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Dear Mr. Pollard:

I am writing to offer my comments on a fundamental aspect of the proposed risk-based capital regulations that OFHEO published at 64 *Federal Register* 18,084 (April 13, 1999).[1]

The proposed regulations would establish uniform risk-based capital standards for the entities you regulate. For almost three decades, I have dealt with the issues underlying regulations like these as they affect depository institutions – first when I served as a legal adviser to depository institutions, later as a financial institutions regulator, and most recently as a senior officer of a large commercial bank.[2] In carrying out my responsibilities as Comptroller of the Currency, as Chairman of the Federal Financial Institutions Examination Council, and as a member of the Basel

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[1] I was first made aware of these proposed regulations by representatives of Fannie Mae, one of the entities that will be affected by the regulations. However, I am not submitting these comments on behalf of Fannie Mae and I have no current business relationship with Fannie Mae or Freddie Mac. Rather, the opinions expressed here reflect my own strongly held views based on my experience dealing with capital requirements both as legal counsel for and an officer of financial institutions and as an officer of the United States Government with responsibility for efforts to rewrite agency rules and regulations to maximize their effectiveness while minimizing undue regulatory burdens.

[2] Over this period, I have engaged in the practice of law as a partner in the law firm of Covington & Burling; I have served in the United States Government as Comptroller of the Currency, Chairman of the Federal Financial Institutions Examination Council, a director of the Federal Deposit Insurance Corporation, Chairman of the President's Working Group on Electronic Money and Banking, and a member of the Basel Committee on Banking Supervision; and I have been employed in the private sector as Vice Chairman of Bankers Trust Company. I am currently Managing General Partner of Promontory Financial Group.

Committee on Banking Supervision, I was deeply involved in the creation and revision of capital standards for financial institutions.

In light of that experience, I am well aware of the challenges and difficulties that face any governmental organization when it seeks to develop risk-based capital standards. I commend OFHEO for having devised a very comprehensive and thoughtful proposal on this subject. The proposal OFHEO has published makes it evident that people of considerable ability and dedication have devoted a great deal of time, effort and intelligence to the development of these proposed regulations.

However, I regret to say that, in my view, OFHEO's risk-based capital proposal as it currently stands is seriously flawed. I believe the fundamental approach underlying the proposal is incorrect and will have very unfortunate consequences. I strongly recommend that OFHEO revise the proposal so that it does not require the regulated entities to conform to a single standardized, fully-specified stress test that OFHEO creates. Instead, OFHEO should require each of the two regulated entities to develop and maintain its own OFHEO-approved risk-based capital model that meets criteria, including stress-testing requirements, established by OFHEO in accordance with the governing statute. OFHEO also should require that these individual models be periodically validated and adjusted to make them ever more accurate. Experience strongly supports the view that this approach would enable OFHEO to achieve its objectives in a manner that is far more accurate in measuring each institution's risk, far less burdensome to administer, and much more consistent with the need to facilitate continuing innovation by the regulated entities. It would also enable OFHEO to integrate the implementation of this rule with its safety and soundness supervision of the two enterprises.

I am aware that in publishing the present proposal OFHEO expressed the view that an approach utilizing individual models would not be consistent with the underlying statute. With all due respect, I urge you to re-examine that question. The statutory language that OFHEO cited in support of its views on this issue seem to me to fall far short of dictating such a conclusion. On the contrary, the statute seems to me to empower OFHEO to determine whether one or more than one model should be used, so long as any that is used conforms to the criteria specified in the statute.

In my view, the approach proposed by OFHEO not only reflects a needlessly restrictive reading of OFHEO's authority under the statute, but it also needlessly restricts the ability of OFHEO's examiners to utilize their experience and judgment in evaluating the regulated entities' risk measurement and risk management practices. I believe OFHEO has a highly capable staff of examiners – including some who previously served in the agency I formerly headed – and I believe the statutory objectives can be better achieved by relying on their ongoing and individualized supervision of the manner in which each enterprise individually implements a model that conforms to the statutory requirements.

The remainder of this letter will explain the reasons why I believe that an approach based on individual models, rather than the fully-specified, standardized model proposed by OFHEO, will better effectuate the statutory intent and better serve the public interest.

Stress Testing and Risk Management

To begin with, let me say that the fact that the focus of OFHEO's risk-based capital rule is based on a stress test is exactly right, and in some ways is more advanced than the banking agencies' approach. For commercial banks, global financial volatility in the last two years has demonstrated vividly the importance of rigorous stress tests. Few predicted the steep fluctuations in asset prices; had financial institutions subjected their books to adequate stress testing, they clearly would have been more prepared to deal with it.

The very importance of undertaking stress tests as a core risk management activity, however, is at the heart of what is wrong with the approach proposed by OFHEO. The time and attention devoted to maintaining adequate capital by the firms and OFHEO – individually and in mutual dialogue – is finite. If OFHEO adopts the proposed rule, that finite time will be devoted to understanding, calculating, interpreting, and appealing the myriad of specified inputs and formulae. *This turns the supervisory process on its head.*

Requiring the regulated firms to develop and operate a stress-testing regime that meets OFHEO-specified requirements – which can be qualitative as well as quantitative – ensures not only that they maintain adequate capital but also that they have a sound risk management process. It broadens the focus from mere *measurement* of risk to the more important task of *management* of risk. It allows the examiners to address capital adequacy as an integral part of an overall risk management assessment, rather than treating capital adequacy as a compliance issue, which will be the result if the proposal is adopted. And importantly, it allows the dialogue between OFHEO and the firms to be focused on meaningful issues.

The Standardized Approach

At first glance there is considerable appeal to a standardized approach to measuring risk for regulatory capital purposes. Because of its uniformity, it appears even-handed and thus fair to the regulated institutions. Since the regulator develops it, the standardized approach would be expected to be sufficiently rigorous that the public interest is protected.

However, as your agency and others that have tried it have found out, trying to create a standardized risk-based capital approach is fraught with difficulty. I do not believe that, given the world's current state of knowledge, these difficulties can be overcome. Consequently, any comprehensive, standardized capital approach of the type you propose gives rise to a number of insuperable problems that are in the end toxic for the entities to which the rule is applied.

Complexity

Creating a one-size-fits-all risk-based capital model is one of the most inherently complex undertakings in finance. Finance is by its very nature dynamic, generating vast quantities of relevant information on a minute-by-minute basis. Moreover, in the market-driven economy we want to have, each institution for competitive reasons attempts to differentiate the ways in which it does business so that the products it generates, the information it creates and chooses to capture varies. Even slight variations in these products and inputs can make a considerable difference in the risk profile of the institution and the appropriate ways to measure it.

Creating a standardized model requires choosing among the millions of possible inputs and establishing rules to determine which of these inputs will be captured, over what time frame, and how they will be counted. Settling on these choices so that they focus appropriately on the inputs that most affect risk, and doing so in the right proportions, is incredibly complex. Doing it in a way that allows for change over time is even more complex.

Finally, the regulator must take all this complexity and express it in a rule that can be understood by all parties affected in the same way, so that the rule is applied effectively. It is not surprising that OFHEO had to create a regulation of some 600 pages.

Even if a regulation like the one before us were to work perfectly, the regulated institutions and society as a whole will pay dearly for it. One cannot underestimate the burden on the institutions to understand and comply with a 600-page regulation of this sort. Almost certainly it will be necessary for large numbers of highly trained individuals at each regulated institution to be devoted to complying with this regulation. Many of these individuals will additive because any well-run institution like Fannie Mae or Freddie Mac will (and should) continue to use and continue to refine its own capital allocation models to ensure the safety of the institution.

Additionally, OFHEO itself will continue to have to maintain a staff of highly trained employees knowledgeable about the rule to check on the application of the rule by the regulated entities, to answer questions and to create the inevitable interpretations needed to further explain and refine the rule.

Of course one could have a standardized rule that is simpler than OFHEO's current proposal. But the authors of the proposal undoubtedly would not have created such a complex regulation if they were not keenly aware that simplification of a standardized capital regulation can introduce inaccuracies that produce pernicious results. For example, where too much capital is required for a safer activity or too little capital for a less safe one, it causes the institution on the margin to engage in less of the safer activity and more of the activity that is less safe – directly defeating the central purpose of the rule.

Inaccuracy & Inflexibility

Of course, if the standardized model produced an accurate result, perhaps all the duplication and extra cost would be worth it. Even if the institution's own individual model produced similar or only slightly better results, perhaps it would be worth the cost to have the standardized model as a backstop.

Unfortunately it is very difficult, if not virtually impossible, for a standardized model to be accurate over time, given the current state of technology and model development. As a member of the Basel Committee on Banking Supervision, I participated in an effort over several years to develop a standardized capital proposal addressed solely to the measurement of market risk in the trading portfolio – a challenging task in itself, but far less imposing than the development of a comprehensive standardized proposal such as the one OFHEO has proposed. The Basel Committee ultimately concluded that even its more limited standardized proposal needed to include an option allowing the use of individual models by institutions meeting appropriate criteria. Even more to the point, the U.S. bank regulators decided not to adopt the Basel Committee's standardized approach at all, but applied the individual models approach to all of the institutions that came under the market risk requirement.

Of even greater importance than the model's accuracy at the point in time it is adopted is its performance over time. Here too we found standardized models lacking. As I said earlier, finance is by its nature inherently dynamic and influenced by millions of variables. The economic realities at one point in time are almost guaranteed not to be economic realities at a later date.

Such economic shifts are not trivial. Over time they involve not merely cyclical changes but also secular shifts of major proportions. For example, consumer attitudes towards debt have been changing. Consumers have in recent years exhibited a substantially greater willingness to file bankruptcy and default on debt. This secular change wreaks havoc with a standardized capital model, which must make certain assumptions about risk, based on past experience. Of course standardized model regulations can be changed, but not without months of delay as a rulemaking process is undertaken. In modern financial markets, months of delay can have serious consequences.

The specificity inherent in virtually all standardized models, including in OFHEO's proposal, means that over time a standardized model is almost certain to be inaccurate. More importantly it means that the focus of regulated entities will be misdirected with even more serious consequences.

A standardized capital model is not an academic exercise. It is not merely a measurement tool. Such a model causes the regulated entity to allocate capital in specific ways, and this in turn influences behavior. Most directly, it influences what the entity does and does not invest in and how much of its assets it places in one investment as opposed to another. From the outset, and even more certainly over time, the imposition of a standardized capital model has the potential to be self-defeating and to modify the behavior of the regulated entities in ways that are inconsistent with the objectives they were created to serve.

Innovation

Beyond merely incenting regulated entities to make more investments in riskier instruments than should be the case, the standardized model creates an even worse problem – it tends to stifle innovation.

Credit and creditworthiness are constantly evolving concepts. What were deemed prudent credit practices even 100 years ago were so restrictive that very few citizens today could have qualified for a loan by an institution. Indeed, at the turn of the century national banks were not allowed to make home mortgage and other consumer loans.

Over time a shift in attitudes about risk, and importantly in lending techniques and risk management as well, have made home mortgage lending one of the most stable part of the credit spectrum. Similarly in our era we have seen a dramatic change in attitudes toward lending to low and moderate income Americans. If banks and thrifts had not been allowed to innovate and use new techniques to make loans to low and moderate income

Americans, tens of thousands of these individuals would not be living in their own homes today.

The standardized approach to risk-based capital requirements tends to be less flexible over time than is appropriate for a dynamic financial system. The approach typically fails to fully accommodate, let alone encourage, innovative credit allocation and credit extension practices. This is the case with regard to OFHEO's current proposal.

Standardization Unwise Here

The striking disadvantages of a standardized approach are clearly applicable to the task confronting OFHEO. As OFHEO no doubt is well aware, even two enterprises in the same basic business, such as Fannie Mae and Freddie Mac, will not be identical in their risk characteristics. Indeed, the differences should proliferate over time as each entity seeks to innovate in pursuit of its mission – as public policy should encourage them to do.

In addition, the extraordinary size and importance of these two entities will substantially accentuate the disadvantages of a standardized approach. Any misstep in regulating these important enterprises will have particularly far-reaching consequences. A standardized model, as I have indicated, is virtually certain to produce inaccuracies over time, and even marginal inaccuracies that influence the behavior of these two large organizations can have widespread effects in the markets in which they operate.

Moreover, it is quite unnecessary to accept these disadvantages in these circumstances because there is no need to "standardize" with only these two entities to regulate. Each of the two enterprises is large and sophisticated, and each undoubtedly has devoted considerable effort and talent to the development of an individual model designed to measure risk and allocate capital. There is no need here for the regulator to devote its energies to the formulation, interpretation, and continuing modification of its own standardized model to substitute for the models the two enterprises design to fit their respective circumstances.

Similarly, with examiners who are well-equipped to evaluate these two entities, there is no need for OFHEO to tie its examiners' hands by imposing a fixed, standardized model for measuring risk. Instead, as discussed below, OFHEO can better achieve its objectives by establishing appropriate criteria and safeguards, consistent with the applicable statute, to be incorporated into the models that each regulated entity develops individually.

The Individual Models Approach

The individual models approach to capital regulation avoids many of the problems inherent in a standardized approach. If the regulated institution is required to create its own individual model that meets specified criteria, OFHEO can focus on providing appropriate oversight to the models and the internal processes that create and manage them.

The individual models approach has been criticized as an abdication of responsibility by the regulator because, the critics suggest, the regulated entity can establish its own capital regime in an unfettered fashion -- the equivalent of the regulator letting the fox in the hen house. This is not the case in any well-crafted individual models regime.

First, the regulator should establish the parameters that the regulated entity's stress-testing regime must meet. In the present case, these obviously would include all of the requirements specified in the governing statute. However, I would encourage OFHEO to also consider other criteria, such as additional key parameters, qualitative requirements, and even disclosure guidelines. Second, the regulator needs to examine the regulated entity to ensure that it has the tools and the staff capable of operating the model. Third, the regulator must examine the regulated entity on a periodic basis to ensure that it continues to meet the required standards. Finally, the regulatory regime should require periodic validation.

In sum, enough regulatory and supervisory checks can be incorporated in an individual stress-testing regime so that the regulated entity is strongly incented to build as accurate a model as possible, and to use the model not only to calculate capital, but also for risk management purposes.

Conclusion

OFHEO is in the process of finalizing rules of considerable importance. The ultimate version of these rules will impact not only the safety and soundness of the regulated entities but also the extent to which these entities innovate in ways that materially benefit prospective homeowners and society generally.

OFHEO has a right to take a great deal of pride in having tackled this task with vigor and skill. There are few areas of finance as difficult as modeling for a risk-based capital system.

However, for the reasons I have outlined, the general approach OFHEO has taken – the fully-specified, standardized approach – is inherently flawed. If adopted, it will lead to inaccuracy, excessive burden, and a drag on innovation. OFHEO should instead pursue the individual models approach, setting the guidelines around which the regulated institutions must build, use, and validate their models to establish the appropriate capital charge. This will ensure that over time the models utilized by the regulated entities become increasingly accurate, and also take center stage in a meaningful supervisory dialogue.

Respectfully submitted,

[signed: Eugene A. Ludwig]

Eugene A. Ludwig