 4- and 5-rated banks would be lowered from 16 basis points to 12 basis points.

## **Implementation of the Proposed Rule**

Staff proposes that a final rule go into effect the quarter after a final rule is adopted; by their terms, however, the proposed revisions would not become operative until the quarter after the DIF reserve ratio reaches 1.15 percent.

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<sup>7</sup> 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 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.

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