



Structured Agency Credit Risk Single Family Loan Level Dataset Historical Performance

October 2016

Disclaimer

Notice to United States Investors:

This document is not an offer to sell any Freddie Mac securities. Offers for any given security are made only through applicable offering circulars and any related supplements, which incorporate Freddie Mac's Annual Report on Form 10-K for the year ended December 31, 2015, filed with the SEC on February 18, 2016, Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 filed with the SEC on August 2, 2016, and all documents that Freddie Mac files with the SEC pursuant to Section 13(a), 13(c) or 14 of the Exchange Act, excluding any information "furnished" to the SEC on Form 8-K. Content in this presentation is not reflective of current markets/spreads and is not indicative of any future Freddie Mac offerings. Please use this deck for informational purposes only.

Notice to United Kingdom Investors:

This document is only being distributed to and is directed at: (a) investment professionals falling within Article 19 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "FPO"); (b) high net worth entities falling within Article 49 of the FPO; and (c) other persons in respect of whom exemptions under the FPO are available. The investments to which this document relates are available only to, and any agreement to acquire such investments, will be made only with, such persons. Any other person should not act or rely on this document or any of its contents.

This document is not intended to be an offer of transferable securities to the public in the United Kingdom or any European Union jurisdiction, in accordance with the Prospectus Directive (2003/71/EC, as amended). In any event, this document is made available only in circumstances in which a prospectus requirement under such Directive does not apply, including but not limited to the distribution of this document to qualified investors only.

Notice to Canadian Investors:

The Presentation (the "Presentation") is confidential and may not be reproduced or transferred, in whole or in part, to any other party that is not an employee, officer, director, or authorized agent of the recipient without the express written consent of Freddie Mac. Each person accepting these materials agrees to return them promptly upon request.

The material provided herein is for informational purposes only and delivered solely as reference material with respect to Freddie Mac. The Presentation does not constitute an offer to sell or a solicitation of an offer to buy any securities of Freddie Mac. Any offering of securities of Freddie Mac will occur only in accordance with the terms and conditions set forth in an offering circular ("Offering Circular"). Investors are strongly urged to carefully review Offering Circular (including the risk factors described therein) and to discuss any prospective investment in Freddie Mac with their legal and tax advisers in order to make an independent determination of the suitability and consequences of an investment.

No person has been authorized to give any information or to make any representation, warranty, statement or assurance not contained in the Offering Circular and, if given or made, such other information or representation, warranty, statement or assurance must not be relied upon.

Prospective investors should inform themselves and take appropriate advice as to any applicable legal requirements and any applicable taxation and exchange control regulations in the countries of their citizenship, residence or domicile which might be relevant to the subscription, purchase, holding, exchange, redemption or disposal of any securities of Freddie Mac.

Targets are objectives and should not be construed as providing any assurance or guarantee as to the results that may be realized in the future from investment in any asset or asset class described in the Presentation. Please be advised that any targets shown in the Presentation are subject to change at any time and are current as of the date of this presentation only. In addition, the information contained therein includes observations and/or assumptions and involves significant elements of subjective judgment and analysis. No representations are made as to the accuracy of such observations and assumptions and there can be no assurances that actual events will not differ materially from those assumed. In the event any of the assumptions used in the Presentation do not prove to be true, results are likely to vary substantially from those discussed therein.

A prospective investor in securities of Freddie Mac must conduct its own independent review and due diligence to make its own assessment of the merits and risks of making an investment in, perform its own legal, accounting and tax analysis and conclude that the investment in the securities of Freddie Mac (i) is fully consistent with the investor's financial requirements and financial condition, investment objectives and risk tolerance; (ii) complies and is fully consistent with all investment policies, guidelines and restrictions applicable to the investor; and (iii) is a fit, proper and suitable investment for the investor.

Notice to Spain Investors:

No action has been or will be taken by Freddie Mac that would permit a public offering of the STACR securities in Spain. Neither the STACR securities nor the offering have been or will be registered or approved by the Spanish Securities Market Commission (Comisión Nacional del Mercado de Valores) and, therefore, no prospectus has been or will be registered or approved by the CNMV for the purposes of this offering.

Agenda

- | | | |
|----|---|----|
| 1. | Historical Loss Summary and Disclosure Fields | 4 |
| 2. | Net Loss Comparison HLTV vs. LLTV | 8 |
| 3. | DN/A 60-80 LTV Series Historical Performance | 10 |
| 4. | HQ/A 80-95 LTV Series Historical Performance | 22 |
| 5. | Freddie Mac Contacts | 34 |

Historical Loss Summary

Assumptions for Summary Severity/ Timelines /Loss Components



- To assist investors with their understanding of Freddie Mac’s historical loss experience, on the following slides we provide loss severity and liquidation timelines by origination year and judicial/non-judicial states
- Additionally, we have summarized the contributions from each of the components of net loss
 - » Net loss calculated as follows: Collateral Deficiency + Delinquent Interest + Expenses – MI Recoveries – Non MI Recoveries
- Data included in tables were derived from Freddie Mac’s Single Family Loan Level Dataset (SF LLD) as of July 2016 refresh: Originations 1999-December 31, 2015 Performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015.
- Assumptions/Calculations:
 - » Population includes only disposed loans with OLV between 80.01-97%
 - » Populations for this analysis = Fixed 30 loans (identified by loans with original loan term between 301 and 419 months)
 - » Loans with Repurchase flag = Y have been set to zero loss
 - » “FA” references liquidations through foreclosure alternatives
 - » “J” indicates judicial states; “NJ” indicates non-judicial states
 - » Timelines are in months weighted by default UPB
 - » If default UPB on last record is zero, the prior period default UPB was used
 - » Calculation for Collateral Deficiency: default UPB – net sales proceeds
 - » Calculation for Delinquent Interest is = default UPB * (current interest rate – 0.35%) * days delinquent / 360 /100)
 - » For Net Sales proceeds = “C”; set loss = zero
 - » For Net Sales proceeds = “U”; removed from population if applicable
 - » Severity is net loss/default UPB
 - » Judicial states: CT,DE,FL,HI,IA,IL,IN,KS,KY,LA,ME,ND,NE,NJ,NM,NY,OH,OK,OR,PA,PR,SC,SD,VI,WI

Disclosed Loan-Level Fields

For more information on file layout and field definition, please refer to the STACR Reference Pool Disclosure Guide (http://www.freddiemac.com/creditriskofferings/docs/reference_pool_disclosure_guide.pdf).

#	Field Name	Historical	Actual Loss STACR	#	Field Name	Historical	Actual Loss STACR
1	Adjusted Remaining Months to Maturity (aka RMM)		X	15	Modification Flag	X	X
2	Channel (aka TPO Flag)	X	X	16	Mortgage Insurance Percentage (MI %)	X	X
3	Credit Score	X	X	17	Number of Borrowers	X	X
4	Current Actual UPB	X	X	18	Number of Units	X	X
5	Current Interest Rate	X	X	19	Occupancy Status	X	X
6	Current Loan Delinquency Status	X	X	20	Original Combined Loan-to-Value (CLTV)	X	X
7	First Payment Date	X	X	21	Original Debt-to-Income Ratio (DTI)	X	X
8	First Time Homebuyer	X	X	22	Original Interest Rate (aka Note Rate)	X	X
9	Current Interest Bearing UPB (for modified loans)		X	23	Original Loan-to-Value (LTV)	X	X
10	Loan Age	X	X	24	Original Loan Term	X	X
11	Loan Purpose	X	X	25	Original UPB (aka Mortgage Loan Amount)	X	X
12	Loan Identifier (aka Loan Sequence Number)	X	X	26	Payment History	D	X
13	Maturity Date	X	X	27	Postal Code (3 digit)	X	X
14	Metropolitan Statistical Area (MSA)	X	X	28	Prepayment Penalty Indicator (aka PPM Flag)	X	X

D = not disclosed, but derivable from other disclosed fields.

Disclosed Loan-Level Fields (cont.)

#	Field Name	Historical	Actual Loss STACR	#	Field Name	Historical	Actual Loss STACR
29	Product Type	X	X	45	Non MI Recoveries	X	
30	Property State	X	X	46	Expenses	X	
31	Property Type	X	X	47	Taxes and Insurance		X
32	Remaining Months to Legal Maturity	X	X	48	Legal Costs		X
33	Underwriting Defect or Major Servicing Defect Settlement Date*		X	49	Maintenance and Preservation Costs		X
34	Repurchase Flag	X		50	Bankruptcy Cramdown Costs		X
35	Seller Name	X	X	51	Miscellaneous Expenses		X
36	Servicer Name	X	X	52	Miscellaneous Credits		X
37	UPB at Issuance		X	53	Loan in Eligible Disaster Area		X
38	UPB at Time of Removal from the Reference Pool	D	X	54	Bankruptcy Flag		X
39	Zero Balance Code	X	X	55	Date Referred to Foreclosure		X
40	Zero Balance Effective Date	X	X	56	MI Credit		X
41	Current Deferred UPB	X		57	Estimated LTV (at issuance for seasoned collateral only)		X
42	Due Date of Last Paid Installment*	X	X	58	Updated Credit Score (at issuance for seasoned collateral only)		X
43	MI Recoveries	X		59	Mortgage Insurance Cancellation Indicator		X
44	Net Sales Proceeds*	X	X	60	MI: Lender Paid or Borrower Paid		X

D = not disclosed, but derivable from other disclosed fields.

Disclosed Loan-Level Fields (cont.)

#	Field Name	Historical	Actual Loss STACR	#	Field Name	Historical	Actual Loss STACR
60	Estimated LTV - Updated Quarterly		X	66	Modification First Payment Date		X
61	Forecast Standard Deviation (FSD) - Updated Quarterly		X	67	Modification Debt-to-Income Ratio		X
62	Updated Credit Score - Updated Quarterly		X	68	Total Capitalized Amount		X
63	Number of Modifications		X	69	Interest Rate Step Indicator		X
64	Modification Program		X	70	First to Fifth Step Rate Adjustment Date		X
65	Modification Type		X	71	First to Fifth Step Rate		X

Net Loss Comparison DN vs. HQ

Net Loss Analysis (All 80-97% LTV vs. 60-80% LTV)



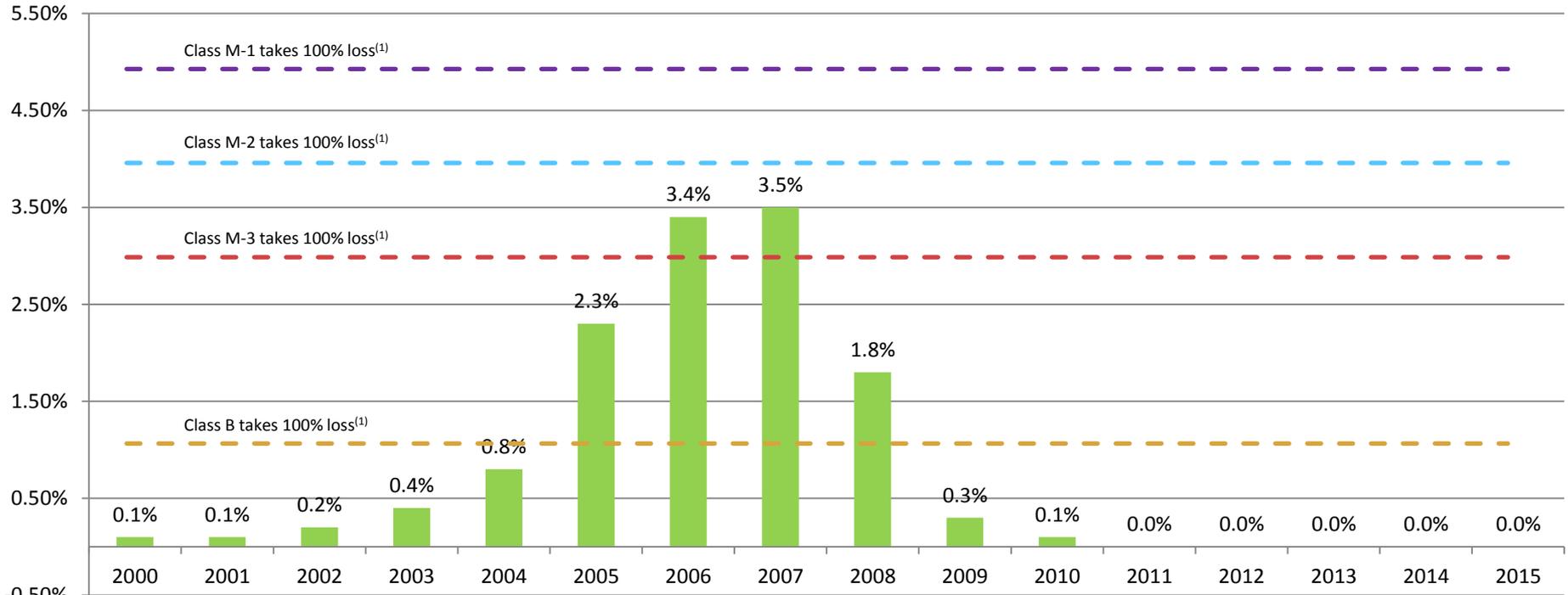
Origination Year	80.01-97 LTV (HQ-HQA Series)					60-80 LTV (DN-DNA Series)					Net Loss Ratios (80-97 LTV/60-80 LTV)
	Loan Count	Default Rate	Severity Rate	Net Loss Rate	Timeline DDLPI to Disposition	Loan Count	Default Rate	Severity Rate	Net Loss Rate	Timeline DDLPI to Disposition	
1999-2004	77,955	3.3%	24.4%	0.8%	19	78,098	1.2%	38.9%	0.5%	21	1.71
2005	19,550	12.8%	34.8%	4.5%	22	54,247	7.1%	48.6%	3.4%	21	1.30
2006	18,534	15.7%	36.1%	5.7%	22	58,840	9.4%	52.9%	5.0%	21	1.14
2007	27,291	18.0%	34.4%	6.2%	22	54,445	9.6%	52.3%	5.0%	21	1.24
2008	16,864	10.3%	29.5%	3.0%	21	25,550	4.7%	48.7%	2.3%	22	1.35
2009	1,784	1.8%	17.3%	0.3%	16	6,444	0.8%	37.2%	0.3%	18	1.11
2010	437	0.8%	13.5%	0.1%	16	1,519	0.3%	33.9%	0.1%	18	0.99
2011	184	0.4%	10.3%	0.0%	15	392	0.1%	32.0%	0.0%	17	1.05
2012-2014	166	0.1%	9.5%	0.0%	13	196	0.0%	27.7%	0.0%	13	1.14
Total	162,765	5.6%	30.0%	1.7%	20	279,731	3.0%	48.2%	1.5%	21	1.16

- The net loss Rate for HQ/HQA Series above is based on MI recovery, while MI Credit for STACR Investor is based on MI claim amount.

DN/A (60-80 LTV) Series Historical Performance

STACR 2016-DNA4 Proxy Cohort Performance

Reference Pool Proxy



For Freddie Mac data above:

- Net Losses are calculated as noted on the “Actual Loss Calculation” slide:
Collateral Deficiency + Delinquent Interest +Expenses – MI Recoveries – Non MI Recoveries
- Freddie Mac data does not include bulk settlements
- Assumes 35bps g-fee to calculate delinquent interest
- Collateral Deficiency: Defaulted UPB – Net Sales Proceeds
- Loans with Repurchase flag = Y have been set to zero loss

Source: Freddie Mac Single Family Loan-Level Dataset

Notes: Performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015

Cumulative Losses do not include modification losses

Data is weighted in proportion to 2016-DNA4 FICO and LTV cohorts

(1) Assuming no principal payments

Loss Components by Disposition & Origination Year (All 60.01-80% LTV)



All Default Loans 60-80 LTV

Disposition Yr	Loan Count	Default UPB	Net Loss	Severity %	As Percentage of Net Loss					
					Collateral Loss	Expenses	MI Recoveries	Non-MI Recoveries	Delinquent Interest	Timeline (months)
99-2004	8,814	889,275,361	129,442,407	15%	43%	36%	-2%	-11%	35%	14
2005	4,030	397,182,243	91,984,044	23%	46%	30%	-1%	-5%	29%	15
2006	4,053	406,645,667	109,070,726	27%	53%	26%	-1%	-5%	27%	16
2007	4,999	575,351,218	151,782,413	26%	56%	25%	0%	-4%	23%	15
2008	8,807	1,342,999,735	423,473,834	32%	70%	16%	0%	-3%	17%	13
2009	20,318	3,666,492,766	1,483,505,756	40%	77%	11%	0%	-2%	14%	13
2010	39,849	7,371,895,578	3,407,314,403	46%	77%	10%	0%	-2%	15%	15
2011	49,337	9,261,757,655	4,800,894,724	52%	75%	11%	0%	-2%	16%	18
2012	52,174	9,490,296,172	4,776,576,773	50%	70%	14%	0%	-2%	18%	20
2013	36,758	6,082,441,747	3,027,940,100	50%	59%	21%	0%	-2%	22%	25
2014	31,541	4,986,503,192	2,815,936,212	56%	49%	27%	0%	-2%	27%	34
Q1-Q3 2015	19,051	3,097,305,637	1,706,916,443	55%	49%	26%	0%	-2%	29%	37
Total	279,731	47,568,146,972	22,924,837,835	48%	66%	17%	0%	-2%	19%	21

Origination Yr	Loan Count	Default UPB	Net Loss	Severity %	As Percentage of Net Loss					
					Collateral Loss	Expenses	MI Recoveries	Non-MI Recoveries	Delinquent Interest	Timeline (months)
99-2004	78,098	9,066,863,050	3,523,468,586	39%	54%	28%	0%	-4%	23%	21
2005	54,247	9,853,535,890	4,785,211,302	49%	68%	16%	0%	-2%	18%	21
2006	58,840	11,482,488,156	6,072,924,810	53%	70%	13%	0%	-2%	19%	21
2007	54,445	10,526,099,835	5,505,207,988	52%	69%	13%	0%	-2%	19%	21
2008	25,550	5,062,395,520	2,465,262,304	49%	67%	15%	0%	-2%	20%	22
2009	6,444	1,244,907,558	462,997,765	37%	63%	20%	0%	-2%	19%	18
2010	1,519	244,246,198	82,918,693	34%	58%	26%	0%	-3%	19%	18
2011	392	60,426,498	19,326,623	32%	57%	28%	0%	-2%	18%	17
2012	142	20,653,959	5,817,171	28%	64%	25%	0%	-3%	14%	14
2013	47	5,923,617	1,454,758	25%	73%	25%	0%	-7%	12%	12
2014	7	606,691	247,835	41%	87%	10%	0%	-2%	5%	8
Total	279,731	47,568,146,972	22,924,837,835	48%	66%	17%	0%	-2%	19%	21

Notes: Performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015
Cumulative Losses do not include modification losses

STACR 2016-DNA4 Historical Cohort Performance (60% < LTV <= 80%)



- Summary collateral characteristics for the different vintages are seen below
- Analysis and stratifications only include loans with LTVs between 60% and 80%

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	13- DN1	13- DN2	14- DN1	14- DN2	14- DN3	14- DN4	15- DN1	15- DNA1	15- DNA2	15- DNA3	16- DNA1	16- DNA2	16- DNA3	16- DNA4
Orig UPB (\$BN)	58	163	163	197	124	162	139	127	124	213	120	86	120	23	36	33	28	20	16	28	32	32	35	36	30	26	25
WA FICO	718	717	720	725	720	723	725	726	741	762	762	763	766	766	764	761	760	755	753	753	766	752	754	754	752	748	748
WA DTI (%)	35	33	34	33	35	37	38	38	38	33	34	34	32	32	32	33	33	35	35	35	32	35	35	35	35	35	35
WA OCLTV (%)	77	77	77	76	78	78	79	80	77	76	76	76	76	76	75	76	76	77	77	77	76	77	76	76	77	76	76
WA OLTV (%)	76	76	75	75	76	76	76	76	75	74	75	75	75	75	74	75	75	76	76	76	74	76	75	75	76	75	75
% Owner Occ.	91	93	93	94	92	93	91	89	87	92	89	88	89	89	89	86	88	86	85	86	89	86	87	87	86	85	85
FICO Score Range																											
0-679	23%	23%	22%	19%	23%	22%	22%	22%	12%	3%	3%	3%	2%	2%	2%	3%	3%	5%	6%	6%	2%	6%	5%	5%	6%	8%	8%
680-719	22%	23%	22%	22%	23%	22%	22%	22%	19%	11%	12%	11%	10%	10%	11%	13%	14%	16%	17%	17%	11%	18%	17%	17%	18%	19%	19%
720-759	29%	28%	28%	29%	27%	25%	24%	23%	26%	26%	24%	23%	23%	22%	24%	24%	25%	26%	26%	25%	23%	25%	26%	26%	26%	26%	26%
760-779	15%	15%	15%	17%	15%	14%	14%	14%	17%	22%	20%	21%	21%	20%	21%	20%	20%	19%	18%	18%	21%	17%	18%	18%	17%	16%	17%
780 and Greater	10%	11%	12%	13%	12%	17%	18%	20%	26%	39%	40%	42%	44%	45%	42%	40%	38%	34%	33%	35%	44%	34%	34%	34%	33%	31%	30%

Severity Rates and Disposition Timelines (All 60.01-80% LTV)



All Defaulted 60-80 LTV Loans
Severity Rates by Disposition & Origination Year

Disposition Yr		Origination Year																											Total						
		99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013			2014		
		All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ			
99-04	15	19	12																												15				
2005	23	30	18	2	-	3																									23				
2006	28	35	22	9	12	8	-	-	-																						27				
2007	30	37	25	18	22	16	14	16	14	9	-	11																			26				
2008	36	40	34	32	32	31	29	30	28	22	22	22	31	30	32																32				
2009	39	44	37	43	44	43	42	42	43	37	37	38	30	26	31	21	40	14													40				
2010	42	46	40	48	49	47	50	51	49	46	48	46	40	42	40	30	29	30	2	3	-										46				
2011	46	51	44	52	54	52	56	58	55	54	58	53	48	55	46	34	39	32	28	37	25										52				
2012	45	51	42	50	55	48	55	61	51	54	61	50	48	56	44	36	42	33	27	28	26	21	13	23							50				
2013	43	51	37	48	57	41	55	64	47	54	64	46	51	61	43	36	42	33	32	37	29	32	25	35	13	29	9				50				
2014	49	55	42	55	64	43	62	71	50	62	71	51	59	68	48	41	48	35	38	44	33	32	36	27	28	32	26	28	47	22		57			
Q1-Q3 15	48	54	39	53	60	43	61	68	48	61	68	50	58	65	46	42	48	36	41	47	33	38	46	32	34	36	33	26	31	22	34	31	35	55	
Total	39	45	35	49	54	46	53	59	49	52	60	48	49	58	44	37	44	33	35	41	30	33	37	30	30	34	27	26	33	22	34	31	35	48	

Disposition Timelines (# months delinquent at disposition)

Disposition Yr		Origination Year																											Total						
		99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013			2014		
		All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ			
99-04	14	16	13																													14			
2005	15	18	14	4	6	4																											15		
2006	16	18	14	9	10	9	7	-	7																								16		
2007	16	18	14	12	14	11	10	11	9	6	7	6																					15		
2008	15	18	14	13	15	12	12	13	11	10	9	10	5	5	4																		13		
2009	16	19	14	14	15	13	13	14	13	12	13	12	10	10	11	4	5	4															13		
2010	17	21	15	15	18	14	15	17	14	15	17	15	14	15	13	10	10	10	7	7	7												15		
2011	19	23	18	18	21	17	18	21	17	18	20	17	17	19	16	13	14	12	9	10	9												18		
2012	22	27	19	20	25	18	20	25	18	20	25	18	19	23	17	14	16	14	12	13	12	10	9	10									20		
2013	26	31	22	25	31	20	25	31	20	25	30	20	25	30	21	19	21	17	16	18	15	13	11	14	10	9	10						25		
2014	32	38	26	34	40	28	36	41	29	35	40	29	34	39	28	24	28	21	20	22	19	18	19	17	14	15	13	11	12	-			34		
Q1-Q3 15	38	43	29	38	43	30	38	43	31	37	42	30	37	42	31	27	30	23	24	26	22	19	20	19	15	16	13	12	14	8	8	9	8	37	
Total	21	26	18	21	27	17	21	27	18	21	28	18	22	28	18	18	22	16	18	21	16	17	18	16	14	15	13	12	14	8	8	9	8	21	

Severity Rates and Disposition Timelines (REO 60.01-80% LTV)



REOs 60-80 LTV
Severity Rates by Disposition & Origination Year

Disposition Yr	Origination Year																											Total			
	99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013		
	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ
99-04	18	23	15																											18	
2005	28	38	22	-	-	-																								28	
2006	34	44	26	14	23	11	-	-	-																					33	
2007	36	46	30	23	27	21	16	15	17	-	-	-																		33	
2008	42	48	40	35	36	35	32	35	31	25	32	24	100	-	100															36	
2009	46	51	44	48	50	47	46	47	46	41	41	41	32	29	33	-	-	-												45	
2010	49	53	47	52	57	50	54	59	52	50	53	49	44	45	43	38	44	37												51	
2011	52	57	50	57	61	55	60	67	58	59	68	57	54	65	50	41	52	38	32	-	-	32								57	
2012	52	58	49	56	63	52	60	69	55	60	69	55	54	66	50	43	56	39	34	38	33	21	37	43						56	
2013	53	62	46	55	64	47	63	73	53	62	74	52	58	70	50	42	49	38	38	48	33	42	38	35	13	32	32			57	
2014	57	63	50	61	70	49	68	77	56	67	76	57	63	72	53	47	54	41	43	49	37	37	53	41	32	49	37	26	-	26	62
2015	61	69	51	66	72	57	73	80	62	73	79	63	72	81	61	52	58	45	46	56	36	45	43	38	44	43	31	41	63	7	67
Total	45	52	40	54	61	49	58	67	52	58	69	52	55	67	49	44	53	39	40	49	35	40	43	38	35	43	31	35	63	18	53

Disposition Timelines (# months ddldpi to REO acquisition)

Disposition Yr	Origination Year																											Total			
	99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013		
	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ
99-04	10	13	9																												10
2005	10	13	8																												10
2006	11	13	9	7	10	6	6	-	6																						11
2007	10	14	8	8	11	7	8	11	7	-	-	-																			10
2008	10	14	8	9	12	8	9	12	8	8	11	7	5	-	5																9
2009	11	15	9	11	14	9	11	14	9	10	13	9	9	12	9	-	-	-													11
2010	13	17	11	13	17	12	13	17	12	13	16	12	12	14	11	8	11	8													13
2011	14	18	12	15	19	13	15	19	14	15	18	14	13	16	12	10	13	9	8	-	8										14
2012	16	22	14	18	24	15	18	24	15	18	23	15	16	21	14	12	15	11	10	12	9	8	9	8							17
2013	20	25	15	22	28	16	23	29	17	21	27	16	20	26	16	14	17	12	12	16	10	9	10	9	7	9	7				21
2014	24	31	18	28	34	21	30	35	22	28	34	22	26	32	21	18	22	15	15	17	13	12	14	10	9	12	8	8	-	8	27
2015	28	34	21	32	36	25	34	38	26	31	36	25	30	35	24	22	27	17	18	20	16	15	15	15	11	13	8	9	10	7	30
Total	14	19	12	17	24	14	18	25	14	18	25	14	18	24	14	15	19	12	14	17	11	12	14	11	10	13	8	8	10	7	17

Disposition Timelines (# months REO acquisition to disposition)

Disposition Yr	Origination Year																											Total			
	99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013		
	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ
99-04	6	5	6																												6
2005	7	6	7																												7
2006	7	6	7	4	3	5	4	-	4																						7
2007	7	6	8	5	4	6	4	4	5	-	-	-																			7
2008	7	6	8	6	5	6	5	5	5	4	3	4	4	-	4																6
2009	7	6	7	6	5	6	5	5	6	5	5	5	4	4	4	-	-	-													6
2010	7	6	7	6	6	6	6	5	6	5	5	6	5	5	5	4	4	4													6
2011	8	8	9	8	8	7	7	8	7	7	8	7	7	8	7	6	6	6	4	-	4										7
2012	9	8	9	8	8	9	8	8	8	8	8	8	7	8	7	7	7	6	6	6	6	5	4	5							8
2013	9	8	10	9	8	9	8	8	9	8	8	8	7	8	8	8	8	8	7	7	7	7	6	7	4	4	4				9
2014	10	9	11	9	9	10	9	8	10	9	9	9	9	9	9	8	8	8	8	8	8	8	8	8	7	7	7	5	-	5	9
2015	11	10	12	11	10	12	10	10	12	10	9	11	10	10	11	9	9	9	9	8	9	8	7	8	6	6	7	7	7	7	10
Total	8	7	8	8	7	8	7	7	7	7	8	7	8	8	7	7	8	7	7	7	7	7	7	7	6	6	6	6	6	7	6

Severity Rates and Disposition Timelines (FA 60.01-80% LTV)



FA Loans 60-80 LTV
Severity Rates by Disposition & Origination Year

Disposition Yr	Origination Year																											Total						
	99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013			2014		
	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ	All	J	NJ
99-04	5	7	4																													5		
2005	6	9	4	2	-	3																										6		
2006	7	10	5	5	4	5	-	-	-																							7		
2007	10	17	4	8	13	5	11	18	8	9	-	11																				10		
2008	15	20	11	22	24	20	23	24	23	19	19	18	29	30	28																	20		
2009	23	28	21	37	38	37	38	38	37	34	33	34	28	25	29	21	40	14														34		
2010	30	33	29	43	41	43	46	44	47	43	44	42	37	39	36	25	26	24														42		
2011	36	39	34	48	46	48	51	49	52	49	49	49	43	46	41	28	31	26	26	37	19											47		
2012	34	41	31	46	49	44	51	55	49	49	55	46	43	49	39	29	32	26	21	24	20	21	11	25								46		
2013	27	33	22	41	48	36	47	54	42	47	54	41	43	52	35	29	35	24	23	26	21	20	21	19	15	23	5					42		
2014	36	43	27	46	56	35	54	63	41	54	64	42	53	63	39	33	40	27	31	36	27	26	35	15	25	33	19	28	47	19		48		
2015	43	48	32	47	54	35	54	62	41	54	62	42	49	57	35	36	41	29	37	41	30	32	42	21	29	28	30	23	21	24	34	31	35	48
Total	28	34	25	44	47	42	48	52	46	47	53	44	43	51	38	30	35	26	28	33	24	26	34	19	26	30	23	24	26	23	34	31	35	43

Disposition Timelines (# months delinquent at disposition)

Disposition Yr	Origination Year																											Total						
	99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013			2014		
	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ	All	J	NJ
99-04	10	11	8																														10	
2005	11	13	9	4	6	4																												11
2006	10	12	8	7	8	7	5	-	5																									10
2007	10	12	8	8	10	7	7	8	6	6	7	6																						9
2008	10	13	8	8	10	7	8	8	7	7	8	7	4	5	4																			8
2009	11	14	10	10	11	9	9	10	9	9	9	8	8	8	4	5	4																	9
2010	12	16	11	12	13	11	12	13	11	12	13	12	11	12	11	8	9	8																12
2011	14	17	13	13	14	13	14	15	13	14	15	13	13	15	13	9	10	9	8	10	7													14
2012	17	23	14	15	20	14	16	21	14	16	21	14	16	20	14	11	12	9	10	10	9	8	9	8									16	
2013	20	26	15	19	25	15	20	25	15	20	25	16	20	26	16	14	17	13	12	13	11	10	10	11	8	8	8						20	
2014	29	34	21	31	37	23	33	38	25	32	37	25	31	37	23	21	24	18	17	18	16	16	16	16	12	12	12	10	12	9			30	
2015	37	43	26	35	41	26	35	40	27	35	40	26	36	41	28	23	25	19	16	19	13	14	15	12	12	11	13	11	8	9	8		35	
Total	18	25	13	17	23	14	17	23	14	18	24	14	18	24	15	15	18	12	15	17	13	14	15	13	13	14	12	11	13	10	8	9	8	17

DN Proxy Cohort Historical Delinquency Roll Rates

2000 Vintage	Current	30	60	90	120	150	180	180+
Current	99%	1%	0%	0%	0%	0%	0%	0%
30	57%	31%	12%	0%	0%	0%	0%	0%
60	27%	16%	24%	33%	0%	0%	0%	0%
90	14%	5%	8%	15%	57%	0%	0%	0%
120	12%	2%	2%	4%	11%	67%	0%	1%
150	12%	1%	1%	2%	4%	10%	67%	1%
180	12%	1%	0%	0%	1%	4%	10%	69%
180+	6%	0%	0%	0%	0%	0%	1%	89%

2003 Vintage	Current	30	60	90	120	150	180	180+
Current	100%	0%	0%	0%	0%	0%	0%	0%
30	50%	35%	15%	0%	0%	0%	0%	0%
60	16%	14%	32%	38%	0%	0%	0%	0%
90	8%	3%	8%	21%	58%	0%	0%	0%
120	8%	1%	1%	4%	14%	68%	0%	1%
150	8%	1%	1%	1%	3%	13%	71%	1%
180	7%	0%	0%	0%	1%	3%	11%	76%
180+	4%	0%	0%	0%	0%	0%	0%	93%

2001 Vintage	Current	30	60	90	120	150	180	180+
Current	99%	1%	0%	0%	0%	0%	0%	0%
30	57%	32%	11%	0%	0%	0%	0%	0%
60	24%	17%	27%	33%	0%	0%	0%	0%
90	13%	5%	8%	16%	56%	0%	0%	0%
120	11%	1%	2%	4%	12%	66%	0%	1%
150	12%	1%	1%	1%	3%	10%	68%	1%
180	9%	1%	0%	0%	1%	3%	11%	71%
180+	5%	0%	0%	0%	0%	0%	1%	90%

2004 Vintage	Current	30	60	90	120	150	180	180+
Current	99%	1%	0%	0%	0%	0%	0%	0%
30	45%	37%	17%	0%	0%	0%	0%	0%
60	13%	14%	32%	41%	0%	0%	0%	0%
90	7%	3%	7%	21%	61%	0%	0%	1%
120	7%	1%	1%	4%	14%	70%	0%	1%
150	7%	0%	1%	1%	3%	12%	73%	1%
180	6%	0%	0%	0%	1%	2%	12%	76%
180+	3%	0%	0%	0%	0%	0%	0%	94%

2002 Vintage	Current	30	60	90	120	150	180	180+
Current	100%	0%	0%	0%	0%	0%	0%	0%
30	53%	34%	13%	0%	0%	0%	0%	0%
60	19%	15%	30%	35%	0%	0%	0%	0%
90	10%	4%	8%	19%	57%	0%	0%	0%
120	10%	1%	1%	4%	12%	68%	0%	1%
150	9%	1%	1%	1%	3%	11%	71%	1%
180	8%	0%	0%	0%	1%	3%	11%	73%
180+	4%	0%	0%	0%	0%	0%	0%	92%

2005 Vintage	Current	30	60	90	120	150	180	180+
Current	99%	1%	0%	0%	0%	0%	0%	0%
30	38%	40%	22%	0%	0%	0%	0%	0%
60	10%	11%	32%	46%	0%	0%	0%	1%
90	6%	2%	6%	19%	66%	0%	0%	1%
120	6%	1%	1%	3%	14%	73%	0%	2%
150	5%	0%	0%	1%	2%	13%	75%	2%
180	5%	0%	0%	0%	1%	2%	11%	79%
180+	3%	0%	0%	0%	0%	0%	0%	94%

Source: Freddie Mac Single Family Loan-Level Dataset

Notes: Performance reflects performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015, using the July 2016 data release on loans with LTV > 60% and <= 80%. Values represent the monthly average proportion UPB with beginning delinquency status (indicated by row heading) that transitions into the ending delinquency status (as indicated by column heading). Data is weighted in proportion to 2016-DNA4 FICO and LTV cohorts. Current loans also include voluntary prepayments and repurchases. 180+ also includes liquidations.

DN Proxy Cohort Historical Delinquency Roll Rates (contd.)



2006 Vintage	Current	30	60	90	120	150	180	180+
Current	99%	1%	0%	0%	0%	0%	0%	0%
30	33%	41%	26%	0%	0%	0%	0%	0%
60	9%	10%	30%	50%	0%	0%	0%	1%
90	5%	2%	5%	18%	68%	0%	0%	1%
120	5%	0%	1%	3%	13%	75%	0%	1%
150	5%	0%	0%	1%	2%	12%	76%	2%
180	5%	0%	0%	0%	0%	2%	10%	81%
180+	3%	0%	0%	0%	0%	0%	0%	95%

2009 Vintage	Current	30	60	90	120	150	180	180+
Current	100%	0%	0%	0%	0%	0%	0%	0%
30	46%	40%	14%	0%	0%	0%	0%	0%
60	15%	14%	31%	41%	0%	0%	0%	0%
90	8%	3%	7%	17%	64%	0%	0%	1%
120	7%	1%	1%	3%	12%	74%	0%	1%
150	7%	0%	0%	1%	2%	11%	75%	2%
180	7%	0%	0%	0%	0%	2%	9%	79%
180+	4%	0%	0%	0%	0%	0%	0%	93%

2007 Vintage	Current	30	60	90	120	150	180	180+
Current	99%	1%	0%	0%	0%	0%	0%	0%
30	32%	43%	26%	0%	0%	0%	0%	0%
60	9%	10%	31%	50%	0%	0%	0%	1%
90	5%	2%	5%	18%	69%	0%	0%	1%
120	5%	0%	1%	2%	13%	75%	0%	2%
150	5%	0%	0%	1%	2%	12%	76%	2%
180	5%	0%	0%	0%	0%	2%	10%	80%
180+	3%	0%	0%	0%	0%	0%	0%	94%

2010 Vintage	Current	30	60	90	120	150	180	180+
Current	100%	0%	0%	0%	0%	0%	0%	0%
30	56%	31%	13%	0%	0%	0%	0%	0%
60	17%	13%	30%	39%	0%	0%	0%	0%
90	10%	3%	8%	17%	61%	0%	0%	0%
120	9%	1%	1%	3%	13%	72%	0%	1%
150	9%	0%	0%	1%	2%	12%	73%	1%
180	8%	0%	0%	0%	1%	2%	12%	76%
180+	4%	0%	0%	0%	0%	0%	0%	93%

2008 Vintage	Current	30	60	90	120	150	180	180+
Current	99%	1%	0%	0%	0%	0%	0%	0%
30	35%	43%	22%	0%	0%	0%	0%	0%
60	10%	10%	34%	46%	0%	0%	0%	0%
90	6%	2%	6%	19%	67%	0%	0%	1%
120	6%	1%	1%	2%	14%	74%	0%	1%
150	6%	0%	0%	1%	2%	12%	76%	2%
180	5%	0%	0%	0%	0%	2%	10%	80%
180+	4%	0%	0%	0%	0%	0%	0%	94%

2011 Vintage	Current	30	60	90	120	150	180	180+
Current	100%	0%	0%	0%	0%	0%	0%	0%
30	59%	29%	11%	0%	0%	0%	0%	0%
60	20%	14%	29%	36%	0%	0%	0%	0%
90	11%	4%	9%	17%	59%	0%	0%	0%
120	11%	1%	1%	3%	13%	69%	0%	1%
150	11%	0%	0%	0%	2%	15%	69%	1%
180	10%	1%	0%	0%	0%	2%	11%	75%
180+	6%	0%	0%	0%	0%	0%	0%	91%

Source: Freddie Mac Single Family Loan-Level Dataset

Notes: Performance reflects performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015, using the July 2016 data release on loans with LTV > 60% and <= 80%. Values represent the monthly average proportion UPB with beginning delinquency status (indicated by row heading) that transitions into the ending delinquency status (as indicated by column heading). Data is weighted in proportion to 2016-DNA4 FICO and LTV cohorts. Current loans also include voluntary prepayments and repurchases. 180+ also includes liquidations.

DN Proxy Cohort Historical Delinquency Roll Rates (contd.)



2012 Vintage	Current	30	60	90	120	150	180	180+
Current	100%	0%	0%	0%	0%	0%	0%	0%
30	69%	23%	8%	0%	0%	0%	0%	0%
60	28%	13%	25%	34%	0%	0%	0%	0%
90	14%	4%	8%	17%	56%	0%	0%	0%
120	11%	1%	1%	3%	12%	70%	0%	1%
150	11%	0%	0%	0%	2%	12%	73%	1%
180	10%	0%	0%	0%	0%	1%	11%	75%
180+	8%	0%	0%	0%	0%	0%	0%	89%

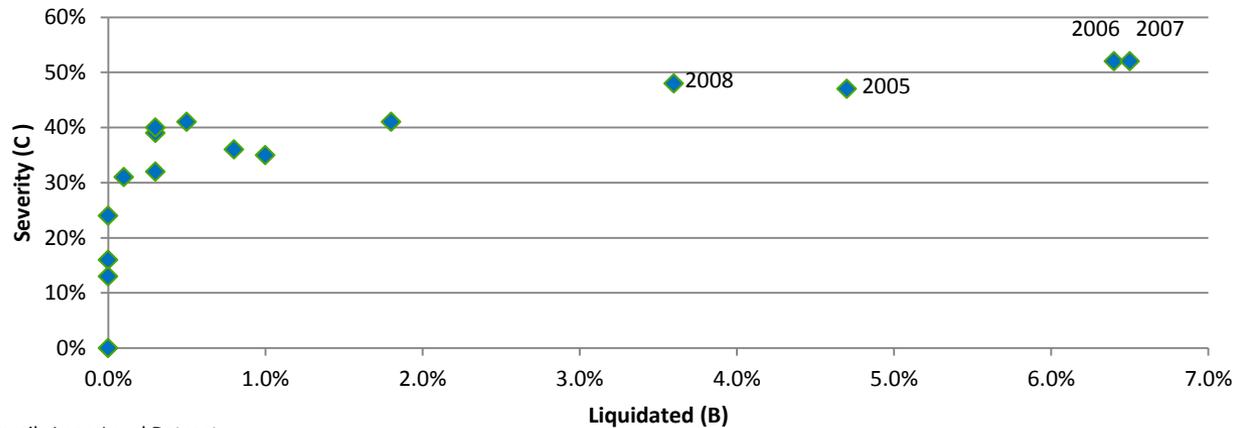
2013 Vintage	Current	30	60	90	120	150	180	180+
Current	100%	0%	0%	0%	0%	0%	0%	0%
30	71%	22%	7%	0%	0%	0%	0%	0%
60	30%	11%	23%	35%	0%	0%	0%	0%
90	15%	3%	5%	13%	63%	0%	0%	0%
120	12%	2%	1%	4%	13%	67%	0%	0%
150	11%	1%	0%	1%	2%	14%	70%	1%
180	16%	0%	0%	0%	0%	1%	11%	72%
180+	8%	0%	0%	0%	0%	0%	0%	90%

Source: Freddie Mac Single Family Loan-Level Dataset

Notes: Performance reflects performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015, using the July 2016 data release on loans with LTV > 60% and <= 80%. Values represent the monthly average proportion UPB with beginning delinquency status (indicated by row heading) that transitions into the ending delinquency status (as indicated by column heading). Data is weighted in proportion to 2016-DNA4 FICO and LTV cohorts. Current loans also include voluntary prepayments and repurchases. 180+ also includes liquidations.

Proxy Cohort Historical Severities

Vintage	Cum D180 (A)	Liquidated (B)	Severity (C)	Cum. Loss (D=B*C)
2000	0.6%	0.3%	39%	0.1%
2001	0.6%	0.3%	40%	0.1%
2002	1.0%	0.5%	41%	0.2%
2003	1.9%	1.0%	35%	0.4%
2004	3.3%	1.8%	41%	0.8%
2005	7.4%	4.7%	47%	2.3%
2006	10.0%	6.4%	52%	3.4%
2007	10.9%	6.5%	52%	3.5%
2008	7.1%	3.6%	48%	1.8%
2009	1.9%	0.8%	36%	0.3%
2010	0.9%	0.3%	32%	0.1%
2011	0.5%	0.1%	31%	0.0%
2012	0.2%	0.0%	24%	0.0%
2013	0.1%	0.0%	16%	0.0%
2014	0.0%	0.0%	13%	0.0%
2015	0.0%	0.0%	0%	0.0%



Source: Freddie Mac Single Family Loan-Level Dataset

Notes: Performance reflects performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015, using the July 2016 data release on loans with LTV > 60% and <= 80%.

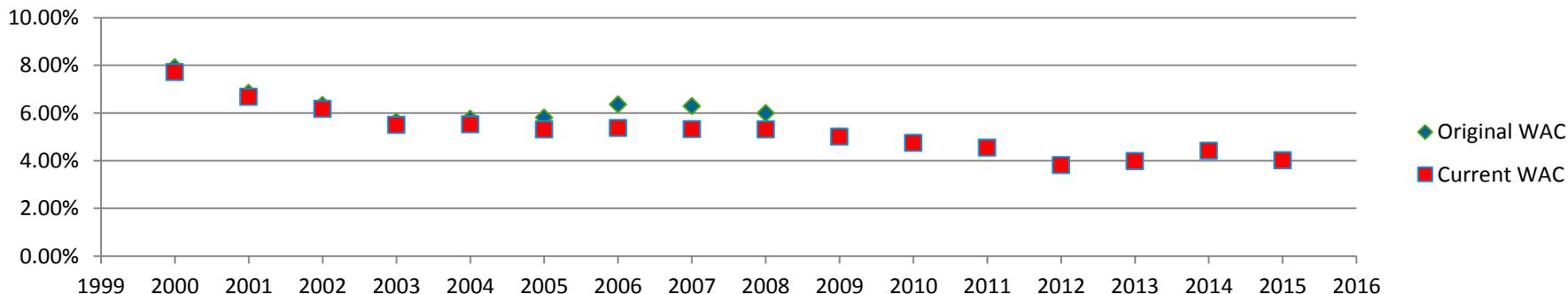
Loans with Repurchase flag = Y have been set to zero loss

Cumulative Losses do not include modification losses

Data is weighted in proportion to 2016- DNA4 FICO cohort

Proxy Cohort Historical Modifications

Vintage	Current Pool Factor	Cumulative Principal Loss	Cumulative Modification Loss ⁽¹⁾	Modification Loss as % of Principal Loss	Ever modified %	Proxy Cohort Stats as of June 30, 2015		
						Orig WAC	Current WAC	Current Mod WAC SF
2000	0.35%	0.09%	0.01%	5%	0.12%	7.92%	7.71%	0.22%
2001	0.93%	0.14%	0.01%	7%	0.18%	6.84%	6.68%	0.16%
2002	2.09%	0.22%	0.02%	10%	0.35%	6.33%	6.17%	0.16%
2003	5.82%	0.37%	0.05%	13%	0.86%	5.64%	5.50%	0.14%
2004	7.00%	0.76%	0.10%	14%	1.53%	5.76%	5.52%	0.25%
2005	8.92%	2.29%	0.28%	12%	3.36%	5.80%	5.31%	0.49%
2006	7.65%	3.43%	0.49%	14%	4.50%	6.36%	5.37%	0.99%
2007	8.93%	3.45%	0.55%	16%	5.03%	6.29%	5.32%	0.97%
2008	8.95%	1.80%	0.39%	21%	3.77%	6.00%	5.31%	0.68%
2009	20.82%	0.31%	0.02%	5%	0.87%	5.02%	5.00%	0.02%
2010	31.63%	0.09%	0.00%	5%	0.47%	4.75%	4.74%	0.01%
2011	38.99%	0.03%	0.00%	5%	0.29%	4.54%	4.54%	0.00%
2012	71.40%	0.01%	0.00%	0%	0.10%	3.82%	3.82%	0.00%
2013	76.05%	0.00%	0.00%	0%	0.06%	3.98%	3.98%	0.00%
2014	78.24%	0.00%	0.00%	3%	0.01%	4.41%	4.41%	0.00%
2015	95.95%	0.00%	0.00%	0%	0.00%	4.02%	4.02%	0.00%



Source: Freddie Mac Single Family Loan-Level Dataset

Notes: Performance reflects performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015, using the July 2016 data release on loans with LTV > 60% and <= 80%.

Cumulative Principal Loss do not include modification losses

Loans with Repurchase flag = Y have been set to zero loss

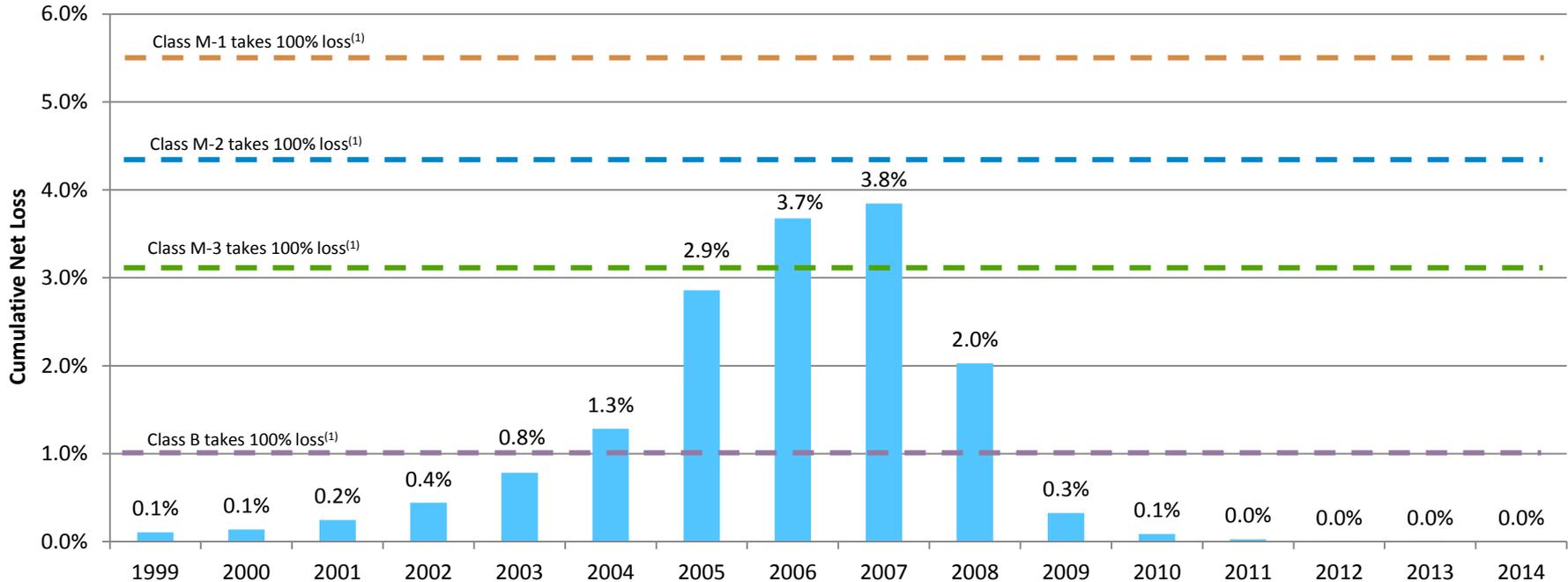
Data is weighted in proportion to 2016- DNA4 FICO cohort

(1) Cumulative losses attributable to interest rate and forbearance modifications using same methodology as 2016-DNA4 transaction.

HQ/A (80-97 LTV) Series Historical Performance

STACR 2016-HQA4 Proxy Cohort Performance

Reference Pool Proxy



Net Losses are calculated as noted on the “Actual Loss Calculation” slide:

$$\text{Collateral Deficiency} + \text{Delinquent Interest} + \text{Expenses} - \text{MI Recoveries} - \text{Non MI Recoveries}$$

- Freddie Mac data does not include bulk settlements
- Assumes 35bps g-fee to calculate delinquent interest
- Collateral Deficiency: Defaulted UPB – Net Sales Proceeds
- Loans with Repurchase flag = Y have been set to zero loss

Source: Freddie Mac Single Family Loan-Level Dataset

Notes: Performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015

Cumulative Losses do not include modification losses

Data is weighted in proportion to 2016-HQA4 FICO and LTV cohorts

(1) Assuming no principal payments

Loss Components by Disposition & Origination Year (All 80.01-97% LTV)



All Default Loans 80-97 LTV

Disposition Year	Loan Count	Default UPB	Net Loss	Severity %	As Percentage of Net Loss					Timeline (months)
					Collateral Loss	Expenses	MI Recoveries	Non-MI Recoveries	Delinquent Interest	
99-2004	17,193	1,952,415,003	117,070,592	6%	223%	91%	-283%	-27%	92%	14
2005	7,375	786,037,051	91,074,095	12%	130%	68%	-152%	-11%	65%	16
2006	6,083	643,384,421	85,731,160	13%	132%	65%	-148%	-11%	61%	16
2007	5,539	611,157,193	92,178,457	15%	135%	54%	-131%	-8%	50%	16
2008	7,152	956,266,521	170,694,954	18%	149%	34%	-112%	-5%	35%	14
2009	12,154	1,938,113,689	464,717,342	24%	135%	21%	-76%	-4%	24%	14
2010	19,921	3,243,486,608	933,428,255	29%	126%	20%	-65%	-4%	23%	16
2011	22,964	3,790,257,125	1,309,685,887	35%	116%	21%	-57%	-4%	24%	19
2012	24,300	3,969,017,940	1,408,074,619	35%	109%	25%	-55%	-5%	26%	21
2013	18,536	2,832,314,605	1,070,100,273	38%	96%	32%	-52%	-5%	30%	25
2014	13,721	1,969,876,154	868,408,627	44%	79%	37%	-45%	-4%	33%	32
2015Q1-Q3	7,827	1,125,351,722	528,414,037	47%	75%	36%	-40%	-4%	33%	35
Total	162,765	23,817,678,033	7,139,578,298	30%	110%	29%	-64%	-5%	30%	20

Origination Year	Loan Count	Default UPB	Net Loss	Severity %	As Percentage of Net Loss					Timeline (months)
					Collateral Loss	Expenses	MI Recoveries	Non-MI Recoveries	Delinquent Interest	
99-2004	77,955	8,578,330,957	2,092,170,581	24%	106%	43%	-77%	-7%	35%	19
2005	19,550	3,052,590,953	1,061,924,806	35%	111%	27%	-60%	-4%	26%	22
2006	18,534	3,167,792,086	1,142,536,697	36%	112%	23%	-57%	-4%	26%	22
2007	27,291	5,085,607,017	1,751,083,631	34%	110%	21%	-54%	-3%	27%	22
2008	16,864	3,426,819,410	1,012,330,585	30%	111%	23%	-59%	-4%	29%	21
2009	1,784	359,610,648	62,135,751	17%	138%	39%	-104%	-7%	34%	16
2010	437	79,911,213	10,749,390	13%	160%	57%	-149%	-10%	43%	16
2011	184	36,307,676	3,730,394	10%	178%	73%	-189%	-13%	52%	15
2012	97	17,815,638	1,750,525	10%	177%	79%	-183%	-10%	41%	15
2013	58	10,584,306	955,650	9%	208%	61%	-194%	-9%	36%	11
2014	11	2,308,128	210,288	9%	139%	42%	-104%	-6%	29%	9
Total	162,765	23,817,678,033	7,139,578,298	30%	110%	29%	-64%	-5%	30%	20

STACR Historical Cohort Performance (80% < LTV <= 95%)*



- Summary collateral characteristics for the different vintages are seen below
- Analysis and stratifications only include loans with LTVs between 80% and 95%*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	STACR 14-HQ1	STACR 14-HQ2	STACR 14-HQ3	STACR 15-HQ1	STACR 15-HQ2	STACR 15-HQA1	STACR 15-HQA2	STACR 16-HQA1	STACR 16HQA2	STACR 16HQA3	STACR 16HQA4
Orig UPB (\$BN)	30	56	49	50	29	27	23	33	38	26	16	17	32	47	55	35	10	33	8	16	30	19	17	18	19	16	14
WA FICO	699	700	700	705	701	707	706	709	730	756	759	759	759	755	748	750	752	757	749	748	757	747	749	750	749	748	746
WA DTI (%)	37	36	37	36	38	39	40	40	40	33	33	33	33	34	35	35	35	33	35	35	33	35	35	35	35	35	36
WA OCLTV (%)	92	91	91	91	91	91	91	91	91	90	91	91	91	92	92	92	92	92	92	92	92	92	92	92	92	92	92
WA OLTV (%)	92	91	91	90	91	91	91	91	91	90	91	91	91	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Owner Occ. (%)	94	96	94	94	91	91	91	90	92	99	100	100	100	100	99	99	100	100	100	100	100	99	99	99	99	99	99
FICO Score Range																											
0-679 (%)	37	37	38	33	37	34	35	33	16	1	1	2	2	3	5	4	3	2	5	5	2	6	5	4	4	5	6
680-719 (%)	26	26	25	26	25	25	24	23	24	14	14	13	13	15	19	18	16	14	18	19	13	19	19	18	19	19	20
720-759 (%)	24	23	22	24	22	22	21	21	27	33	31	30	31	32	31	32	32	32	33	32	31	31	32	32	31	31	32
760-779 (%)	9	9	9	10	9	10	10	11	15	23	22	23	22	21	19	19	21	21	19	19	22	19	19	19	19	19	18
780 and Greater (%)	5	5	6	6	6	10	10	12	17	29	32	32	33	29	26	26	28	31	25	25	31	25	26	27	27	25	24

* 2016-HQA4 includes loans with up to 97% LTV

Severity Rates and Disposition Timelines (All 80.01-97% LTV)



Severity Rates by Disposition & Origination Year

Disposition Yr	Origination Year																											Total						
	99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013			2014		
	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ	All	J	NJ
99-04	6	8	5																													6		
2005	12	15	9	9	(0)	17																										12		
2006	14	17	10	4	5	3	(2)	0	(3)																							13		
2007	17	20	14	8	9	7	6	4	7	1	(0)	2																				15		
2008	23	25	21	15	14	16	13	13	13	10	8	11	4	7	2																	18		
2009	28	29	27	27	27	26	24	23	24	21	18	22	18	13	19	2	-	2														24		
2010	33	35	32	32	33	31	32	33	31	27	28	27	21	23	21	12	10	13	5	12	-											29		
2011	38	41	37	39	41	37	38	41	36	34	37	33	28	33	26	16	15	16	6	15	2											35		
2012	38	42	36	40	42	37	41	44	37	36	40	34	30	37	26	15	17	14	10	12	9	5	2	7								36		
2013	40	45	35	40	44	34	42	47	35	39	47	32	34	43	25	17	19	16	12	13	11	7	9	6	10	7	13				38			
2014	46	50	39	46	51	37	50	56	39	47	54	37	41	50	30	21	27	16	16	21	11	14	15	13	9	15	7	6	2	7	44			
2015-Q1	49	55	39	50	54	41	53	59	43	51	59	40	45	56	30	26	31	19	21	26	15	15	14	15	11	12	9	11	19	8	-	11	9	47
Total	24	29	21	35	38	32	36	40	32	35	40	31	30	38	25	18	21	15	14	18	11	11	12	10	10	13	8	10	18	8	-	11	9	30

Disposition Timelines (# months delinquent at disposition)

Disposition Yr	Origination Year																											Total						
	99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013			2014		
	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ	All	J	NJ
99-04	14	16	13																														14	
2005	16	18	14	2	5	-																												16
2006	17	18	15	10	10	10	8	3	10																									16
2007	17	18	15	12	13	12	10	10	10	6	4	9																						16
2008	17	18	15	14	15	13	12	13	12	10	10	10	6	6	6																			14
2009	17	19	15	15	17	14	14	15	13	13	14	13	11	11	11	5	-	5																14
2010	18	21	16	17	19	15	17	18	16	16	18	15	15	17	14	10	9	11	5	-	9													16
2011	21	24	19	20	23	18	20	22	18	19	21	18	18	20	17	13	12	13	9	8	9													19
2012	23	27	20	22	26	19	22	26	19	22	25	19	19	23	18	13	15	12	11	12	10	7	5	8									21	
2013	26	30	21	27	31	21	27	31	21	26	31	20	24	29	20	17	18	16	14	15	14	13	13	12	11	11	12						25	
2014	32	37	25	34	39	26	34	39	25	34	39	27	32	37	25	21	25	17	18	21	16	17	18	16	14	18	13	9	9	-			32	
2015	34	40	25	36	40	28	36	41	28	37	42	30	35	42	27	27	28	25	22	22	22	20	21	19	16	17	16	11	13	8	9	9	8	35
Total	19	23	16	22	26	18	22	25	18	22	27	18	21	26	17	16	19	15	16	17	15	15	17	14	15	17	14	11	13	8	9	9	8	20

Severity Rates and Disposition Timelines (REO 80.01-97% LTV)



Severity Rates by Disposition & Origination Year

Disposition Yr	Origination Year																											Total						
	99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013			2014		
	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ	All	J	NJ
99-04	7	9	6																													7		
2005	13	18	10	-	-	-																										13		
2006	15	20	12	4	6	4	(3)	-	(3)																							15		
2007	19	23	16	10	11	9	9	7	11	2	-	2																				17		
2008	25	27	23	17	18	17	16	16	15	12	14	12	6	-	6																	21		
2009	30	32	29	29	30	29	26	27	26	24	22	24	20	18	21	2	-	2														27		
2010	34	37	32	35	37	33	35	38	32	29	31	28	24	25	23	15	13	15														31		
2011	40	44	38	41	45	38	41	45	38	38	43	36	32	41	29	20	25	19	11	33	5											38		
2012	42	47	39	43	47	40	43	48	40	40	47	36	35	46	31	20	25	18	17	19	17	7	10	9								40		
2013	47	51	42	44	49	37	47	53	40	44	53	35	40	52	30	22	25	20	17	15	18	9	17	15	16	9	11					44		
2014	49	54	42	50	55	40	52	58	41	51	58	42	45	54	34	26	35	19	16	23	11	16	16	21	11	10	14	3	4	2	-	-	48	
2015	53	59	43	53	56	45	53	58	45	56	63	45	48	57	36	26	33	19	22	26	15	19	15	13	12	10	13	12	16	9	34	-	34	51
Total	26	31	22	38	42	33	39	45	34	38	46	33	34	45	28	22	28	19	17	21	14	14	15	13	12	10	13	10	15	7	34	-	34	32

Disposition Timelines (# months ddipi to REO acquisition)

Disposition Yr	Origination Year																											Total						
	99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013			2014		
	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ	All	J	NJ
99-04	10	12	9																														10	
2005	10	13	8																															10
2006	11	13	9	7	9	7	7	-	7																									11
2007	11	14	8	9	11	7	8	10	6	7	-	7																						10
2008	10	13	8	9	11	8	9	11	8	8	10	7	6	-	6																			10
2009	11	15	9	11	14	9	11	14	9	10	13	9	9	12	9	6	-	6																11
2010	13	16	11	14	17	11	14	17	11	13	16	12	12	15	11	8	12	8																13
2011	14	18	12	15	19	13	15	19	13	15	18	14	14	17	13	10	12	10	8	10	7													15
2012	17	21	14	18	23	15	19	23	15	18	23	15	16	22	14	11	14	10	9	10	8	8	-	8										17
2013	20	25	15	23	28	16	22	27	16	22	27	16	20	25	16	14	17	12	11	12	10	10	12	9	11	13	10							21
2014	25	31	18	28	33	19	28	33	18	28	33	21	26	31	18	16	20	12	13	17	10	12	14	10	10	16	9	8	9	26	-	-	-	26
2015	28	33	19	30	34	20	29	33	22	32	37	24	29	35	20	21	23	18	15	16	13	16	15	16	11	13	9	7	7	29	7	-	7	29
Total	13	17	10	17	22	13	17	22	13	18	24	14	17	23	13	14	18	11	12	15	10	12	14	11	11	13	9	8	7	16	7	-	7	16

Disposition Timelines (# months REO acquisition to disposition)

Disposition Yr	Origination Year																											Total							
	99-04			2005			2006			2007			2008			2009			2010			2011			2012				2013			2014			
	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ	All	J	NJ		All	J	NJ	All	J	NJ	
99-04	6	5	6																															6	
2005	7	7	7																																7
2006	7	6	7	5	4	5	3	-	3																										7
2007	7	6	8	5	5	6	4	4	5	2	-	2																							7
2008	7	6	8	6	5	6	5	5	5	4	4	4	2	-	2																			6	
2009	7	6	7	6	5	6	6	5	6	5	5	5	4	4	4	2	-	2																6	
2010	7	6	7	6	5	6	6	5	6	5	5	6	5	5	6	4	3	5																6	
2011	8	8	8	7	8	7	7	7	7	7	8	7	7	8	6	6	7	6	4	5	4													7	
2012	8	9	8	8	8	8	7	7	7	7	8	7	7	8	7	6	6	6	6	6	6	6	-	6										8	
2013	9	8	9	8	8	9	8	8	8	8	8	8	8	9	8	7	7	7	6	6	5	6			5	6	4							8	
2014	9	8	9	9	8	9	9	9	9	9	8	9	9	9	9	8	8	7	7	7	7	7	7	7	6	6	6	4	3	4	-	-	-	9	
2015	10	9	11	10	9	11	9	9	10	9	9	10	9	9	9	8	8	9	9	8	9	7	6	7	8	8	8	6	5	6	3	-	3	9	
Total	7	7	7	7	7	7	7	7	7	7	7	7	7	8	7	7	7	7	7	7	7	6	6	7	7	7	7	6	5	5	5	3	-	3	7

HQA Proxy Cohort Historical Delinquency Roll Rates

2000 Vintage	Current	30	60	90	120	150	180	180+
Current	98.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	39.7%	44.3%	15.7%	0.2%	0.0%	0.0%	0.0%	0.0%
60	13.5%	44.1%	19.8%	22.4%	0.2%	0.0%	0.0%	0.0%
90	11.1%	5.7%	9.9%	19.6%	53.5%	0.1%	0.0%	0.1%
120	10.3%	2.1%	1.9%	6.5%	15.2%	63.7%	0.2%	0.2%
150	9.2%	1.6%	0.7%	1.7%	5.3%	15.4%	65.9%	0.3%
180	8.0%	0.6%	0.3%	0.5%	1.3%	5.8%	16.7%	66.8%
180+	5.5%	0.3%	0.1%	0.1%	0.2%	0.4%	1.0%	92.4%

2001 Vintage	Current	30	60	90	120	150	180	180+
Current	98.7%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	38.6%	45.8%	15.4%	0.2%	0.0%	0.0%	0.0%	0.0%
60	11.1%	44.4%	21.8%	22.5%	0.2%	0.0%	0.0%	0.0%
90	10.1%	5.2%	10.6%	20.7%	53.1%	0.1%	0.0%	0.0%
120	10.0%	1.7%	2.0%	6.0%	15.9%	64.1%	0.2%	0.1%
150	9.2%	1.0%	0.6%	1.4%	5.2%	14.7%	67.7%	0.2%
180	7.8%	0.7%	0.3%	0.5%	1.2%	4.5%	14.2%	70.7%
180+	5.1%	0.2%	0.1%	0.1%	0.2%	0.3%	0.9%	93.1%

2002 Vintage	Current	30	60	90	120	150	180	180+
Current	98.8%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	37.1%	46.7%	16.1%	0.1%	0.0%	0.0%	0.0%	0.0%
60	10.0%	44.2%	22.8%	22.8%	0.1%	0.0%	0.0%	0.0%
90	8.9%	4.8%	10.0%	21.9%	54.2%	0.2%	0.0%	0.0%
120	8.4%	1.4%	1.9%	5.8%	16.4%	65.9%	0.2%	0.1%
150	8.2%	0.9%	0.7%	1.3%	4.7%	15.1%	68.8%	0.2%
180	7.3%	0.5%	0.3%	0.5%	1.1%	4.2%	14.9%	71.1%
180+	4.2%	0.1%	0.1%	0.1%	0.1%	0.2%	0.7%	94.4%

2003 Vintage	Current	30	60	90	120	150	180	180+
Current	99.2%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	37.3%	46.0%	16.6%	0.1%	0.0%	0.0%	0.0%	0.0%
60	9.9%	38.9%	26.0%	25.1%	0.1%	0.0%	0.0%	0.0%
90	7.7%	4.1%	9.7%	23.2%	55.0%	0.2%	0.0%	0.0%
120	7.9%	1.1%	1.7%	5.3%	17.3%	66.4%	0.1%	0.1%
150	7.6%	0.7%	0.7%	1.3%	4.0%	15.1%	70.4%	0.2%
180	6.9%	0.4%	0.2%	0.5%	0.9%	3.4%	13.5%	74.2%
180+	3.4%	0.1%	0.1%	0.1%	0.1%	0.2%	0.5%	95.5%

2004 Vintage	Current	30	60	90	120	150	180	180+
Current	99.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	35.1%	46.8%	17.9%	0.1%	0.0%	0.0%	0.0%	0.0%
60	8.7%	39.9%	25.5%	25.7%	0.1%	0.0%	0.0%	0.0%
90	7.2%	3.5%	8.8%	22.7%	57.6%	0.1%	0.0%	0.0%
120	7.0%	1.0%	1.6%	4.7%	17.0%	68.4%	0.2%	0.1%
150	7.1%	0.7%	0.5%	1.0%	3.6%	14.2%	72.7%	0.2%
180	5.8%	0.4%	0.3%	0.4%	0.9%	3.0%	12.8%	76.5%
180+	3.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.4%	96.1%

2005 Vintage	Current	30	60	90	120	150	180	180+
Current	98.8%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	32.4%	46.8%	20.7%	0.1%	0.0%	0.0%	0.0%	0.0%
60	7.7%	35.9%	26.0%	30.2%	0.1%	0.0%	0.0%	0.0%
90	6.2%	2.8%	7.4%	21.3%	62.0%	0.2%	0.0%	0.1%
120	6.3%	0.8%	1.2%	3.9%	15.4%	72.2%	0.1%	0.0%
150	6.1%	0.4%	0.4%	0.7%	3.0%	12.7%	76.4%	0.2%
180	5.1%	0.3%	0.2%	0.3%	0.7%	2.5%	11.3%	79.6%
180+	2.5%	0.1%	0.1%	0.0%	0.1%	0.1%	0.2%	97.0%

Source: Freddie Mac Single Family Loan-Level Dataset

Notes: Performance reflects performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015, using the July 2016 data release on loans with LTV > 80 and <= 97%. Values represent the monthly average proportion UPB with beginning delinquency status (indicated by row heading) that transitions into the ending delinquency status (as indicated by column heading). Data is weighted in proportion to 2016-HQA4 FICO and LTV cohorts. Current loans also include voluntary prepayments and repurchases. 180+ also includes liquidations.

HQA Proxy Cohort Historical Delinquency Roll Rates (contd.)



2006 Vintage	Current	30	60	90	120	150	180	180+
Current	98.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	29.5%	47.4%	22.9%	0.1%	0.0%	0.0%	0.0%	0.0%
60	6.5%	36.6%	24.8%	31.9%	0.2%	0.0%	0.0%	0.0%
90	5.6%	2.2%	6.5%	19.4%	66.0%	0.2%	0.0%	0.0%
120	5.4%	0.7%	1.2%	3.0%	14.1%	75.4%	0.2%	0.1%
150	5.5%	0.4%	0.4%	0.7%	2.3%	11.8%	78.6%	0.3%
180	5.1%	0.2%	0.2%	0.2%	0.5%	1.9%	11.0%	81.0%
180+	2.4%	0.1%	0.1%	0.0%	0.0%	0.1%	0.2%	97.1%

2007 Vintage	Current	30	60	90	120	150	180	180+
Current	98.3%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	27.5%	47.3%	25.0%	0.1%	0.0%	0.0%	0.0%	0.0%
60	6.0%	34.9%	25.3%	33.6%	0.2%	0.0%	0.0%	0.0%
90	5.3%	2.0%	5.7%	20.7%	65.9%	0.3%	0.0%	0.1%
120	5.4%	0.5%	0.9%	2.9%	15.2%	74.6%	0.4%	0.1%
150	5.6%	0.4%	0.4%	0.6%	2.4%	13.1%	77.2%	0.4%
180	5.0%	0.2%	0.2%	0.2%	0.5%	1.9%	11.0%	81.0%
180+	3.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.2%	96.5%

2008 Vintage	Current	30	60	90	120	150	180	180+
Current	98.5%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	28.1%	47.1%	24.6%	0.1%	0.0%	0.0%	0.0%	0.0%
60	6.7%	26.6%	28.8%	37.5%	0.2%	0.0%	0.0%	0.0%
90	5.4%	1.9%	6.1%	20.0%	66.3%	0.2%	0.1%	0.1%
120	5.8%	0.6%	1.0%	2.6%	15.0%	74.6%	0.3%	0.1%
150	5.9%	0.4%	0.4%	0.5%	2.0%	13.1%	77.2%	0.4%
180	5.3%	0.2%	0.2%	0.2%	0.4%	1.6%	11.1%	81.1%
180+	3.8%	0.1%	0.0%	0.0%	0.0%	0.1%	0.2%	95.8%

2009 Vintage	Current	30	60	90	120	150	180	180+
Current	99.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	36.2%	44.8%	18.9%	0.1%	0.0%	0.0%	0.0%	0.0%
60	10.4%	15.6%	33.2%	40.6%	0.2%	0.0%	0.0%	0.0%
90	6.3%	2.8%	7.1%	19.7%	63.9%	0.2%	0.0%	0.0%
120	5.6%	0.9%	1.4%	3.1%	13.0%	75.7%	0.3%	0.1%
150	7.1%	0.3%	0.2%	0.5%	2.0%	11.6%	78.1%	0.2%
180	6.7%	0.2%	0.2%	0.2%	0.3%	1.8%	9.1%	81.6%
180+	3.9%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	95.5%

2010 Vintage	Current	30	60	90	120	150	180	180+
Current	99.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	43.2%	40.6%	16.0%	0.1%	0.0%	0.0%	0.0%	0.0%
60	13.6%	10.4%	35.6%	40.3%	0.1%	0.0%	0.0%	0.0%
90	8.2%	4.5%	7.7%	20.1%	59.4%	0.1%	0.0%	0.0%
120	9.1%	0.4%	0.7%	3.1%	13.9%	72.3%	0.4%	0.2%
150	7.6%	1.2%	0.4%	0.6%	2.9%	11.0%	76.3%	0.1%
180	6.1%	0.2%	0.5%	0.1%	0.5%	2.5%	11.1%	79.0%
180+	4.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.3%	95.5%

2011 Vintage	Current	30	60	90	120	150	180	180+
Current	99.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	46.0%	39.0%	14.9%	0.1%	0.0%	0.0%	0.0%	0.0%
60	13.6%	16.0%	32.6%	37.6%	0.1%	0.0%	0.0%	0.0%
90	8.1%	3.8%	8.2%	21.0%	58.6%	0.3%	0.0%	0.1%
120	8.2%	0.7%	1.0%	3.5%	14.4%	71.9%	0.4%	0.0%
150	10.3%	0.8%	0.3%	0.5%	2.6%	18.4%	66.7%	0.4%
180	8.2%	0.4%	0.7%	0.0%	0.9%	2.2%	14.7%	73.0%
180+	4.9%	0.3%	0.1%	0.1%	0.0%	0.1%	0.4%	94.0%

Source: Freddie Mac Single Family Loan-Level Dataset

Notes: Performance reflects performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015, using the July 2016 data release on loans with LTV > 80 and <= 97%. Values represent the monthly average proportion UPB with beginning delinquency status (indicated by row heading) that transitions into the ending delinquency status (as indicated by column heading). Data is weighted in proportion to 2016-HQA4 FICO and LTV cohorts. Current loans also include voluntary prepayments and repurchases. 180+ also includes liquidations..

HQA Proxy Cohort Historical Delinquency Roll Rates (contd.)



2012 Vintage	Current	30	60	90	120	150	180	180+	2013 Vintage	Current	30	60	90	120	150	180	180+
Current	99.8%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	Current	99.8%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	52.9%	34.5%	12.6%	0.1%	0.0%	0.0%	0.0%	0.0%	30	54.2%	34.2%	11.6%	0.1%	0.0%	0.0%	0.0%	0.0%
60	19.0%	15.0%	29.6%	36.2%	0.2%	0.0%	0.0%	0.0%	60	16.2%	13.9%	35.0%	34.7%	0.2%	0.0%	0.0%	0.0%
90	9.8%	3.7%	7.1%	17.8%	61.4%	0.1%	0.0%	0.1%	90	11.0%	3.1%	7.9%	19.3%	58.4%	0.2%	0.0%	0.0%
120	7.2%	1.4%	1.3%	2.2%	16.3%	70.9%	0.1%	0.5%	120	7.9%	0.6%	1.3%	3.3%	17.0%	69.3%	0.5%	0.1%
150	9.6%	0.2%	0.4%	0.8%	2.5%	20.1%	66.4%	0.1%	150	10.6%	0.5%	0.0%	0.1%	2.1%	18.0%	68.5%	0.2%
180	12.2%	0.8%	0.1%	0.1%	1.1%	2.3%	13.0%	70.3%	180	9.9%	0.5%	0.2%	0.0%	2.6%	3.1%	20.5%	63.2%
180+	4.1%	0.4%	0.0%	0.1%	0.0%	0.2%	0.3%	94.8%	180+	4.6%	0.2%	0.1%	0.0%	0.0%	0.0%	0.5%	94.5%

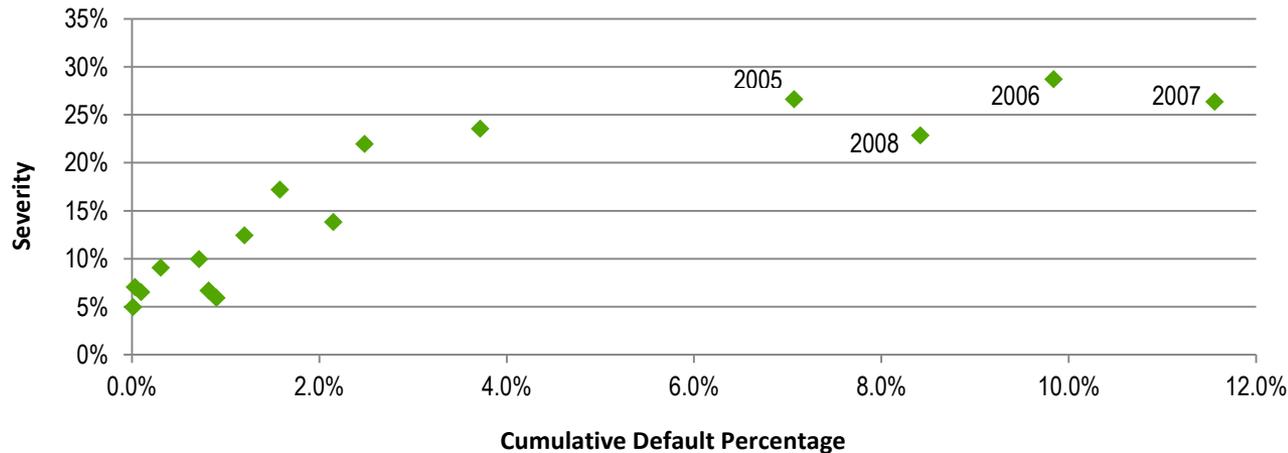
2014 Vintage	Current	30	60	90	120	150	180	180+
Current	99.8%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30	54.5%	32.9%	12.4%	0.1%	0.0%	0.0%	0.0%	0.0%
60	17.4%	17.0%	25.9%	39.6%	0.2%	0.0%	0.0%	0.0%
90	8.7%	2.5%	6.3%	15.6%	66.6%	0.3%	0.0%	0.0%
120	5.7%	0.3%	1.2%	2.6%	16.9%	73.4%	0.0%	0.0%
150	5.8%	0.3%	0.0%	1.4%	1.7%	13.0%	77.9%	0.0%
180	12.2%	0.0%	1.0%	0.0%	0.7%	1.1%	10.6%	74.3%
180+	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	95.7%

Source: Freddie Mac Single Family Loan-Level Dataset

Notes: Performance reflects performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015, using the July 2016 data release on loans with LTV > 80 and <= 97%. Values represent the monthly average proportion UPB with beginning delinquency status (indicated by row heading) that transitions into the ending delinquency status (as indicated by column heading). Data is weighted in proportion to 2016-HQA4 FICO and LTV cohorts. Current loans also include voluntary prepayments and repurchases. 180+ also includes liquidations.

HQ Proxy Cohort Historical Severities

Vintage	Cum D180 (A)	Liquidated (B)	Severity (C)	Cum. Loss (D=B*C)
1999	1.5%	0.8%	6.7%	0.1%
2000	1.6%	0.9%	5.9%	0.1%
2001	1.7%	1.2%	12.4%	0.1%
2002	2.1%	1.6%	17.2%	0.3%
2003	3.5%	2.5%	22.0%	0.5%
2004	6.1%	3.7%	23.5%	0.9%
2005	9.6%	7.1%	26.6%	1.9%
2006	13.7%	9.8%	28.7%	2.8%
2007	15.5%	11.6%	26.3%	3.0%
2008	12.0%	8.4%	22.8%	1.9%
2009	2.2%	2.2%	13.8%	0.3%
2010	0.7%	0.7%	9.9%	0.1%
2011	0.9%	0.3%	9.0%	0.0%
2012	0.3%	0.1%	6.5%	0.0%
2013	0.1%	0.0%	7.0%	0.0%
2014	0.6%	0.0%	5.0%	0.0%



Source: Freddie Mac Single Family Loan-Level Dataset

Notes: Performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015

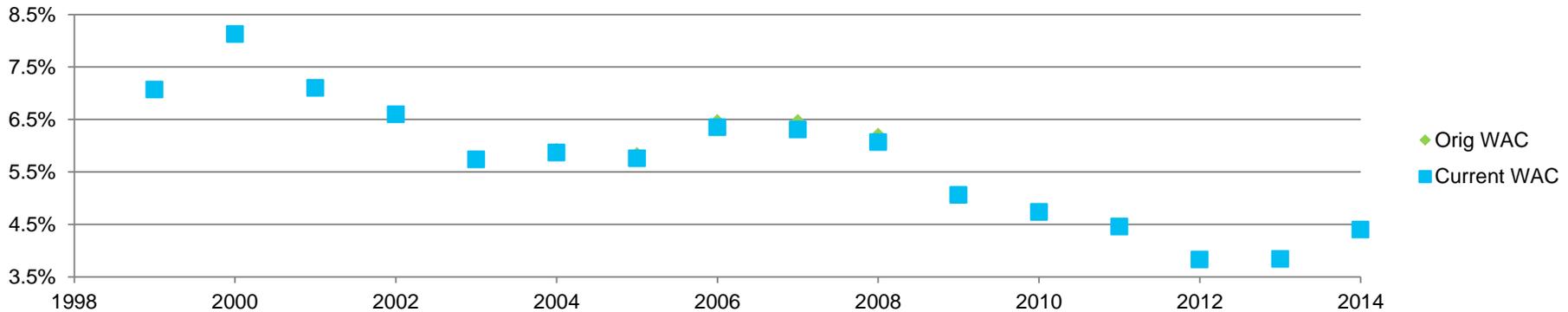
Cumulative Losses do not include modification losses

Loans with Repurchase flag = Y have been set to zero loss

Data is weighted in proportion to 2016-HQA4 FICO and LTV cohorts

Proxy Cohort Historical Modifications

Vintage	Current Pool Factor	Cumulative Principal Loss	Cumulative Modification Loss	Modification Loss as % of Principal Loss	Ever Modified %	Proxy Cohort Stats as of 4Q 2015		
						Orig WAC	Current WAC	Current Mod WAC SF
1999	1.0%	0.1%	0.0%	8.4%	0.3%	7.1%	7.1%	0.0%
2000	0.5%	0.1%	0.0%	8.1%	0.3%	8.1%	8.1%	0.0%
2001	1.4%	0.2%	0.0%	6.8%	0.4%	7.1%	7.1%	0.0%
2002	3.2%	0.4%	0.0%	8.2%	0.7%	6.6%	6.6%	0.0%
2003	7.8%	0.8%	0.1%	9.1%	1.3%	5.8%	5.7%	0.0%
2004	10.0%	1.3%	0.1%	11.4%	2.2%	5.9%	5.9%	0.0%
2005	11.6%	2.9%	0.3%	9.5%	3.7%	5.8%	5.8%	0.1%
2006	9.9%	3.7%	0.5%	12.8%	4.8%	6.5%	6.4%	0.1%
2007	11.6%	3.8%	0.7%	18.4%	6.6%	6.5%	6.3%	0.1%
2008	11.1%	2.0%	0.6%	31.0%	6.2%	6.2%	6.1%	0.1%
2009	21.6%	0.3%	0.1%	27.1%	1.7%	5.1%	5.1%	0.0%
2010	33.7%	0.1%	0.0%	22.8%	0.7%	4.7%	4.7%	0.0%
2011	42.7%	0.0%	0.0%	16.3%	0.5%	4.5%	4.5%	0.0%
2012	70.2%	0.0%	0.0%	1.5%	0.2%	3.8%	3.8%	0.0%
2013	74.9%	0.0%	0.0%	2.7%	0.1%	3.8%	3.8%	0.0%
2014	81.9%	0.0%	0.0%	66.6%	0.0%	4.4%	4.4%	0.0%



Source: Freddie Mac Single Family Loan-Level Dataset
Notes: Performance data: 1999-4Q2015, losses reported for loans liquidated as of 3Q2015
 Cumulative Losses do not include modification losses
 Loans with Repurchase flag = Y have been set to zero loss
 Data is weighted in proportion to 2016-HQA4 FICO and LTV cohorts

Freddie Mac Key Contacts

Team Member	Email Address	Business Phone
James Amico Vice President, Costing and Analytics	James_Amico@freddiemac.com	(571) 382-3095
Michael S. Reynolds Vice President, STACR	michael_s_reynolds@freddiemac.com	(571) 382-4852
Rushi Patel Director, Costing and Analytics	rushi_patel@freddiemac.com	(571) 382-4524
Christian Valencia Director, STACR	christian_valencia@freddiemac.com	(571) 382-3727