Moody's ANALYTICS

July 2014

Serving the Underserved Under Johnson-Crapo

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Abstract

No issue in the housing finance reform debate is more politically and emotionally charged than how to help the underserved—creditworthy borrowers who are unable to obtain mortgage credit at a competitive or any interest rate.[1]

Serving the Underserved Under Johnson-Crapo

BY MARK ZANDI AND CRISTIAN DERITIS

No issue in the housing finance reform debate is more politically and emotionally charged than how to help the underserved—creditworthy borrowers who are unable to obtain mortgage credit at a competitive or any interest rate.[1]

Before the housing crash, the underserved were ostensibly helped by Fannie Mae and Freddie Mac's affordable housing goals.[2] Legislation passed in the early 1990s required Fannie and Freddie to extend more mortgage credit to lower-income and underserved groups. The goals have been significantly pared back since the financial crisis in 2008, but the FHFA is reconsidering the goals, and some changes are likely forthcoming.

Some insist that Fannie and Freddie's housing affordability goals were an instrumental cause of the global financial crisis.[3] The government-sponsored enterprises significantly lowered their lending standards to satisfy the goals, pushing other providers of mortgage credit to also lend more aggressively as well. The result was the subprime mortgage bubble and the near-collapse of the financial system when that bubble burst.

Others argue that the affordable housing goals were instrumental in providing affordable rental housing and homeownership to disadvantaged groups. Without the goals, Fannie and Freddie, and mortgage credit providers more broadly, would not have made enough loans to creditworthy lower-income and minority households or in poorly served areas of the country.

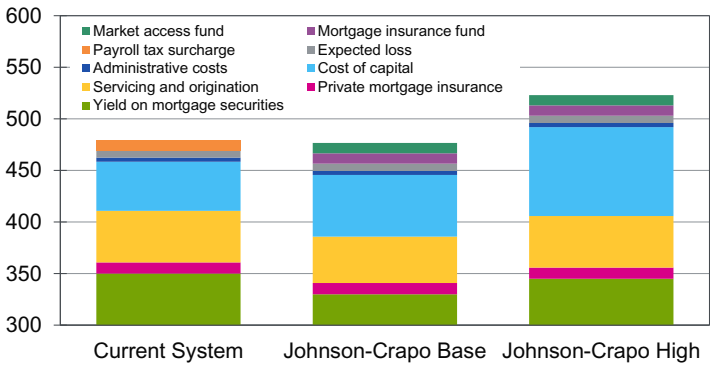
The more likely reality is that Fannie and Freddie's affordable housing goals neither contributed significantly to the financial crisis nor are helping disadvantaged borrowers very effectively. There is little evidence that the goals contributed to the egregious mortgage lending that led to the U.S. housing bubble.[4] But while the goals appear to have been helpful in expanding the availability of credit early on, they have not been especially helpful in more recent years.[5]

The Johnson-Crapo housing finance reform legislation being debated in Congress recognizes that the system must provide support to underserved groups. It does this in a number of ways: providing an explicit catastrophic government backstop on conforming single-family and multifamily mortgages, establishing an office within the Federal Mortgage Insurance Corp., the new mortgage market regulator, to ensure that credit is provided broadly, and creating a new affordable housing fee to fund efforts to promote affordable housing and access to mortgage credit.

However, there is concern that Johnson-Crapo would result in higher mortgage rates for borrowers with lower credit scores and higher loan-to-value ratios. This note argues that under reasonable assumptions and the expectation of modest, but important, changes to recent versions of the legislation, mortgage rates would not be higher for these borrowers than in the current housing finance system (see Chart). Indeed, a well-designed and implemented affordable housing fund would be a measurable improvement over Fannie and Freddie's affordable housing goals.

Comparing Mortgage Rates

Bps, 2014Q1



The current system

Mortgage rates for loans insured by Fannie Mae and Freddie Mac in the current housing finance system are determined by: 1) the yield required by investors to purchase

Table 1: Mortgage Rates for the Typical Fannie & Freddie Mortgage Borrower

As of 2014Q1, bps

	Current Housing Finance System	Johnson-Crapo Housing Finance System	
		Base Case	High Case
Mortgage Rate	479	477	523
G-fee	69	91	117
Cost of capital	48	60	86
Administrative costs	4	4	4
Expected loss	7	7	7
Payroll tax surcharge	10	na	na
Mortgage insurance fund	na	10	10
Market access fund	na	10	10
Private mortgage insurance	11	11	11
Yield on mortgage securities	350	330	345
Servicing and origination compensation	50	45	50
Difference in mortgage rate with current system (bp)		-3	44
Assumed Capital Structure:			
Common equity	2%	3%	4%
Preferred equity	0%	1%	0%
Debt or risk syndication	0%	3%	6%
Present value of future g-fees	0%	3%	0%
Assumed Cost of Capital:			
After-tax cost of common equity	10%	10%	12%
After-tax cost of preferred equity	7%	7%	7%
Cost of debt or risk syndication (bp spread over Treasury)	3%	3%	3%
Pre-tax return on unlevered capital	2%	2%	2%
Tax rate	37%	37%	37%

Other Assumptions:

Financial market conditions as of the first quarter of 2014 are typical of future financial market conditions.

Payroll tax g-fee surcharge expires in 2022 and is not included in Johnson-Crapo g-fee calculations.

The housing finance system under Johnson-Crapo has worked through any transition costs.

Mortgage rate estimates are for the current distribution of GSE borrowers based on score and LTV.

Cost of capital under the current housing finance system includes LLPAs.

Source: Moody's Analytics

securities backed by Fannie/Freddie-insured mortgages; 2) the guarantee fee (g-fee) charged by Fannie and Freddie; 3) the guarantee fee charged by private mortgage insurers; and 4) the fee charged by mortgage servicers and lenders.

As of the first quarter of 2014, the mortgage rate paid by the typical Fannie/Freddie borrower was 4.8% (see Table 1).[6]

Fannie and Freddie's g-fee is in turn equal to the sum of: 1) the cost of capital needed to protect against unexpected losses on the mortgages they insure; 2) the expected loss rate on those mortgages; 3) administrative costs of operating the GSEs; and 4) a 10-basis point fee to help pay for the 2012 payroll tax holiday, set to remain in place until 2022.[7]

While Fannie and Freddie are in conservatorship they do not hold capital or require an explicit return on that capital, yet they are operating as if they do. Assuming that they expect a 10% return on capital—approximately what U.S. money-center banks currently earn—the GSEs' effective capitalization is approximately 2%. That is, their current g-fee is consistent with a financial

Table 2: Current Distribution of Fannie & Freddie Borrowers by Credit Score & LTV

Borrowers, %

	<60	60-80	81-90	>90
<660	1.1	6.8	2.0	1.8
660-700	2.4	12.3	3.0	2.4
700-740	3.9	16.1	3.4	2.4
>740	10.7	25.9	3.4	2.5

Source: Moody's Analytics

Table 3: Mortgage Rates in Current Housing Finance System Across Score & LTV

Bps

Mortgage Rate

	<60	60-80	81-90	>90
<660	464	508	566	627
660-700	452	489	536	586
700-740	446	464	501	543
>740	446	454	483	507

LLPA

	<60	60-80	81-90	>90
<660	13	56	75	70
660-700	0	38	48	39
700-740	-6	13	19	19
>740	-6	2	6	6

Private Mortgage Insurance

	<60	60-80	81-90	>90
<660	0	0	39	105
660-700	0	0	36	95
700-740	0	0	30	73
>740	0	0	25	49

Cost of Capital

	<60	60-80	81-90	>90
<660	31	31	31	31
660-700	31	31	31	31
700-740	31	31	31	31
>740	31	31	31	31

Source: Moody's Analytics

institution that earns a 10% return on capital, sufficient to withstand an economic and housing downturn that results in a 2% loss on the mortgages they insure.

For context, the GSEs had only a 45-basis point capitalization prior to the housing crash, while their losses were closer to 3%. Although the GSEs are currently insuring loans of much higher quality than during the housing bubble, the g-fee they are currently charging is probably not sufficient to weather a downturn as bad as the Great Recession.

Although the average Fannie/Freddie mortgage rate was 4.8% in the first quarter of 2014, this rate varied among borrowers, depending largely on their credit scores and loan-to-value ratios. A borrower near the middle of the distribution, with a credit score of 750 and a loan-to-value ratio of 80%, paid closer to 4.5% (see Table 3). Borrowers with the best scores and LTVs paid a bit less, while those with the worst scores and LTVs paid as much 6.3%.

Borrowers with lower credit scores and LTVs above 80% are required to pay for private mortgage insurance and loan-level pricing adjustments charged by the GSEs. The cost of private mortgage insurance will likely increase once the GSEs' new eligibility standards for mortgage insurance companies are implemented.[8] The standards require substantially higher capital levels than the industry currently maintains, particularly for higher-risk borrowers.

Loan-level pricing adjustments are intended to make up for the greater credit risk the GSEs take when lending to lower-quality borrowers. It is possible, although far from certain, that the FHFA will allow the GSEs to reduce their LLPAs once the higher capital standards for mortgage insurance companies are implemented.[9]

Currently, for a borrower with a credit score below 660 and a loan-to-value ratio above 90%, the PMI and LLPA add an extra 175 basis points to the interest rate on their mortgage.

The Johnson-Crapo housing finance system

Under the housing finance system envisaged by the Johnson-Crapo legislation, mortgage rates depend on a range of factors, including how much private capital is necessary to capitalize the system, the structure and cost of that capital, efficiency gains from moving to the new system, and the design of the affordable housing fee.

Under reasonable assumptions, there would be little impact on mortgage rates from moving from the current system to Johnson-Crapo (see "Base Case" in Table 1).[10]

Most likely, the new private guarantors in the system would hold 10% capital, composed of 3% common equity, 1% preferred equity, 3% debt securities, and the remaining 3% in future guarantee fees.[11] The return on the 3% in common equity, which would cover losses similar to those suffered in the Great Recession, is assumed to be 10%.[12]

The new system is also assumed to benefit from an efficiency gain resulting from the adoption of a single security with an explicit FMIC guarantee. The yield on FMIC-backed securities is estimated to be 20 basis points below current Fannie/Freddie securities because of efficiency and liquidity improvements in the new system. More efficient servicing and greater competition in servicing and loan origination are also assumed to lower costs by 5 basis points.

In this system, the amount of capital required varies according to the creditworthiness of borrowers. Guarantors would find it difficult to cross-subsidize riskier borrowers with lower-risk borrowers as the GSEs did historically, thus they would need to hold more capital against loans to borrowers with lower scores and higher LTVs.

For example, a guarantor would need to hold almost 10% common equity capital to

Table 4: Mortgage Rates Under Johnson-Crapo (Base Case) Across Score & LTV

Bps

Mortgage Rate

	<60	60-80	81-90	>90
<660	467	512	544	627
660-700	449	484	521	594
700-740	435	462	494	550
>740	429	454	498	522

Market Access Fee

	<60	60-80	81-90	>90
<660	15	15	-35	-35
660-700	15	15	-18	-18
700-740	15	15	-2	-2
>740	15	15	15	3

Private Mortgage Insurance

	<60	60-80	81-90	>90
<660	0	0	39	105
660-700	0	0	36	95
700-740	0	0	30	73
>740	0	0	25	49

Cost of Capital

	<60	60-80	81-90	>90
<660	56	101	144	162
660-700	38	73	107	122
700-740	24	51	70	83
>740	18	43	62	75

Common Equity Capitalization (Stressed Losses)

	<60	60-80	81-90	>90
<660	2.7	5.6	8.3	9.4
660-700	1.6	3.8	6.0	6.9
700-740	0.7	2.5	3.7	4.5
>740	0.4	1.9	3.1	4.0

Source: Moody's Analytics

Table 5: Percent of Mortgage Market by Credit Score & LTV That Is Underserved

Bps

	<60	60-80	81-90	>90
<660	-	-	100	100
660-700	-	-	67	67
700-740	-	-	33	33
>740	-	-	-	25

Note: Based on the assumption that 10% of the mortgage market is underserved.

Source: Moody's Analytics

Table 6: Mortgage Rate Difference Between Johnson-Crapo (Base Case) and Current System

Bps

	<60	60-80	81-90	>90
<660	2	4	-22	1
660-700	-3	-5	-15	8
700-740	-11	-2	-6	7
>740	-17	0	15	15

Source: Moody's Analytics

withstand losses on loans made to borrowers with credit scores below 660 and LTVs above 90% (see bottom of Table 4). In contrast, the guarantor would need to hold very little common equity capital for borrowers with scores above 740 and LTVs below 60%.[13]

To cushion the impact of these higher capital requirements on borrowers with lower scores and higher LTVs, the affordable housing fee that guarantors must pay would reward lending to the underserved. Under Johnson-Crapo, the affordable housing fee would total 10 basis points across all loans insured by the FMIC, with the proceeds used to support efforts to provide more affordable housing and address impediments to mortgage credit for the underserved.

A flexible affordable housing fee, which would charge guarantors more for lending to well-served borrowers and reduce the costs of lending to underserved borrowers, would have a significant impact on mortgage rates.[14] Assuming that 10% of the mortgage market is underserved, the affordable housing fee could vary from 15 basis points for lending to the well-served to a credit of 35 basis points for lending to the underserved.[15]

For context, using the current score/LTV distribution of Fannie/Freddie borrowers, if 10% of the market is determined to be underserved, this could include everyone with a score of less than 660 and an LTV of more than 80%, two-thirds of those with scores of between 660-700 and more than 80% LTV, one-third of those with scores of between 700-740 and more than 80% LTV, and one-fourth of those with scores of over 740 and an LTV of more than 90% (see Table 5).

Appropriately designed, the Johnson-Crapo housing finance system would thus have little impact on the mortgage rates paid by higher-risk borrowers (see Table 6). Indeed, for borrowers across all credit scores with loans with LTVs above 90%, mortgage rates would be only a few basis points higher than under the current system. For borrowers with LTVs between 80% and 90%, mortgage rates would be lower.

Sensitivity of Johnson-Crapo

These results are sensitive to the assumptions used. To gauge this, consider the case in which guarantors are required to achieve 10% capitalization, holding 4% common equity and 6% in debt securities. Preferred equity and future guarantee fees are not permitted as capital, and the required return on capital is assumed to be 12% for the common equity; also assume few efficiency gains from moving to a single security with an FMIC guarantee and a more standardized and competitive servicing and loan origination market.

Under these assumptions, the mortgage rate for the typical Fannie/Freddie borrower

is 44 basis points higher than in the current system (see "High Case" in Table 1). And the mortgage rate impact varies substantially more among borrowers of different credit risk given the greater amount of capital required and its higher cost. For the least creditworthy borrowers, with scores below 660 and LTVs above 90%, guarantors now must hold almost 13% common equity (see Table 7). This results in mortgage rates more than a percentage point higher for these borrowers than in the current system (see Table 8). There is little impact on mortgage rates paid by the highest-quality borrowers.

Conclusions

A key measure for evaluating any housing finance reform proposal is whether it ensures affordable access to mortgage credit for creditworthy borrowers throughout the business cycle. The Johnson-Crapo reform proposal accomplishes this under reasonable assumptions and the expectation that there will be some modest, but important, modifications to recent versions of the legislation, particularly with regard to the design of the flexible affordable housing fee.

Under this expectation, mortgage rates are higher for riskier borrowers in Johnson-Crapo, given the greater capital required to back these loans, but they are not materially higher than in the current housing finance system. It is even conceivable they could be lower.

The affordable housing fee would also ensure a steady and sizable funding source to address affordable housing needs and impediments to affordable mortgage credit for the underserved.[16] At funding estimated at close to $5 billion per year, the affordable housing fee would provide greater support for the underserved than did Fannie and Freddie's affordable housing goals.[17] And the support would be targeted more effectively.

Table 7: Mortgage Rates Under Johnson-Crapo (High Case) Across Score & LTV

Bps

Mortgage Rate

	<60	60-80	81-90	>90
<660	511	583	641	735
660-700	482	538	596	678
700-740	460	504	547	610
>740	450	490	546	578

Market Access Fee

	<60	60-80	81-90	>90
<660	15	15	-35	-35
660-700	15	15	-18	-18
700-740	15	15	-2	-2
>740	15	15	15	3

Private Mortgage Insurance

	<60	60-80	81-90	>90
<660	0	0	39	105
660-700	0	0	36	95
700-740	0	0	30	73
>740	0	0	25	49

Cost of Capital

	<60	60-80	81-90	>90
<660	80	152	221	250
660-700	51	107	162	185
700-740	29	73	103	123
>740	19	59	90	110

Common Equity Capitalization (Stressed Losses)

	<60	60-80	81-90	>90
<660	3.7	7.4	11.1	12.6
660-700	2.2	5.1	8.0	9.2
700-740	1.0	3.3	4.9	6.0
>740	0.5	2.6	4.2	5.3

Table 8: Mortgage Rate Difference Between Johnson-Crapo (High Case) and Current System

Bps

	<60	60-80	81-90	>90
<660	46	75	76	109
660-700	30	49	60	92
700-740	14	39	47	67
>740	5	36	63	71

Source: Moody's Analytics

Endnotes

1 A commonly held although far from universal view holds that the mortgage market fails to provide adequate credit due to a lack of necessary information about disadvantaged borrowers, because such people live in places where lenders provide little, if any, credit and because of discrimination.

2 For a good explanation of the affordable housing rules, see "Rethinking Duties to Serve in Housing Finance," by Adam Levitin and Janneke Ratcliff, Harvard Joint Center for Housing Studies, October 2013.

3 This perspective is well-articulated in "Only a Private Housing Market Can Produce Stability," Peter Wallison, American Enterprise Institute for Public Policy Research, December 2013.

4 This case is strongly made in "Did Affordable Housing Legislation Contribute to the Subprime Securities Boom?" Ghent, Hernandez-Murillo, Owyang, Federal Reserve Bank of St. Louis Working Paper, March 2012. It is also not consistent with the housing bubbles that developed in other parts of the world, where of course, there are no affordable rules. It is also difficult to square with the sharp decline in Fannie and Freddie's share of mortgage debt outstanding between 2002 and 2006 during the housing bubble's formative years.

5 At their introduction, the affordable goals appeared to have prompted various Fannie and Freddie programs to open up the availability of credit to new households that have since become part of the mortgage production process. The goals were also helpful in increasing liquidity for CRA loan lenders, helping to reduce costs and increasing access. That their impact has seemingly since waned is borne out in a number of studies, including "Do the GSEs matter to low-income housing markets? An assessment of the effects of the GSE loan purchase goals on California housing outcomes." Raphael W. Bostic and Stuart A. Gabriel, Journal of Urban Economics 59, 458-475, 2006.

6 This is a weighted average of the mortgage rate paid by Fannie/Freddie borrowers across credit scores and LTVs, where the weights are Fannie and Freddie's current distribution of mortgage borrowers across credit score and LTVs. Fannie and Freddie's current borrower score/LTV distribution is shown in Table 2.

7 Estimated expected losses and administrative costs are from Fannie Mae.

8 Proposed mortgage insurer eligibility standards are expected to be introduced soon for public comment.

9 The FHFA has issued a request for information on the appropriate level of Fannie and Freddie's g-fees and LLPAs.

10 This differs from the 41-basis point increase in mortgage rates under a liberal interpretation of Johnson-Crapo calculated in "Housing Finance Reform Steps Forward," Zandi and DeRitis, Moody's Analytics white paper, March 2014. The difference is due to: 1) lower assumed administrative costs and expected losses consistent with more recently released information from the GSEs; 2) a lower assumed return on capital consistent with a recent downward revision in the outlook for long-term interest rates and expected returns in the financial services industry; 3) a lower yield on FMIC-backed mortgage securities consistent with a larger assumed benefit from the government guarantee given greater expected demand for such securities due in part to stiffer global bank liquidity requirements; and 4) measurement differences as the mortgage rate impact in Zandi and DeRitis was for a borrower with a 750 credit score and 80% LTV.

11 This assumed capital structure is consistent with Johnson-Crapo, but there are many other possible alternative structures. The actual required capital structure would be determined by the FMIC. Which structure is ultimately chosen would have a substantial impact on the cost of capital and mortgage rates.

12 Many of the losses suffered by Fannie and Freddie in the Great Recession were on alt-A and subprime mortgage loans that would not be permitted to receive a government backstop in the Johnson-Crapo housing finance system. This suggests that, in the future, a downturn would need to be measurably more severe than the Great Recession to result in a 3% loss.

13 It is assumed that guarantors will increase their g-fees proportionately with the amount of required capital. However, this is unlikely, and thus these estimates should be viewed as an upper bound for the change in mortgage rates for borrowers with different credit quality.

14 The concept of an affordable housing fee was introduced by the Center for American Progress. The National Community Reinvestment Coalition put forward the idea of a flexible fee, which was further adapted by the Urban Institute. The UI adaptation of the flex fee is used in this analysis.

15 The subsidy to the underserved is determined by solving the algebra problem: (.9)(15 bps) – (.1)(X bps) = 10 bps where .9 is the share of loans that go to the well-served, 15 bps is the affordable housing fee on loans to the well-served, .1 is the share of loans that go to the underserved, and 10 bps is the affordable housing fee for all loans. X is the subsidy provided to the underserved. It is assumed that any credit provided via the flexible affordable housing fee is passed on to underserved mortgage borrowers. This is more likely if the guarantors are operating in a competitive market.

16 This would occur through the Affordable Housing Trust Fund, which would support the production and preservation of low-income rental housing, the Capital Magnet Fund, which would provide capital for CDFIs to expand their service to underserved communities, and the Market Access Fund, which would provide funding for research and development, pilot testing and credit support for activities to expand access to mortgage credit.

17 Approximately $5 billion would be generated by the 10-basis point affordable housing fee on government guaranteed mortgage securities in the Johnson-Crapo housing finance system. This estimate is based on $10 trillion in outstanding mortgage debt, of which $8 trillion is securitized and $5 trillion is FMIC-guaranteed. This is also approximately equal to the maximum subsidy that Fannie and Freddie provided to affordable housing preconservatorship, as it is the subsidy Fannie and Freddie received from its implicit government guarantee. According to a 2005 Federal Reserve study http://www.federalreserve.gov/pubs/feds/2005/200505/200505pap.pdf , Fannie and Freddie received a 40-basis point debt advantage due to the guarantee. Prior to the conservatorship, they had approximately $1.2 trillion in outstanding debt. This implies a subsidy of almost $5 billion per annum. Fannie and Freddie received other benefits from the implicit government backing, but they also captured a large share of these benefits in higher returns to shareholders and other stakeholders.

About the Authors

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Mark M. Zandi is chief economist of Moody's Analytics, where he directs economic research. Moody's Analytics, a subsidiary of Moody's Corp., is a leading provider of economic research, data and analytical tools. Dr. Zandi is a cofounder of Economy.com, which Moody's purchased in 2005.

Dr. Zandi's broad research interests encompass macroeconomics, financial markets and public policy. His recent research has focused on mortgage finance reform and the determinants of mortgage foreclosure and personal bankruptcy. He has analyzed the economic impact of various tax and government spending policies and assessed the appropriate monetary policy response to bubbles in asset markets.

A trusted adviser to policymakers and an influential source of economic analysis for businesses, journalists and the public, Dr. Zandi frequently testifies before Congress on topics including the economic outlook, the nation's daunting fiscal challenges, the merits of fiscal stimulus, financial regulatory reform, and foreclosure mitigation.

Dr. Zandi conducts regular briefings on the economy for corporate boards, trade associations and policymakers at all levels. He is on the board of directors of MGIC, the nation's largest private mortgage insurance company, and The Reinvestment Fund, a large CDFI that makes investments in disadvantaged neighborhoods. He is often quoted in national and global publications and interviewed by major news media outlets, and is a frequent guest on CNBC, NPR, Meet the Press, CNN, and various other national networks and news programs.

Dr. Zandi is the author of *Paying the Price: Ending the Great Recession and Beginning a New American Century*, which provides an assessment of the monetary and fiscal policy response to the Great Recession. His other book, *Financial Shock: A 360º Look at the Subprime Mortgage Implosion, and How to Avoid the Next Financial Crisis*, is described by the New York Times as the "clearest guide" to the financial crisis.

Dr. Zandi earned his B.S. from the Wharton School at the University of Pennsylvania and his PhD at the University of Pennsylvania. He lives with his wife and three children in the suburbs of Philadelphia.

Cristian deRitis

Cristian deRitis is a director in the Credit Analytics group at Moody's Analytics, where he develops probability of default, loss given default, and loss forecasting models for firms and industries; contributes to forecasts and analysis for CreditForecast.com; and writes periodic summaries of the consumer credit industry. His commentary on housing and mortgage markets, securitization, and financial regulatory reform often appears on the Dismal Scientist web site and in the Regional Financial Review.

Dr. deRitis' recent consulting work has included an evaluation of the efficacy and cost of the federal government's Home Affordable Modification Plan, and he is frequently consulted on credit risk modeling and measurement as well as housing policy. He helped develop the company's models to forecast the Case-Shiller and FHFA metropolitan house price indexes and is a regular contributor to the firm's Housing Market Monitor. Dr. deRitis also gives frequent presentations and interviews on the state of the U.S. housing, mortgage and credit markets.

In his previous work at Fannie Mae, Dr. deRitis supervised a team of economists who developed models of borrower default and prepayment behavior. He has published research on consumer credit and credit modeling as well as on the costs and benefits of community mediation. He received a PhD in economics from Johns Hopkins University, where he focused on the impact of technology on labor markets and income inequality. His bachelor's degree in economics is from the Honors College at Michigan State University.

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