

# Single Family Loan-Level Dataset Summary Statistics

**March 2018**

# 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 Conservatorship Scorecard.<sup>1</sup>
- The Single Family Loan-Level Dataset includes loan-level origination and loan performance and actual loss data on a portion of Single Family mortgages acquired by Freddie Mac. Approximately 24.6 million loans are in the “full” Single Family Loan-Level Dataset, and additional approximately 1 million loans in the Single Family HARP Loan-Level Dataset, meeting the following selection criteria<sup>2</sup>:
  - » Fully amortizing, 30-year fixed-rate mortgages originated from January 1, 1999, through March 31, 2017 with monthly loan performance data through September 30, 2017 that were sold to Freddie Mac or issued in Freddie Mac Participation Certificates (PCs).
  - » Fully amortizing, fixed-rate mortgages originated from January 1, 2005, through March 31, 2017 with monthly loan performance data through September 30, 2017 that were sold to Freddie Mac or backed by 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 sample<sup>3</sup> of 50,000 loans selected from each vintage year of the full Single Family Loan-Level Dataset, totaling 912,500 loans. This sample dataset doesn’t include loans from the Single Family HARP Loan-Level Dataset.

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<sup>1</sup>The 2018 Conservatorship Scorecard can be found at

<https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/2018-Scorecard-12212017.pdf>

<sup>2</sup> Refer to the Appendix A for a summary of the criteria excluding loans from the Single Family Loan-Level Dataset

<sup>3</sup> 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 |                   |                          |                           |                           |   |   |  |  |
|--|-------------------|--------------------------|---------------------------|---------------------------|---|---|--|--|
| Year   | Loan Count        | Total Original UPB (\$B) | Average Original UPB (\$) | Credit Score <sup>1</sup> | Original Combined Loan-to-Value (CLTV) Ratio <sup>1</sup> | Original Loan-to-Value (LTV) Ratio <sup>1</sup> | Original Debt-to-Income (DTI) Ratio <sup>1</sup> | Weighted Average Coupon (WAC) <sup>1</sup> |
| 1999   | 1,095,011         | 137.91                   | 125,942                   | 712                       | 77.6  | 77.5  | 33.2   | 7.3  |
| 2000   | 786,274           | 103.65                   | 131,824                   | 712                       | 78.8  | 78.2  | 35.2   | 8.1  |
| 2001   | 1,755,373         | 259.45                   | 147,802                   | 715                       | 76.2  | 75.5  | 33.7   | 7.0  |
| 2002   | 1,682,968         | 261.71                   | 155,507                   | 718                       | 74.8  | 73.8  | 34.0   | 6.5  |
| 2003   | 1,926,981         | 311.16                   | 161,476                   | 725                       | 73.5  | 72.1  | 32.8   | 5.7  |
| 2004   | 1,127,622         | 188.06                   | 166,779                   | 718                       | 75.3  | 73.6  | 35.6   | 5.8  |
| 2005   | 1,690,906         | 289.24                   | 171,056                   | 725                       | 72.2  | 70.5  | 36.3   | 5.8  |
| 2006   | 1,260,689         | 226.56                   | 179,708                   | 724                       | 74.2  | 71.7  | 37.6   | 6.4  |
| 2007   | 1,220,399         | 223.88                   | 183,447                   | 725                       | 75.8  | 73.1  | 37.8   | 6.3  |
| 2008   | 1,179,217         | 240.17                   | 203,665                   | 742                       | 72.5  | 70.7  | 37.2   | 6.0  |
| 2009   | 1,973,846         | 423.18                   | 214,391                   | 763                       | 67.7  | 65.9  | 32.3   | 4.9  |
| 2010   | 1,270,360         | 265.15                   | 208,719                   | 764                       | 68.6  | 67.1  | 32.2   | 4.6  |
| 2011   | 953,775           | 207.9                    | 217,977                   | 765                       | 69.3  | 67.9  | 32.3   | 4.3  |
| 2012   | 1,330,077         | 295.73                   | 222,339                   | 767                       | 69.9  | 68.6  | 31.4   | 3.6  |
| 2013   | 1,299,676         | 283.33                   | 218,004                   | 760                       | 72.5  | 71.4  | 32.6   | 3.8  |
| 2014   | 970,886           | 212.75                   | 219,134                   | 752                       | 76.8  | 76.0  | 34.4   | 4.3  |
| 2015   | 1,307,243         | 298.98                   | 228,712                   | 753                       | 75.1  | 74.3  | 34.4   | 4.0  |
| 2016   | 1,557,866         | 375.8                    | 241,227                   | 752                       | 74.3  | 73.6  | 34.6   | 3.8  |
| 2017   | 254,794           | 58.85                    | 230,984                   | 747                       | 74.6  | 74.0  | 35.8   | 4.2  |
| <b>Total</b>   | <b>24,643,963</b> | <b>4663.46</b>           | <b>189,233</b>            | <b>742</b>                | <b>73.1</b>   | <b>71.8</b>                                     | <b>34.1</b>                                      | <b>5.2</b>                                 |

<sup>1</sup> Weighted averages using Original UPB

### Full Volume Dataset – Performance Summary Statistics<sup>1</sup>

| Year         | Loan Count        | Prepay % <sup>2</sup> | Cumulative Default Event % <sup>3</sup> | Remaining % <sup>4</sup> | Cumulative Post-Default Event Repurchase % <sup>5</sup> | Ever D180 % <sup>6</sup> | D180 and Pre-D180 Credit Event % <sup>7</sup> | Cumulative Modification % <sup>8</sup> | Ever D120 % <sup>9</sup> | Ever D120 and Pre-D120 Credit Event % <sup>10</sup> | Pre-D120 Modification rate <sup>11</sup> | Cumulative Loss amount (\$ B) <sup>12</sup> |
|--------------|-------------------|-----------------------|---|--------------------------|---|--------------------------|---|--|--------------------------|---|--|---|
| 1999         | 1,095,011         | 96.8%                 | 1.3%                                    | 1.9%                     | 0.1%  | 2.1%                     | 2.3%  | 0.6%                                   | 2.9%                     | 3.0%  | 0.1%                                     | 0.2   |
| 2000         | 786,274           | 97.6%                 | 1.4%                                    | 1.0%                     | 0.2%  | 2.1%                     | 2.3%  | 0.6%                                   | 2.8%                     | 2.9%  | 0.1%                                     | 0.2   |
| 2001         | 1,755,373         | 96.3%                 | 1.6%                                    | 2.1%                     | 0.2%  | 2.3%                     | 2.5%  | 0.7%                                   | 3.1%                     | 3.1%  | 0.1%                                     | 0.8   |
| 2002         | 1,682,968         | 94.1%                 | 2.0%                                    | 3.9%                     | 0.2%  | 2.8%                     | 3.1%  | 0.9%                                   | 3.7%                     | 3.7%  | 0.1%                                     | 1.1   |
| 2003         | 1,926,981         | 89.3%                 | 2.3%                                    | 8.4%                     | 0.1%  | 3.5%                     | 3.8%  | 1.4%                                   | 4.5%                     | 4.6%  | 0.2%                                     | 1.8   |
| 2004         | 1,127,622         | 86.2%                 | 3.8%                                    | 9.9%                     | 0.2%  | 5.7%                     | 6.1%  | 2.5%                                   | 7.0%                     | 7.2%  | 0.3%                                     | 2.2   |
| 2005         | 1,690,906         | 82.7%                 | 5.7%                                    | 11.6%                    | 0.2%  | 8.0%                     | 8.6%  | 3.7%                                   | 9.6%                     | 9.8%  | 0.5%                                     | 7.1   |
| 2006         | 1,260,689         | 82.1%                 | 8.0%                                    | 9.9%                     | 0.4%  | 10.8%                    | 11.6%   | 5.1%                                   | 12.6%                    | 13.0%   | 0.8%                                     | 8.8   |
| 2007         | 1,220,399         | 79.7%                 | 9.0%                                    | 11.3%                    | 0.8%  | 12.7%                    | 13.6%   | 6.2%                                   | 14.8%                    | 15.1%   | 0.9%                                     | 9.2   |
| 2008         | 1,179,217         | 85.0%                 | 4.6%                                    | 10.3%                    | 0.4%  | 7.4%                     | 7.8%  | 3.8%                                   | 8.7%                     | 8.9%  | 0.4%                                     | 4.4   |
| 2009         | 1,973,846         | 80.7%                 | 0.6%                                    | 18.7%                    | 0.0%  | 1.1%                     | 1.2%  | 0.5%                                   | 1.5%                     | 1.5%  | 0.0%                                     | 0.8   |
| 2010         | 1,270,360         | 69.8%                 | 0.3%                                    | 29.9%                    | 0.0%  | 0.7%                     | 0.7%  | 0.3%                                   | 0.9%                     | 0.9%  | 0.0%                                     | 0.2   |
| 2011         | 953,775           | 60.9%                 | 0.1%                                    | 39.0%                    | 0.0%  | 0.4%                     | 0.4%  | 0.2%                                   | 0.6%                     | 0.6%  | 0.0%                                     | 0.1   |
| 2012         | 1,330,077         | 35.0%                 | 0.1%                                    | 64.9%                    | 0.0%  | 0.2%                     | 0.2%  | 0.1%                                   | 0.3%                     | 0.3%  | 0.0%                                     | 0   |
| 2013         | 1,299,676         | 31.7%                 | 0.1%                                    | 68.3%                    | 0.0%  | 0.2%                     | 0.2%  | 0.1%                                   | 0.4%                     | 0.4%  | 0.0%                                     | 0   |
| 2014         | 970,886           | 35.4%                 | 0.0%                                    | 64.5%                    | 0.0%  | 0.3%                     | 0.3%  | 0.2%                                   | 0.4%                     | 0.4%  | 0.0%                                     | 0   |
| 2015         | 1,307,243         | 18.4%                 | 0.0%                                    | 81.6%                    | 0.0%  | 0.1%                     | 0.1%  | 0.1%                                   | 0.2%                     | 0.2%  | 0.0%                                     | 0   |
| 2016         | 1,557,866         | 6.0%                  | 0.0%                                    | 94.0%                    | 0.0%  | 0.0%                     | 0.0%  | 0.0%                                   | 0.1%                     | 0.1%  | 0.0%                                     | 0   |
| 2017         | 254,794           | 2.8%                  | .                                       | 97.2%                    | .   | 0.0%                     | 0.0%  | 0.0%                                   | 0.0%                     | 0.0%  | .  | .   |
| <b>Total</b> | <b>24,643,963</b> | <b>68.3%</b>          | <b>2.3%</b>                             | <b>29.5%</b>             | <b>0.1%</b>   | <b>3.3%</b>              | <b>3.6%</b>                                   | <b>1.5%</b>                            | <b>4.1%</b>              | <b>4.2%</b>   | <b>0.2%</b>                              | <b>37</b>                                   |

<sup>1</sup> Reflects monthly performance data through September 30, 2017

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

<sup>3</sup> Count of loans that were terminated in the dataset due to a non-prepayment default event (Zero Balance Code = 03 or 09) divided by Loan Count

<sup>4</sup> Count of active loans, divided by Loan Count

<sup>5</sup> Count of loans that were terminated in the dataset due to a non-prepayment default event and subsequently repurchased (Zero Balance Code = 03 or 09 AND repurchase flag = 'Y'), divided by Loan Count

<sup>6</sup> Count of loans that reached a delinquency status of D180, including at REO Acquisition, divided by Loan Count

<sup>7</sup> Count of loans that reached a delinquency status of D180, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 03 or 09) divided by Loan Count.

<sup>8</sup> Count of loans that were modified divided by Loan Count. Repeat mods on a loan are not part of the calculation.

<sup>9</sup> Count of loans that reached a delinquency status of D120, including at REO Acquisition, divided by loan count.

<sup>10</sup> Count of loans that reached a delinquency status of D120, including at REO acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 03 or 09) divided by Loan Count.

<sup>11</sup> Count of loans that were modified at or before a delinquency status of D120 divided by Loan count. Repeat modifications on a loan are not part of the calculation.

<sup>12</sup> Sum of actual loss column for loans with a non-prepayment credit event (zero balance code = 03 or 09).

**Full Volume Dataset – Performance Summary Statistics<sup>1</sup> (Cont'd)**

| Year         | Total Original UPB (\$B) | % of Original UPB Prepaid <sup>2</sup> | UPB-Weighted Cumulative Default Event % <sup>3</sup> | % of Original UPB Remaining <sup>4</sup> | UPB-Weighted Cumulative Post-Default Event Repurchase % <sup>5</sup> | % of Original UPB Ever D180 <sup>6</sup> | % of Original UPB D180 and Pre D180 Credit Event <sup>7</sup> | UPB-Weighted Cumulative Modification % <sup>8</sup> | UPB weighted Ever D120% <sup>9</sup> | UPB Weighted Ever D120 and Pre-D120 Credit Event% <sup>10</sup> | UPB Weighted Pre-D120 Modification rate <sup>11</sup> |
|--------------|--------------------------|--|--|--|--|--|---|---|--------------------------------------|---|---|
| 1999         | 137.91                   | 91.4%                                  | 0.9%   | 0.8%                                     | 0.1%   | 2.3%                                     | 2.3%  | 0.1%  | 1.6%                                 | 1.7%  | 0.5%  |
| 2000         | 103.65                   | 95.6%                                  | 1.0%   | 0.4%                                     | 0.2%   | 2.1%                                     | 2.2%  | 0.1%  | 1.6%                                 | 1.7%  | 0.5%  |
| 2001         | 259.45                   | 93.5%                                  | 1.1%   | 1.0%                                     | 0.2%   | 2.2%                                     | 2.2%  | 0.1%  | 1.6%                                 | 1.8%  | 0.5%  |
| 2002         | 261.71                   | 90.6%                                  | 1.3%   | 1.9%                                     | 0.1%   | 2.5%                                     | 2.6%  | 0.1%  | 1.9%                                 | 2.1%  | 0.7%  |
| 2003         | 311.16                   | 81.3%                                  | 1.7%   | 4.7%                                     | 0.1%   | 3.5%                                     | 3.6%  | 0.1%  | 2.8%                                 | 3.0%  | 1.3%  |
| 2004         | 188.06                   | 79.4%                                  | 3.1%   | 6.0%                                     | 0.1%   | 6.0%                                     | 6.2%  | 0.3%  | 4.9%                                 | 5.3%  | 2.4%  |
| 2005         | 289.24                   | 72.7%                                  | 5.5%   | 6.8%                                     | 0.2%   | 9.3%                                     | 9.5%  | 0.6%  | 7.9%                                 | 8.4%  | 3.9%  |
| 2006         | 226.56                   | 75.7%                                  | 8.1%   | 6.6%                                     | 0.5%   | 12.8%                                    | 13.1%   | 0.9%  | 11.0%                                | 11.8%   | 5.6%  |
| 2007         | 223.88                   | 74.9%                                  | 9.1%   | 7.8%                                     | 0.8%   | 15.1%                                    | 15.5%   | 1.0%  | 13.1%                                | 14.0%   | 6.8%  |
| 2008         | 240.17                   | 81.5%                                  | 4.4%   | 6.4%                                     | 0.4%   | 8.6%                                     | 8.8%  | 0.5%  | 7.4%                                 | 7.7%  | 4.0%  |
| 2009         | 423.18                   | 76.3%                                  | 0.5%   | 11.1%                                    | 0.0%   | 1.3%                                     | 1.3%  | 0.0%  | 1.0%                                 | 1.1%  | 0.5%  |
| 2010         | 265.15                   | 67.4%                                  | 0.2%   | 18.4%                                    | 0.0%   | 0.7%                                     | 0.7%  | 0.0%  | 0.5%                                 | 0.6%  | 0.3%  |
| 2011         | 207.9                    | 60.5%                                  | 0.1%   | 25.2%                                    | 0.0%   | 0.5%                                     | 0.5%  | 0.0%  | 0.3%                                 | 0.3%  | 0.2%  |
| 2012         | 295.73                   | 32.4%                                  | 0.0%   | 51.0%                                    | 0.0%   | 0.2%                                     | 0.2%  | 0.0%  | 0.2%                                 | 0.2%  | 0.1%  |
| 2013         | 283.33                   | 30.4%                                  | 0.0%   | 56.1%                                    | 0.0%   | 0.3%                                     | 0.3%  | 0.0%  | 0.2%                                 | 0.2%  | 0.1%  |
| 2014         | 212.75                   | 38.6%                                  | 0.0%   | 53.7%                                    | 0.0%   | 0.4%                                     | 0.4%  | 0.0%  | 0.2%                                 | 0.2%  | 0.2%  |
| 2015         | 298.98                   | 19.8%                                  | 0.0%   | 74.1%                                    | 0.0%   | 0.2%                                     | 0.2%  | 0.0%  | 0.1%                                 | 0.1%  | 0.1%  |
| 2016         | 375.8                    | 6.1%                                   | 0.0%   | 90.7%                                    | 0.0%   | 0.1%                                     | 0.1%  | 0.0%  | 0.0%                                 | 0.0%  | 0.0%  |
| 2017         | 58.85                    | 3.2%                                   | .  | 95.2%                                    | .  | 0.0%                                     | 0.0%  | .   | 0.0%                                 | 0.0%  | 0.0%  |
| <b>Total</b> | <b>4663.46</b>           | <b>60.6%</b>                           | <b>1.9%</b>  | <b>27.7%</b>                             | <b>0.1%</b>  | <b>3.5%</b>                              | <b>3.5%</b>   | <b>0.2%</b>   | <b>2.9%</b>                          | <b>3.1%</b>   | <b>1.4%</b>   |

<sup>1</sup> Reflects monthly performance data through September 30, 2017.

<sup>2</sup> Calculated by dividing the ending UPB of all prepaid loans (Zero Balance Code = 01 or 06) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>3</sup> Calculated by dividing the sum of the default event UPB by the Total Original UPB. The calculation does not include Prepayments or pre-default Repurchases (Zero Balance Code = 01 or 06). The UPB is determined using the priority in Footnote 12.

<sup>4</sup> Calculated by dividing the ending UPB of all active loans (for which the Zero Balance Code is null in the terminal record) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>5</sup> Calculated by dividing the sum of the post-default event repurchase UPB by the Total Original UPB, for loans that were terminated due to a non-prepayment default event (see Footnote 3) and subsequently repurchased (Zero Balance Code = 03 or 09 AND repurchase flag = 'Y'). See Footnote 12 for determining the post-default event repurchase UPB

<sup>6</sup> Calculated by dividing the ending UPB of all loans that reached a delinquency status of D180, including at REO Acquisition, by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>7</sup> Calculated by dividing the ending UPB of all loans that reached a delinquency status as of D180, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 03 or 09) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>8</sup> 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'). Repeat mods on a loan are not part of the calculation.

<sup>9</sup> Calculated by dividing the ending UPB of all loans that reached a delinquency status of D120, including at REO Acquisition, by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>10</sup> Calculated by dividing the ending UPB of all loans that reached a delinquency status as of D120, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 03 or 09) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>11</sup> Calculated by dividing the ending UPB of all loans that were modified at or before D120 by the Total Original UPB. Repeat mods on a loan are not part of the calculation.

<sup>12</sup> 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.

| Sample Dataset – Origination Summary Statistics |                |                          |                           |                           |   |   |  |  |
|---|----------------|--------------------------|---------------------------|---------------------------|---|---|--|--|
| Year  | Loan Count     | Total Original UPB (\$B) | Average Original UPB (\$) | Credit Score <sup>1</sup> | Original Combined Loan-to-Value (CLTV) Ratio <sup>1</sup> | Original Loan-to-Value (LTV) Ratio <sup>1</sup> | Original Debt-to-Income (DTI) Ratio <sup>1</sup> | Weighted Average Coupon (WAC) <sup>1</sup> |
| 1999  | 50000          | 6.3                      | 125,690                   | 711                       | 78.0  | 77.9  | 33.6   | 7.4  |
| 2000  | 50000          | 6.5                      | 130,919                   | 712                       | 79.0  | 78.4  | 35.2   | 8.1  |
| 2001  | 50000          | 7.4                      | 148,132                   | 715                       | 76.5  | 75.7  | 33.8   | 7.0  |
| 2002  | 50000          | 7.7                      | 154,680                   | 717                       | 75.0  | 74.0  | 34.1   | 6.6  |
| 2003  | 50000          | 8.0                      | 160,694                   | 723                       | 73.8  | 72.4  | 33.1   | 5.8  |
| 2004  | 50000          | 8.3                      | 166,462                   | 718                       | 75.4  | 73.6  | 35.8   | 5.8  |
| 2005  | 50000          | 8.5                      | 170,692                   | 724                       | 72.1  | 70.3  | 36.3   | 5.8  |
| 2006  | 50000          | 9.0                      | 179,593                   | 724                       | 74.3  | 71.8  | 37.6   | 6.4  |
| 2007  | 50000          | 9.2                      | 183,764                   | 725                       | 75.8  | 73.1  | 37.8   | 6.3  |
| 2008  | 49999          | 10.2                     | 203,979                   | 743                       | 72.7  | 70.9  | 37.0   | 6.0  |
| 2009  | 50001          | 10.7                     | 213,723                   | 763                       | 67.9  | 66.1  | 32.5   | 4.9  |
| 2010  | 50000          | 10.4                     | 208,389                   | 763                       | 68.7  | 67.2  | 32.4   | 4.6  |
| 2011  | 50000          | 10.9                     | 217,079                   | 764                       | 69.5  | 68.1  | 32.4   | 4.4  |
| 2012  | 50000          | 11.1                     | 222,672                   | 767                       | 69.9  | 68.5  | 31.4   | 3.6  |
| 2013  | 50000          | 10.9                     | 217,600                   | 759                       | 73.1  | 72.0  | 32.9   | 3.9  |
| 2014  | 50000          | 11.0                     | 219,868                   | 752                       | 76.7  | 76.0  | 34.3   | 4.3  |
| 2015  | 50000          | 11.5                     | 229,368                   | 752                       | 75.1  | 74.4  | 34.4   | 4.0  |
| 2016  | 50000          | 12.0                     | 239,713                   | 751                       | 74.3  | 73.7  | 34.7   | 3.8  |
| 2017  | 12500          | 2.9                      | 230,577                   | 746                       | 74.8  | 74.2  | 35.8   | 4.2  |
| <b>Total</b>                                    | <b>912,500</b> | <b>172.5</b>             | <b>189,077</b>            | <b>742</b>                | <b>73.5</b>   | <b>72.1</b>                                     | <b>34.3</b>                                      | <b>5.2</b>                                 |

<sup>1</sup> Weighted averages using Original UPB

| Sample Dataset – Performance Summary Statistics <sup>1</sup> |                |                       |   |                          |   |                          |   |  |                         |  |  |   |
|--|----------------|-----------------------|---|--------------------------|---|--------------------------|---|--|-------------------------|--|--|---|
| Year   | Loan Count     | Prepay % <sup>2</sup> | Cumulative Default Event % <sup>3</sup> | Remaining % <sup>4</sup> | Cumulative Post-Default Event Repurchase % <sup>5</sup> | Ever D180 % <sup>6</sup> | D180 and Pre-D180 Credit Event % <sup>7</sup> | Cumulative Modification % <sup>8</sup> | Ever D120% <sup>9</sup> | Ever D120 and Pre-D120 Credit Event% <sup>10</sup> | Pre-D120 Modification rate <sup>11</sup> | Cumulative Loss amount (\$ B) <sup>12</sup> |
| 1999   | 50000          | 96.9%                 | 1.4%                                    | 1.7%                     | 0.2%  | 2.2%                     | 2.4%  | 0.6%                                   | 3.2%                    | 3.2%   | 0.1%                                     | 0   |
| 2000   | 50000          | 97.5%                 | 1.5%                                    | 1.0%                     | 0.2%  | 2.1%                     | 2.4%  | 0.5%                                   | 2.9%                    | 2.9%   | 0.1%                                     | 0   |
| 2001   | 50000          | 96.2%                 | 1.6%                                    | 2.1%                     | 0.2%  | 2.3%                     | 2.5%  | 0.7%                                   | 3.1%                    | 3.1%   | 0.1%                                     | 0   |
| 2002   | 50000          | 94.3%                 | 1.9%                                    | 3.8%                     | 0.2%  | 2.9%                     | 3.2%  | 0.9%                                   | 3.7%                    | 3.8%   | 0.1%                                     | 0   |
| 2003   | 50000          | 89.2%                 | 2.4%                                    | 8.4%                     | 0.1%  | 3.8%                     | 4.0%  | 1.4%                                   | 4.8%                    | 4.9%   | 0.2%                                     | 0.1   |
| 2004   | 50000          | 86.2%                 | 3.7%                                    | 10.1%                    | 0.2%  | 5.7%                     | 6.1%  | 2.5%                                   | 7.0%                    | 7.2%   | 0.3%                                     | 0.1   |
| 2005   | 50000          | 83.0%                 | 5.4%                                    | 11.6%                    | 0.2%  | 7.7%                     | 8.3%  | 3.7%                                   | 9.2%                    | 9.5%   | 0.5%                                     | 0.2   |
| 2006   | 50000          | 81.9%                 | 8.2%                                    | 9.8%                     | 0.4%  | 11.0%                    | 11.8%   | 5.1%                                   | 12.8%                   | 13.2%  | 0.8%                                     | 0.4   |
| 2007   | 50000          | 79.6%                 | 8.9%                                    | 11.4%                    | 0.8%  | 12.5%                    | 13.4%   | 6.1%                                   | 14.7%                   | 15.0%  | 0.9%                                     | 0.4   |
| 2008   | 49999          | 85.6%                 | 4.2%                                    | 10.2%                    | 0.3%  | 6.9%                     | 7.3%  | 3.5%                                   | 8.1%                    | 8.3%   | 0.4%                                     | 0.2   |
| 2009   | 50001          | 80.1%                 | 0.6%                                    | 19.3%                    | 0.0%  | 1.1%                     | 1.2%  | 0.5%                                   | 1.4%                    | 1.4%   | 0.0%                                     | 0   |
| 2010   | 50000          | 70.7%                 | 0.3%                                    | 29.1%                    | 0.0%  | 0.7%                     | 0.7%  | 0.3%                                   | 0.9%                    | 0.9%   | 0.0%                                     | 0   |
| 2011   | 50000          | 62.2%                 | 0.1%                                    | 37.7%                    | .   | 0.4%                     | 0.4%  | 0.2%                                   | 0.6%                    | 0.6%   | 0.0%                                     | 0   |
| 2012   | 50000          | 36.5%                 | 0.0%                                    | 63.5%                    | 0.0%  | 0.2%                     | 0.2%  | 0.1%                                   | 0.3%                    | 0.3%   | 0.0%                                     | 0   |
| 2013   | 50000          | 33.6%                 | 0.1%                                    | 66.3%                    | 0.0%  | 0.3%                     | 0.3%  | 0.2%                                   | 0.4%                    | 0.4%   | 0.0%                                     | 0   |
| 2014   | 50000          | 36.5%                 | 0.0%                                    | 63.4%                    | .   | 0.3%                     | 0.3%  | 0.2%                                   | 0.5%                    | 0.5%   | 0.0%                                     | 0   |
| 2015   | 50000          | 18.1%                 | 0.0%                                    | 81.8%                    | .   | 0.1%                     | 0.1%  | 0.1%                                   | 0.2%                    | 0.2%   | .  | 0   |
| 2016   | 50000          | 6.6%                  | .                                       | 93.4%                    | .   | 0.0%                     | 0.0%  | 0.0%                                   | 0.1%                    | 0.1%   | .  | .   |
| 2017   | 12500          | 2.6%                  | .                                       | 97.4%                    | .   | .                        | .   | .                                      | 0.0%                    | 0.0%   | .  | .   |
| <b>Total</b>   | <b>912,500</b> | <b>67.7%</b>          | <b>2.2%</b>                             | <b>30.1%</b>             | <b>0.2%</b>   | <b>3.3%</b>              | <b>3.5%</b>                                   | <b>1.5%</b>                            | <b>4.0%</b>             | <b>4.1%</b>  | <b>0.2%</b>                              | <b>1.4</b>                                  |

<sup>1</sup> Reflects monthly performance data through September 30, 2017

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

<sup>3</sup> Count of loans that were terminated in the dataset due to a non-prepayment default event (Zero Balance Code = 03 or 09) divided by Loan Count

<sup>4</sup> Count of active loans, divided by Loan Count

<sup>5</sup> Count of loans that were terminated in the dataset due to a non-prepayment default event and subsequently repurchased (Zero Balance Code = 03 or 09 AND repurchase flag = 'Y'), divided by Loan Count

<sup>6</sup> Count of loans that reached a delinquency status of D180, including at REO Acquisition, divided by Loan Count

<sup>7</sup> Count of loans that reached a delinquency status of D180, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 03 or 09) divided by Loan Count

<sup>8</sup> Count of loans that were modified divided by Loan Count. Repeat modifications on a loan are not part of the calculation.

<sup>9</sup> Count of loans that reached a delinquency status of D120, including at REO Acquisition, divided by loan count.

<sup>10</sup> Count of loans that reached a delinquency status of D120, including at REO acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 03 or 09) divided by Loan Count.

<sup>11</sup> Count of loans that were modified at or before a delinquency status of D120 divided by Loan count. Repeat modifications on a loan are not part of the calculation.

<sup>12</sup> Sum of actual loss column for loans with a non-prepayment credit event (zero balance code = 03 or 09).

| Sample Dataset – Performance Summary Statistics <sup>1</sup> (Cont'd) |                          |  |  |  |  |  |   |   |                                     |   |   |
|---|--------------------------|--|--|--|--|--|---|---|-------------------------------------|---|---|
| Year  | Total Original UPB (\$B) | % of Original UPB Prepaid <sup>2</sup> | UPB-Weighted Cumulative Default Event % <sup>3</sup> | % of Original UPB Remaining <sup>4</sup> | UPB-Weighted Cumulative Post-Default Event Repurchase % <sup>5</sup> | % of Original UPB Ever D180 <sup>6</sup> | % of Original UPB D180 and Pre D180 Credit Event <sup>7</sup> | UPB-Weighted Cumulative Modification % <sup>8</sup> | UPB weighted Ever D120 <sup>9</sup> | UPB Weighted Ever D120 and Pre-D120 Credit Event% <sup>10</sup> | UPB Weighted Pre-D120 Modification rate <sup>11</sup> |
| 1999  | 6.3                      | 92.0%                                  | 1.0%   | 0.7%                                     | 0.1%   | 2.4%                                     | 2.5%  | 0.1%  | 1.7%                                | 1.9%  | 0.5%  |
| 2000  | 6.5                      | 95.5%                                  | 1.1%   | 0.4%                                     | 0.2%   | 2.2%                                     | 2.3%  | 0.1%  | 1.6%                                | 1.8%  | 0.4%  |
| 2001  | 7.4                      | 93.6%                                  | 1.1%   | 1.0%                                     | 0.2%   | 2.2%                                     | 2.2%  | 0.1%  | 1.6%                                | 1.8%  | 0.5%  |
| 2002  | 7.7                      | 91.1%                                  | 1.3%   | 1.9%                                     | 0.1%   | 2.6%                                     | 2.6%  | 0.1%  | 2.0%                                | 2.2%  | 0.7%  |
| 2003  | 8.0                      | 81.6%                                  | 1.8%   | 4.7%                                     | 0.0%   | 3.8%                                     | 3.9%  | 0.1%  | 3.0%                                | 3.2%  | 1.3%  |
| 2004  | 8.3                      | 79.4%                                  | 3.1%   | 6.1%                                     | 0.2%   | 6.0%                                     | 6.2%  | 0.3%  | 4.9%                                | 5.3%  | 2.4%  |
| 2005  | 8.5                      | 72.9%                                  | 5.3%   | 6.8%                                     | 0.2%   | 9.0%                                     | 9.2%  | 0.6%  | 7.6%                                | 8.1%  | 3.9%  |
| 2006  | 9.0                      | 75.6%                                  | 8.3%   | 6.6%                                     | 0.4%   | 12.9%                                    | 13.3%   | 0.9%  | 11.3%                               | 12.1%   | 5.6%  |
| 2007  | 9.2                      | 75.0%                                  | 9.0%   | 7.9%                                     | 0.8%   | 15.0%                                    | 15.3%   | 1.0%  | 13.0%                               | 13.8%   | 6.7%  |
| 2008  | 10.2                     | 82.3%                                  | 4.0%   | 6.3%                                     | 0.4%   | 7.9%                                     | 8.0%  | 0.4%  | 6.8%                                | 7.1%  | 3.6%  |
| 2009  | 10.7                     | 76.1%                                  | 0.5%   | 11.3%                                    | 0.0%   | 1.2%                                     | 1.2%  | 0.0%  | 1.0%                                | 1.0%  | 0.4%  |
| 2010  | 10.4                     | 68.2%                                  | 0.2%   | 17.8%                                    | 0.0%   | 0.7%                                     | 0.7%  | 0.0%  | 0.5%                                | 0.6%  | 0.3%  |
| 2011  | 10.9                     | 61.5%                                  | 0.1%   | 24.5%                                    | .  | 0.5%                                     | 0.5%  | 0.0%  | 0.3%                                | 0.4%  | 0.2%  |
| 2012  | 11.1                     | 34.2%                                  | 0.0%   | 49.2%                                    | 0.0%   | 0.2%                                     | 0.2%  | 0.0%  | 0.1%                                | 0.1%  | 0.1%  |
| 2013  | 10.9                     | 32.9%                                  | 0.1%   | 54.4%                                    | 0.0%   | 0.4%                                     | 0.4%  | 0.0%  | 0.2%                                | 0.2%  | 0.1%  |
| 2014  | 11.0                     | 39.9%                                  | 0.0%   | 52.4%                                    | .  | 0.4%                                     | 0.4%  | 0.0%  | 0.3%                                | 0.3%  | 0.2%  |
| 2015  | 11.5                     | 19.7%                                  | 0.0%   | 74.3%                                    | .  | 0.2%                                     | 0.2%  | .   | 0.1%                                | 0.1%  | 0.1%  |
| 2016  | 12.0                     | 6.8%                                   | .  | 89.9%                                    | .  | 0.0%                                     | 0.0%  | .   | 0.0%                                | 0.0%  | 0.0%  |
| 2017  | 2.9                      | 3.2%                                   | .  | 95.2%                                    | .  | 0.0%                                     | 0.0%  | .   | .                                   | .   | .   |
| <b>Total</b>  | <b>172.5</b>             | <b>60.5%</b>                           | <b>1.9%</b>  | <b>28.2%</b>                             | <b>0.1%</b>  | <b>3.5%</b>                              | <b>3.5%</b>   | <b>0.2%</b>   | <b>2.9%</b>                         | <b>3.1%</b>   | <b>1.4%</b>   |

<sup>1</sup> Reflects monthly performance data September 30, 2017.

<sup>2</sup> Calculated by dividing the ending UPB of all prepaid loans (Zero Balance Code = 01 or 06) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>3</sup> Calculated by dividing the sum of the default event UPB by the Total Original UPB. The calculation does not include Prepayments or pre-default Repurchases (Zero Balance Code = 01 or 06). The UPB is determined using the priority in Footnote 12.

<sup>4</sup> Calculated by dividing the ending UPB of all active loans (for which the Zero Balance Code is null in the terminal record) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>5</sup> Calculated by dividing the sum of the post-default event repurchase UPB by the Total Original UPB, for loans that were terminated due to a non-prepayment default event (see Footnote 3) and subsequently repurchased (Zero Balance Code = 03 or 09 AND repurchase flag = 'Y'). See Footnote 12 for determining the post-default event repurchase UPB

<sup>6</sup> Calculated by dividing the ending UPB of all loans that reached a delinquency status of D180, including at REO Acquisition, by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>7</sup> Calculated by dividing the ending UPB of all loans that reached a delinquency status as of D180, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 03 or 09) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>8</sup> 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. The UPB is determined using the priority in Footnote 12.

<sup>9</sup> Calculated by dividing the ending UPB of all loans that reached a delinquency status of D120, including at REO Acquisition, by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>10</sup> Calculated by dividing the ending UPB of all loans that reached a delinquency status as of D120, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 03 or 09) by the Total Original UPB. The UPB is determined using the priority in Footnote 12.

<sup>11</sup> Calculated by dividing the ending UPB of all loans that were modified at or before D120 by the Total Original UPB. Repeat modifications on a loan are not part of the calculation.

<sup>12</sup> 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.



| 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   | -252                      | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2000   | -905                      | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2001   | 330                       | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2002   | -827                      | -1           | 0  | 0                                  | 0                                   | 0                             |
| 2003   | -783                      | -1           | 0  | 0                                  | 0                                   | 0                             |
| 2004   | -317                      | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2005   | -364                      | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2006   | -115                      | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2007   | 317                       | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2008   | 313                       | 1            | 0  | 0                                  | 0                                   | 0                             |
| 2009   | -669                      | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2010   | -330                      | -1           | 0  | 0                                  | 0                                   | 0                             |
| 2011   | -898                      | -1           | 0  | 0                                  | 0                                   | 0                             |
| 2012   | 333                       | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2013   | -404                      | -1           | 1  | 1                                  | 0                                   | 0                             |
| 2014   | 734                       | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2015   | 656                       | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2016   | -1,514                    | 0            | 0  | 0                                  | 0                                   | 0                             |
| 2017   | -407                      | 0            | 0  | 0                                  | 0                                   | 0                             |

Performance Summary Statistics – Variances (Sample – Full)

| Year | Prepay % | Cumulative Default Event % | Remaining % | Cumulative Post-Default Event Repurchase % | Ever D180 % | D180 and Pre-D180 Credit Event % | Cumulative Modification % | Ever D120% | Ever D120 and Pre-D120 Credit Event% | Pre-D120 Modification rate |
|------|----------|----------------------------|-------------|--|-------------|----------------------------------|---------------------------|------------|--------------------------------------|----------------------------|
| 1999 | 0.10%    | 0.10%                      | -0.20%      | 0.10%                                      | 0.10%       | 0.10%                            | 0.00%                     | 0.30%      | 0.20%                                | 0.00%                      |
| 2000 | -0.10%   | 0.10%                      | 0.00%       | 0.00%                                      | 0.00%       | 0.10%                            | -0.10%                    | 0.10%      | 0.00%                                | 0.00%                      |
| 2001 | -0.10%   | 0.00%                      | 0.00%       | 0.00%                                      | 0.00%       | 0.00%                            | 0.00%                     | 0.00%      | 0.00%                                | 0.00%                      |
| 2002 | 0.20%    | -0.10%                     | -0.10%      | 0.00%                                      | 0.10%       | 0.10%                            | 0.00%                     | 0.00%      | 0.10%                                | 0.00%                      |
| 2003 | -0.10%   | 0.10%                      | 0.00%       | 0.00%                                      | 0.30%       | 0.20%                            | 0.00%                     | 0.30%      | 0.30%                                | 0.00%                      |
| 2004 | 0.00%    | -0.10%                     | 0.20%       | 0.00%                                      | 0.00%       | 0.00%                            | 0.00%                     | 0.00%      | 0.00%                                | 0.00%                      |
| 2005 | 0.30%    | -0.30%                     | 0.00%       | 0.00%                                      | -0.30%      | -0.30%                           | 0.00%                     | -0.40%     | -0.30%                               | 0.00%                      |
| 2006 | -0.20%   | 0.20%                      | -0.10%      | 0.00%                                      | 0.20%       | 0.20%                            | 0.00%                     | 0.20%      | 0.20%                                | 0.00%                      |
| 2007 | -0.10%   | -0.10%                     | 0.10%       | 0.00%                                      | -0.20%      | -0.20%                           | -0.10%                    | -0.10%     | -0.10%                               | 0.00%                      |
| 2008 | 0.60%    | -0.40%                     | -0.10%      | -0.10%                                     | -0.50%      | -0.50%                           | -0.30%                    | -0.60%     | -0.60%                               | 0.00%                      |
| 2009 | -0.60%   | 0.00%                      | 0.60%       | 0.00%                                      | 0.00%       | 0.00%                            | 0.00%                     | -0.10%     | -0.10%                               | 0.00%                      |
| 2010 | 0.90%    | 0.00%                      | -0.80%      | 0.00%                                      | 0.00%       | 0.00%                            | 0.00%                     | 0.00%      | 0.00%                                | 0.00%                      |
| 2011 | 1.30%    | 0.00%                      | -1.30%      | .  | 0.00%       | 0.00%                            | 0.00%                     | 0.00%      | 0.00%                                | 0.00%                      |
| 2012 | 1.50%    | -0.10%                     | -1.40%      | 0.00%                                      | 0.00%       | 0.00%                            | 0.00%                     | 0.00%      | 0.00%                                | 0.00%                      |
| 2013 | 1.90%    | 0.00%                      | -2.00%      | 0.00%                                      | 0.10%       | 0.10%                            | 0.10%                     | 0.00%      | 0.00%                                | 0.00%                      |
| 2014 | 1.10%    | 0.00%                      | -1.10%      | .  | 0.00%       | 0.00%                            | 0.00%                     | 0.10%      | 0.10%                                | 0.00%                      |
| 2015 | -0.30%   | 0.00%                      | 0.20%       | .  | 0.00%       | 0.00%                            | 0.00%                     | 0.00%      | 0.00%                                | .                          |
| 2016 | 0.60%    | .                          | -0.60%      | .  | 0.00%       | 0.00%                            | 0.00%                     | 0.00%      | 0.00%                                | .                          |
| 2017 | -0.20%   | .                          | 0.20%       | .  | .           | .                                | .                         | 0.00%      | 0.00%                                | .                          |

| Performance Summary Statistics – Variances (Sample – Full, Cont'd) |                           |                                       |                             |   |  |                                      |                         |   |   |
|--|---------------------------|---------------------------------------|-----------------------------|---|--|--------------------------------------|-------------------------|---|---|
| Year   | % of Original UPB Prepaid | UPB-Weighted Cumulative Default Event | % of Original UPB Remaining | UPB-Weighted Cumulative Post-Default Event Repurchase | % of Original UPB D180 and Pre D180 Credit Event | UPB-Weighted Cumulative Modification | UPB weighted Ever D120% | UPB Weighted Ever D120 and Pre-D120 Credit Event% | UPB Weighted Pre-D120 Modification rate |
| 1999   | 0.60%                     | -0.10%                                | 0.10%                       | 0.00%   | 0.20%  | 0.00%                                | 0.10%                   | 0.20%   | 0.00%                                   |
| 2000   | -0.10%                    | 0.00%                                 | 0.10%                       | 0.00%   | 0.10%  | 0.00%                                | 0.00%                   | 0.10%   | -0.10%                                  |
| 2001   | 0.10%                     | 0.00%                                 | 0.00%                       | 0.00%   | 0.00%  | 0.00%                                | 0.00%                   | 0.00%   | 0.00%                                   |
| 2002   | 0.50%                     | 0.00%                                 | 0.00%                       | 0.00%   | 0.00%  | 0.00%                                | 0.10%                   | 0.10%   | 0.00%                                   |
| 2003   | 0.30%                     | 0.00%                                 | 0.10%                       | -0.10%  | 0.30%  | 0.00%                                | 0.20%                   | 0.20%   | 0.00%                                   |
| 2004   | 0.00%                     | 0.10%                                 | 0.00%                       | 0.10%   | 0.00%  | 0.00%                                | 0.00%                   | 0.00%   | 0.00%                                   |
| 2005   | 0.20%                     | 0.00%                                 | -0.20%                      | 0.00%   | -0.30%   | 0.00%                                | -0.30%                  | -0.30%  | 0.00%                                   |
| 2006   | -0.10%                    | 0.00%                                 | 0.20%                       | -0.10%  | 0.20%  | 0.00%                                | 0.30%                   | 0.30%   | 0.00%                                   |
| 2007   | 0.10%                     | 0.10%                                 | -0.10%                      | 0.00%   | -0.20%   | 0.00%                                | -0.10%                  | -0.20%  | -0.10%                                  |
| 2008   | 0.80%                     | -0.10%                                | -0.40%                      | 0.00%   | -0.80%   | -0.10%                               | -0.60%                  | -0.60%  | -0.40%                                  |
| 2009   | -0.20%                    | 0.20%                                 | 0.00%                       | 0.00%   | -0.10%   | 0.00%                                | 0.00%                   | -0.10%  | -0.10%                                  |
| 2010   | 0.80%                     | -0.60%                                | 0.00%                       | 0.00%   | 0.00%  | 0.00%                                | 0.00%                   | 0.00%   | 0.00%                                   |
| 2011   | 1.00%                     | -0.70%                                | 0.00%                       | .   | 0.00%  | 0.00%                                | 0.00%                   | 0.10%   | 0.00%                                   |
| 2012   | 1.80%                     | -1.80%                                | 0.00%                       | 0.00%   | 0.00%  | 0.00%                                | -0.10%                  | -0.10%  | 0.00%                                   |
| 2013   | 2.50%                     | -1.70%                                | 0.10%                       | 0.00%   | 0.10%  | 0.00%                                | 0.00%                   | 0.00%   | 0.00%                                   |
| 2014   | 1.30%                     | -1.30%                                | 0.00%                       | .   | 0.00%  | 0.00%                                | 0.10%                   | 0.10%   | 0.00%                                   |
| 2015   | -0.10%                    | 0.20%                                 | 0.00%                       | .   | 0.00%  | .                                    | 0.00%                   | 0.00%   | 0.00%                                   |
| 2016   | 0.70%                     | -0.80%                                | .                           | .   | -0.10%   | .                                    | 0.00%                   | 0.00%   | 0.00%                                   |
| 2017   | 0.00%                     | 0.00%                                 | .                           | .   | 0.00%  | .                                    | .                       | .   | .                                       |

**HARP (Table#1) Dataset – Performance Summary Statistics<sup>1</sup>**

| Year         | Loan Count       | Loan count weighted Credit Score | Loan count weighted Loan to Value % | Loan count weighted Interest Rate % | Loan count weighted -Original Unpaid Principal Balance | Prepay % <sup>2</sup> | Cumulative Default Event% % <sup>3</sup> | Remaining % <sup>4</sup> | Cumulative Post-Default Event Repurchase % <sup>5</sup> | EverD120 and Pre-D120 Modification Rate <sup>6</sup> | Ever D120 % <sup>7</sup> | Ever D180 % <sup>8</sup> | D180 and Pre-D180 Credit Event % <sup>9</sup> | Cumulative Modification % <sup>10</sup> |
|--------------|------------------|----------------------------------|-------------------------------------|-------------------------------------|--|-----------------------|--|--------------------------|---|--|--------------------------|--------------------------|---|---|
| 2009         | 71,512           | 737                              | 91.9                                | 5.2                                 | 225,412  | 65.0%                 | 5.0%                                     | 30.1%                    | 0.2%  | 8.5%   | 8.2%                     | 6.7%                     | 7.3%  | 3.3%                                    |
| 2010         | 156,723          | 745                              | 92.9                                | 5.0                                 | 224,091  | 58.4%                 | 3.3%                                     | 38.4%                    | 0.1%  | 5.9%   | 5.8%                     | 4.6%                     | 5.1%  | 2.3%                                    |
| 2011         | 136,565          | 742                              | 96.2                                | 4.8                                 | 206,103  | 49.3%                 | 2.3%                                     | 48.4%                    | 0.0%  | 4.5%   | 4.4%                     | 3.5%                     | 3.8%  | 1.8%                                    |
| 2012         | 342,311          | 740                              | 111.4                               | 4.1                                 | 194,702  | 31.4%                 | 1.7%                                     | 66.9%                    | 0.0%  | 3.1%   | 2.9%                     | 2.3%                     | 2.6%  | 1.0%                                    |
| 2013         | 228,042          | 726                              | 106.7                               | 4.1                                 | 178,600  | 22.6%                 | 1.3%                                     | 76.1%                    | 0.0%  | 2.8%   | 2.7%                     | 2.1%                     | 2.3%  | 0.9%                                    |
| 2014         | 51,027           | 711                              | 100.7                               | 4.6                                 | 166,310  | 17.3%                 | 1.1%                                     | 81.6%                    | 0.0%  | 2.8%   | 2.8%                     | 2.1%                     | 2.2%  | 1.1%                                    |
| 2015         | 28,572           | 710                              | 98.8                                | 4.2                                 | 162,846  | 9.2%                  | 0.3%                                     | 90.4%                    | 0.0%  | 1.4%   | 1.4%                     | 1.0%                     | 1.1%  | 0.7%                                    |
| 2016         | 14,547           | 706                              | 97.1                                | 4.0                                 | 161,773  | 3.6%                  | 0.1%                                     | 96.4%                    | 0.0%  | 0.5%   | 0.5%                     | 0.3%                     | 0.3%  | 0.3%                                    |
| 2017         | 2,272            | 701                              | 96.7                                | 4.3                                 | 152,175  | 0.0%                  | 0.0%                                     | 100.0%                   | 0.0%  | 0.0%   | 0.0%                     | 0.0%                     | 0.0%  | 0.0%                                    |
| <b>Total</b> | <b>1,031,571</b> | <b>735</b>                       | <b>103.1</b>                        | <b>4.4</b>                          | <b>185,779</b>   | <b>36.5%</b>          | <b>2.1%</b>                              | <b>61.5%</b>             | <b>0.0%</b>   | <b>3.9%</b>  | <b>3.8%</b>              | <b>3.0%</b>              | <b>3.3%</b>                                   | <b>1.4%</b>                             |

<sup>1</sup> Reflects monthly performance data through September 30, 2017

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

<sup>3</sup> Count of loans that were terminated in the dataset due to a non-prepayment default event (Zero Balance Code = 03 or 09) divided by Loan Count.

<sup>4</sup> Count of active loans, divided by Loan Count.

<sup>5</sup> Count of loans that were terminated in the dataset due to a non-prepayment default event and subsequently repurchased (Zero Balance Code = 03 or 09 AND repurchase flag = 'Y'), divided by Loan Count

<sup>6</sup> Count of loans that reached a delinquency status of D120, including at REO Acquisition or were modified prior to delinquency status of D120 divided by loan count.

<sup>7</sup> Count of loans that reached a delinquency status of D120, including at REO Acquisition, divided by loan count.

<sup>8</sup> Count of loans that reached a delinquency status of D180, including at REO Acquisition, divided by Loan Count

<sup>9</sup> Count of loans that reached a delinquency status of D180, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 03 or 09) divided by Loan Count

<sup>10</sup> Count of loans that were modified divided by Loan Count. Repeat mods on a loan are not part of the calculation

### HARP (Table#2) Dataset – Performance Summary Statistics<sup>1</sup>

| Year         | Loan Count       | UPB weighted Credit Score | UPB Weighted Loan to Value | UPB weighted Interest Rate | UPB weighted Cumulative Loss % <sup>2</sup> | UPB weighted Prepay% <sup>3</sup> | UPB weighted Cumulative Default Event% <sup>4</sup> | UPB weighted Remaining % <sup>5</sup> | UPB weighted Cumulative Post-Default Event Repurchase % <sup>6</sup> | UPB weighted Ever D120 % <sup>7</sup> | UPB weighted EverD120 and Pre-D120 Modification Rate <sup>8</sup> | UPB weighted Ever D180 % <sup>9</sup> | UPB weighted D180 and Pre-D180 Credit Event % <sup>10</sup> | UPB weighted Cumulative Modification % <sup>11</sup> |
|--------------|------------------|---------------------------|----------------------------|----------------------------|---|-----------------------------------|---|---------------------------------------|--|---------------------------------------|---|---------------------------------------|---|--|
| 2009         | 71,512           | 738                       | 92.1                       | 5.2                        | 1.6%  | 61.3%                             | 4.6%  | 22.6%                                 | 0.2%   | 8.1%                                  | 7.8%  | 6.3%                                  | 7.0%  | 3.3%   |
| 2010         | 156,723          | 745                       | 93.1                       | 5.0                        | 1.0%  | 55.2%                             | 3.1%  | 29.3%                                 | 0.1%   | 5.7%                                  | 5.5%  | 4.4%                                  | 4.9%  | 2.3%   |
| 2011         | 136,565          | 742                       | 96.5                       | 4.8                        | 0.7%  | 47.3%                             | 2.2%  | 37.7%                                 | 0.0%   | 4.3%                                  | 4.2%  | 3.3%                                  | 3.6%  | 1.9%   |
| 2012         | 342,311          | 740                       | 111.6                      | 4.1                        | 0.5%  | 30.0%                             | 1.5%  | 55.4%                                 | 0.0%   | 2.9%                                  | 2.7%  | 2.1%                                  | 2.4%  | 1.0%   |
| 2013         | 228,042          | 725                       | 106.5                      | 4.1                        | 0.4%  | 21.9%                             | 1.2%  | 65.6%                                 | 0.0%   | 2.6%                                  | 2.5%  | 2.0%                                  | 2.1%  | 0.9%   |
| 2014         | 51,027           | 709                       | 100.2                      | 4.6                        | 0.3%  | 17.8%                             | 0.9%  | 72.8%                                 | 0.0%   | 2.6%                                  | 2.6%  | 1.9%                                  | 2.0%  | 1.2%   |
| 2015         | 28,572           | 709                       | 98.0                       | 4.2                        | 0.1%  | 9.5%                              | 0.3%  | 83.8%                                 | 0.0%   | 1.4%                                  | 1.4%  | 1.0%                                  | 1.0%  | 0.7%   |
| 2016         | 14,547           | 704                       | 96.3                       | 4.0                        | 0.0%  | 3.7%                              | 0.1%  | 92.6%                                 | 0.0%   | 0.5%                                  | 0.5%  | 0.3%                                  | 0.3%  | 0.3%   |
| 2017         | 2,272            | 698                       | 95.8                       | 4.3                        | 0.0%  | 0.0%                              | 0.0%  | 0.0%                                  | 0.0%   | 0.1%                                  | 0.1%  | 0.0%                                  | 0.0%  | 0.0%   |
| <b>Total</b> | <b>1,031,571</b> | <b>736</b>                | <b>102.7</b>               | <b>4.4</b>                 | <b>0.6%</b>                                 | <b>36.3%</b>                      | <b>2.0%</b>   | <b>49.6%</b>                          | <b>0.0%</b>  | <b>3.8%</b>                           | <b>3.7%</b>   | <b>2.9%</b>                           | <b>3.2%</b>   | <b>1.5%</b>  |

<sup>1</sup> Reflects monthly performance data through September 30, 2017

<sup>2</sup> Sum of actual loss columns for loans with a non-prepayment credit event (zero balance code = 03 or 09) divided by Total Loan OUPB.

<sup>3</sup> UPB of loans that prepaid in full or were repurchased prior to default (Zero Balance Code = 01 or 06) divided by Total Loan OUPB; partial prepayments (curtailments) are excluded from the calculation

<sup>4</sup> UPB of loans that were terminated in the dataset due to a non-prepayment default event (Zero Balance Code = 03 or 09) divided by Total Loan OUPB.

<sup>5</sup> UPB of active loans, divided by Total Loan OUPB

<sup>6</sup> UPB of loans that were terminated in the dataset due to a non-prepayment default event and subsequently repurchased (Zero Balance Code = 03 or 09 AND repurchase flag = 'Y'), divided by Total Loan OUPB

<sup>7</sup> UPB of loans that reached a delinquency status of D120, including at REO Acquisition, divided by Total Loan OUPB.

<sup>8</sup> UPB of loans that reached a delinquency status of D120, including at REO Acquisition or were modified prior to delinquency status of D120 divided by OUPB. Repeat modifications on a loan are not part of the calculation

<sup>9</sup> UPB of loans that reached a delinquency status of D180, including at REO Acquisition, divided by Total Loan OUPB

<sup>10</sup> UPB of loans that reached a delinquency status of D180, including at REO Acquisition, and loans that were terminated in the dataset due to a non-prepayment credit event (Zero Balance Code = 03 or 09) divided by Total Loan OUPB

<sup>11</sup> UPB of loans that were modified divided by Total Loan OUPB. Repeat mods on a loan are not part of the calculation

## Additional Information

- For additional information, please visit our Web site at FreddieMac.com in the Research Additional Datasets area:  
[http://www.freddiemac.com/research/datasets/sf\\_loanlevel\\_dataset.html](http://www.freddiemac.com/research/datasets/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](mailto: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](mailto:SF_Loan_Level_Data_Inquiry@FreddieMac.com)

## Appendix A: Loan Exclusion Criteria

- The following types of mortgages were excluded from the Single Family Loan-Level Dataset:
  1. Adjustable Rate Mortgages (ARMs), Initial Interest, balloons, and any mortgages with step rates
  2. Government-insured mortgages, including Federal Housing Administration/Veterans Affairs (FHA/VA), Guaranteed Rural Housing (GRH), and HUD-Guaranteed Section 184 Native American mortgages
  3. Home Possible®/Home Possible Neighborhood Solution® Mortgages and other affordable mortgages (including lender branded affordable loan products)
  4. Mortgages delivered to Freddie Mac under alternate agreements
  5. Mortgages for which the documentation is not verified or not waived
  6. Mortgages associated with Mortgage Revenue Bonds purchased by Freddie Mac
  7. Mortgages delivered to Freddie Mac with credit enhancements other than primary mortgage insurance, with the exception of certain lender-negotiated credit enhancements
  8. Mortgages with original loan terms of 420 months or more, and 300 months or less if originated prior to 1/1/2005. If loan was originated on/after 1/1/2005, this exclusion does not apply.

## Appendix B: 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:
  1. Prepaid or Matured (Voluntary Payoff)
  2. Foreclosure Alternative Group (Short Sale, Third Party Sale, Charge Off or Note Sale)
  3. Repurchase prior to Property Disposition
  4. REO Disposition