October 18, 2018

Federal Housing Finance Agency
Proposed Rule on Enterprise Capital Requirements
Comments/RIN 2590-AA95

Andrew Davidson & Co., Inc. (AD&Co) is pleased to have the opportunity to comment on the recently released FHFA Proposed Rule on Enterprise Capital Requirements. This comment will be limited to a discussion of the potential pro-cyclicality of the Proposal. Our earlier comment (July 9, 2018) addressed the treatment of Single-Family Credit Risk Transfer (CRT) Capital Relief. We may provide comments on other aspects of the Proposed Rule at a later date.

Andrew Davidson & Co was founded in 1992 and is a leading provider of mortgage loan prepayment and credit models. Several hundred financial institutions and many regulators utilize our models to evaluate the value and risk of mortgage loans, mortgage-backed securities and related portfolios.

To address the Proposed Rule, we begin with a discussion of cyclicality in the economy and financial markets and the role of the federal government. We also briefly contrast the FHFA proposed capital approach to the "through the cycle" approach used in other capital rules.

CYCLICALITY

Economic cycles can be viewed as the consequence of malfunctioning feedback mechanisms. For example, the ups and downs in commercial real estate markets are often attributed to the long lead time between the initiation of development projects and the completion of those projects. Projects are initiated when there is high demand for real estate and projections of profits are strong. As many projects start during the same period, they may all come on line at similar times, creating a glut of properties which depress valuations.

The financial crises of 2007 and 2008 can be attributed in large part to the growth of the markets for subprime mortgages and CDOs for subprime mortgage-backed securities. The CDO market severed the relationship between the declining credit quality of the mortgages and the spreads required by investors to take on the risk of those loans. Incentives did not properly flow from the secondary market to the primary, so high risk mortgages were originated without adequate compensation to investors. Finally, when the actual risk of the loans was realized, the losses led to contagions in global financial and real markets.

FEDERAL ROLE IN FINANCIAL MARKETS

When financial (or any) markets have attributes that satisfy competitive conditions, and when the benefits and costs are fully borne by the buyers and sellers, there is little need for government intervention. However, as seen in the financial crisis, the mortgage market does not meet these criteria, and in any case

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the government is inextricably involved with the GSEs. It is therefore important to structure the federal role wisely. Government involvement should be informed by guiding principles, a few of which we outline below.

We focus this response on FHFA's proposed capital standard for the GSEs in the context of the following three principles:

- **Orderly markets** (persistent market clearing prices; minimized contagion)
- **Incentives flow through** (price is related to risk; subsidies can be OK)
- **Rational pricing** (similar prices for the same risk across markets or constituents; fair)

The purpose of capital is survivability, so more is better; but the amount and cost of capital for a regulated entity need to be efficient to avoid making the regulated service so expensive that eligible consumers are priced out, or more dangerously, the regulated entities are disintermediated by unregulated actors that cannot or will not fulfill the purpose of the regulated entity in times of financial stress. This tension is epitomized by the debate concerning pro-cyclical vs counter-cyclical capital. Approaches to capital that do not recognize the three principles described above may serve to exacerbate rather than address market instability.

"THROUGH THE CYCLE" CAPITAL REQUIREMENTS

"Through the cycle" capital requirements, such as those of Basel II, are based upon the idea that financial institutions can weather changes in economic seasons and only need to hold capital against longer term systemic risks. This presumes that short-term fluctuations in economic conditions are indeed temporary and smaller than longer-term risks so that institutions will not fail during downturns or be disintermediated during the recovery. Such static capital requirements can result in too much capital in normal times and too little under stress, violating all three principles for federal presence in financial markets: (a) Illiquid or insolvent lenders will not be able to provide persistent pricing, (b) lenders are at risk of being disintermediated by unregulated institutions who charge less for risk, and (c) the incentive link is broken between risk and pricing since the capital standard does not change with risk.

The FHFA capital rule is not based on a "through the cycle" approach to capital, but rather dynamically updates requirements to reflect the risk to the institution at every period. This necessarily makes capital requirements more volatile than a static rule, but also more successfully achieves rational pricing and proper incentives. Thus, allowing capital requirements to fluctuate can actually promote orderly markets. The challenge is that firms must not only meet capital requirements now, but they must also be prepared to increase capital in a rapidly unfolding downturn. Nevertheless, we support FHFA's bold approach to capital requirements because it better aligns with the federal principles laid out above and therefore has a better chance of long-term success. In the next section, we discuss ways to design the capital regime to address the problem of raising capital during stress.

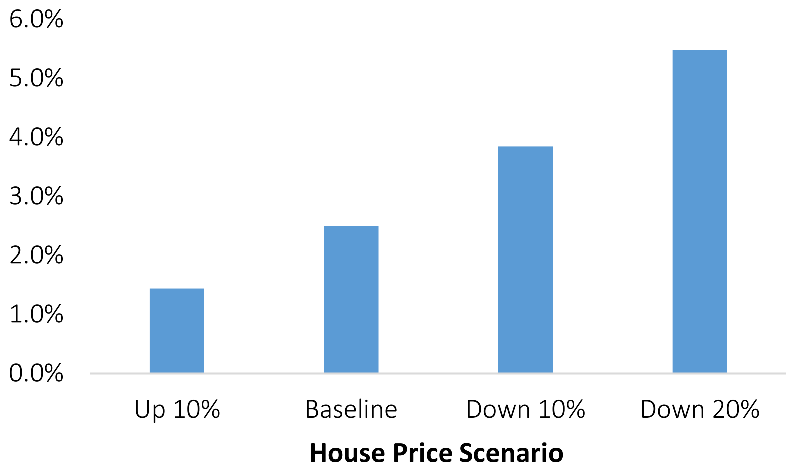
DYNAMIC CAPITAL REQUIREMENTS

Based on the matrices in the FHFA proposal and the estimates of capital requirements for the enterprises under the proposed rule, we have estimated the potential fluctuation in enterprise capital from changes in home prices flowing through to changes in current loan-to-value ratios.

In the base case, the enterprises are expected to require $130 billion (2.5%) of capital for their single- family businesses. If home prices were to rise 10%, the overall capital requirement might fall by about 40% to $75 billion. Additional increases in home prices might reduce the capital requirement a bit further, but several risk-invariant components of the capital rule, such as the going-concern buffer and the minimum capital requirements, would limit further reductions in required capital.

On the other hand, we estimate that should home prices fall by 10%, the amount of capital required would increase by about 50% to approximately $200 billion for single-family businesses. If home prices fell by 20%, the capital requirement would be double the initial requirement and would be over $275 billion. Raising that much capital during an economic decline would be nearly impossible. Yet that requirement might be a good estimate of the risk to the institutions of further declines in home prices or increases in unemployment.

Figure 1. GSE Single-Family Capital Requirement



These estimates do not include any offset for the increased value of Credit Risk Transfer (CRT) transactions. Such transactions currently total about $50 billion and could provide about a $30 billion (0.6%) incremental reduction in capital requirement in the severe stress scenario. These types of transactions may point the way to a solution to the capital volatility as we shall discuss.

(**Note**: *While bank capital requirements under current rules would be mostly invariant under such scenarios, the bank stress tests would indicate the need for additional capital to handle further stresses. One difference however, is that the bank stress tests could be adjusted to reflect the likelihood of recovery, while the FHFA rule essentially assumes that risk remains symmetric throughout the decline.)*

As a result of the highly volatile nature of the enterprise capital requirement, we believe it would be imperative for FHFA and the Enterprises to establish procedures and policies to address the changing capital requirements in advance of the economic events. While it certainly would be possible for FHFA to make adjustments to the capital requirements during periods of stress, a set of procedures and policies would provide greater certainty to the market. Ad hoc adjustments may still be required, but those should be reserved for unexpected events, rather than those events that can be anticipated, such as the impact of changing home prices on capital requirements.

POTENTIAL REGULATORY ACTIONS TO MITIGATE VOLATILITY

Declining Risk Environments

The issue in declining risk environments is not capital shortfall, but what limitations should be placed on either using or distributing excess capital. These limitations would provide a cushion against the increased capital requirements if home prices decline, and would also limit excessive pro-cyclical risk taking. The limitations could be in the form of a counter-cyclical or minimum capital requirement, or more specific limits on distributions or balance sheet growth. For example, distributions, dividends, or stock buybacks could be limited to enterprise income, or growth could be limited to some percent of the balance sheet.

Rising Risk Environments

In rising risk environments the situation is more complex. Without specific countercyclical requirements the enterprises could face significant capital shortfalls and imperil an orderly functioning market. If the enterprises believed that FHFA would provide forbearance (or is forced to because the capital framework has failed) they may not prepare for the increased capital requirements. We envision four possible approaches to address the capital needs in a stress environment:

- **A pre-designed capital forbearance program**. Such a program would limit the rate of increase in capital requirement for declining home prices and provide the enterprises with an extended time frame to reach capital compliance. Since the capital requirement is already designed to meet a high degree of stress, this would amount to a determination that in a stress environment there is a higher likelihood of recovery than repeat of an additional stress scenario.
- **A capital cushion.** A cushion against increases in capital requirements would reflect the amount of capital that would be required in a downturn. For example, FHFA could run a stress test and require that the enterprises hold sufficient capital to meet their capital requirements throughout the stress.
- **Contracts for contingent capital or income.** These contracts would be a source of financial resources during stress scenarios. CRT transactions already serve this purpose to some extent. Deeper and greater amounts of CRT could serve this purpose. Due to the extreme nature of the scenarios that might generate the higher capital requirements, it would be essential to carefully evaluate and minimize counterparty risk.
- **Purchase loss coverage from the government.** This coverage would be designed to offset enterprise losses in extreme scenarios. Congress would probably need to authorize such coverage, although there may be ways to achieve this outcome using Ginnie Mae under existing authorities. The government insurance would act as a backstop to the enterprises.

In other forums, we have recommended the use of vintage-based guarantees from the government to provide stability to the housing finance system. These would essentially be CRT transactions between the enterprises and the government. The attachment point for the transaction would be well out of the money, possibly at a level of 1.5 times the credit risk capital requirement for the cohort at origination. These instruments would be priced, and the enterprises would be required to pay for the loss coverage.

In a declining home price environment, the value of these guarantees would rise and would serve to offset the increased capital requirement. The use of such instruments would be a recognition that the government was the guarantor of last resort for the housing finance system and served a necessary counter-cyclical function. These guarantees would appear on the government balance sheet and would be accounted for using the government cost of capital.

A practical way for this to work for the GSEs and for federal budgeting is to set the federal insurance premiums by vintage year at origination. In riskier environments, the premiums would be somewhat higher than in normal times, but the insurance would eliminate the need to raise capital in the midst of a downturn or raise guarantee fees post crisis to offset prior losses. In this way, the government contributes in its appropriate role as the catastrophic, countercyclical backstop for well-capitalized GSEs.

Given the size and scope of the enterprises and the degree of variability of risk of their business as the economy changes, it may be appropriate to use all four of these methods: predesigned forbearance, capital cushion, contingent capital/income, and government loss coverage.

CONCLUSION

FHFA’s choice to develop a capital rule that reflects the dynamics of risk is a bold choice and a good choice. In conjunction with adoption of the capital rule, FHFA should work with the enterprises, Treasury and Congress to develop approaches to address the inevitable fluctuation in enterprise risk and capital requirements.