

## Updated Assumptions Used to Estimate Single-Family Mortgages Originated and Outstanding, 1990 – 2011 Q2

Except where noted below, all assumptions used to generate estimates of single-family mortgages originated and outstanding are as described in the paper, [\*Single-Family Mortgages Originated and Outstanding: 1990 – 2004\*](#).

### Originations

Table 1 in that paper has been revised. The primary change is to the estimates from the Federal Housing Finance Agency’s Mortgage Interest Rate Survey (MIRS). Previously, that data was based on percent of transactions; the revised estimates are based on transactions weighted by gross dollars. Data has been added through 2011 Q2.

**Table 1**  
**Jumbo Share of Conventional Single Family Mortgage Originations, 1990 – 2011 Q2**  
**(Percent)**

Year	IMF Estimate	MIRS Estimate	HMDA Estimate	FHFA Estimate
1990	23.64	19.01	28.80	23.82
1991	22.50	17.44	26.34	22.09
1992	21.83	17.24	21.28	20.12
1993	22.69	16.96	22.63	20.76
1994	25.69	20.29	25.62	23.87
1995	25.81	19.77	23.37	22.98
1996	26.48	22.39	22.93	23.93
1997	26.07	22.30	26.40	24.92
1998	27.84	21.33	23.40	24.19
1999	27.74	22.80	24.62	25.05
2000	26.97	24.21	26.64	25.94
2001	20.09	20.19	22.52	20.93
2002	19.79	20.80	26.30	22.30
2003	16.48	17.77	20.49	18.25
2004	17.47	24.12	27.83	23.14
2005	18.27	27.41	32.27	25.98
2006	16.11	22.53	32.35	23.66
2007	14.32	19.35	24.55	19.41
2008	6.53	5.59	14.11	8.74
2009	5.10	5.82	7.98	6.30
2010	5.86	6.20	11.11	7.72
2011 Q1	8.62	7.84	11.11	9.19
2011 Q2	7.92	9.57	11.11	9.53

Source: FHFA based on data from Inside Mortgage Finance Publications, FHFA’s MIRS, and FFIEC.

Beginning with the October 2011 updates to Table 1, the HMDA- and MIRS-based estimates for the jumbo share of conventional mortgage originations have been calculated to take into account the higher loan limits that have existed in select high-cost areas since 2008. In determining previous estimates for 2008 and 2009, “jumbo” mortgages were defined to include all loans whose balances exceeded \$417,000 in the contiguous United States and \$625,500 in Alaska, Hawaii, Guam and the Virgin Islands. The new revised estimates--as well as the new data provided for 2010--account for higher limits that have existed for select counties since the enactment of the Economic Stimulus Act of 2008. Geographic identifiers, including county and Core-Based Statistical Area information in the HMDA and MIRS datasets, have been used to determine whether a mortgage’s origination amount exceeded the relevant, year-specific loan limits. In cases where the origination amount is above the location- and year-specific loan limit, the mortgage is classified as a “jumbo” loan.

The more precise methodology for determining jumbo loan status has also been used in revising Table 2. With the new and more precise classification system, the previously published ARM shares for 2008 and 2009 have been revised. The 2010 ARM shares are calculated using the new jumbo classification system as well. Table 2 (page 9) was extended for 2005 through 2011 Q2.

**Table 2 (Extended)**  
**Adjustable Rate Mortgage (ARM) Share of**  
**Conventional Single-Family Loans, 2005 – 2011 Q2**  
**(Percent)**

Year	ARM Share of Non-Jumbo Loans	ARM Share of Jumbo Loans
2005	26.60	63.10
2006	25.13	53.32
2007	11.26	41.78
2008	8.50	37.02
2009	3.44	18.77
2010	5.64	17.29
2011 Q1	8.89	23.44
2011 Q2	12.39	43.11

Source: FHFA based on data from FHFA’s MIRS.

## **Outstandings**

Data in Table 6 (page 13) was re-estimated for 1998 to 2004. The revised estimates include subprime loans. Estimates for 2005 through 2011 Q2 have been added.

**Table 6 (Revised)**  
**ARMs as a Share of Conventional**  
**Single-Family Mortgages Serviced**  
**(Percent)**

<b>Year</b>	<b>FHFA Estimate</b>
<b>1998</b>	<b>14.05</b>
<b>1999</b>	<b>14.93</b>
<b>2000</b>	<b>14.06</b>
<b>2001</b>	<b>13.83</b>
<b>2002</b>	<b>13.99</b>
<b>2003</b>	<b>18.79</b>
<b>2004</b>	<b>23.13</b>
<b>2005</b>	<b>26.07</b>
<b>2006</b>	<b>26.04</b>
<b>2007</b>	<b>23.38</b>
<b>2008</b>	<b>21.19</b>
<b>2009</b>	<b>18.21</b>
<b>2010</b>	<b>16.33</b>
<b>2011 Q1</b>	<b>15.84</b>
<b>2011 Q2</b>	<b>15.74</b>

Source: FHFA based on data from MBA

There has been a change in the assumption used to decompose jumbo and non-jumbo conventional mortgages outstanding into ARMs and FRMs. Data for 1990 through 2011 Q2 have been re-estimated assuming that, for each year, the jumbo share of outstanding ARMs is equal to the dollar-weighted average of the jumbo share of ARMs originated in the previous five years. For 1990-1994, only data starting in 1990 is used in the calculation, resulting in a period of less than five years. Table 7 (below) shows the weighted average jumbo share of ARMs originated in the previous five years and the resulting estimates for jumbo and non-jumbo ARMs outstanding.

**Table 7 (Revised)**  
**5-Yr Moving Average Jumbo Share of Conventional ARM Originations and**  
**Jumbo Share of Outstanding Conventional ARMs**

<b>Year</b>	<b>FHFA Estimate: Jumbo Share of Outstanding ARMs</b>	<b>FHFA Estimate: Jumbo ARMs Outstanding</b>	<b>FHFA Estimate: Non-Jumbo ARMs Outstanding</b>
1990	34.5%	\$75,250	\$142,866
1991	34.0%	\$79,147	\$153,347
1992	33.7%	\$84,337	\$165,807
1993	35.8%	\$141,962	\$254,585
1994	37.3%	\$156,460	\$262,693
1995	38.7%	\$179,438	\$283,794
1996	40.6%	\$199,733	\$291,851
1997	42.5%	\$182,894	\$247,498
1998	45.6%	\$232,146	\$277,117
1999	48.5%	\$289,196	\$306,691
2000	51.8%	\$317,660	\$295,804
2001	54.2%	\$367,695	\$310,404
2002	55.4%	\$439,950	\$353,760
2003	52.4%	\$645,478	\$585,541
2004	49.9%	\$878,803	\$883,279
2005	47.6%	\$1,090,023	\$1,198,891
2006	43.6%	\$1,117,639	\$1,448,328
2007	42.8%	\$1,052,740	\$1,406,932
2008	40.7%	\$880,346	\$1,282,666
2009	37.9%	\$675,558	\$1,106,917
2010	37.9%	\$576,255	\$944,207
2011 Q1*	37.9%	\$551,717	\$904,000
2011 Q2*	37.9%	\$542,335	\$888,628

Source: FHFA based on data from Inside Mortgage Finance Publications, FHFA's MIRS, and FFIEC.

\* 2011 estimate assumed to be 5-yr moving average through year-end 2010.