



Single Family Loan-Level Dataset

Summary Statistics

March 2014

Background

- Freddie Mac is making the Single Family Loan-Level Dataset available at the direction of its regulator, the Federal Housing Finance Agency (FHFA) as part of a larger effort to increase transparency and help investors build more accurate credit performance models in support of the risk-sharing initiatives highlighted in FHFA's 2013 Conservatorship Scorecard.¹
- The Single Family Loan-Level Dataset includes loan-level origination and monthly loan performance data on a portion of Single Family mortgages acquired by Freddie Mac. Approximately 16 million loans are in the "full" Single Family Loan-Level Dataset, meeting the following selection criteria²:
 - » Fully amortizing, 30-year fixed-rate mortgages originated from January 1, 1999, through December 31, 2012, with monthly loan performance data through June 30, 2013, that were sold to Freddie Mac or issued in Freddie Mac Participation Certificates (PCs)
 - » Mortgages categorized as having verified or waived documentation (i.e. "full documentation")
- Freddie Mac has created a smaller dataset for those who may not require, or have the capability, to download the full dataset.
 - » The sample dataset is a simple random sample³ of 50,000 loans selected from each vintage year of the full Single Family Loan-Level Dataset, totaling 700,000 loans.

The purpose of this document is to provide summary statistics of key loan attributes by vintage year for both the full Single Family Loan-Level Dataset and the sample, to assist users with data review and validation.

¹ The 2013 Conservatorship Scorecard can be found at <http://www.fhfa.gov/webfiles/25023/2013EnterpriseScorecard3413.pdf>

² Refer to the Appendix for a summary of the criteria excluding loans from the Single Family Loan-Level Dataset.

³ In simple random sampling, each loan in the full Single Family Loan-Level Dataset has an equal probability of being selected once for inclusion in the sample dataset. A simple random sample is meant to be an unbiased representation of the larger population.

Full Volume Dataset Origination Summary Statistics



Single-Family Loan-Level Dataset Full Volume Dataset – Origination Summary Statistics								
Year	Loan Count	Total Original UPB (\$B)	Average Original UPB (\$)	Credit Score ¹	Original Combined Loan-to-Value (CLTV) Ratio ¹	Original Loan-to-Value (LTV) Ratio ¹	Original Debt-to-Income (DTI) Ratio ¹	Weighted Average Coupon (WAC) ¹
1999	1,095,156	137.9	125,940	712	77.6	77.5	33.2	7.28
2000	786,571	103.7	131,816	712	78.8	78.2	35.2	8.12
2001	1,756,934	259.7	147,791	716	76.2	75.5	33.7	6.97
2002	1,684,824	262.0	155,515	718	74.8	73.8	33.9	6.53
2003	1,929,581	311.5	161,428	725	73.5	72.2	32.8	5.74
2004	1,130,870	188.5	166,654	718	75.4	73.6	35.6	5.82
2005	1,323,987	239.9	181,195	724	74.1	72.2	36.9	5.84
2006	1,082,979	202.5	186,958	723	75.7	72.9	38.0	6.40
2007	1,069,457	202.2	189,021	723	77.2	74.3	38.1	6.36
2008	985,840	209.8	212,816	741	73.8	72.0	37.8	6.04
2009	1,513,232	344.6	227,701	763	69.0	67.1	32.8	4.99
2010	788,322	176.7	224,140	762	71.3	69.9	33.3	4.78
2011	555,716	131.1	235,855	763	72.4	71.1	33.4	4.56
2012	787,198	191.8	243,652	766	72.6	71.4	32.2	3.80
Total	16,490,667	2,961.7	179,598	734	74.1	72.5	34.7	5.87

¹ Weighted averages using Original UPB

Full Volume Dataset Performance Summary Statistics



Single-Family Loan-Level Dataset Full Volume Dataset – Performance Summary Statistics ¹								
Year	Prepay % ²	Cumulative Credit Event % ³	Cumulative Modification % ⁴	Cumulative Post-Credit Event Repurchase % ⁵	% of Original UPB Remaining ⁶	UPB-Weighted Cumulative Credit Event % ⁷	UPB-Weighted Cumulative Modification % ⁸	UPB-Weighted Cumulative Post-Credit Event Repurchase % ⁹
1999	94.7%	2.2%	0.3%	0.2%	1.5%	1.7%	0.2%	0.2%
2000	96.3%	2.3%	0.3%	0.4%	0.7%	1.7%	0.3%	0.3%
2001	94.0%	2.4%	0.3%	0.4%	1.9%	1.7%	0.3%	0.3%
2002	89.8%	2.8%	0.4%	0.3%	4.2%	2.0%	0.3%	0.2%
2003	79.9%	3.3%	0.5%	0.1%	11.2%	2.7%	0.5%	0.1%
2004	75.3%	5.3%	1.0%	0.1%	13.5%	4.7%	1.0%	0.1%
2005	69.3%	8.8%	1.7%	0.2%	16.2%	8.7%	1.9%	0.2%
2006	69.9%	11.5%	2.4%	0.7%	13.7%	11.8%	2.7%	0.7%
2007	64.6%	13.2%	2.8%	1.3%	16.6%	13.7%	3.2%	1.4%
2008	70.3%	7.6%	1.6%	1.0%	15.9%	7.7%	1.8%	1.1%
2009	57.8%	0.9%	0.1%	0.1%	32.1%	0.8%	0.1%	0.1%
2010	42.7%	0.4%	0.0%	0.0%	46.3%	0.3%	0.0%	0.0%
2011	33.4%	0.1%	0.0%	0.0%	56.2%	0.1%	0.0%	0.0%
2012	6.4%	0.0%	0.0%	0.0%	90.0%	0.0%	0.0%	0.0%
Total	71.9%	4.4%	0.8%	0.3%	22.0%	4.1%	0.9%	0.3%

¹ Reflects monthly performance data through March 31, 2013

² Count of loans that prepaid in full or were repurchased prior to D180 (Zero Balance Code = 01 or 06) divided by Loan Count; partial prepayments (curtailments) are excluded from the calculation

³ Count of loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 02, 03, 04, 08, or 97) divided by Loan Count

⁴ Count of loans that were modified prior to D-180 divided by Loan Count. For loans modified more than once prior to D-180, count each modification separately.

⁵ Count of loans that were terminated in the dataset due to a non-prepayment credit event (see Footnote 3) and subsequently repurchased (Zero Balance Code = 02, 03, 04, 08, or 97 AND repurchase flag = 'Y'), divided by Loan Count

⁶ Calculated by dividing the ending UPB of all active loans (those loans for which the Zero Balance Code is null in the terminal record) by the Total Original UPB. If the ending UPB on the terminal record is null, determine the UPB by using the following priority: 1. Use the Current Actual UPB from the previous period; 2. if the Current Actual UPB in the previous period is null, use the Original UPB.

⁷ Calculated by dividing the sum of the pre-credit event UPB by the Total Original UPB. The calculation does not include Prepayments or pre-D180 Repurchases (Zero Balance Code = 01 or 06). The UPB is determined using the priority in Footnote 6.

⁸ Calculated by dividing the sum of the modification UPB by the Total Original UPB. The modification UPB is the current actual UPB as of the month of modification (modification flag = 'Y'). For repeat modifications, the modification UPB of each is included.

⁹ Calculated by dividing the sum of the post-credit event repurchase UPB by the Total Original UPB, for loans that were terminated due to a non-prepayment credit event (see Footnote 3) and subsequently repurchased (Zero Balance Code = 02, 03, 04, 08, or 97 AND repurchase flag = 'Y'). See Footnote 6 for determining the post-credit event repurchase UPB.

Sample Dataset

Origination Summary Statistics



Single-Family Loan-Level Dataset Sample Dataset – Origination Summary Statistics								
Year	Loan Count	Total Original UPB (\$B)	Average Original UPB (\$)	Credit Score ¹	Original Combined Loan-to-Value (CLTV) Ratio ¹	Original Loan-to-Value (LTV) Ratio ¹	Original Debt-to-Income (DTI) Ratio ¹	Weighted Average Coupon (WAC) ¹
1999	50,000	6.3	126,382	712	77.6	77.5	33.2	7.28
2000	50,000	6.6	131,702	713	78.9	78.3	35.1	8.12
2001	50,000	7.4	147,406	716	76.3	75.5	33.6	6.97
2002	50,000	7.8	155,584	718	74.8	73.8	33.9	6.53
2003	50,000	8.1	161,749	725	73.4	72.1	32.6	5.74
2004	50,000	8.4	167,318	718	75.4	73.6	35.7	5.82
2005	50,000	9.1	181,209	724	74.1	72.2	37.0	5.84
2006	50,000	9.4	187,274	724	75.6	72.9	38.1	6.40
2007	50,000	9.5	189,036	724	77.2	74.3	38.1	6.36
2008	50,000	10.6	212,588	741	73.8	72.0	37.9	6.04
2009	50,000	11.4	228,157	763	68.9	67.1	32.8	4.99
2010	50,000	11.2	224,489	762	71.3	69.8	33.1	4.78
2011	50,000	11.8	235,466	763	72.5	71.2	33.4	4.56
2012	50,000	12.2	243,242	766	72.6	71.4	32.2	3.84
Total	700,000	129.6	185,114	737	74.1	72.5	34.7	5.75

¹ Weighted averages using Original UPB

Sample Dataset Performance Summary Statistics



Single-Family Loan-Level Dataset Sample Dataset – Performance Summary Statistics ¹								
Year	Prepay % ²	Cumulative Credit Event % ³	Cumulative Modification % ⁴	Cumulative Post-Credit Event Repurchase % ⁵	% of Original UPB Remaining ⁶	UPB-Weighted Cumulative Credit Event % ⁷	UPB-Weighted Cumulative Modification % ⁸	UPB-Weighted Cumulative Post-Credit Event Repurchase % ⁹
1999	94.7%	2.3%	0.3%	0.3%	1.5%	1.8%	0.3%	0.2%
2000	96.4%	2.2%	0.2%	0.3%	0.7%	1.6%	0.2%	0.3%
2001	93.9%	2.4%	0.3%	0.4%	1.9%	1.7%	0.2%	0.3%
2002	89.8%	2.8%	0.4%	0.3%	4.3%	2.0%	0.4%	0.2%
2003	80.0%	3.3%	0.5%	0.1%	11.2%	2.7%	0.5%	0.1%
2004	75.7%	5.3%	1.0%	0.1%	13.1%	4.6%	0.9%	0.1%
2005	69.3%	8.8%	1.7%	0.2%	16.2%	8.7%	1.8%	0.2%
2006	70.1%	11.3%	2.5%	0.7%	13.7%	11.6%	2.8%	0.7%
2007	64.7%	13.1%	2.8%	1.2%	16.6%	13.6%	3.3%	1.3%
2008	70.1%	7.7%	1.5%	1.0%	16.0%	7.7%	1.7%	1.0%
2009	58.2%	0.9%	0.1%	0.1%	31.7%	0.8%	0.1%	0.1%
2010	42.7%	0.3%	0.0%	0.0%	46.4%	0.3%	0.0%	0.0%
2011	33.5%	0.1%	0.0%	0.0%	56.2%	0.1%	0.0%	0.0%
2012	7.7%	0.0%	0.0%	0.0%	88.2%	0.0%	0.0%	0.0%
Total	67.6%	4.3%	0.8%	0.3%	26.8%	4.0%	0.9%	0.3%

¹ Reflects monthly performance data through March 31, 2013

² Count of loans that prepaid in full or were repurchased prior to D180 (Zero Balance Code = 01 or 06) divided by Loan Count; partial prepayments (curtailments) are excluded from the calculation

³ Count of loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 02, 03, 04, 08, or 97) divided by Loan Count

⁴ Count of loans that were modified prior to D-180 divided by Loan Count. For loans modified more than once prior to D-180, count each modification separately.

⁵ Count of loans that were terminated in the dataset due to a non-prepayment credit event (see Footnote 3) and subsequently repurchased (Zero Balance Code = 02, 03, 04, 08, or 97 AND repurchase flag = 'Y'), divided by Loan Count

⁶ Calculated by dividing the ending UPB of all active loans (those loans for which the Zero Balance Code is null in the terminal record) by the Total Original UPB. If the ending UPB on the terminal record is null, determine the UPB by using the following priority: 1. Use the Current Actual UPB from the previous period; 2. If the Current Actual UPB in the previous period is null, use the Original UPB.

⁷ Calculated by dividing the sum of the pre-credit event UPB by the Total Original UPB. The calculation does not include Prepayments or pre-D180 Repurchases (Zero Balance Code = 01 or 06). The UPB is determined using the priority in Footnote 6.

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⁹ Calculated by dividing the sum of the post-credit event repurchase UPB by the Total Original UPB, for loans that were terminated due to a non-prepayment credit event (see Footnote 3) and subsequently repurchased (Zero Balance Code = 02, 03, 04, 08, or 97 AND repurchase flag = 'Y'). See Footnote 6 for determining the post-credit event repurchase UPB.

Origination Data Variance



Single-Family Loan-Level Dataset Origination Summary Statistics – Variances (Sample – Full)						
Year	Average Original UPB (\$)	Credit Score	Original Combined Loan-to-Value (CLTV) Ratio	Original Loan-to-Value (LTV) Ratio	Original Debt-to-Income (DTI) Ratio	Weighted Average Coupon (WAC)
1999	443	-0.1	0.0	0.0	0.0	0.0
2000	-114	0.1	0.1	0.1	-0.1	0.0
2001	-385	0.0	0.1	0.1	0.0	0.0
2002	69	-0.1	0.0	0.0	0.0	0.0
2003	322	0.4	-0.1	-0.1	-0.2	0.0
2004	664	-0.4	0.0	0.0	0.0	0.0
2005	15	-0.2	0.0	0.0	0.0	0.0
2006	316	0.4	0.0	-0.1	0.1	0.0
2007	15	0.3	0.0	0.0	0.0	0.0
2008	-228	0.2	0.0	0.0	0.1	0.0
2009	456	0.0	0.0	0.0	0.0	0.0
2010	349	0.0	0.0	-0.1	-0.1	0.0
2011	-389	0.1	0.0	0.0	0.0	0.0
2012	-410	0.2	0.1	0.0	0.0	0.0

Totals are not included due to the different weights assigned to each vintage in the full volume dataset (Total Actual Original UPBs by vintage year) versus the sample dataset (fixed loan count by vintage year) producing meaningless comparisons at the aggregate level.

Performance Data Variance

Single-Family Loan-Level Dataset Performance Summary Statistics – Variances (Sample – Full)								
Year	Prepay %	Cumulative Credit Event %	Cumulative Modification %	Cumulative Post-Credit Event Repurchase %	% of Original UPB Remaining	UPB-Weighted Cumulative Credit Event %	UPB-Weighted Cumulative Modification %	Cumulative UPB-Weighted Post-Credit Event Repurchase %
1999	-0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
2000	0.1%	-0.1%	-0.1%	-0.1%	0.0%	-0.1%	-0.1%	-0.1%
2001	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2002	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2003	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2004	0.4%	0.0%	0.0%	0.0%	-0.4%	-0.1%	0.0%	0.0%
2005	0.0%	0.0%	-0.1%	0.0%	-0.1%	0.0%	-0.1%	0.0%
2006	0.2%	-0.1%	0.1%	0.0%	0.0%	-0.2%	0.1%	0.0%
2007	0.1%	-0.1%	0.0%	-0.1%	0.0%	-0.2%	0.1%	-0.1%
2008	-0.2%	0.1%	-0.1%	0.0%	0.1%	0.1%	-0.1%	0.0%
2009	0.4%	0.0%	0.0%	0.0%	-0.4%	0.0%	0.0%	0.0%
2010	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
2011	0.1%	0.0%	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%
2012	1.3%	0.0%	0.0%	0.0%	-1.8%	0.0%	0.0%	0.0%

Totals are not included due to the different weights assigned to each vintage in the full volume dataset (Total Actual Original UPBs by vintage year) versus the sample dataset (fixed loan count by vintage year) producing meaningless comparisons at the aggregate level.

Additional Information

- For additional information, please visit our Web site at FreddieMac.com in the Economic & Housing Research Data area: http://www.freddiemac.com/news/finance/sf_loanlevel_dataset.html
- For support with technical issues related to downloading the Single Family Loan-Level Dataset files, please send an email to **support@embs.com**
- For support with data questions related to the Single Family Loan-Level Dataset, please send an email to **SF_Loan_Level_Data_Inquiry@freddiemac.com**

Appendix: Loan Exclusion Criteria

- The following types of mortgages were excluded from the Single Family Loan-Level Dataset:
 - » Adjustable Rate Mortgages (ARMs), Initial Interest, balloons, and any mortgages with step rates
 - » Relief Refinance mortgages (including Home Affordable Refinance Program, or HARP)
 - » Government-insured mortgages, including Federal Housing Administration/Veterans Affairs (FHA/VA), Guaranteed Rural Housing (GRH), and HUD-Guaranteed Section 184 Native American mortgages
 - » Home Possible®/Home Possible Neighborhood Solution® Mortgages and other affordable mortgages (including lender branded affordable loan products)
 - » Mortgages delivered to Freddie Mac under alternate agreements
 - » Mortgages for which the documentation is not verified or not waived
 - » Mortgages associated with Mortgage Revenue Bonds purchased by Freddie Mac
 - » Mortgages delivered to Freddie Mac with credit enhancements other than primary mortgage insurance, with the exception of certain lender-negotiated credit enhancements
 - » Mortgages with original loan terms of 420 months or more, and 300 months or less

Appendix: Loan Termination Events

- Loan performance information in the Single Family Loan-Level Dataset includes monthly loan balance, delinquency status and certain workout information up to and including the earliest of the following termination events:
 - » Voluntary prepayments in full
 - » 180 days delinquency (“D180”)
 - » Repurchases prior to D180
 - » Third-party sales prior to D180
 - » Short sales prior to D180
 - » Deeds-in-lieu of foreclosure prior to D180
 - » Real estate owned (REO) acquisition prior to D180