Fannie Mae Connecticut Avenue Securities, Series 2016-C04

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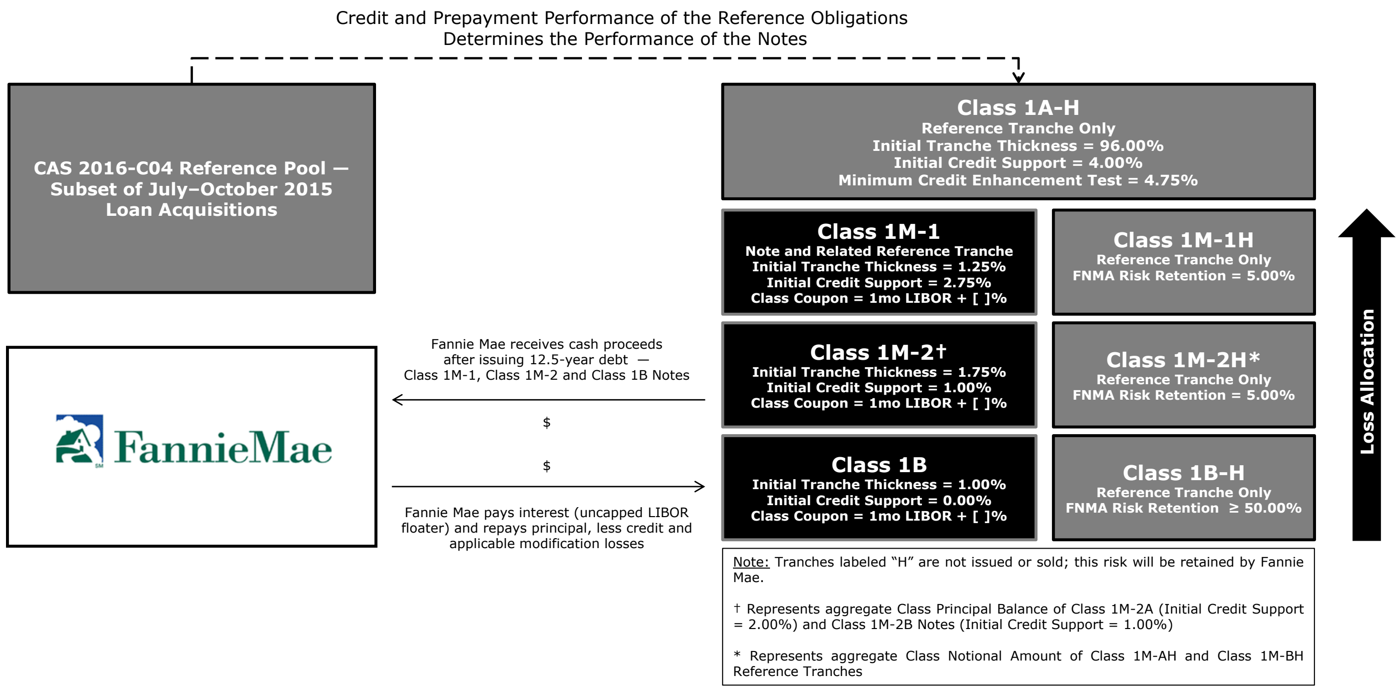
Transaction Overview

Connecticut Avenue Securities, Series 2016-C04 (CAS 2016-C04) represents Fannie Mae's 13th credit risk sharing transaction under the CAS shelf, as well as the fifth CAS issuance to incorporate an actual realized loss framework for the Offered Notes and the associated Reference Pool. At deal closing, Fannie Mae will issue the CAS 2016-C04 Notes, whose payment distributions will be subject to the credit and principal payment risks of the underlying Reference Pool. Amounts due on the Notes will be calculated based on the performance of the mortgage loans in the Reference Pool (the Reference Obligations), which were acquired by Fannie Mae between July 1, 2015 and October 31, 2015 and subsequently securitized into agency mortgage-backed securities (MBS). The Notes, however, are not secured by any collateral and no actual cash flow from the Reference Obligations will be used for payment to the Noteholders. The Notes will instead be unsecured obligations of Fannie Mae and, much like the agency MBS that Fannie Mae currently guarantees, will not be explicitly guaranteed by the federal government. Below is a diagram illustrating the transaction's capital structure.



The Class 1M-1, 1M-2 and 1B Notes will be offered to investors and are entitled to monthly interest based on their respective Class Coupons. The Offered Notes are also subject to principal payments, write-down amounts and write-up amounts based on the underlying performance of the Reference Pool, which takes into account the occurrence of principal payment collections, Credit Events (and reversals thereof) and Modification Events. The remaining, non-offered notes have an "H" designation and will be initially retained by Fannie Mae. These retained notes are the Class 1A-H, 1M-1H, 1M-2H (combination of 1M-AH and 1M-BH) and 1B-H Reference Tranches. Since each of the Offered Notes has a corresponding "H" Reference Tranche representing the same credit risk, differentiated only by the risk-bearer, we'll generally use the common Note designation to mean the combination of the two Reference Tranches in this report (e.g., the "Class 1M-1 Notes" for the Class 1M-1 Notes and Class 1M-1H Reference Tranche).

The Class 1M-2 Notes can be exchanged for proportionate interests in the Class 1M-2A and 1M-2B Notes (the Exchangeable Notes), and vice versa. Additionally, the Class 1M-2A Notes can be exchanged for proportionate interests in the Class 1M-2F and 1M-2I Notes, and vice versa. The Class 1M-2, 1M-2F and 1M-2I Notes are collectively referred to as the Related Combinable and Recombinable ("RCR") Notes.

This pre-sale report is based on information regarding the underlying Reference Obligations and the terms of the transaction as of July 18, 2016. The ratings shown below are preliminary and subsequent information may result in the assignment of final ratings that differ from preliminary ratings. This report does not constitute a recommendation to buy, hold, or sell securities.

Capital Structure						
Class[1,2]	Initial Class Balance ($)		Scheduled Final Maturity	Coupon	CE (%)	KBRA Rating
1A-H	40,491,498,577		January 2029	N/A	4.00	NR
1M-1*	500,871,000		January 2029	1M Libor + [ ]	2.75	BBB(sf)
1M-1H	26,362,054		January 2029	N/A	2.75	NR
1M-2A‡	300,522,000		January 2029	1M Libor + [ ]	2.00	BBB-(sf)
1M-AH	15,817,832		January 2029	N/A	2.00	NR
1M-2B‡	400,697,000		January 2029	1M Libor + [ ]	1.00	BB-(sf)
1M-BH	21,089,443		January 2029	N/A	1.00	NR
1M-2*‡	701,219,000		January 2029	1M Libor + [ ]	1.00	BB-(sf)
1M-2F‡	300,522,000		January 2029	1M Libor + [ ]	2.00	BBB-(sf)
1M-2I‡	300,522,000	†	January 2029	[ ]	N/A	BBB-(sf)
1B*	120,000,000		January 2029	1M Libor + [ ]	0.00	NR
1B-H	301,786,443		January 2029	N/A	0.00	NR
Total Note Offering	1,322,090,000					

[1]The Class 1A-H, 1M-1H, 1M-AH, 1M-BH and 1B-H Reference Tranches will not have corresponding Notes that are issued or sold. The Reference Tranches will be referenced only in connection with making calculations of principal payments required to be made by Fannie Mae and reductions and increases in the principal amounts of the Notes.

[2]The Class 1M-2 Notes can be exchanged for proportionate interests in the Class 1M-2A and Class 1M-2B Notes (the Exchangeable Notes), and vice versa. Additionally, the Class 1M-2A Notes can be exchanged for proportionate interests in the Class 1M-2F and Class 1M-2I Notes, and vice versa. The Class 1M-2, 1M-2F and 1M-2I Notes are collectively referred to as the Related Combinable and Recombinable ("RCR") Notes.

*Offered Notes at Closing; ‡Exchangeable or Related Combinable and Recombinable (RCR) Notes; †Notional Amount

KBRA Quick Facts		
	CAS 2016-C04	
Aggregate Cut-Off Balance	$42,178,644,351	
Product Type	100% FRMs: 30-year (99.7%)	
Average Loan Balance	$230,063	
Number of Loans	183,335	
WA LTV	75.7%	
WA CLTV	76.7%	
WA FICO	748	
Geographic Concentration	CA (22.8%) TX (7.6%) FL (5.4%) Top 3 (35.8%) Top 10 (60.3%)	Los Angeles CBSA (8.0%) New York CBSA (5.8%) Denver CBSA (3.2%) Top 3 (17.0%) Top 10 (35.7%)
Top Originators	Wells Fargo Bank, N.A. (12.1%) Quicken Loans Inc. (5.2%) Flagstar Bank, FSB (2.8%)	
Top Servicers	Wells Fargo Bank, N.A. (12.1%) Quicken Loans Inc. (5.1%) Pingora Loan Servicing, LLC (4.3%)	
Structure	Credit Risk Transfer Senior/Subordinate Sequential Pay	

Key Credit Considerations	+/−
Fully-documented, prime loans with generally strong credit characteristics The CAS 2016-C04 Reference Pool consists of a pool of residential mortgage loans (the Reference Obligations) which are fully-documented, fully-amortizing, fixed-rate mortgages (FRMs) of prime quality. The Reference Obligations include mortgage loans that were acquired by Fannie Mae between July 1, 2015 and October 31, 2015 and meet certain eligibility criteria (please see **Appendix B** in this report). The CAS 2016-C04 Reference Pool is characterized by loans with original loan-to-value (LTV) ratios that are greater than 60% and less than or equal to 80%. The pool's weighted average (WA) LTV equals 75.7%, with 57.1% of the mortgages having LTVs that are above 75% but less than or equal to 80%. Approximately 8.3% of the loans possessed subordinate financing at origination, contributing to the pool's WA combined loan-to-value (CLTV) ratio of 76.7%. The borrowers have a WA credit score of 748 and a WA debt-to-income (DTI) ratio of 34.1%, which are consistent with prime-quality underwriting. Primary residences, second homes and investment properties make up 84.3%, 4.9% and 10.8% of the mortgage pool, respectively. Approximately 56.9% of the pool consists of purchase loans, while 20.7% and 22.4% of the mortgages were originated for rate/term refinancing and cash-out refinancing, respectively. The WA seasoning for the CAS 2016-C04 Reference Pool is approximately 9 months.	+
Actual Loss Transaction This will be the fifth CAS transaction (CAS 2015-C04 was the first) to pass along losses to investors at incurred severities as opposed to predetermined, fixed levels. While the historical data released by Fannie Mae suggests that actual severities have the potential to be lower than the tiered severities applied to CAS issuances prior to CAS 2015-C04, we believe that this paradigm adds an additional risk dimension to the offerings.	+/−
Moderately Higher LTV and CLTV Ratios Relative to Recent Prime Jumbo The LTV and CLTV ratios for CAS 2016-C04 (OLTV = 75.7%, CLTV = 76.7%) are moderately higher than those seen in KBRA-rated non-agency prime RMBS transactions (typically between 68-71%), providing a smaller, but still significant, margin of safety against potential home price declines. KBRA views higher levels of equity in the property to be among the best deterrents of default, particularly when home prices come under stress. Our loan level default model incorporates a regression analysis that measures default rates in response to current equity in the property and tends to be highly sensitive to CLTV.	−

Geographic Diversity Similar to other KBRA-rated, large, agency loan transactions, the CAS 2016-C04 Reference Pool exhibits significantly more geographic diversification than typical prime jumbo RMBS pools. Geographic diversity helps mitigate the risk that a regional economic recession or natural disaster will have an outsized impact on default rates. When considering the average California percentage in KBRA-rated prime jumbo pools (approximately 45-50%), the CA concentration in CAS 2016-C04 is relatively low at 22.8%. Additionally, the top 10 Core Based Statistical Areas (CBSAs) account for 35.7% of the mortgages in the Reference Pool. These regional percentages would generally correspond to an aggregate top 3 CBSA concentration in a typical non-agency prime RMBS pool, with top 10 regional concentrations normally exceeding 50% in prime jumbo.	+
Structural Advantages Investors benefit from a number of structural features, including a 12.5-year transaction redemption maturity, which helps protect against back-ended loss. Fannie Mae also has an Early Redemption Option that becomes effective on the earlier of (i) the payment date on which the aggregate unpaid principal balance of the Reference Pool is less than or equal to 10% of its cut-off balance and (i) the July 2026 payment date. Additionally, sequential payment distributions within the mezzanine stack benefit the Class 1M-1 and 1M-2 Notes as they could potentially be paid off prior to losses depleting their credit enhancement. In particular, the Class 1M-1 Notes will likely realize a shorter weighted average life than the Class 1A-H and the lower payment priority classes due to this sequential payment structure.	+
Alignment of Interests Fannie Mae is aligned both vertically and horizontally in its risk retention within the CAS 2016-C04 transaction, as it will be retaining a portion of the credit risk in the Reference Pool represented by the Class 1A-H, 1M-1H, 1M-2H (1M-AH and 1M-BH, collectively) and 1B-H Reference Tranches. The Class 1B-H Reference Tranche represents Fannie Mae's retention of at least 50% of the first 1.00% of loss in CAS 2016-C04. The Class 1M-1H and 1M-2H Reference Tranches collectively represent 5% of the mezzanine portion of the capital structure.	+
Interest payments not dependent on mortgage rates of reference obligations or payment collections. Fannie Mae will be responsible for paying the note rate on the outstanding balance of the class regardless of the interest rates owed or collected by the reference obligations. This removes the risk found in standard RMBS transactions of interest shortfalls due to available funds or weighted average coupon (WAC) caps stemming from underlying mortgage or trust performance.	+

Representation and Warranties Fannie Mae does not make representations and warranties (R&Ws) directly to investors as part of the CAS transaction. The sellers of the reference obligations are required to make certain R&Ws that comply with Fannie Mae guidelines, and to the extent an R&W is breached and Fannie Mae is entitled to a repurchase amount, indemnity or other cure right, the investor may benefit from such remedy. Because of Fannie Mae's strong alignment of interest with investors, KBRA does not view this as a major transaction risk. An additional weakness regarding the R&W framework is that several R&Ws made by the sellers of the reference obligations potentially sunset in as few as three years, although R&Ws related to fraud and misrepresentation, validity of title and Fannie Mae Charter violations remain in effect for the life of the loan.	**–**
Limited Due Diligence Sampling Most of the non-agency transactions that KBRA has rated to date feature independent, third party loan file reviews on 100% of the mortgage pool. The CAS 2016-C04 due diligence sample population was limited to loans that were previously reviewed by Fannie Mae as part of its post-purchase QC review. Third-party due diligence was performed on a randomly selected sample of 1,998 loans. Of those loans, only 634 loans were included in the CAS 2016-C04 Reference Pool. While the results from due diligence were generally strong, there were some defects and data discrepancies that likely also exist in the un-reviewed portion of the pool. One loan with material findings was identified by the review firm and initially included in the CAS 2016-C04 Reference Pool. This loan with material findings will be removed from the Reference Pool on or prior to the first payment date as Reference Pool Removals. In addition, the scope of review changed for the CAS 2016-C04 sample population to include reviews for loans related to the TRID rule. The additional diligence scope for TRID compliance included Fannie Mae's post-purchase QC process for such loans, which require only that the seller provide disclosures using the correct applicable Fannie Mae disclosure forms.	**–**
Existing Conservatorship and Risk of Future Receivership The Federal Housing Finance Agency (FHFA) placed Fannie Mae in conservatorship on September 6, 2008. This action was a result of the agencies massive financial duress during the financial crisis. Despite recent overhauls and management changes, issues may linger. If the FHFA finds reason to take Fannie Mae into receivership, FHFA could reject contracts previously entered into by Fannie Mae. As long as the U.S. government continues to support Fannie Mae, risk of non-payment of the notes is limited.	**+/–**

Robust set of historical data made available by Fannie Mae Fannie Mae released a historical dataset allowing the investing community to gain comfort with the mortgage agency's historical default rates. The dataset, which included origination and performance information for over 22 million mortgage loans, allowed KBRA to apply its RMBS approach to Fannie Mae collateral. The dataset incorporates actual loss data as well as delinquency status information through September 2015.	**+**
Negligible TILA-RESPA Integrated Disclosure (TRID) Exposure An immaterial number of loans in the CAS 2016-C04 Reference Pool are subject to TRID disclosure rules. Any residential, primary or secondary mortgage loan for which there is an application date on or after October 3, 2015 is subject to TRID, which is a disclosure-based rule intended to protect borrowers by providing them with timely mortgage term disclosures so they can better understand the loan terms and make an informed borrowing decision. TRID permits assignee liability for certain violations of disclosure requirements. To the extent loans in the CAS 2016-C04 Reference Pool incur TRID-related damages, Fannie Mae will pursue remedies against the applicable sellers. Generally, realized losses incurred on loans with TRID violations that carry assignee liability will be met with repurchase requests from Fannie Mae, while Fannie Mae will seek indemnification for claims relating to damages for which there is no assignee liability. The rated classes will benefit from the successful exercise of such remedies through removal of the loan from the Reference Pool or from the receipt of make whole proceeds, respectively. Except in the event a seller does not fully remediate such repurchase request (Fannie Mae bears the risk of the seller's financial inability to repurchase) or indemnity, the rated classes will generally only be exposed to TRID-related losses in the case of increased legal costs associated with servicers' defending against unsuccessful TRID violation claims. In consideration of these factors, KBRA did not alter its loss expectations related to the TRID exposure in the reference pool.	**n/a**

Recent Transaction Comparison

Transaction Name	CAS 2016-C04	CAS 2016-C03, Group 1	CAS 2016-C02	CAS 2016-C01, Group 1	CAS 2015-C04, Group 1
Closing Date	7/28/2016	4/21/2016	3/30/2016	2/18/2016	10/27/2015
KBRA Rated (Y/N)	Y	Y	Y	Y	N
Closing Pool Balance ($)	42,178,644,351	11,861,533,020	36,035,263,116	18,999,684,441	26,875,730,155
Average Loan Balance ($)	230,063	238,725	246,491	235,711	221,203
Number of Loans	183,335	49,687	146,193	80,606	121,498
WA LTV (%)	75.7	75.4	74.9	75.2	76.0
WA CLTV (%)	76.7	76.5	76.0	76.2	77.0
CLTV > 80% (%)	6.7	6.9	7.1	6.6	7.1
WA FICO	748	751	752	749	746
WALA (mo)	8.6	8.0	9.1	10.6	10.2
ARMs (%)	0.0	0.0	0.0	0.0	0.0
IO (%)	0.0	0.0	0.0	0.0	0.0
Full Doc (%)	100	100	100	100	100
DTI (%)	34	34	34	34	35
Primary Residence (%)	84	85	86	85	84
Purchase (%)	57	50	37	43	59
Cash-Out Refinance (%)	22	22	22	23	20
WA Gross Coupon (%)	4.21	4.03	4.00	4.18	4.42
WA Margin (%)	NA	NA	NA	NA	NA
WA Original Term (mos.)	360	360	360	360	360
1st Liens (%)	100	100	100	100	100
Loans with Subordinate Liens (%)	8.3	9.0	9.4	8.5	8.5
Geographical Concentration (%)					
Largest State	CA - 22.8	CA - 27.4	CA - 31.1	CA - 29.7	CA - 25.0
2nd Largest State	TX - 7.6	TX - 7.3	TX - 6.5	TX - 6.8	TX - 8.1
3rd Largest state	FL - 5.4	FL - 5.1	CO - 4.5	FL - 4.8	FL - 5.4
Top 3 States (%)	35.8	39.8	42.2	41.3	38.5
Largest CBSA	Los Angeles, CA3 - 8.0	Los Angeles, CA3 - 10.1	Los Angeles, CA3 - 11.5	Los Angeles, CA3 - 11.0	Los Angeles, CA3 - 8.7
2nd Largest CBSA	New York, NY2 - 5.8	New York, NY2 - 4.9	New York, NY2 - 4.6	New York, NY2 - 5.5	New York, NY2 - 6.2
3rd Largest CBSA	Denver, CO13 - 3.2	San Francisco, CA1 - 3.6	San Francisco, CA1 - 4.2	San Francisco, CA1 - 4.0	San Francisco, CA1 - 3.3
Top 3 CBSA (%)	17.0	18.6	20.3	20.5	18.3
Top Originators (%)					
Largest Originator	Wells Fargo - 12.1	Wells Fargo - 12.8	Wells Fargo - 12.2	Wells Fargo - 14.4	Wells Fargo - 11.8
2nd Largest Originator	Quicken Loans - 5.2	Quicken Loans - 5.1	Quicken Loans - 6.2	Quicken Loans - 6.3	JPMCB - 5.4
3rd Largest Originator	Flagstar - 2.8	Flagstar Bank - 3.5	JPMCB - 2.9	JPMCB - 4.0	Quicken Loans - 4.9
Total Top Originators (%)	20.2	21.4	21.3	24.7	22.1
Performance as of June 25, 2016					
Pool Factor	NA	0.98	0.97	0.94	0.88
3mo CPR (%)	NA	11.77	11.65	18.28	19.19
Life CPR (%)	NA	11.77	11.65	15.70	15.33
30-59 Days Delinq. (%)	NA	0.18	0.24	0.36	0.45
60+ Days Delinq. (%)	NA	0.02	0.01	0.05	0.11
Cumulative Loss / Credit Event Occurrence (%)	NA	0.00	0.00	0.00	0.00
Original Support Levels (%)					
Super Senior					
Senior / Senior Support	NR - 4.00	NR - 4.00	NR - 3.75	NR - 4.00	NR - 4.00
B-1 (or M-1, if applicable)	BBB (sf) - 2.75	BBB (sf) - 2.60	BBB+ (sf) - 2.75	BBB (sf) - 2.85	NR - 3.05
B-2 (or M-2, if applicable)	BB- (sf) - 1.00	BB (sf) - 1.00	BB (sf) - 1.00	BB- (sf) - 1.00	NR - 0.50
B-3 (or M-3, if applicable)					
B-4					
B-5					
KBRA 'AAA' Loss ('A' for Risk-Sharing Deals)					
Model	4.85	4.50	4.43	4.81	NA
+ GEO Adjustment	4.39	4.09	4.04	4.40	NA
GEO Adj %	-10%	-9%	-9%	-9%	NA
+ Other Adjustments	4.40	4.10	4.05	4.45	NA
Other Adj %	0%	0%	0%	1%	NA

[1]San Francisco-Oakland-Fremont, CA; [2]New York-Northern New Jersey-Long Island, NY-NJ-PA; [3]Los Angeles-Long Beach-Santa Ana, CA; [4]San Jose-Sunnyvale-Santa Clara, CA
[5]Dallas-Fort Worth-Arlington, TX; [6]Boston-Cambridge-Quincy, MA-NH; [7]Houston-Sugar Land-Baytown, TX; [8]Chicago-Joliet-Naperville, IL-IN-WI; [9]Washington-Arlington-Alexandria, DC-VA-MD-WV
[10]San Diego-Carlsbad-San Marcos, CA; [11]Seattle-Tacoma-Bellevue, WA; [12]Miami-Fort Lauderdale-Pompano Beach, FL; [13]Denver-Aurora-Lakewood, CO; [14]Minneapolis-St. Paul-Bloomington, MN-WI
*Updated LTV/CLTV for Seasoned collateral

The chart above compares key collateral and structural information for CAS 2016-C04 with that of similar CAS transactions, each of which generally consist of 30-year fixed-rate mortgages.

To download a complete transaction comparison, please click here: **Transaction Comparison**.

Transaction Parties

Transaction Parties	
Issuer	Fannie Mae
Mortgage Loan Originators	The following parties are the originators of the Reference Obligations: (see table below)
Servicers	The following parties are the primary servicers of the Reference Obligations: (see table below)
Global Agent and Exchange Administrator	Wells Fargo Bank, N.A.
Co-Lead Managers	Merrill Lynch, Pierce, Fenner & Smith Incorporated (BofA Merrill) Barclays Capital Inc. (Barclays)

Mortgage Loan Originators

The following parties are the originators of the Reference Obligations:

Originator	% of Pool [1][2]
Wells Fargo Bank, N.A.	12.1%
Quicken Loans Inc.	5.2%
Flagstar Bank, FSB	2.8%
Other [3]	79.8%

(1) Percentage based on aggregate principal balance of the mortgage loans as of the cut-off date.
(2) Amounts may not total 100.0% due to rounding.
(3) "Other" includes various Originators.

Servicers

The following parties are the primary servicers of the Reference Obligations:

Servicer	% of Pool [1][2]
Wells Fargo Bank, N.A.	12.1%
Quicken Loans Inc.	5.1%
Pingora Loan Servicing, LLC	4.3%
Other [3]	78.5%

(1) Percentage based on aggregate principal balance of the mortgage loans as of the cut-off date.
(2) Amounts may not total 100.0% due to rounding.
(3) "Other" includes various Servicers.

Collateral Pool and Model Analysis

Model Analysis

KBRA believes the performance of agency and non-agency collateral to be comparable when controlling for risk attributes such as CLTV and FICO score. In analyzing the CAS 2016-C04 Reference Pool, KBRA implemented the same loan level default and loss model that it uses in rating non-agency transactions. As in the initial actual loss CAS transaction (CAS 2015-C04), CAS 2016-C04 will pass through the actual loss experience of the reference obligations. KBRA analyzed the 183,335 loans in the CAS 2016-C04 Reference Pool, calculating lifetime default and loss severity rates at the pool level. KBRA's expected loss expectations are shown below.

CAS 2016-C04 - Expected Loss Levels (% of Closing Pool Balance)

Rating	Probability of Default (PD)	Loss Severity (LS)	Expected Loss (EL)	EL w/Geographic Diversification Adj	Final Expected Loss
A	9.78%	49.61%	4.85%	4.39%	4.40%
A-	8.49%	47.44%	4.03%	3.65%	3.70%
BBB+	7.21%	44.48%	3.21%	2.90%	2.95%
BBB	5.92%	40.25%	2.38%	2.16%	2.20%
BBB-	5.21%	38.11%	1.98%	1.80%	1.85%
BB+	4.49%	35.30%	1.59%	1.44%	1.50%
BB	3.78%	31.41%	1.19%	1.07%	1.10%
BB-	3.36%	29.36%	0.99%	0.87%	0.90%
B+	2.94%	26.73%	0.79%	0.67%	0.70%
B	2.52%	23.22%	0.58%	0.48%	0.50%

In general, KBRA's loss expectations for CAS 2016-C04 take into account Fannie Mae's operations and processes, the Reference Pool's overall credit attributes and the level of geographic diversification. Since this transaction features actual loss exposure, the loss severity on the reference obligations that experience credit events will be calculated in a similar manner to severities on conventional private-label RMBS. While interest on the reference mortgages are not used in calculating or servicing interest on the notes, delinquent interest will be included in the severity calculation from the last paid through period of the loan until disposition. KBRA used the severity calculation described in its RMBS Default and Loss Model report in projecting losses on CAS 2016-C04.

KBRA applied adjustments to its loss expectations for improvements to Fannie Mae's processes that have been borne out by improved post-crisis credit performance and lower loan repurchase rates. In addition, the geographic diversity present in CAS 2016-C04 is significantly higher relative to non-agency collateral issued both recently and historically. KBRA uses the entirety of the CoreLogic jumbo database as a benchmark for non-agency geographic concentration, and the CAS 2016-C04 Reference Pool proved to be significantly more diverse. KBRA believes geographic diversity helps insulate the pools from localized economic and environmental risks. The benefit KBRA gave to each pool for geographic diversity is shown in the second to last column.

Collateral

KBRA considers the mortgage loans referenced by the CAS 2016-C04 transaction to be high quality, prime collateral. All of the Reference Obligations are fully-documented, fully-amortizing, first lien FRMs, most of which possess 30-year maturity terms. The Reference Pool, with 183,335 loans and an aggregate cut-off balance of $42.2 billion, includes loans with LTVs that are greater than 60% and less than or equal to 80%. All of the Reference Obligations have CLTVs that are less than or equal to 97%.

The borrowers in CAS 2016-C04 have a WA credit score of 748 and a WA DTI of 34.1%, which are consistent with prime-quality underwriting. The pool's WA LTV and WA CLTV equal 75.7% and 76.7%, respectively, with 8.3% of the properties accompanied by junior mortgages at origination. Approximately 57.1% of the mortgages possess LTVs that are above 75% but less than or equal to 80%. Primary residences, second homes and investment properties make up 84.3%, 4.9% and 10.8% of the mortgage pool, respectively. Approximately 56.9% of the Reference Pool consists of purchase loans, while 20.7% and 22.4% of the mortgages were originated for rate/term refinancing and cash-out refinancing, respectively. The pool's WA seasoning is approximately 9 months.

CLTV Distribuion

CLTV Range (%)	CAS 2016-C04						CAS 2016-C03, Loan Group 1						SEMT 2015-1					
	# of Loans	WA FICO	WA LTV (%)	WA CLTV (%)	% of Total Balance	% of 'A' EL	# of Loans	WA FICO	WA LTV (%)	WA CLTV (%)	% of Total Balance	% of 'A' EL	# of Loans	WA FICO	WA LTV (%)	WA CLTV (%)	% of Total Balance	% of AAA EL
20-24.99													1	784	22.22	22.22	0.29	0.00
25-29.99													4	763	26.65	28.39	0.78	0.00
30-34.99													8	760	30.73	32.50	2.34	0.00
35-39.99													4	763	37.54	37.54	0.64	0.00
40-44.99													9	760	40.16	42.22	2.34	0.06
45-49.99													11	784	44.98	47.22	2.60	0.11
50-54.99													11	778	49.43	53.32	2.50	0.23
55-59.99													30	773	57.12	57.51	6.72	1.69
60-64.99	9,012	751	62.71	62.71	4.74	1.67	2,554	755	62.68	62.69	5.08	1.70	15	762	62.95	62.95	2.88	1.28
65-69.99	16,685	746	67.02	67.07	9.29	4.95	4,773	751	67.00	67.06	9.87	5.15	31	765	67.06	67.42	6.97	4.65
70-74.99	24,602	745	71.63	71.76	13.70	10.64	7,229	750	71.67	71.84	15.10	11.53	69	770	70.42	71.50	15.11	12.76
75-79.99	39,727	746	76.06	76.26	21.05	22.14	11,144	750	76.13	76.35	22.14	23.33	118	768	76.26	77.10	24.57	31.86
80-84.99	85,485	749	79.77	80.04	45.06	52.15	21,795	751	79.72	80.05	41.55	49.19	167	767	79.56	80.00	32.26	47.37
85-89.99	1,753	748	75.02	86.63	1.36	1.80	574	745	75.34	86.76	1.65	2.40						
90-94.99	4,514	752	76.47	90.20	3.81	4.89	1,217	753	76.55	90.22	3.66	4.96						
95-99.99	1,557	745	77.82	95.04	0.98	1.76	401	744	77.87	95.04	0.95	1.74						
Grand Total	183,335	748	75.67	76.70	100.00	100.00	49,687	751	75.38	76.45	100.00	100.00	478	769	69.95	70.77	100.00	100.00

The WA CLTV ratio for CAS 2016-C04 is higher than most of the non-agency transactions that KBRA has rated to date, acting as the major driver of the higher default expectations for CAS 2016-C04 versus previously rated transactions. The exhibit above shows the CLTV distribution for CAS 2016-C04 along with KBRA's projected 'A' loss rate for each CLTV range in the pool, with comparisons to CAS 2016-C03, Loan Group 1 and a previously rated prime jumbo transaction.

The comparison illustrates the high degree of sensitivity that the default and loss model exhibits with respect to CLTV. In the prime jumbo transaction, approximately 32% of the pool had a CLTV of 80%, but 47% of the projected losses stemmed from that bucket. Similarly, approximately 61% of the expected losses for CAS 2016-C04 were produced by loans with LTVs >=80%, which made up 51.2% of the pool. The distributions also display some mild risk-layering that was present in the Reference Pool. The higher CLTV buckets in CAS 2016-C04 actually have lower WA FICOs than those for loans at the lower end of the CLTV range, the opposite of what is often seen in non-agency underwriting, which tends to require higher down payments for lower credit borrowers, all else equal.

Another important distinction between the collateral attributes of CAS transactions and the collateral included in post-crisis non-agency securitizations is the geographic diversity that the agency collateral exhibits. Non-agency pools are almost entirely comprised of loans above the conforming balance limit. This characteristic generally leads to high concentrations in those regions of the country where home prices are highest. As a result, the geographic concentration in pools of non-agency prime loans tends to be high, with significant exposure to assets located in California, as well as in metropolitan areas such as

New York, Chicago, and Washington, D.C. The single largest state concentration for most non-agency pools generally ranges from 35% to 65%.

CAS 2016-C04 - State Concentration	
State	**% of total**
California	22.8%
Texas	7.6%
Florida	5.4%
Colorado	4.9%
Washington	4.2%
New York	3.9%
New Jersey	3.1%
Virginia	2.9%
Illinois	2.8%
Massachusetts	2.7%
Total	**60.3%**

Prime Jumbo RMBS Example - State Concentration	
State	**% of total**
California	49.6%
Virginia	6.8%
Massachusetts	6.5%
Colorado	5.3%
Texas	4.1%
New York	4.1%
Washington	3.5%
Maryland	3.2%
Florida	2.6%
Illinois	2.5%
Total	**88.2%**

By comparison, California, the largest state concentration for CAS 2016-C04, accounts for 22.8% of the pool. Additionally, CAS 2016-C04 exhibits diversification at the regional level. The top 10 Core Based Statistical Areas (CBSAs) collectively account for 35.7% of the Reference Obligations. These percentages would generally correspond to top 3 CBSA concentrations in a typical non-agency prime RMBS pool, with top 10 regional concentrations in prime jumbo normally exceeding 50%.

CAS 2016-C04 - CBSA Concentration	
CBSA Name	**% of total**
Los Angeles-Long Beach-Anaheim, CA	8.0%
New York-Newark-Jersey City, NY-NJ-PA	5.8%
Denver-Aurora-Lakewood, CO	3.2%
Washington-Arlington-Alexandria, DC-VA-MD-WV	3.0%
Seattle-Tacoma-Bellevue, WA	2.9%
Dallas-Fort Worth-Arlington, TX	2.8%
San Francisco-Oakland-Hayward, CA	2.8%
Riverside-San Bernardino-Ontario, CA	2.7%
Chicago-Naperville-Elgin, IL-IN-WI	2.3%
Boston-Cambridge-Newton, MA-NH	2.2%
Total	**35.7%**

Prime Jumbo RMBS Example - CBSA Concentration	
CBSA Name	**% of total**
San Francisco-Oakland-Hayward, CA	17.1%
Los Angeles-Long Beach-Anaheim, CA	13.9%
Washington-Arlington-Alexandria, DC-VA-MD-WV	8.7%
San Jose-Sunnyvale-Santa Clara, CA	6.2%
Boston-Cambridge-Newton, MA-NH	6.0%
San Diego-Carlsbad, CA	5.9%
New York-Newark-Jersey City, NY-NJ-PA	5.0%
Seattle-Tacoma-Bellevue, WA	3.5%
Chicago-Naperville-Elgin, IL-IN-WI	2.5%
Denver-Aurora-Lakewood, CO	2.3%
Total	**71.0%**

To determine a baseline for calculating geographic concentration adjustments for non-agency jumbo pools, KBRA calculated a Herfindahl index on the entirety of the Corelogic prime database at the CBSA level. When KBRA rates a non-agency pool, it first calculates a weighting factor by comparing the Herfindahl index to the index for a large set of historical loans backing non-agency RMBS. The adjusted loss rate at a given rating level is then the weighted average of the expected loss at the given rating level and the rating level above it, weighted by the calculated weighting factor.

The Herfindahl for the CAS pool was significantly below that of the historical non-agency dataset. In recognition of this geographic diversity, KBRA adjusted the expected loss levels downward. The adjustment resulted in expected losses that were approximately 9-10% lower at the 'A', 'BBB' and 'BB' rating categories.

Historical Performance

Fannie Mae released a comprehensive loan-level dataset that included origination and performance information through Q1 2015 for a select portion of its portfolio, which includes mortgage loans similar to the Reference Obligations in this CAS issuance. After analyzing the dataset, KBRA concluded that there was significant improvement in credit quality starting after 2008, as evidenced by a sharp fall in credit events.

Vintage	Loan Count	Orig UPB ($ Bil)	WA FICO	WA LTV (%)	WA CLTV (%)	WA DTI (%)	WAC (%)	Purch (%)	C/O (%)	R/T Refi (%)	WA Months Outstanding	Cum Loss To Date	Cum Loss To Date Weighted by CAS 2016-C04
1999	64,049	8	718	75.9	9.5	34.4	7.77	64.8	17.9	17.3	34.3	0.8%	0.1%
2000	549,777	76	719	76.2	67.4	35.2	8.09	70.4	15.8	13.8	21.1	0.7%	0.2%
2001	1,358,553	211	717	75.1	75.6	33.7	6.96	32.2	32.6	35.1	28.7	0.7%	0.2%
2002	1,402,098	229	718	74.7	75.3	33.9	6.48	29.7	33.8	36.3	37.1	0.8%	0.3%
2003	1,802,128	310	719	74.2	75.1	33.7	5.74	24.2	32.7	42.8	64.9	1.4%	0.6%
2004	728,247	128	717	74.9	76.9	36.6	5.83	42.3	31.6	25.9	64.8	2.7%	1.2%
2005	713,079	138	725	75.0	77.5	38.2	5.83	43.2	39.5	17.3	67.4	6.1%	3.1%
2006	568,418	115	720	75.3	78.0	39.3	6.41	46.3	38.5	15.2	53.5	8.5%	4.6%
2007	648,761	139	721	75.3	77.9	39.1	6.33	41.3	38.8	19.8	46.9	8.4%	4.5%
2008	697,780	158	742	75.1	76.6	38.3	6.03	42.2	30.6	27.1	36.7	4.1%	2.0%
2009	1,090,236	260	761	74.5	75.6	34.8	4.99	29.2	27.2	43.6	44.7	0.7%	0.3%
2010	780,069	193	763	75.0	76.0	33.1	4.74	40.5	19.2	40.2	38.2	0.2%	0.1%
2011	631,572	148	762	75.1	76.2	33.3	4.58	44.2	16.9	38.9	32.2	0.1%	0.0%
2012	1,020,176	251	765	74.6	75.7	31.9	3.85	34.9	15.8	49.3	33.0	0.1%	0.0%
2013	857,622	205	757	75.1	76.2	33.2	4.05	46.8	17.4	35.8	25.5	0.2%	0.0%
2014	187,955	42	747	76.0	77.1	34.7	4.63	62.9	18.2	18.9	15.9	0.1%	0.0%
Total	**13,100,520**	**2,612**	**738**	**74.9**	**75.6**	**34.8**	**5.52**	**37.9**	**27.5**	**34.5**	**42.3**	**1.96%**	**0.94%**
CAS 2016-C04	**183,335**	**42.2**	**748**	**75.7**	**76.7**	**34.1**	**4.2**	**56.9**	**22.4**	**20.7**	**8.6**		

C/O - Cash-Out R/T - Rate/Term HPA - Home Price Appreciation

Some of the most significant findings in the tables are the sharp increases in weighted average credit scores, the drop in DTI that occurred post-crisis, and the performance improvement that can be seen as a result. The 2009 vintage has thus far outperformed all of the vintages prior to it. The crisis era vintages of 2005-2008 all stand out as having experienced substantial loss rates. Many of the early vintages, however, experienced lower loss rates, due mainly to the fact that the early vintages experienced a historic refinancing boom in 2003, which transitioned many of the borrowers that may have later defaulted. The subsequent bull market in housing gave many borrowers who may have been under financial stress an opportunity to tap equity and prepay their mortgage instead of defaulting. Indeed, the 1999-2002 vintages all had very short WA loan lives.

The final columns in each table show what the cumulative loss rate would have been had the vintages been proportioned into CLTV, FICO, and DTI cohorts with the same weightings as CAS 2016-C04.

Performance for collateral similar to CAS 2016-C04 shows that the worst vintage was 2006, which exhibits a cumulative loss to date of 8.5%. This vintage would have shown a loss rate closer to 4.6% if it had been weighted to reflect similar risk attributes to the Reference Pool. We note that the 4.6% loss rate is only slightly higher than KBRA's 'A(sf)' expected loss rate (4.40%) for the CAS 2016-C04 transaction.

Structure and Cashflow Modeling

The CAS 2016-C04 Notes are reference notes, not pass-through securities, and as such, interest and principal payments will be derived from the performance of the Reference Pool. Interest and principal payable on the Notes will be solely the obligation of Fannie Mae, as none of the actual cash flow from the underlying Reference Pool will be made available to the Noteholders. The Notes are unsecured, general obligations of Fannie Mae and investors have no recourse to the mortgages in the Reference Pool.

Interest

Interest due on the Notes (other than the Class 1M-2I Notes) will be calculated as the product of the outstanding Class Principal Balance times the applicable Class Coupon rate (1M LIBOR + the Class Margin). The Class 1M-2I Notes will receive interest based on their respective Class Notional Amounts and fixed Initial Class Coupons. Interest payments are not subject to WAC or available funds caps. Interest lost due to modifications will reduce the interest payment of the most junior class or classes outstanding.

Principal

Except when a trigger is in effect (i.e., failure of either Minimum Credit Enhancement Test or Delinquency Test), both scheduled and unscheduled principal will be allocated pro rata through two distribution amounts, a Senior Reduction Amount and a Subordinate Reduction Amount, based on the outstanding Class Principal Balances. The Senior Reduction Amount will reduce the balance of the 1A-H Reference Tranche. The Subordinate Reduction Amount will be allocated sequentially among the subordinate Notes (first paying off the Class 1M-1, then the Class 1M-2 [sequentially to the Class 1M-2A and Class 1M-2B], and finally, the Class 1B Notes).

Unscheduled principal will be distributed through the Senior and Subordinate Reduction Amounts, subject to the satisfaction of two performance triggers, the Minimum Credit Enhancement Test and the Delinquency Test. The subordinate Notes are not entitled to allocations of unscheduled principal if either of the tests fails. Subordinate classes are still entitled to their aggregate pro rata subordinate share of scheduled principal, however, starting with the Class 1M-1.

The Senior Reduction Amount for the Class 1A-H Reference Tranche will equal either:

- A pro rata share of scheduled principal and 100% of unscheduled principal (including recovery principal), if either the Minimum Credit Enhancement Test or the Delinquency Test is not satisfied
- A pro rata share of both scheduled and unscheduled principal and 100% of recovery principal, if both the Minimum Credit Enhancement Test or the Delinquency Test are satisfied

The Subordinate Reduction Amount will equal remaining principal subsequent to the allocation of the Senior Reduction Amount.

Minimum Credit Enhancement Test

The Minimum Credit Enhancement Test ensures that the credit enhancement of the Class 1A-H is at least 4.75% before unscheduled principal is allocated to subordinate tranches. The CAS 2016-C04 transaction is structured with insufficient credit enhancement for the Class 1A-H Reference Tranche at closing, thus requiring that the subordinate notes initially be locked out from unscheduled principal (Class 1M-1 will still be paid the subordinate share of scheduled principal). With an assumption of 10 CPR, it takes 20 months for the Class 1A-H Reference Tranche to build up from its 4.00% initial enhancement to the 4.75% required under KBRA's base default scenario.

Delinquency Test

To satisfy the Delinquency Test, the six-month average of distressed loans (includes 90+ days delinquent, foreclosure, bankruptcy, REO) cannot exceed 40% of the amount by which the previous aggregate subordinate class balance exceeds the current period's loss amount.

Structural Impact of Sequential Pay Principal Distribution

Locking out the Class 1M-2 and 1B tranches from principal distributions serves to turbo the Class 1M-1 tranche, potentially safeguarding it against back-ended losses in higher prepayment scenarios.

In KBRA's base case projected default scenario for CAS 2016-C04, the Class 1M-1 tranche pays off prior to the January 2029 final maturity date (starting with a prepayment assumption of 5 CPR) by receiving 100% of the subordinate share of scheduled principal (as well as 100% of the subordinate share of any available unscheduled principal, provided, each performance test is satisfied), while the Class 1A-H and the collateral pool pay down to approximately 36% of their original balances. At 5 CPR, the Class 1M-1 is paid off by December 2025, and at 15 CPR, both the Class 1M-1 and the Class 1M-2 are paid off prior to the 12.5 year final maturity.

CAS 2016-C04 - Cashflow Metrics at Base Case Default Rate								
		Projected CPR						
	Tranche	0	5	10	15	20	30	40
Factor At Maturity	1A-H	0.70	0.36	0.18	0.09	0.04	0.00	0.00
	1M-1	0.17	0.00	0.00	0.00	0.00	0.00	0.00
	1M-2	1.00	0.70	0.21	0.00	0.00	0.00	0.00
	Collat	0.70	0.36	0.18	0.09	0.04	0.00	0.00
Projected WAL	1M-1	7.59	5.57	2.93	1.98	1.51	0.97	0.76
	1M-2	12.49	12.02	9.19	6.38	4.54	2.73	1.95
Payoff Month	1M-1	Jan29	Dec25	Jun21	Sep19	Nov18	Jan18	Sep17
	1M-2	Jan29	Jan29	Jan29	Jan28	Feb25	Mar21	Aug19

Principal Loss and Tranche Write-Down Amounts

For each payment date, the Principal Loss Amount equals the sum of (a) all Credit Event Net Losses, (b) all court-approved principal reductions ("cramdowns"), (c) subsequent losses on any Reference Obligation that became a Credit Event Reference Obligation on a prior payment date and (d) loss amounts due to modifications.

The actual losses on the underlying mortgages will be used in determining Tranche Write-Down Amounts on the Class 1A-H, 1M-1, 1M-2 and 1B Notes. The Principal Loss Amount, net of any Principal Recovery Amount, will be applied to the notes, in reverse sequential order (beginning with the Class 1B and Class 1B-H Tranches, then to the Class 1M-2B and 1M-BH Tranches, then to the Class 1M-2A and 1M-AH Tranches, Class 1M-1 and 1M-1H Tranches, and finally, to the Class 1A-H Tranche), as credit events occur.

Principal Recovery and Tranche Write-Up Amounts

For each payment date, the Principal Recovery Amount equals the sum of (a) the aggregate amount of Credit Event Net Losses for all Reversed Credit Event Reference Obligations, (b) subsequent recoveries on any Reference Obligation that became a Credit Event Reference Obligation, (c) the aggregate amount of the Credit Event Net Gains of all Credit Event Reference Obligations, (d) the applicable portion of any amounts received by Fannie Mae during the related Reporting Period on settlements relating to claims arising from breaches of origination representations and warranties that Fannie Mae enters into with a loan seller or servicer in lieu of requiring such loan seller or servicer to repurchase a specified pool of mortgage loans that includes one or more Reference Obligations.

The Tranche Write-Up Amount equals the excess, if any, of the Principal Recovery Amount over the Principal Loss Amount. The Tranche Write-Up Amount will be allocated sequentially in the same priority as reduction amounts, starting with the most senior tranche to experience a write-down until the cumulative Tranche Write-Up Amount equals the cumulative Tranche Write-Down Amount (as applicable, first to the Class 1A-H, then to the Class 1M-1, Class 1M-2 [first to the Class 1M-2A, then to the Class 1M-2B], and finally, to the Class 1B).

Credit Event

Credit events with respect to the Reference Obligations include the following:

i. A short sale is settled;
ii. The related mortgaged property is sold to a third party during the foreclosure process;
iii. An REO disposition occurs;
iv. A mortgage note sale is executed on a loan that is 12 or more months delinquent when offered for sale;
v. The related mortgage note is charged off.

With respect to any Credit Event Reference Obligation, there can only be one occurrence of a Credit Event; provided, that one additional separate Credit Event can occur with respect to each instance of such Credit Event Reference Obligation becoming a Reversed Credit Event Reference Obligation

Reference Pool Removals

A Reference Obligation will generally be removed from the Reference Pool upon the occurrence of any of the following:

- the Reference Obligation experiences a Credit Event
- the Reference Obligation is paid in full
- the Reference Obligation is seized pursuant to an eminent domain proceeding with respect to the underlying mortgage loan
- the lender repurchases the Reference Obligation, agrees to a full indemnification agreement or fee in lieu of repurchase for the Reference Obligation;
- Fannie Mae elects to sell a delinquent Reference Obligation that is less than 12 months delinquent at the time it is offered for sale;
- the discovery of any of certain specified violations of the Eligibility Criteria for such Reference Obligation as a result of data correction; or
- the lender has declared bankruptcy or has been put into receivership and an Eligibility Defect is identified that could otherwise have resulted in a repurchase.

A Reference Obligation will be removed from the Reference Pool or will become a Reversed Credit Event Reference Obligation if a loan data change occurs that causes the Reference Obligation to no longer meet the Eligibility Criteria.

Reversed Credit Event Reference Obligation

A Reversed Credit Event Reference Obligation refers to a Reference Obligation formerly in the Reference Pool that became a Credit Event Reference Obligation in a prior period and with respect to which (i) the related loan seller or servicer repurchases the Reference Obligation, enters into a full indemnification agreement with Fannie Mae or provides a fee in lieu of repurchase for the Reference Obligation, (ii) the party responsible for the representations and warranties and/or servicing obligations or liabilities with respect to the Reference Obligation has declared bankruptcy or has been put into receivership and an Eligibility Defect is identified that could otherwise have resulted in a repurchase or (iii) Fannie Mae determines that as a result of a data correction, the Reference Obligation does not meet certain Eligibility Criteria.

Modification Event

A Modification Event is a forbearance or certain mortgage rate modifications relating to such Reference Obligation, it being understood that in the absence of a forbearance or certain mortgage rate modifications, a term extension on a Reference Obligation will not constitute a Modification Event. In addition, a mortgage rate modification that results in an increased mortgage rate with respect to any Reference Obligation (after giving effect to all scheduled mortgage rate modifications thereon) will not constitute a "Modification Event."

Modifications will not be considered credit events. Reference Obligations that undergo a temporary or permanent modification will not be removed from the Reference Pool unless they otherwise meet the criteria for Reference Pool Removal. Principal forgiveness, if Fannie Mae institutes this form of modification in the future, will be treated as a prepayment at the time of such forgiveness, and if applicable, as a loss at the time of liquidation.

Termination Date

The CAS 2016-C04 Notes have a 12.5 year maturity and Fannie Mae is obligated to retire any outstanding balances in January 2029. Fannie Mae also has the option to redeem the notes at the earlier of (i) on or after the payment date on which the Reference Pool has paid down to less than or equal to 10% of its cut-off date balance or (ii) on or after the payment date in July 2026.

Exchangeable Certificates

The Class 1M-2 Notes can be exchanged for proportionate interests in the Class 1M-2A and Class 1M-2B Notes (the Exchangeable Notes), and vice versa. Additionally, the Class 1M-2A Notes can be exchanged for proportionate interests in the Class 1M-2F and 1M-2I Notes, and vice versa. The Class 1M-2, 1M-2F and 1M-2I Notes are collectively referred to as the Related Combinable and Recombinable (RCR) Notes. Notes may only be exchanged in the specified proportion that the original principal balances or notional amounts of such Notes bear to one another as shown in the table displayed. Holders of Exchangeable Notes will be the beneficial owners of an interest in the related exchangeable combination Notes and will receive a proportionate share, in the aggregate, of the distributions on those certificates. Upon an exchange, the Exchangeable Notes will be entitled to interest distributions at the applicable Class Coupon rate in the same priority as the exchangeable combination Notes and principal distributions in the order of priority assigned to such Notes.

RCR Notes will receive interest payments from the related Exchangeable Notes at the applicable class coupon in accordance with the exchange proportions applicable to the related Combination, and all principal amounts that are payable by Fannie Mae on the related Exchangeable Notes will be allocated to and payable to the related RCR Notes entitled to principal. In addition, all Tranche Write-down Amounts that are allocable to Exchangeable Notes will be allocated to reduce the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes. Further, all Tranche Write-up Amounts that are allocable to Exchangeable Notes will be allocated to increase the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes.

Permitted Exchangeable Combinations				
Combination	**Class of Exchangeable Note**	**Original Balance ($)**	**Class of RCR Note**	**Max Orig Class Amt ($)**
1	1M-2A 1M-2B	300,522,000 400,697,000	1M-2	701,219,000
2	1M-2A	300,522,000	1M-2F 1M-2I	300,522,000 300,522,000 *

*Notional Amount

KBRA KROLL BOND RATING AGENCY

Representations, Warranties and Enforcement Mechanisms

Unlike in non-agency transactions where R&Ws are made to the trust for the benefit of the investors, Fannie Mae will not directly make loan level R&Ws to the noteholders. Instead, investors must rely on Fannie Mae to enforce the R&Ws made by the entities that sold it the reference obligations, and Fannie Mae will have sole discretion whether to waive a repurchase or cure remedy owed to it by a loan seller. Furthermore, under Fannie Mae's lender selling R&W framework, lenders are relieved of certain selling R&Ws that relate to the underwriting of loans delivered to Fannie Mae (i.e. sunset), provided that those loans have achieved an acceptable payment history or a successful full-file quality control review by Fannie Mae. R&Ws including, but not limited to, those related to fraud and misrepresentation, validity of title and Fannie Mae Charter violations will survive for the life of the loan.

Because of Fannie Mae's alignment of interests with the investors both vertically (through ownership in portions of the mezzanine and junior reference tranches) and horizontally (in the senior reference tranche), KBRA believes Fannie Mae is highly incentivized to enforce the loan sellers' R&Ws. Fannie Mae has also committed to reviewing loans that experience a Credit Event for which R&Ws have not expired. Also, Credit Event obligations sold or serviced by entities that are subject to a bankruptcy will now be removed from the Reference Pool and required to undergo a credit review. The commitment from Fannie Mae to review loans that experience Credit Events bring the process more in-line with post-crisis jumbo transactions, which generally require automatic reviews of loans that fall 120 days delinquent.

As part of its diligence, KBRA reviewed the R&Ws Fannie Mae requires its sellers to make. These R&Ws are generally comparable to KBRA's benchmark R&Ws with one exception: although KBRA's benchmarks provide that no borrower has been subject to a bankruptcy proceeding in the four years prior to loan origination or to a foreclosure in the seven years prior to loan origination, the Fannie Mae-required R&W periods are only two years and three years, respectively under certain circumstances. Because KBRA believes its modelling adequately captures the credit risk of each reference obligation based on other data points provided by Fannie Mae, KBRA did not make an adjustment to loss expectations because of this weaker R&W.

Issuer

Fannie Mae

As part of its operational review, KBRA attended on-site presentations of Fannie Mae's loan operations at the mortgage agency's Dallas, TX and Washington D.C. locations. KBRA met with senior members of Fannie Mae's management team for a comprehensive discussion of its residential mortgage platform, focusing on the agency's loan aggregation channels, credit risk management, seller/servicer approval and oversight, underwriting criteria and quality control, as well as any upcoming business initiatives under consideration. Overall, KBRA found Fannie Mae's mortgage loan program is consistent with mortgage industry standards which are driven, in some cases, by Fannie Mae themselves. We believe Fannie Mae's procedures for its single-family business are sufficient to manage its large-scale operations and residential loan portfolio.

Company Overview and Background

The Federal National Mortgage Association (Fannie Mae or FNMA) was created by Congress in 1938 as part of several wide-ranging programs following the Great Depression. Established as a federal government agency, Fannie Mae was later chartered as a publicly-traded, government-sponsored entity (GSE) in 1968. Since inception, the agency has functioned as a leading secondary mortgage market facility, providing affordable credit access and market liquidity and support through various securitizations and other mortgage-related transactions.

On September 6, 2008, the Federal Housing Finance Agency (FHFA) placed Fannie Mae, along with Freddie Mac and the 12 Federal Home Loan banks, into conservatorship. Fannie Mae continues to be a chief contributor to the residential mortgage market, providing $132 billion in liquidity in Q3 2015. As conservator, FHFA releases an annual prescription of strategic objectives for Fannie Mae and Freddie Mac (2015 Conservatorship Scorecard), outlining specific priorities and expectations for the business activities of both enterprises. One priority is to gradually contract the GSEs' dominant presence in the mortgage market. Specific to the single-family business, FHFA has encouraged credit risk transfer transactions as part of portfolio credit risk management, promoting partial reallocation of mortgage guaranty risk to private market participants, and ultimately, reducing taxpayer risk exposure to borrower default and mortgage guaranty obligations. Fannie Mae's primary method of achieving this objective has been through the issuance of its Connecticut Avenue Securities ("CAS"), which transfer a portion of the credit risk associated with a reference mortgage pool to private investors.

While under conservatorship, Fannie Mae must turn over most of its profits to the federal government, instead of investors. Unless the terms are changed by Congress, Fannie Mae will continue to pay the U.S. Treasury all of their profits in perpetuity. Through 2015, Fannie expects to have paid a total of $144.8 billion in dividends to the Treasury based on its senior preferred stock. Fannie posted net income of $2.0 billion for Q3 2015, compared with $3.9 billion in net income for Q3 2014. The decline was driven by fair-value losses coming from the value of derivative investments Fannie Mae uses to hedge risk against interest rate changes.

Since 2008, Fannie Mae has developed a comprehensive risk management approach that integrates all aspects of its single-family mortgage business, implementing an enhanced operational workflow for seller/servicer oversight, credit policy, mortgage underwriting, quality control, loss mitigation and portfolio management. Procedural changes designed to bolster lender eligibility requirements as well as mortgage quality have resulted in an improved risk profile for Fannie's residential loan portfolio, with serious delinquency rates (loans 90+ days delinquent) decreasing steadily since a peak of 5.59% in February 2010, reaching 1.58% as of November 30, 2015.

Mortgage Seller Approval and Oversight

Fannie Mae's loan delegation business model necessitates in-depth assessments and continuing oversight on all active and prospective loan sellers. The agency's Loan Origination Controls & Loan Quality Assessment (LOLA) group executes lender management processes through an integrated framework that requires collaboration across key business units responsible for risk. Fannie Mae's approval and monitoring procedures are designed to ensure lender capacity for sustained business, produce high quality credit and foster strong loan performance, with the expectation for reduced reliance on lender representations and warranties (R&Ws) and other available mechanisms for indemnification. This approach assists in mitigating counterparty risk for the agency's mortgage business.

Prior to approving new sellers, prospective lenders are evaluated on a number of parameters related to business history, financial condition, management composition and operational risk. For lenders that perform servicing functions, Fannie Mae will also review the entity's servicing platform and procedural controls to confirm that they are acceptable in this role as well.

Minimum standard seller qualifications include:

- valid licensing in applicable jurisdictions
- adequate business capacity and staff experience
- minimum net worth of $2.5 million (plus an additional 0.25% of any outstanding balance serviced on Fannie Mae's behalf)

Lenders undergo pre-contract assessments (PAMs) consisting of desk and on-site reviews performed by Fannie Mae's Mortgage Originations Risk Assessment (MORA) group, a division within LOLA. This unit also performs more comprehensive MORA evaluations, which take approximately four to five months to complete and cover various business areas including organizational structure and governance, mortgage underwriting, quality control, loan file reviews and system demonstrations. The review is used to determine the quality of the lender's manufacturing process and the effectiveness of its controls.

Loan Origination Controls & Loan Quality Assessment (LOLA)

Mortgage Originations Risk Assessment (MORA)

Pre-Contract Assessments (PAMs):
- Seller pre-approval process, pre-contract review
- Desk and on-site reviews
- Completed PAMs for 48 prospective sellers in 2014, with 35 approvals and 13 rejections

MORA Review:
- Post-PAM; rigorous and comprehensive lender assessment
- Covers various key business areas including: organizational structure/governance, business continuity, origination channels, underwriting/appraisal, quality control, compliance/internal audit, secondary marketing, technology, closing/post-closing/funding
- Process completion takes 4-5 months; review is ongoing/periodic
- Final reports issued to seller after review – 98 reviews completed in 2015, with 89% receiving MORA ratings of "Acceptable" or "Needs Improvement" (neither require escalated review procedures)

Fannie Mae Sellers

- ~ 2,000 approved sellers as of November 2015
- ~1,500 sellers are active on annual basis
- 80-100 operational reviews conducted per year
- MORA reviews performed on 71.67% of total lender acquisition volume

Once a seller is approved, Fannie Mae employs a hands-on approach to its lender risk management that is tailored to seller size and type. Through this process, Fannie Mae seeks to actively influence lender credit culture through continuous monitoring, assessments of loan quality and procedural controls, periodic site visits and ongoing interaction with senior-level management. The agency also provides training, assistance and its expertise on various credit quality issues, while leading remediation efforts to address any loan quality and performance issues.

Fannie Mae conducts annual reviews for its top contributing lenders, along with any sellers characterized by modest track records and emerging risks. Due to its large network of active sellers, Fannie Mae is not able to review each seller annually. As a result, Fannie Mae utilizes its MORA risk assessment tool that incorporates key data points and factors for prioritizing annual reviews based on a lender's assigned risk tier. Lenders with higher risk scores and those constituting significant exposures for Fannie Mae have a greater chance of being reviewed more frequently and extensively. The MORA group's goal is to identify any weaknesses in lender controls and procedures. Other dedicated resources within Fannie Mae work with lenders to develop an executable action plan for all issues identified during a MORA review.

Lenders are monitored based on the credit quality of collateral delivered, with Fannie Mae assessing potential default risk of a lender's delivery. A mortgage analytics team monitors key performance metrics that include an Acquisition Credit Index (ACI) Tail Risk report of loans with marginal credit and an Early Delinquency report summarizing actual vs. expected loan performance. The group also tracks rapidly growing business segments and lenders, acquisition trends as well as risk limits and performance triggers. Loan acquisition and performance reporting undergo monthly review by senior management as part of a Single Family Risk Management Forum. Fannie Mae's Risk and Policy teams conduct analysis on underperforming business segments to determine if any actions are necessary, which may include modifications to underwriting guidelines, eligibility criteria and Desktop Underwriter (DU), along with recommendations for additional upfront controls and lender monitoring and training.

Fannie Mae manages its counterparty risk exposure through the assignment of internal ratings based on quantitative and qualitative measures. Counterparty risk tolerance and exposure limits are tracked daily based on financial capacity and internal ratings, which consider profitability, liquidity/funding, asset quality, portfolio concentration and capitalization. Fannie Mae addresses potential areas of counterparty risk by receiving obligation guaranties from higher-rated entities, requiring pledged collateral and transferring exposure to third parties. The agency will also consider the reduction or elimination of certain exposures, business activities and business relationships as needed.

Fannie Mae's LOLA division evaluates the effectiveness of a lender's origination and quality control (QC) processes in meeting the agency's operational, eligibility and data quality guidelines. The LOLA group implements a cooperative lender monitoring framework that consists of assessments through MORA, Targeted Lender Oversight (TLO), Lender Loan Quality Monitoring & Control and Data Validation. The MORA team performs in-depth reviews covering key functional areas to determine the quality of the lender's manufacturing process and the effectiveness of its controls. Lenders with MORA reviews citing High or Medium risk issues are required to provide detailed remediation action plans. The TLO group focuses on emerging risks associated with newly engaged entities and lenders with substantial growth or potentially elevated risk. A team within Single Family Credit Risk Management produces Flash Summation Reports that highlight spikes in seller volume, loan-level QC results, loan performance metrics and counterparty information. Lender oversight through TLO may result in recommendations for full MORA reviews, discretionary file reviews, QC Specialist Reviews, an onsite Risk Manager or some combination thereof. Fannie Mae consequently determines whether the business relationship continues unchanged, continues with restrictions or becomes terminated. Lender Loan Quality Monitoring and Control ensures that lenders have effective QC programs that comply with Fannie Mae guidelines by identifying loan defects, establishing action plans to address deficiencies, providing monthly feedback on loan quality and holding lenders accountable to targeted defect rates.

Fannie Mae's lender management framework provides for a dynamic feedback mechanism, which leads to:

- Continuous improvement of risk controls and standards
- Comprehensive assessment of lender operational competency and compliance
- Identification of changes in volume and business mix
- Dynamic loan pricing
- Development of methodology to enforce limits and refine program standards.

In addition, Fannie Mae identifies lender training opportunities through its feedback loop process and recognition of common loan defects, providing instruction both on-site and through electronic media. On-site QC Specialists also act as additional resources offering loan quality analysis and recommendations for defect remediation.

Credit Policy and Loan Level Quality Control

As part of the effort to meet the FHFA's goals, Fannie Mae has encouraged lenders to originate loans across a broad credit spectrum. Fannie has created a selling guide that outlines lender requirements in areas including credit, valuation, and compliance controls, with an increased focus on quality controls beginning at the lender-level. In addition, the agency has provided sellers and servicers with more clarity regarding mortgage loan representations, warranties and remedies. Fannie has incorporated new quality control tools and conducted increased outreach to lenders to help identify steps towards policy and processes that will help mitigate the risks of potential credit loss and future repurchase requests. Fannie believes that requiring lenders to have controls in place upfront will assist in resolving any mortgage defects prior to borrower loan funding.

Fannie has ongoing communications and training programs designed to be timely and transparent to inform lenders of any credit policy and eligibility changes. Fannie believes that assisting lenders in creating sound quality controls will ultimately lead to less counterparty risk and better overall loan performance for each lender. Fannie provides lenders with announcements and notices to inform them of any changes to their seller guide. In addition, the agency conducts online and on-site training sessions in connection with its seller guide and proprietary underwriting system (Desktop Underwriter or DU). DU assists lenders in making informed credit decisions by performing an evaluation of the borrower's credit profile. The evaluation results then provide the lender with an underwriting recommendation based on key credit factors including credit history, delinquent accounts, mortgage accounts, revolving credit utilization, foreclosures and collections. The DU system will also assist in listing the steps necessary for the lender to completely process the loan file.

One of Fannie Mae's Quality Control goals is to refine its sample sizes to be more effective by performing more loan-level QC reviews earlier in the loan life cycle and implementing QC tools to identify any upfront underwriting or eligibility exceptions. Formerly, Fannie Mae would perform post-purchase reviews at the time a loan defaulted. Currently, these reviews are done shortly after a loan is delivered. Fannie Mae's sampling methodology for performing loans is to review loans using both a random sample and a targeted sample. The random sample is a statistically valid sample size that undergoes monthly QC, from which overall defect rates and trends are determined. The targeted sample is also done monthly. The targeted sample set is used on new acquisitions and emerging lenders and its purpose is to identify loans with higher levels of probable defects and enforce any remedies before loan default. Fannie uses a proprietary automated risk assessment tool along with Collateral Underwriter to perform 100% electronic data quality control, which is used to determine targeted samples. These reviews not only check the data quality of the loans, but also give a view on the lender's quality control processes and will point out if those processes are working as planned.

For non-performing loans, there is an ongoing review process for 100% of the loans that fall into the delinquent category. Loan selection occurs at various times within the delinquency stages and will continue through the REO stage. This is a model-driven selection process that determines whether an origination defect exists on a defaulted loan. Fannie will also use these results to enforce the R&Ws and mitigate losses.

Once a defect rate is determined, the rate is used to identify steps that can guide changes in policy and procedure to mitigate future risk. The eligibility defect rate does not necessarily indicate how well the loans will ultimately perform, but will help Fannie Mae estimate for future deliveries, the percentage of loans that will potentially have a significant error in the underwriting process. The three categories for post-purchase loan reviews are income, assets, and property. Defects in these areas typically include insufficient documentation of income and assets, failure to properly calculate self-employed income and rental losses, insufficient reserves, and inappropriate selection of comparable sale on the appraisal.

As of March 31, 2016, the eligibility defect rate for the single-family business acquired during the twelve months ending July 31, 2015 was 0.94%. Because of the enhancements to the sampling and review methodology of random reviews that Fannie Mae has implemented in 2013, the eligibility defect rate for their 2013 and 2014 loan acquisitions is not directly comparable to the "significant findings rate" which had previously been reported on their acquisitions in prior years. In addition, Fannie Mae more recently introduced an appeals process, which allows lenders to rebut repurchase requests and cure defects that are found. This has likely contributed to lower reported defect rates as the defect rate reported is net of defects cured through the appeals process. They continue to work with lenders to reduce the number of defects and improve processes.

Lender Representations and Warranties Framework

When Fannie Mae purchases loans from lenders, they obtain selling and servicing data and receive representation and warranties (R&Ws) from the lender supporting the accuracy of the information given. Oversight of the lender's business model and performing the various upfront quality assurance checks help Fannie Mae ensure the credit quality of its loan acquisitions. Fannie doesn't independently verify all information and will rely on the R&Ws concerning the lender and mortgage loans. Fannie announced a new R&W framework, effective for loans it has acquired after Jan. 1, 2013. The new framework seeks to provide lenders with a higher degree of certainty and clarity regarding their repurchase liability on future delivery of loans as well as consistency concerning repurchase timelines and remedies. Under the framework, violations of R&Ws are a breach of the lender contract, entitling the pursuit of remedies, including a loan repurchase request. Lenders are relieved of repurchase liability for certain underwriting and eligibility R&Ws for loans that have a payment history consisting of 36 months of timely payments and/or have had a full file QC review performed. There is no relief on 'life of loan' R&Ws, which include those related to fraud, misrepresentation, clear title, legal compliance, eligibility, and the Fannie Mae Charter.

When enforcing the R&Ws, Fannie will look to their contractual rights when a loan defect is found and determine if the loan's R&Ws were violated. Once Fannie Mae determines a breach, they will look to the obligated lender and/or servicer to repurchase the loan, reimburse for losses or provide an alternative remedy, unless the loan is eligible for R&W relief, which will not require repurchase if the specified criteria for relief is met.

Servicing

Fannie Mae does not service the loans it purchases; all servicing is done by approved direct servicers or sub-servicers. In May 2015, Fannie Mae issued new operational and financial eligibility requirements pursuant to one of the FHFA scorecard objectives related to enhancing servicer eligibility standards. The updated eligibility requirements are designed to better address the unique risks associated with emerging servicers. Key changes include a new minimum liquidity requirement for non-depository servicers, as well as an update to the minimum net worth requirement, so that it is based on all single-family mortgage loans serviced by the servicer, rather than just loans serviced for Fannie Mae. Fannie Mae communicates standard requirements for all servicers through its Servicing Guide, announcements and servicer notices. Mortgage servicers collect mortgage and escrow payments from borrowers, pay taxes and insurance costs from escrow accounts, monitor and report delinquencies, and perform other required activities on behalf of Fannie Mae.

Fannie Mae has an extensive process of monitoring servicer compliance and overall performance. Selected servicers are given a plan and assessed based on their servicing performance. The Servicer Quality and Risk (SQR) reviews are a combination of loan-level and compliance testing against the Fannie Mae servicing guide and the decisions of loss mitigation programs. SQR reviews utilize random sampling for trend identifications with the overall population of loans, although servicers can be selected for risk-based targeted reviews as well. The tests are designed to examine the servicer's quality control processes and compliance across key servicing functions that include loan administration, investor reporting, customer service, collections and loss mitigation. In addition, servicers are subject to on-site operational reviews and loan file reviews. Selected servicers are measured and ranked via the 'STAR' servicer program, using a performance scorecard that tracks data metrics, measures performance versus peers and quantifies the results of operational reviews. The results from the 'STAR' model signify the servicer's performance and capabilities in relation to Fannie Mae's goal of mitigating credit losses.

Fannie Mae actively monitors servicers, enforcing available remedies for servicing breaches. There are four types of remedies: repurchases, make-whole, indemnification, and compensatory fee. Servicing remedies and compensatory fees are enforcement mechanisms that are used to emphasize the importance of maintaining strong servicer performance and compliance with the servicing guide.

Foreclosure Prevention and Management

Fannie Mae's foreclosure prevention and management approach encompasses borrower outreach, loss mitigation, procedural and regulatory compliance and engagement with legal counsel. As part of its outreach effort, Fannie Mae established the Quality Right Party Contact (QRPC) standard as a guideline for servicer communication with borrowers during loan delinquency resolution. Servicers are required to establish a rapport with the borrower, determine reasons for delinquency and expected duration, ascertain borrower occupancy status, determine the borrower's perceived financial condition and ability for repayment, set payment expectations and educate borrower on workout options, and finally, obtain borrower commitment for loan resolution. The Know Your Options Customer Care (KYOCC) team provides servicers with guidance and training for outreach and communication best practices, including a Single Point of Contact (SPOC) ownership model under a consultative relationship approach to customers.

Fannie Mae maintains a detailed timeline for various stages of the borrower outreach and loan resolution effort, beginning with a periodic collection call starting on day 3 of mortgage delinquency. Borrower contact efforts are supplemented by payment reminder notices and solicitation packages sent through mail, along with streamline modification offers for eligible borrowers. Loans without satisfactory borrower response or delinquency resolution are referred to Fannie Mae's foreclosure group after 121 days.

Fannie Mae seeks to exhaust all available workout options for borrowers in need of assistance based on hardship type, delinquency duration and borrower occupancy intentions. The agency's loss mitigation hierarchy is designed to provide the most appropriate workout option to the borrower while minimizing credit loss to Fannie Mae's portfolio. Available options include forbearance and repayment plans for temporary hardship, as well as home retention solutions through various modification programs (e.g., HAMP, Streamlined Modifications). In 2015, Fannie Mae provided approximately 94,000 loan modifications. Loan resolutions through short sale or deed-in-lieu of foreclosure are employed after home retention options are pursued unsuccessfully.

To assist servicers in delivering loss mitigation solutions to their borrowers, Fannie Mae developed its proprietary Servicing Management Default Underwriter (SMDU) loss mitigation platform for real-time evaluation and decision-making. SMDU helps servicers ensure accurate interpretation and delivery of Fannie Mae policy, reduce costs associated with Fannie Mae guideline and program adoption and reduces liability through limited R&W relief. As of Q4 2015, 59 servicers representing over 85% of Fannie Mae's delinquent book use SMDU.

Servicers must ensure that foreclosure proceedings are conducted in accordance with Fannie Mae policy and applicable regulation. Servicers are assessed based on key metrics that track their performance with respect to foreclosure initiation, timeline and process management and procedural reporting. These performance measures are incorporated into a servicer's STAR rating, and consist of indicative metrics that include sales held to foreclosure inventory ratio and the number of loans beyond foreclosure timeline standard. Fannie Mae also provides a suite of state-specific Foreclosure Best Practices as guidance on best practices to effectively manage foreclosures.

Servicers are responsible for engaging foreclosure law firms that meet the minimum requirements set forth in Fannie Mae's Servicing Guide (mortgage default counsel, or MDC, firms). Servicers are also responsible for managing MDC firms during the foreclosure process, ensuring compliance with agency requirements (e.g., allowable fees and costs by state), maintaining documentation of oversight and promptly escalating appropriate matters to Fannie Mae.

Credit Portfolio Management

As of September 30, 2015, Fannie Mae's single-family conventional guaranty book consisted of approximately 17.3 million loans, 97% of which are current. With its considerable portfolio size, Fannie Mae maintains a full range of distressed real estate processing capabilities that include NPL sales, short sales, foreclosure auction sales (third party sales, TPS), neighborhood stabilization initiatives and REO buyback, REO retail sales, REO auctions and pool sales. In 2015, REO sales accounted for the disposition of over 106,000 properties (approximately 76% of all dispositions by property count), totaling $12.7 billion in sales. NPL sales, short sales and third-party sales accounted for the disposition of approximately 33,700 properties, representing approximately 24% of total dispositions. This broad capacity has enabled Fannie Mae's Single Family Real Estate group to administer the disposition of over 1.3 million properties since 2009. The agency emphasizes best execution and neighborhood stabilization when managing property liquidations, making use of a cogent disposition waterfall and comparative NPV analyses to owner-occupied home sales.

Fannie Mae features a 100% in-house REO sales team that is dispersed geographically based on volume and leverages a 3,500-member realtor network. The agency also maintains an experienced internal property valuation team, with representatives across the country providing market intelligence and property inspections. Collateral Underwriter, MLS and third-party vendor, Red Bell, are used to acquire extensive property valuation information. Fannie Mae sources a panel of 2,000 third-party appraisers and seven BPO vendors for additional valuation information. The mortgage enterprise also benefits from a significant number of valuation data points (2.5 million properties since 2009), which help it perform market trend analyses. As part of its real estate fulfillment, Fannie Mae performs maintenance and repairs on all properties up until sale close, leveraging economies of scale and a vast network of over 270 regional and national vendors, contractors and suppliers. Occupied property management includes a robust borrower relocation assistance program, while issues with title, closings and home owner associations are handled through partnerships with over 150 title and closing companies and regional attorneys.

Each disposition decision considers retrospective analysis of previous liquidations, indicative measures of all potential disposition outcomes with consideration to timeline and various models (e.g., foreclosure timeline, REO sales price, repair strategy, prepayment/default) subject to a number of inputs (e.g., carry cost components, home price forecast). Fannie Mae's pricing model then utilizes a three-step process that consists of a REO sales price projection (based on the best available property valuation, subject to factors such as disposition timelines and changes in home price index), an estimated disposition loss amount and a calculation of a minimum acceptable sales price. Fannie Mae convenes a weekly cross-functional real estate working group to discuss regional market trends, valuation updates and pricing adjustments, which allow the agency to implement optimal disposition strategies that mitigate loan loss.

Pre-foreclosure loan disposition options include short sales and mortgage releases. Short sales have been managed in-house since 2012, which has resulted in reduced severity of approximately 400 basis points. Compared to REO, mortgage releases completed in 2014 have contributed an average of $7,052 in NPV savings per defaulted loan. In December 2014, Fannie Mae implemented significant changes to its foreclosure sale strategy, requiring servicers to request a reserve price from Fannie Mae 30-90 days prior to scheduled sales, to bid the lesser of the reserve price and outstanding indebtedness and to defer to the mortgage insurer's bidding policy for insured loans. This foreclosure pricing approach helps minimize credit loss through reduced REO costs, reduces financial risk by avoiding REO acquisition and simplifies the responsibilities of servicers and mortgage insurers.

Fannie Mae utilizes its HomePath website (averages 2.1 million visits from 1 million individuals per month) to market its REO properties, convey information to the public and provide a portal resource for buyers and real estate agents. The agency's FirstLook program promotes homeownership and neighborhood stabilization by marketing move-in ready foreclosure inventory primarily towards owner-occupant buyers.

KBRA Rating Process

KBRA analyzed the transaction using the following RMBS methodology reports:

- **U.S. RMBS Rating Methodology**
- **Residential Mortgage Default and Loss Model**

KBRA's RMBS methodology incorporates (1) its loan level default and loss model, (2) a review of key transaction participants, including aggregators/conduits, master servicers, originators and/or servicers as warranted, (3) the results of loan file reviews performed by independent third party firms and (4) a review of the legal structure and key documentation.

In applying the methodology, KBRA has evaluated the loan level information available on this transaction. KBRA will also review the operative agreements and legal opinions for the transaction. We applied our default and loss model to the loan data and reviewed the capital structure model, both provided by Fannie Mae.

Scenario/Sensitivity Analysis

The ratings assigned to CAS 2016-C04 will be monitored through the life of the transaction. If home prices exhibit a sustained trend (higher or lower) KBRA will consider making rating changes. We emphasize that home price changes alone are not sufficient to warrant a rating action. Clear evidence of the impact of such changes on the mortgage pool must also be observed. For example, if home prices are rising, in a generally good economic environment KBRA would expect there to be very low levels of mortgage delinquency, perhaps accompanied by high levels of voluntary prepayments, which would serve to de-lever the senior RMBS class. Given those conditions, the increase in borrower equity and structural protections may warrant upgrades. Conversely, KBRA would anticipate that large declines in home prices could occur in the context of an economic downturn and that as a result, the percentage of delinquent loans in the pool would rise noticeably.

The tables below illustrate the potential for a KBRA downgrade of each rated class under a number of home price scenarios. 'Stable' means a downgrade is unlikely. 'Moderate' means a potential transition of up to one rating category is possible. 'Severe' indicates a multi-category downgrade is possible. In addition to providing insight into the risk of rating migration, the table also indicates which scenarios may cause particular classes to default. Any scenario that indicates 'Default' for a class means that KBRA's cash flow projection indicated a principal write down under that scenario.

	CAS 2016-C04 - Class and Initial Rating				
	1M-1	1M-2A	1M-2F	1M-2B	1M-2
Change in Home Price	BBB(sf)	BBB-(sf)	BBB-(sf)	BB-(sf)	BB-(sf)
-5%	Stable	Stable	Stable	Stable	Stable
-10%	Stable	Stable	Stable	Moderate	Moderate
-20%	Moderate	Moderate	Moderate	Severe	Severe
-30%	Severe	Severe	Severe	Default	Default
-40%	Default	Default	Default	Default	Default
-50%	Default	Default	Default	Default	Default

The basis for the potential migration actions indicated in the tables is consideration of the degree to which a particular class could tolerate additional stress beyond the home price change indicated. For CAS 2016-C04, the level of credit enhancement slightly exceeds the level strictly needed to survive the KBRA stress scenarios associated with each class rating. This is reflected in our view of the potential severity of rating actions under a given scenario.

KBRA notes that rating changes could occur for a variety of reasons other than home price changes. For example, national or regional economic stress could impact borrowers' ability to pay independent of a specific level of home price decline. Moreover, in considering home price changes, KBRA surveillance will be analyzing the speed of decline, the likelihood of recovery, and the degree of sensitivity particular mortgages are exhibiting. These factors will be incorporated into rating decisions, and discussed in rating action commentary.

Rating Surveillance

KBRA views the assignment of an initial rating to an RMBS as the beginning of a process that generally continues until the payment in full or other redemption of the security. KBRA considers ongoing transaction surveillance as critical in order to preserve the accuracy and integrity of issued ratings, as well as a useful method for obtaining information on loan pool, servicer, and transaction performance that can be considered in connection with new rating analyses.

The KBRA RMBS surveillance process incorporates a review of monthly remittance and performance data, monitoring of home prices and economic conditions and on-going dialogue with and evaluation of servicers. The KBRA RMBS surveillance process is further described in the RMBS Rating Methodology report.

Appendix A: Tear Sheet

Capital Structure						
Class[1,2]	Initial Class Balance ($)		Scheduled Final Maturity	Coupon	CE (%)	KBRA Rating
1A-H	40,491,498,577		January 2029	N/A	4.00	NR
1M-1*	500,871,000		January 2029	1M Libor + [ ]	2.75	BBB(sf)
1M-1H	26,362,054		January 2029	N/A	2.75	NR
1M-2A‡	300,522,000		January 2029	1M Libor + [ ]	2.00	BBB-(sf)
1M-AH	15,817,832		January 2029	N/A	2.00	NR
1M-2B‡	400,697,000		January 2029	1M Libor + [ ]	1.00	BB-(sf)
1M-BH	21,089,443		January 2029	N/A	1.00	NR
1M-2*‡	701,219,000		January 2029	1M Libor + [ ]	1.00	BB-(sf)
1M-2F‡	300,522,000		January 2029	1M Libor + [ ]	2.00	BBB-(sf)
1M-2I‡	300,522,000	†	January 2029	[ ]	N/A	BBB-(sf)
1B*	120,000,000		January 2029	1M Libor + [ ]	0.00	NR
1B-H	301,786,443		January 2029	N/A	0.00	NR
Total Note Offering	1,322,090,000					

[1]The Class 1A-H, 1M-1H, 1M-AH, 1M-BH and 1B-H Reference Tranches will not have corresponding Notes that are issued or sold. The Reference Tranches will be referenced only in connection with making calculations of principal payments required to be made by Fannie Mae and reductions and increases in the principal amounts of the Notes.

[2]The Class 1M-2 Notes can be exchanged for proportionate interests in the Class 1M-2A and Class 1M-2B Notes (the Exchangeable Notes), and vice versa. Additionally, the Class 1M-2A Notes can be exchanged for proportionate interests in the Class 1M-2F and Class 1M-2I Notes, and vice versa. The Class 1M-2, 1M-2F and 1M-2I Notes are collectively referred to as the Related Combinable and Recombinable ("RCR") Notes.

*Offered Notes at Closing; ‡Exchangeable or Related Combinable and Recombinable (RCR) Notes; †Notional Amount

Parties	
	CAS 2016-C04
Seller/Sponsor	Fannie Mae
Issuer	Fannie Mae
Top Originators	Wells Fargo Bank, N.A. (12.1%) Quicken Loans Inc. (5.2%) Flagstar Bank, FSB (2.8%)
Top Servicers	Wells Fargo Bank, N.A. (12.1%) Quicken Loans Inc. (5.1%) Pingora Loan Servicing, LLC (4.3%)
Global Agent and Exchange Administrator	Wells Fargo Bank, N.A.
Underwriter(s)	Merrill Lynch, Pierce, Fenner & Smith Incorporated; Barclays Capital Inc.

Transaction Highlights			KBRA View[(1)]
	CAS 2016-C04		
Aggregate Cut-Off Balance	$42,178,644,351.20		+
Product Type	100% FRMs: 30-year (99.7%)		+
Average Loan Balance	$230,063		N
WA LTV	75.7%		-
WA CLTV	76.7%		-
WA FICO	748		+
Geographical Concentration	CA (22.8%) TX (7.6%) FL (5.4%) Top 3 (35.8%) Top 10 (60.3%)	Los Angeles CBSA (8.0%) New York CBSA (5.8%) Denver CBSA (3.2%) Top 3 (17.0%) Top 10 (35.7%)	+
Structure	Credit Risk Transfer Senior/Subordinate Sequential Pay		N

[(1)] '+' denotes a positive factor; '-' denotes a negative factor; 'N' is neutral

Appendix B: Reference Pool Eligibility Criteria

Each mortgage loan in the Reference Pool must satisfy the following criteria:

(a) is a fully amortizing, fixed rate, first lien Mortgage Loan secured by a one- to four-unit property, town house, individual condominium unit, individual unit in a planned unit development, individual cooperative unit or manufactured home, with an original term of 301 to 360 months;

(b) was acquired by Fannie Mae between July 1, 2015 and October 31, 2015;

(c) has not been 30 or more days delinquent from the date of acquisition to the Cut-off Date and has been current on each of the three consecutive payment dates immediately preceding the Cut-off Date;

(d) was not originated under Fannie Mae's Refi Plus program (Fannie Mae's Refi Plus program includes but is not limited to the Home Affordable Refinance Program);

(e) has an original combined loan-to-value ratio less than or equal to 97%;

(f) as of the Cut-off Date, is not subject to an Origination Rep and Warranty Settlement;

(g) is not subject to any form of risk sharing with the loan seller (other than limited seller indemnification in certain cases);

(h) was not originated under certain non-standard programs;

(i) is a conventional loan (i.e. is not guaranteed by the Federal Housing Administration or the U.S. Department of Veterans Affairs);

(j) has an original loan-to-value ratio that is (i) greater than 60% and (ii) less than or equal to 80%; and

(k) is not covered by mortgage or pool insurance.