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Statement No. 291

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Statement of the Shadow Financial Regulatory Committee

The FDIC's Proposal for Setting Insurance Premia of Large Banks

April 26, 2010

The Federal Deposit Insurance Corporation (FDIC) has requested comment on its notice of proposed rulemaking (NPR), which would amend the rules that govern the assessment system for determining the deposit insurance premia paid by large institutions (specifically, 2 CFR part 327).

The FDIC's NPR is ambitious. Under the authority conferred to it by the Federal Deposit Insurance Reform Act of 2005, the FDIC is proposing to set a wider range of insurance charges for large institutions, and to do so, on the basis of bank characteristics that the FDIC believes provide a reliable forward-looking basis for measuring the risk of financial distress for insured banks. The FDIC had made some changes in its deposit insurance assessments in 2009. Under those guidelines, assessments on large banks were determined by a combination of the ratings provided by statistical rating agencies, examination "CAMELS" ratings and the FDIC's statistical model of bank risk. Under the April 2009 guidelines, the annual insurance charges (total base assessments) could vary between a minimum of 7 basis points and a maximum of 77 basis points. Under the new proposed rules, the range for total base assessments would widen to between 5 basis points and 85 basis points, and assessments on large institutions would be based entirely on CAMELS ratings and the FDIC's statistical model of bank risk.

Large institutions would be subject to two different statistical approaches – one for "large" institutions and another for large "highly complex" institutions. The statistical "scorecards" are an attempt to map financial ratios and other ex ante observable bank characteristics into different propensities for good "performance." Using data on banks over the period 2005-2009, the FDIC seeks to identify characteristics that predicted which banks failed during the crisis, and among the survivors, which survived in relatively good condition. Ex post performance is judged using the FDIC's own internal metrics, the basis for which is not defined in the NPR.

The Committee approves of the FDIC's laudable desire to attempt to construct formal statistical models of forward-looking risk, and base deposit insurance charges on reliable estimates from such models that allow for significant differences in the cost of deposit insurance protection. Linking insurance costs to credible measures of expected loss[1] would create incentives for institutions to avoid excessive risk taking while also generating revenues for the FDIC that are commensurate with risk.

One issue raised by the FDIC's NPR is whether the FDIC's risk modeling will produce reliable measures of expected loss that would serve as an appropriate basis for differences in deposit insurance charges. Obviously, variation in insurance charges resulting from the statistical modeling of risk is not desirable unless the risk model is reliable. Unreliable measures of risk could introduce distortions into bank behavior (to game the model) without producing the advantages of incentive-compatible pricing of deposit insurance.

Another separate issue raised by the NPR is whether the proposed process to produce insurance charges is sufficiently transparent and credible to outside observers. Regulatory policy should be based on clear criteria that can be assessed by outsiders. Even if the FDIC's statistical method was reliable, if it is based on an opaque "black box" process that cannot be validated by outsiders, that could make it more difficult politically for the FDIC to impose the new regime on member banks.

Despite many positive features of the FDIC's proposed rules, and an attempt by the FDIC to provide an outline of its statistical modeling approach, the Committee believes that there is substantial room for improvement in the NPR, both with respect to the broad approach taken toward measuring risk and the ability of outsiders to validate the details of the statistical modeling.

With respect to the first problem, the measure of banks' outcomes is not clearly defined. Any statistical model is chosen based on some criterion related to its ability to "fit" observed outcomes. In this case, the observed outcome is the FDIC's own subjective assessment of how well the bank fared during the crisis. Furthermore, even if this outcome measure correctly measures whether a bank fails or whether the bank is in relatively good

[1] Strictly speaking, the actuarially fair pricing of deposit insurance should incorporate a compensation for risk in addition to expected loss. This compensation for risk would vary depending on the timing of the loss that is experienced and the nature of the risk (the degree to which it is correlated with other risks). In this statement, our references to "expected loss" should be understood to include this additional risk premium.

condition, this outcome measure is a forecast of default risk, and not a forecast of expected loss (which equals the product of default risk times the loss given the default event). And there is no clear mapping from the model's score to the premium charged. Ideally, the premium would be scaled to result in an actuarially fair measure of expected loss. Instead, the premium is connected through an opaque mapping to an unobservable internal FDIC indicator of "performance." There is no mathematical link made between the scale of the variation in premia and the variation in expected loss.

There are other areas in which an outside referee might question the modeling approach. For example, should the model focus so much on the outcomes during the recent crisis, or should it be more broadly based on the last several decades of experience? Should the model forecast outcomes over a long period of time (as the current statistical models seem to do) or, alternatively, forecast the timing (statistical "hazard") of the outcome on a continuous time basis? Premia, in theory, should reflect the pricing of expected loss in a time-varying way, to take account not only of changes in the expected loss itself, but also of changes in the correlation of the expected loss with other expected losses. To what extent is it desirable or realistic to try to incorporate this insight into the FDIC's modeling? How should learning over time about the nature of expected loss be incorporated into updates of the FDIC's modeling of risk in an optimal way? The weights attached to various factors in the model also seem to be set by arbitrary judgments (for example, without any clear basis, CAMELS ratings are given a 30% weight in the model, statistical measures that are described as related to "asset-related stress" are given a 50% weight, and statistical measures that are described as related to "funding-related stress" are given a 20% weight).

Because the performance measure used in the modeling of risk, as well as many of the explanatory variables, are derived from private information available only to the FDIC, there is no way for an outsider to validate the modeling framework, or to judge whether the model's implications are robust to reasonable variations in performance criteria, weights attached to different factors, or sample periods. Nor is there any way for an outsider to gauge whether the insurance assessments implied by the model are scaled properly as forecasts of expected loss.

The Committee believes that these are important shortcomings of the NPR which would be remedied by the creation of an independent board of experts, retained by the FDIC, to provide validation of its techniques and offer feedback for improving its modeling. The literature on the modeling of bank risk is large and there are many capable people familiar with the issues.