Bank Capital Notice of Proposed Rulemaking

A Look at the Provisions Affecting Mortgage Loans in Bank Portfolios

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On July 27, the three federal bank regulators—the Federal Reserve, the Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency—issued a notice of proposed rulemaking (NPR) on bank capital requirements. The changes proposed would dramatically increase capital requirements for banks with more than $100 billion in assets.

Among other provisions, this proposal would make significant changes in the capital requirements for single-family residential mortgages held in bank portfolios. In particular, the capital charges rise significantly for loans with high loan-to-value (LTV) ratios. Our analysis suggests the proposed capital levels exceed what would be needed even to protect banks from a repeat of the Great Recession. Moreover, the changes—contrary to the intentions of the Community Reinvestment Act (CRA)—would disproportionately disadvantage low- and moderate-income (LMI) borrowers and communities, as well as Black and Hispanic borrowers. In this brief, we focus on the impact of the proposed changes in the capital requirements on residential mortgages in bank portfolios, quantifying the impact on underserved borrowers and communities.

There is a lot at stake here. Bank portfolios provide a home for loans that do not fit neatly into the credit boxes underwritten by the government-sponsored enterprises (GSEs), the Federal Housing Administration (FHA), or the Veterans Administration (VA). High-LTV mortgages are particularly important for first-time buyers, especially LMI borrowers and borrowers of color. Raising the capital charges on high-LTV loans raises the mortgage interest rates for the remaining borrowers least able to afford the increases. Raising the capital charges undercuts other federal efforts, including those to put

more teeth in the CRA, as well as those encouraging lenders to develop special purpose credit programs. Moreover, it will accelerate a broader retreat by banks from the mortgage business.

Background of Bank Capital Requirements

Capital rules are set by the three federal bank regulators, and they are modeled off international agreements of the Basel Committee on Banking Supervision. The regulators require banks to hold enough capital to serve as a cushion against losses under stressed financial conditions, reducing the likelihood of bank failures and thus protecting the financial system. Capital requirements are determined based on capital ratios and risk weights, with capital ratios calculated as a percentage of assets. Currently, to be "adequately capitalized," a bank must meet an 8 percent risk-based capital ratio (in addition to meeting a minimum absolute leverage requirement). On top of this 8 percent, banks must hold a capital conservation buffer composed of a 2.5 percent capital ratio, for a total of 10.5 percent. For the largest banks, there are additional capital surcharges.

To account for the difference in asset risk profiles, assets are grouped into risk categories and assigned a risk weight, which determines how much capital a bank must hold against those assets. For example, if the risk weight for an asset category is 70 percent, a bank holding $100 million of these assets must hold a minimum of 70 percent * (8 percent + 2.5 percent) * $100 million, or $7.35 million of capital against those assets.

Current and Proposed Risk Weights Based on LTV Ratios

The NPR proposes to change the risk weights for residential mortgages from 50 percent for all mortgages, regardless of occupancy status or LTV ratio, to a sliding scale based on both occupancy status and LTV ratio. Table 1 summarizes the current US rules, Basel rules, and the proposed rules.

- The **current US rules** result in a 5.25 percent capital requirement (10.5 percent * 50 percent = 5.25 percent) for all mortgages, not including additional charges on the largest banks.
- **Basel III**, the international standard for capital, has a graduated system of risk weights for mortgages, depending on occupancy status and LTV ratio. Basel III assigns risk weights depending on whether the loan is secured by an owner-occupied property (defined as "real estate mortgages that are not dependent on the cash flows of the real estate") or an investor property (defined as "real estate mortgages that are dependent on the cash flows of the real estate"). Investor properties bear a higher risk weight (10 to 35 percent higher) compared with owner-occupied properties. In addition, Basel III sets higher risk weights for higher LTV categories. As a result, capital requirements for mortgages under Basel III range from 2.10 percent for low-LTV owner-occupied property mortgages to 11.03 percent for high-LTV investor property mortgages.
- The **NPR proposes** to add 20 percentage points across the board to the Basel III requirements, for all LTV categories. As a result, banks would face higher capital requirements than the

current US rules for owner-occupied loans with LTV ratios greater than 80 percent and for investor loans with LTV ratios greater than 50 percent. Under the NPR, the current 5.25 percent capital requirement for all mortgages would change to 4.20 percent for low-LTV owner-occupied mortgages and a high of 13.13 percent for high-LTV investor properties.

TABLE 1A

Current, Basel, and Proposed Risk Weights

		LTV Ratios					
Rules		**≤ 50%**	**50–60%**	**60–80%**	**80–90%**	**90–100%**	**> 100%**
Owner-occupied properties	Current US rules	50%	50%	50%	50%	50%	50%
	Basel	20%	25%	30%	40%	50%	70%
	NPR	40%	45%	50%	60%	70%	90%
Investor properties	Current US rules	50%	50%	50%	50%	50%	50%
	Basel	30%	35%	45%	60%	75%	105%
	NPR	50%	55%	65%	80%	95%	125%

Source: Mortgage Bankers Association, "Basel III Bank Capital Proposal—MBA Summary" (Washington, DC: Mortgage Bankers Association, n.d.).
Note: LTV = loan-to-value; NPR = notice of proposed rulemaking.

TABLE 1B

Current, Basel, and Proposed Capital Requirements

		LTV Ratios					
Rules		**≤ 50%**	**50–60%**	**60–80%**	**80–90%**	**90–100%**	**> 100%**
Owner-occupied properties	Current US rules	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
	Basel	2.10%	2.63%	3.15%	4.20%	5.25%	7.35%
	NPR	4.20%	4.73%	5.25%	6.30%	7.35%	9.45%
Investor properties	Current US rules	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
	Basel	3.15%	3.68%	4.73%	6.30%	7.88%	11.03%
	NPR	5.25%	5.78%	6.83%	8.40%	9.98%	13.13%

Sources: Mortgage Bankers Association, "Basel III Bank Capital Proposal—MBA Summary" (Washington, DC: Mortgage Bankers Association, n.d.); and Urban Institute calculations, assuming a 10.5 percent capital charge.
Note: LTV = loan-to-value; NPR = notice of proposed rulemaking.

Bank portfolio loans provide a home for mortgage borrowers or mortgage loans that do not neatly fit into the GSE, FHA, and VA credit boxes. The NPR would dramatically increase the amount of capital needed to support higher-LTV owner-occupied home mortgages. For example, the amount of capital needed to support an owner-occupied home mortgage with an LTV ratio from 90 to 100 percent increases 40 percent from 5.25 percent to 7.35 percent.

Historical Loss Information

Given the importance of maintaining a workable niche for banks to make and hold mortgages, are the NPR's standards necessary to preserve the safety and soundness of banks (and, in turn, the financial system and the economy)? Capital is a buffer to absorb losses, providing protection against adverse

events. Thus, setting appropriate capital standards requires understanding how an asset class behaves under stressful conditions. For the mortgage industry, the Great Recession exemplifies an extraordinarily high stress level, in which large numbers of individual mortgages defaulted and the scale of both the defaults and the underlying economic circumstances created a vicious cycle in which defaults led to further property value declines that led to more defaults.

Mortgages originated from 2005 to 2008 represent the worst book of business in recent mortgage history. Although we lack good information on historical losses on loans held in bank portfolios,[1] we have data on how mortgages originated during this period that were guaranteed by Fannie Mae and Freddie Mac (the GSEs) performed. The GSE analysis is limited to 30-year fixed-rate, fully amortizing, full-documentation loans, but we can overlay the characteristics (FICO credit scores and LTV ratios) of current bank portfolio loans on the GSE worst-case experience to understand how current bank portfolios would perform under the stress of the Great Recession.

FICO scores and LTV ratios are the two largest determinants of credit losses. Both these dimensions must be considered, as even within LTV buckets, credit losses will be different depending on the FICO score. For example, from 2005 to 2008, loans with LTV ratios from 90 to 100 percent and FICO scores up to 700 had a 29.3 percent chance of going delinquent by 180 days or more. For a loan in the same LTV bucket and a FICO score above 750, the delinquency rate was 9.9 percent (table 2).

Serious delinquencies do not directly translate into credit losses; credit losses will be much lower. Many loans that are seriously delinquent recover and do not advance to foreclosure. Even if a loan does go through foreclosure, the losses vary considerably over time. Even from 2005 to 2008, losses were no higher than 50 percent in the highest LTV buckets.

Table 2 summarizes the loss experiences on these GSE loans.

TABLE 2

Loss Experiences for Government-Sponsored Enterprise Loans, 2005–08

	FICO score	LTV Ratio ≤ 50%	50–60%	60–80%	80–90%	90–100%	All
D180 rate	≤ 700	11.27%	17.02%	22.48%	28.10%	29.34%	22.37%
	700–750	3.70%	7.02%	12.08%	17.36%	16.67%	11.83%
	> 750	1.15%	2.40%	5.13%	9.49%	9.89%	4.83%
	All	4.14%	7.91%	12.47%	19.00%	20.01%	12.29%
D180 to foreclosure	≤ 700	52.62%	64.43%	76.70%	81.19%	82.65%	76.20%
	700–750	52.38%	65.42%	80.33%	83.46%	84.52%	79.73%
	> 750	51.08%	67.57%	82.71%	85.60%	86.76%	81.61%
	All	52.34%	65.06%	78.67%	82.49%	83.71%	77.97%
Loss severity, given foreclosure	≤ 700	24.60%	31.95%	42.63%	49.68%	49.52%	43.82%
	700–750	23.92%	31.22%	43.09%	50.75%	49.99%	44.35%
	> 750	23.29%	30.84%	43.17%	50.59%	49.93%	44.24%
	All	24.24%	31.61%	42.85%	50.12%	49.70%	44.03%
Loss rate	≤ 700	1.46%	3.50%	7.35%	11.33%	12.01%	7.47%
	700–750	0.46%	1.43%	4.18%	7.35%	7.04%	4.18%
	> 750	0.14%	0.50%	1.83%	4.11%	4.28%	1.74%
	All	0.53%	1.63%	4.20%	7.85%	8.33%	4.22%

Sources: Fannie Mae and Freddie Mac Single-Family Loan Performance Databases.
Note: D180 = 180 or more days delinquent; LTV = loan-to-value.

Table 2 first shows the rate at which the mortgages became 180 days delinquent (i.e., defaulted) and then the transition rate from default to foreclosure, the severity of the loss upon foreclosure, and the resulting loss rate. In calculating loss severity, we have included the losses taken by mortgage insurers because, unlike high-LTV GSE loans, most loans in bank portfolios do not have mortgage insurance.

For example, our analysis indicates a loan originated from 2005 to 2008 with a 680 FICO score and a 95 percent LTV ratio would have a 29 percent probability of defaulting. If defaulted, there would be an 83 percent chance the loan would transition into a foreclosure, and there would be a loss, given foreclosure, of 50 percent. In sum, the loss rate for this loan would be 12 percent (29 percent * 83 percent * 50 percent).

But we know that the FICO score and LTV ratio composition of loans in current bank portfolios is significantly better than that of the GSE loans originated from 2005 to 2008. Using 2020–21 Black Knight data on loans in bank portfolios, we can calculate the composition of bank portfolios by FICO score and LTV category and then combine the bank loan composition with the GSE loan loss rate to calculate the hypothetical loss rate under stress given the credit profiles of loans in current bank portfolios. We can then compare that loss rate with both the current and proposed capital requirements.

The results are shown in table 3. For example, for loans with LTV ratios from 90 to 100 percent, 18 percent of bank loans have FICO scores below 700, 32 percent have scores between 700 and 750, and 50 percent have scores above 750. The hypothetical loss rate for bank portfolio loans with LTV ratios from 90 to 100 percent would thus be 6.56 percent ((18 percent * 12 percent) + (32 percent * 7 percent)

+ (50 percent * 4.28 percent)). That is, if the current bank loan portfolio were to go through a stress scenario similar to that of loans originated from 2005 to 2008 (the GSEs' worst book of business), the expected loss would be 6.56 percent, which is 79 basis points lower than the NPR's capital requirement of 7.35 percent.

Similarly, we find that the loss rate for loans with LTV ratios from 80 to 90 percent, using the 2005–08 GSE loss experience and the 2020–21 bank portfolio composition, would be 5.54 percent, or 76 basis points lower than the NPR proposal.

TABLE 3

A Comparison between Hypothetical Loss Rate and Capital Requirements

	FICO score	LTV Ratio ≤ 50%	50–60%	60–80%	80–90%	90–100%	All
2020 and 2021 bank loans' composition	≤ 700	10.79%	5.82%	5.77%	8.75%	17.92%	8.17%
	700–750	16.05%	16.94%	19.76%	24.64%	32.15%	19.61%
	> 750	73.16%	77.24%	74.47%	66.60%	49.92%	72.22%
	All	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Hypothetical loss rate		0.33%	0.83%	2.61%	5.54%	6.56%	2.69%
NPR capital requirement[a]		4.20%	4.73%	5.25%	6.30%	7.35%	
Difference		3.87%	3.89%	2.64%	0.76%	0.79%	

Source: Authors' calculations using 2020–21 Black Knight data and 2005–08 Freddie Mac and Fannie Mae Single-Family Loan Performance data.

Note: LTV = loan-to-value; NPR = notice of proposed rulemaking.

[a] For loans for owner-occupied properties.

Although the capital requirements are rising for loans with LTV ratios above 80 percent and are remaining constant for loans with LTV ratios from 60 to 80 percent, table 3 also points out how high the capital requirements are for all LTV buckets relative to the losses sustained in the stress scenario from 2005 to 2008. Nonbanks have taken an increasing share of the mortgage market over the past decade, and if these capital requirements are implemented as proposed, we would expect that trend to continue and potentially accelerate.

Moreover, these loss calculations overestimate the potential loss rate for the current bank book of business. Bank lending has become more prudent in ways not directly reflected in FICO scores and LTV ratios. For example, between 2005 and 2008, loans that claimed to be full documentation often did not have documentation verified. Over time, what "counts" as income has become increasingly strict, and appraisal fraud is less common. Moreover, the qualified mortgage rule has largely ended the proliferation of nontraditional products, including loans with low or no documentation, interest-only loans, negative amortization loans, loans with teaser rates, and loans with amortization schedules longer than 30 years. Although we did not include these loans in our analysis, the presence of these loans exacerbated losses on all loans, as they caused home prices to plummet far more than would have been the case absent these loans. Well over half the mortgages issued during the boom years contained these nontraditional features (Davis et al. 2019). These loans were more apt to default, magnifying the contagion effect and exacerbating home price declines. Nonetheless, we see, based on a repetition of

the 2005–08 experience and ignoring all subsequent improvements, the capital requirements are still too high.[2]

We can translate these numbers into borrower impact. Loans with LTV ratios from 80 to 90 percent would require the borrower to pay about 12.5 basis points more per year for their mortgage. That is, the capital requirements are 105 basis points more than is currently the case (6.30 percent – 5.25 percent); assuming a 12 percent cost of capital, that would translate into an additional charge of 12.5 basis points each year (105 basis points * 12 percent). For loans with LTV ratios from 90 to 100 percent, the borrower would pay about 25 basis points more than is currently the case.[3] On a $200,000 mortgage with an LTV ratio from 90 to 100 percent, this would be an extra $33 a month in payments. If the cost of capital is 15 to 16 percent, rather than the 12 percent used for these calculations, the cost would be correspondingly higher.

Who Are the Affected Borrowers? High-LTV Bank Loans versus All Bank Loans

The response to this proposal may well be, "Who cares, banks don't make many high-LTV loans anyway." In fact, they do, and the increased capital requirements would likely make a difference in bank behavior. The NPR's largest impact would be on loans with LTV ratios above 80 percent. Who are these borrowers?

To find out, we first estimate the number of loans affected by this new bank rule. That is, we calculate the total annual loans originated and retained by banks with assets of at least $100 billion. Relying on 2021 Home Mortgage Disclosure Act (HMDA) data and the 2021 Federal Financial Institutions Examination Council CRA file, we found, in previous research, that there were 604 banks with mortgage originations (Goodman, Seidman, and Zhu 2022). Of these, 23 banks have assets above $100 billion. Those 23 banks, however, accounted for 52 percent of total bank originations. We estimate (from 2020 and 2021 HMDA data and eMBS data) that about 3.5 million bank loans were originated in each of 2020 and 2021, of which approximately 1.8 million (52 percent * 3.5 million) were originated by the large banks affected by the NPR. Of these loans, about 13 percent (or 238,000) had LTV ratios above 80 percent.

To further analyze these borrowers, we merged 2020–21 HMDA data and Black Knight data. Although our matched dataset does not include the complete population of bank loans, our benchmarking test indicates that the subset of loans we have is representative. We have grossed up the numbers to reflect the full market.

High-LTV Loans to LMI Communities and LMI Borrowers Held in Bank Portfolios Extended

The CRA is designed to address the long history of discrimination in lending and to encourage banks to help meet the needs of LMI borrowers and communities in the areas that they serve.

Table 4A shows the distribution of high-LTV loans (above 80 percent) and all bank loans made in LMI communities. High-LTV loans are most important to LMI communities. Nineteen percent of high-LTV bank loans (45,000 loans per year) were made in LMI neighborhoods, compared with 13 percent of all bank loans in those neighborhoods. An additional 40 percent (95,000) of high-LTV borrowers live in middle-income communities, compared with 33 percent for all bank borrowers.

TABLE 4A

High-LTV Bank Loans versus All Bank Loans, by Neighborhood Income

	Bank Loans with LTV Ratios above 80%		All Bank Loans	
	Loan count	Share of loans	Loan count	Share of loans
LMI	45,000	19%	239,000	13%
Middle income	95,000	40%	606,000	33%
High income	97,000	41%	992,000	54%
All	238,000	100%	1,837,000	100%

TABLE 4B

High-LTV Bank Loans versus All Bank Loans, by Borrower Income

	Bank Loans with LTV Ratios above 80%		All Bank Loans	
	Loan count	Share of loans	Loan count	Share of loans
LMI	67,000	28%	331,000	18%
Middle income	55,000	23%	312,000	17%
High income	116,000	49%	1,175,000	64%
All	238,000	100%	1,837,000	100%

TABLE 4C

High-LTV Bank Loans versus All Bank Loans, by Borrower Race or Ethnicity

	Bank Loans with LTV Ratios above 80%		All Bank Loans	
	Loan count	Share of loans	Loan count	Share of loans
White	162,000	68.0%	1,286,000	70.0%
Black	21,000	9.0%	92,000	5.0%
Hispanic	31,000	13.0%	165,000	9.0%
Asian	21,000	9.0%	294,000	16.0%
Other	1,000	0.3%	5,000	0.3%
All	238,000	100.0%	1,837,000	100.0%

Source: Authors' calculations using 2020–21 Home Mortgage Disclosure Act and Black Knight merged database.
Note: LMI = low and moderate income; LTV = loan-to-value.

In table 4B, we analyze borrower income distributions. Similarly, high-LTV mortgages are most important to LMI borrowers: 28 percent of high-LTV borrowers, who received 67,000 bank loans each year, were LMI borrowers. An additional 23 percent of high-LTV borrowers were middle-income borrowers, and they received 55,000 loans. For comparison, only 18 percent of all bank mortgage borrowers are LMI borrowers, and 17 percent are middle-income borrowers.

Overall, the high-LTV market facilitates the type of lending banks are encouraged to do under the CRA, enabling them to make a disproportionate number of loans to LMI borrowers and borrowers in LMI communities.

Moreover, the high-LTV loans in LMI communities and to LMI borrowers are conforming (i.e., not jumbo) purchase loans, facilitating first-time homeownership.[4] Table 5A shows the percentage of purchase and refinance loans made in LMI communities that are jumbo and conforming. For example, 21 percent of high-LTV purchase loans were made in LMI communities, compared with 15 percent of all bank loans made in these communities, and the overwhelming percentage were conforming, rather than jumbo. Table 5B shows the share of loans made to LMI borrowers. The share of purchase mortgage originations to LMI borrowers is substantially higher in high-LTV markets (31 percent) than overall bank lending (21 percent). The refinance percentages in both LMI tracts and to LMI borrowers are quite a bit lower than the purchase percentages for all LTV ratios. High-LTV lending is supporting homeownership in LMI communities and among LMI borrowers.

TABLE 5A

Shares of High-LTV Bank Loans versus All Bank Loans in LMI Tracts, by Loan Type

		Bank loans with LTV ratios above 80%	All bank loans
Purchase	Jumbo	9%	6%
	Conforming	24%	21%
	All	21%	15%
Refinance	Jumbo	7%	4%
	Conforming	15%	14%
	All	13%	11%
All	Jumbo	9%	5%
	Conforming	22%	16%
	All	19%	13%

TABLE 5B

Shares of High-LTV Bank Loans versus All Bank Loans to LMI Borrowers, by Loan Type

		Bank loans with LTV ratios above 80%	All bank loans
Purchase	Jumbo	3%	4%
	Conforming	38%	31%
	All	31%	21%
Refinance	Jumbo	6%	4%
	Conforming	24%	23%
	All	21%	17%
All	Jumbo	3%	4%
	Conforming	34%	26%
	All	28%	18%

TABLE 5C

Shares of High-LTV Bank Loans versus All Bank Loans to Black and Hispanic Borrowers, by Loan Type

		Bank loans with LTV ratios above 80%	All bank loans
Purchase	Jumbo	18%	11%
	Conforming	30%	24%
	All	27%	19%
Refinance	Jumbo	13%	8%
	Conforming	17%	17%
	All	17%	14%
All	Jumbo	17%	9%
	Conforming	26%	19%
	All	22%	14%

Source: Authors' calculations using 2020–21 Home Mortgage Disclosure Act and Black Knight merged database.
Note: LMI = low- and moderate-income; LTV = loan-to-value.

Loans to Black and Hispanic Borrowers Held in Bank Portfolios

Although the CRA focuses on borrower and community income, LMI borrowers and borrowers of color are distinct groups (Goodman et al. 2021). In table 4C, we analyze high-LTV borrowers by race and

ethnicity. We find that 9 percent (21,000 loans per year) of the high-LTV loans were made to Black borrowers, and an additional 13 percent (31,000 loans per year) were made to Hispanic borrowers. For all bank loans, only 5 percent were made to Black borrowers, and 9 percent were made to Hispanic borrowers.

Table 5C further shows that the high-LTV market plays a significant role in increasing homeownership for underserved borrowers. Twenty-seven percent of all purchase loans and 26 percent of conforming loans made to Black and Hispanic borrowers had high LTV ratios, compared with 19 percent of all bank loans.

The Bottom Line

There is no logical argument for the bank capital requirements proposed in the NPR. They are much higher than the Basel requirements. And our analysis shows they are higher than a repeat of the 2005–08 experience would suggest is necessary to protect the financial system. Moreover, our analysis does not account for post-2008 changes in the loan origination process that require increased documentation, as well as regulatory developments pursuant to the Dodd-Frank Act.

We have shown that LMI borrowers, LMI communities, and Black and Hispanic borrowers are disproportionately represented in the highest LTV categories, the categories targeted to see increases in the capital requirements. This will translate directly into higher costs for these borrowers. It is ironic that this change is occurring at the same time the regulators are considering changes to regulations under the CRA to encourage more lending to LMI borrowers and communities as well as to borrowers and communities of color. This proposal also goes against the recent guidance by the bank regulators and other government agencies, including the Consumer Financial Protection Bureau and the US Department of Housing and Urban Development, to encourage lenders to design special purpose credit programs to increase the amount of home mortgage lending to those underserved groups.

In short, the level of capital that banks would be required by the NPR to hold against mortgage loans held in portfolio is excessive, at all LTV levels, and is likely to further discourage bank mortgage lending. The NPR's impact on lending to LMI borrowers and communities and to borrowers of color is particularly perverse in the face of efforts by the bank regulators and other government agencies to encourage banks to increase their lending to precisely these borrowers and communities.

Notes

[1] The bank regulators have access to data on the performance of loans held in bank portfolios that were originated during this period. Although such data would be useful, the structural quality of loans originated and held today is, pursuant to the Dodd-Frank Act and related regulations, superior to many of the loans originated by banks from 2005 to 2008.

[2] These calculations do not account for the changes in the capital provisions for mortgage servicing rights, which will make banks less willing to hold mortgages in general.

[3] Capital requirements are 210 basis points higher (7.30 percent – 5.25 percent). Assuming a 12 percent capital cost, this translates into an extra 25 basis points per year.

[4] Jumbo loans are for borrowers who need to borrow more than the conforming loan limit to purchase or refinance their home. As of 2023, the conforming loan limit is $726,200. We have defined high-balance conforming loans as jumbo loans for this purpose.

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