## **Updated Assumptions Used to Estimate Single-Family Mortgages Originated and Outstanding, 1990 – 2008 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 was revised and is reprinted below. 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 2Q 2008.

Table 1
Jumbo Share of Conventional Single Family Mortgage Originations, 1990 – 2008 Q2
(Percent)

(1 elcent)						
Year	IMF Estimate	MIRS Estimate	<b>HMDA Estimate</b>	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	14.90	19.35	24.55	19.60		
2008 Q1	7.71	9.89	20.11*	12.57		
2008 Q2	6.05	10.14	20.65*	12.28		

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

<sup>\* 2008</sup> HMDA data will not be released until September 2009. FHFA estimate is based on historical relationship between MIRS, IMF and HMDA from 1990 through 2007.

Table 2 (page 9) was extended for 2005, 2006, 2007 and 2008 Q1 and Q2.

Table 2 (Extended)
Adjustable Rate Mortgage (ARM) Share of
Conventional Single-Family Loans, 2005 – 2007
(Percent)

	ARM Share of	ARM Share of Jumbo Loans	
Year	Non-Jumbo Loans		
2005	26.60	63.10	
2006	25.13	53.32	
2007	11.26	41.78	
2008 Q1	9.32	48.03	
2008 Q2	9.03	25.88	

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 2008 Q2 have been added.

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

MBA Mortgage							
Year	<b>Delinquency Survey</b>	<b>FHFA Estimate</b>					
1998	13.47	13.47					
1999	13.16	13.16					
2000	11.68	11.68					
2001	11.68	11.68					
2002	12.24	12.24					
2003	14.17	14.17					
2004	18.02	18.02					
2005	22.18	22.18					
2006	23.18	23.18					
2007	24.33	24.33					
2008 Q1	22.86	22.86					
2008 O2	21.97	21.97					

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 2008 Q2 has 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

Year	5-Yr Moving Average Jumbo Share of ARM Originations	FHFA Estimate: Jumbo Share of Outstanding ARMs	FHFA Estimate: Jumbo ARMs Outstanding	FHFA Estimate: Non-Jumbo ARMs Outstanding
1990	34.5%	34.5%	\$75,281	\$142,835
1991	34.7%	34.7%	\$80,667	\$151,827
1992	35.8%	35.8%	\$89,575	\$160,569
1993	37.8%	37.8%	\$149,711	\$246,836
1994	38.8%	38.8%	\$162,555	\$256,598
1995	38.7%	38.7%	\$179,438	\$283,794
1996	40.6%	40.6%	\$199,733	\$291,851
1997	42.5%	42.5%	\$182,894	\$247,498
1998	45.6%	45.6%	\$223,576	\$266,798
1999	48.5%	48.5%	\$255,803	\$271,457
2000	51.8%	51.8%	\$265,193	\$246,858
2001	54.2%	54.2%	\$311,628	\$263,191
2002	55.4%	55.4%	\$386,350	\$310,827
2003	52.4%	52.4%	\$486,857	\$441,940
2004	49.9%	49.9%	\$687,126	\$690,252
2005	47.6%	47.6%	\$928,905	\$1,022,150
2006	43.6%	43.6%	\$998,742	\$1,292,953
2007	42.8%	42.8%	\$1,098,046	\$1,463,261
2008 Q1	43.2%	43.2%	\$1,047,271	\$1,382,592
2008 Q2	41.3%	41.3%	\$947,501	\$1,380,512

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