

The Changing Face of the Mortgage Market

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The Changing Face of the Mortgage Market

- ◆ With the slowing of HPA (less cash-out refi activity) and the tightening of credit standards, origination volume will go down. We would expect 30% less sub-prime origination and 10-15% less Alt A production. Agency volume will increase, as a much greater percentage of new production is expected to be in agency form.
- ◆ This will result in a larger role for the mortgage insurers, as 80/20s are replaced with PMI. There has been a huge decline in the demand for 2nd liens, and lending standards have squeezed out the 80/20s. Moreover, PMI is now tax deductible.
- ◆ The decline in origination activity will force mortgage originators to rely more heavily on their servicing income. With slower HPA, we would suggest retaining more servicing, especially on products with weaker credit.
- ◆ On the investor side, there has been a shift in the investor base from banks and GSEs to foreign investors. This dovetails nicely with the changing asset mix.

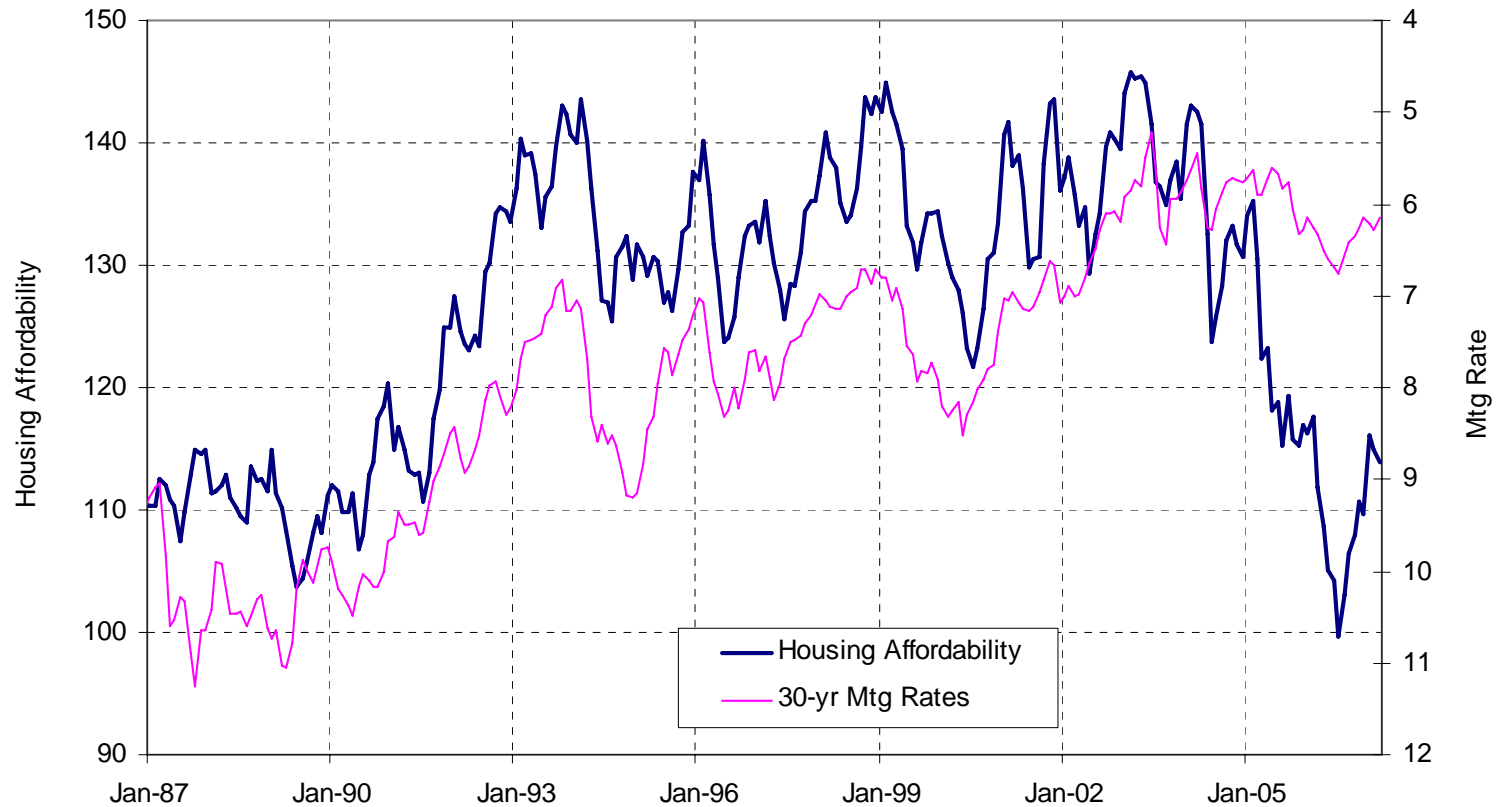
Residential MBS Issuance

Date	Total MBS	% of Total					Non-Agency
		Agency	Alt-A	Jumbo	Subprime	Other	
1995	318,058	84.6	0.2	8.1	5.6	1.5	15.4
1996	440,541	84.1	0.4	7.1	7.0	1.3	15.9
1997	487,016	75.5	1.3	10.3	11.7	1.2	24.5
1998	929,163	78.1	2.3	10.5	8.2	0.9	21.9
1999	832,977	82.2	1.4	9.0	6.7	0.6	17.8
2000	614,970	77.9	2.7	8.7	8.5	2.2	22.1
2001	1,354,819	80.3	0.8	10.5	6.4	2.0	19.7
2002	1,858,381	77.7	2.9	9.2	6.6	3.6	22.3
2003	2,718,170	78.4	2.7	8.7	7.2	2.9	21.6
2004	1,882,836	54.1	8.4	12.4	19.3	5.8	45.9
2005	2,156,007	44.7	15.4	13.0	21.6	5.3	55.3
2006	2,045,495	44.0	17.9	10.7	21.9	5.5	56.0
Mar-07	536,338	49.3	18.4	10.9	16.5	4.9	50.7

Source: Inside MBS & ABS, based on SEC filings and industry surveys.

Note: MBS are backed by 1-4 family mortgage loans. Agency CMO/REMICs are backed by FNMA, FHLMC or GNMA collateral. Starting January 2001, Non-Agency MBS include private-label jumbo and Alt-A transactions, plus mortgage-related ABS, including subprime HEL, second liens, HELOCs, high LTV loans and manufactured housing loans. ABS data prior to 2001 include some mortgage-related collateral.

Housing Affordability



Source: National Association of Realtors, Freddie Mac

Latest is estimated: Mar 2007: Housing Affordability = 113.9; 30-yr no-point Mtg Rate = 6.16

Collateral Characteristics Have Deteriorated

Look at CLTV, Seconds, Full Doc, IO%

	Orig. Yr	CLTV	CLTV > 80	Seconds	Full Doc	IO %
Prime ARMs	2002	66.5	3.9	1.8	54.8	46
	2003	68.2	10.1	10.8	48.5	53
	2004	73.3	18.8	20.7	47.5	60
	2005	74.4	22.1	27.0	44.5	73
	2006	75.0	27.3	34.0	31.7	91
Alt-A ARMs	2002	74.3	20.7	2.7	29.6	27
	2003	78.0	33.5	23.4	28.0	56
	2004	82.6	46.9	39.0	32.5	75
	2005	83.3	49.4	46.7	28.1	83
	2006	85.5	56.5	56.0	19.3	88
Subprime ARMs	2002	81.2	46.8	3.7	66.9	1
	2003	83.2	54.9	10.1	62.9	5
	2004	85.1	60.6	19.4	59.7	19
	2005	86.4	63.4	27.9	55.8	32
	2006	86.8	63.7	31.1	54.6	20
Option ARMs	2002	69.0	1.7	0.5	33.1	-
	2003	71.3	12.2	7.7	31.1	-
	2004	72.9	11.8	11.2	24.9	-
	2005	76.6	25.1	24.1	18.1	-
	2006	78.0	32.2	30.7	9.1	-

	Orig. Yr	CLTV	CLTV > 80	Seconds	Full Doc	IO %
Prime Fixed Rate	2002	65.4	3.0	0.6	76.0	-
	2003	63.8	4.4	6.3	56.9	1
	2004	67.4	7.0	9.1	54.2	2
	2005	70.9	13.6	17.1	53.6	20
	2006	74.6	23.0	27.0	53.1	29
Alt-A Fixed Rate	2002	74.7	22.0	2.3	33.8	1
	2003	71.5	21.4	7.5	32.4	3
	2004	75.2	29.4	15.3	33.4	10
	2005	76.2	31.4	26.0	36.6	31
	2006	79.4	40.3	35.6	22.7	38
Subprime Fixed Rate	2002	77.9	39.7	1.4	68.9	0
	2003	78.4	42.7	2.9	68.2	0
	2004	78.6	43.5	5.3	70.0	2
	2005	80.0	48.1	8.9	71.4	5
	2006	81.2	51.2	11.0	71.4	6

Data as of January 2007.



Agency Net New Issuance

Qtr	Net New Issuance			
	Fixed	Fixed Rate IO	ARM	All
Q1 03	43,856		17,052	60,908
Q2 03	21,497		21,239	42,736
Q3 03	87,669		20,479	108,148
Q4 03	113,312		28,625	141,937
Q1 04	-9,363		15,740	6,377
Q2 04	5,620		20,658	26,277
Q3 04	-4,104	231	23,676	19,803
Q4 04	-25,998	168	22,763	-3,068
Q1 05	-14,941	120	16,074	1,253
Q2 05	4,775	273	13,396	18,444
Q3 05	37,285	779	18,923	56,987
Q4 05	61,878	2,535	8,410	72,823
Q1 06	57,804	7,002	17,516	82,322
Q2 06	64,184	7,905	1,467	73,555
Q3 06	76,832	9,318	15,304	101,454
Q4 06	74,407	11,703	6,786	92,896
Q1 07	93,463	15,178	18,965	127,606
Oct-06	26,357	3,775	4,553	34,685
Nov-06	21,865	3,596	2,266	27,727
Dec-06	26,184	4,332	-33	30,484
Jan-07	27,528	4,278	10,211	42,017
Feb-07	34,596	4,438	4,377	43,411
Mar-07	31,339	6,462	4,377	42,178
Apr-07	31,281	6,653	1,824	39,757
Annual				
2003	266,334	0	87,396	353,730
2004	-33,846	399	82,837	49,390
2005	88,997	3,706	56,802	149,506
2006	273,227	35,928	41,073	350,228
YTD-2007	124,744	21,830	20,789	167,363

Conventional Loans: % ARMs by # of Loans (MBA Data)



High LTV/Low FICO (as a % of Issuance)

	Fixed 30	Fixed IO (10/20)	5/1 Hybrid	All Hybrid	Fixed 30	Fixed IO (10/20)	5/1 Hybrid	All Hybrid	Fixed 30	Fixed IO (10/20)	5/1 Hybrid	All Hybrid
	% LTV>80				% FICO<700				% FICO<700 & LTV>80			
2003	6%	2%	3%	3%	11%	2%	3%	4%	3%	0%	1%	1%
2004	11%	2%	7%	5%	15%	9%	6%	5%	7%	0%	3%	2%
2005	11%	3%	4%	5%	14%	9%	5%	4%	6%	1%	1%	1%
2006	16%	4%	7%	10%	22%	12%	14%	17%	7%	1%	2%	3%
Jan-07	14%	7%	6%	15%	22%	16%	17%	19%	6%	2%	2%	1%
Feb-07	17%	13%	3%	10%	18%	20%	26%	28%	7%	6%	2%	3%
Mar-07	14%	10%	4%	5%	26%	14%	20%	18%	6%	4%	1%	1%
Apr-07	18%	14%	9%	12%	30%	14%	22%	21%	10%	3%	2%	2%
	% LTV>90				% FICO<660				% FICO<700 & LTV>90			
2003	1%	0%	1%	1%	4%	0%	1%	1%	1%	0%	1%	1%
2004	2%	0%	2%	2%	4%	0%	2%	1%	2%	0%	2%	1%
2005	3%	1%	1%	1%	3%	1%	1%	1%	2%	0%	1%	1%
2006	5%	0%	2%	3%	8%	3%	5%	5%	3%	0%	1%	1%
Jan-07	6%	1%	1%	8%	6%	2%	8%	6%	3%	1%	0%	0%
Feb-07	7%	4%	1%	4%	6%	3%	10%	10%	4%	2%	1%	0%
Mar-07	7%	3%	2%	2%	7%	2%	6%	5%	4%	1%	0%	1%
Apr-07	8%	3%	2%	1%	14%	5%	7%	5%	5%	2%	1%	1%

Pricing of High LTV/Low FICO Pools (ticks above TBA)

Characteristics	Pay-up in 6% Coupon	Pay-up in 6.5% Coupon
LTV \geq 90	5+	7+
LTV \geq 95	7+	10+
FICO < 660	3+	5+
MLB	13	20
HLB	6	8

40-year Agency Production (\$millions)

Month	Fannie	Freddie	Total
Jun-06	99		99
Jul-06	63		63
Aug-06	48		48
Sep-06	129		129
Oct-06	267	20	286
Nov-06	191	7	197
Dec-06	268	16	284
Jan-07	267		267
Feb-07	256	30	286
Mar-07	622	34	656
Apr-07	580	86	666
May-07	655	42	697

Agency Issuance of Fixed Rate 30yr IO Mortgage Pools (\$million)

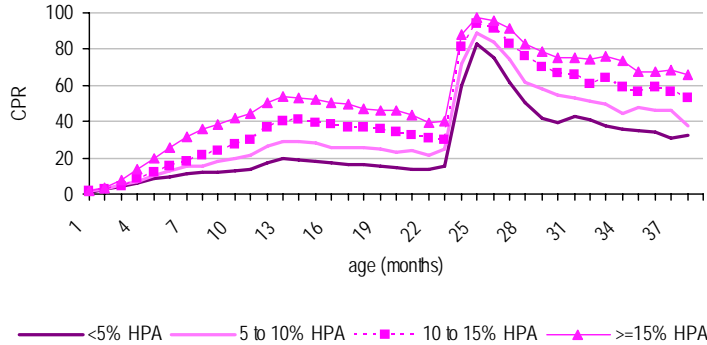
Date	30-yr FNMA			30-yr FHLMC			Total		
	New Issuance IO	Total New Issuance	% IO	New Issuance IO	Total New Issuance	% IO	New Issuance IO	Total New Issuance	% IO
Jan-05	32.38	22,023.04	0.1%	11.95	15,883.20	0.1%	44.33	37,906.24	0.1%
Feb-05	53.24	19,036.04	0.3%	0.00	11,630.47	0.0%	53.24	30,666.52	0.2%
Mar-05	69.31	19,887.87	0.3%	5.60	16,016.88	0.0%	74.91	35,904.75	0.2%
Apr-05	44.83	23,388.03	0.2%	33.35	21,122.07	0.2%	78.19	44,510.09	0.2%
May-05	54.50	23,252.22	0.2%	56.78	19,748.16	0.3%	111.28	43,000.38	0.3%
Jun-05	56.49	24,115.25	0.2%	87.09	20,346.12	0.4%	143.58	44,461.37	0.3%
Jul-05	85.01	30,358.41	0.3%	13.23	20,115.70	0.1%	98.25	50,474.12	0.2%
Aug-05	99.14	33,788.56	0.3%	73.88	25,361.34	0.3%	173.02	59,149.90	0.3%
Sep-05	573.95	36,725.64	1.6%	35.98	30,107.74	0.1%	609.94	66,833.38	0.9%
Oct-05	467.80	29,506.69	1.6%	127.09	25,614.47	0.5%	594.89	55,121.16	1.1%
Nov-05	619.53	29,147.41	2.1%	178.76	24,974.24	0.7%	798.29	54,121.64	1.5%
Dec-05	814.85	26,489.56	3.1%	424.13	23,556.50	1.8%	1,238.98	50,046.06	2.5%
Jan-06	1,421.23	25,783.20	5.5%	479.93	22,224.27	2.2%	1,901.17	48,007.47	4.0%
Feb-06	2,270.42	22,093.14	10.3%	448.75	19,039.05	2.4%	2,719.17	41,132.19	6.6%
Mar-06	2,089.19	22,970.84	9.1%	488.09	18,315.34	2.7%	2,577.28	41,286.19	6.2%
Apr-06	1,840.36	28,000.25	6.6%	652.79	19,707.37	3.3%	2,493.14	47,707.62	5.2%
May-06	2,123.40	25,930.50	8.2%	259.12	17,292.96	1.5%	2,382.51	43,223.45	5.5%
Jun-06	2,930.18	28,078.98	10.4%	563.36	19,328.81	2.9%	3,493.54	47,407.79	7.4%
Jul-06	2,541.75	24,952.05	10.2%	386.49	19,493.28	2.0%	2,928.24	44,445.32	6.6%
Aug-06	2,742.54	27,054.39	10.1%	559.74	21,202.57	2.6%	3,302.28	48,256.96	6.8%
Sep-06	3,034.35	27,458.77	11.1%	800.76	20,459.36	3.9%	3,835.11	47,918.13	8.0%
Oct-06	3,537.10	32,553.98	10.9%	657.94	18,273.07	3.6%	4,195.05	50,827.05	8.3%
Nov-06	3,536.33	26,898.76	13.1%	499.97	17,140.02	2.9%	4,036.30	44,038.78	9.2%
Dec-06	3,790.69	28,375.43	13.4%	1,128.69	23,055.45	4.9%	4,919.39	51,430.88	9.6%
Jan-07	4,089.79	29,433.58	13.9%	872.29	20,509.09	4.3%	4,962.07	49,942.67	9.9%
Feb-07	3,336.63	29,632.60	11.3%	1,677.22	25,283.88	6.6%	5,013.85	54,916.48	9.1%
Mar-07	4,832.66	29,753.44	16.2%	2,346.96	23,746.88	9.9%	7,179.62	53,500.32	13.4%
Apr-07	4,826.25	30,810.28	15.7%	2,575.62	22,227.38	11.6%	7,401.87	53,037.66	14.0%



Cumulative Impact of Sustained High HPA

Subprime

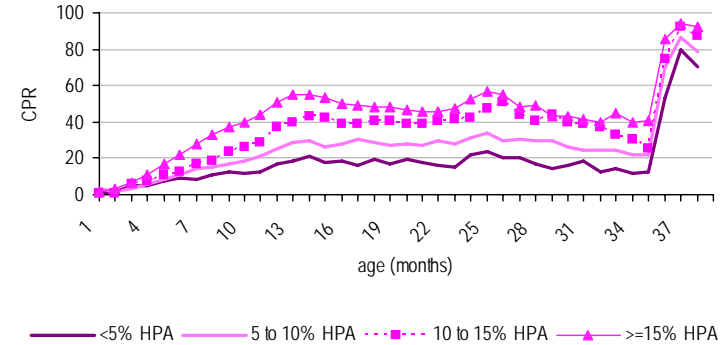
Seasoning Curve—2/28 (2-year penalty, 150-200k)



Source: Loan Performance, UBS

Subprime

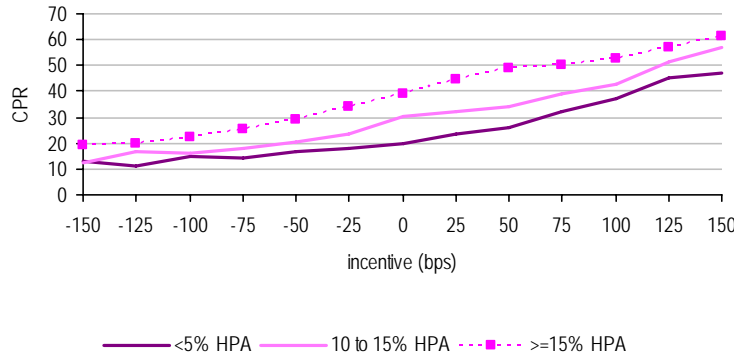
Seasoning Curve—3/27 (3yr penalty, 150-200k)



Source: Loan Performance, UBS

Alt-A

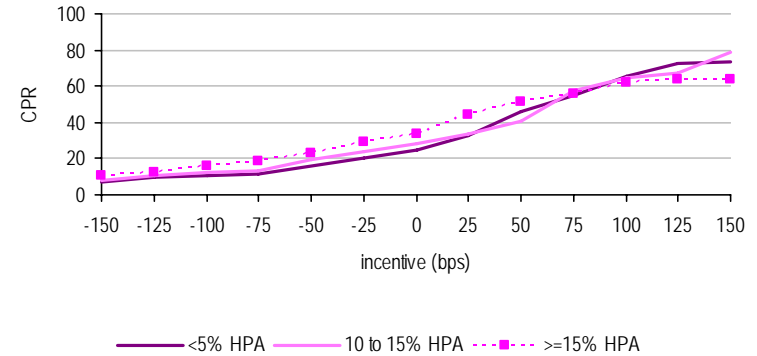
Alt-A 5/1 IO S-Curve (12-30 WALA, 250-350k loan size)



Source: Loan Performance, UBS

Prime

Jumbo Prime 5/1 IO S-Curve (12-30 WALA, 450-550k loan size)

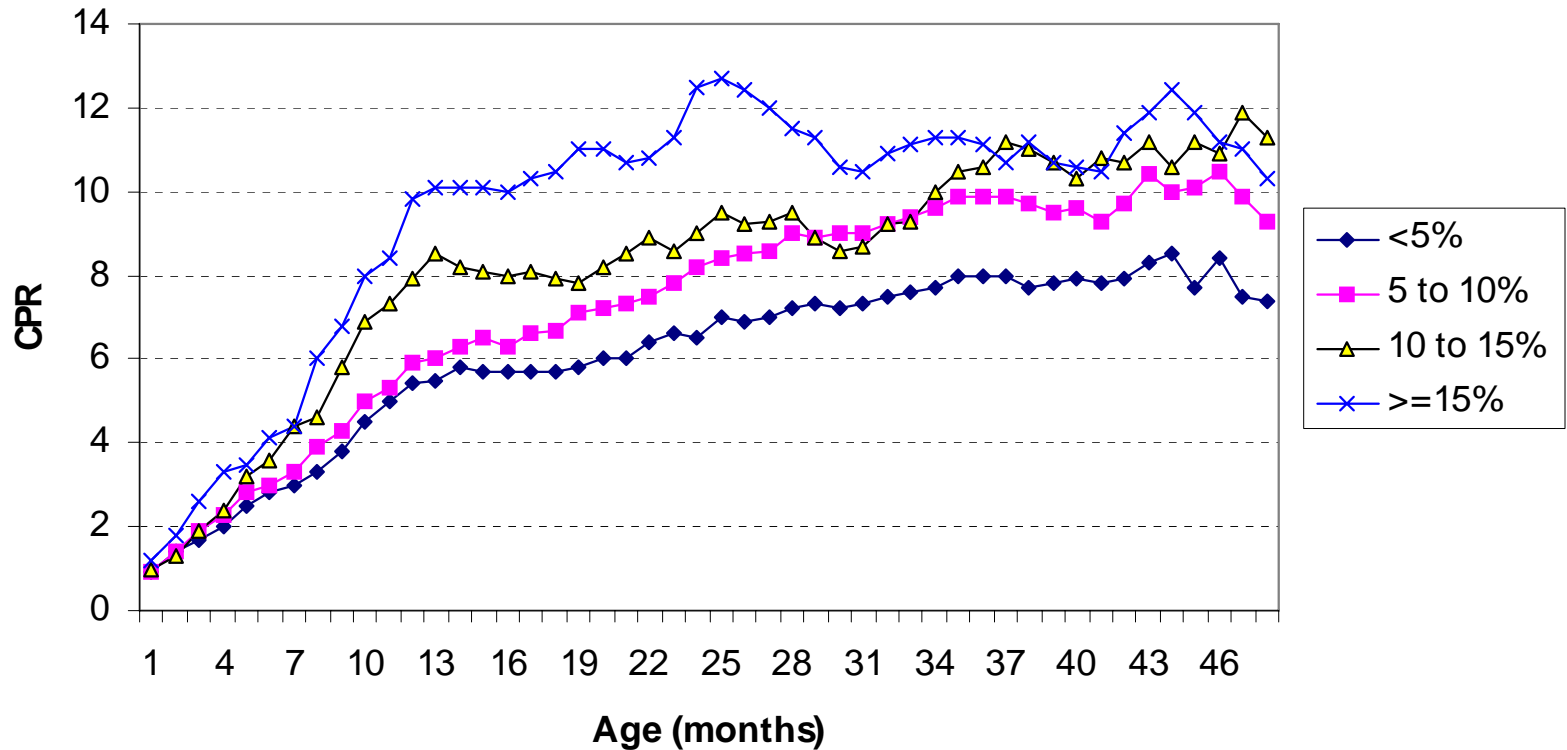


Source: Loan Performance, UBS



30-year Discount Seasoning Curves

(>50 OTM, excluding CA, NY, TX, 1998 to present) – by annualized cumulative HPA



Mortgage-Related Security Holdings By Investor Type

(\$billions)

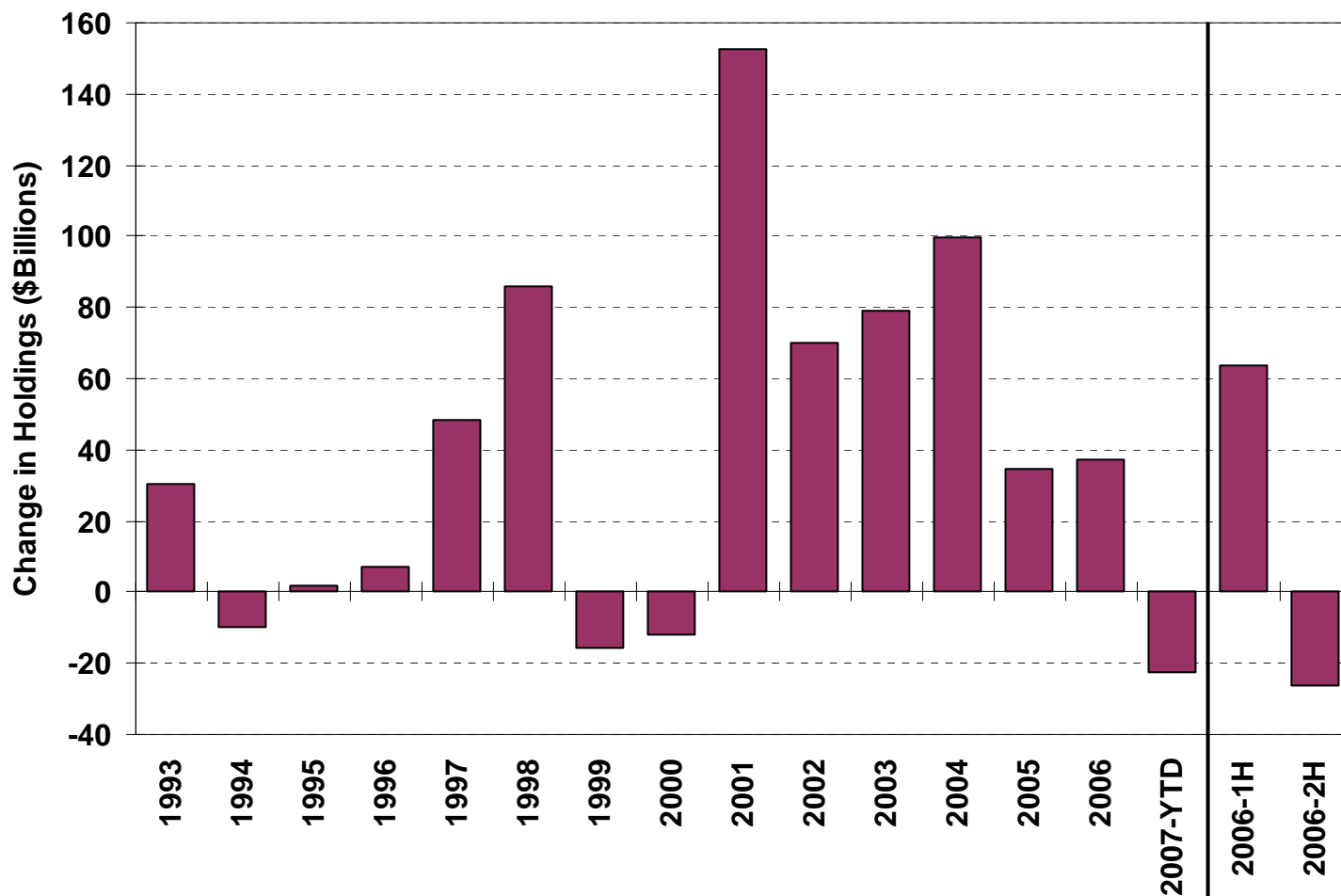
Investor Type	Year-End								Midyear	
	2002		2003		2004		2005		2006	
	Amt	% of Tot	Amt	% of Tot	Amt	% of Tot	Amt	% of Tot	Amt	% of Tot
FDIC Commercial Banks	\$702.1	19.64%	\$775.6	19.37%	\$876.4	19.59%	\$897.1	17.29%	\$969.8	17.79%
All Thrifts	209.7	5.86	206.5	5.16	234.3	5.24	242.6	4.68	242.9	4.46
Federal Credit Unions	25.2	0.70	28.5	0.71	27.5	0.61	54.5	1.05	70.5	1.29
TOTAL DEPOSITORY	\$937.0	26.20%	\$1,010.6	25.24%	\$1,138.2	25.44%	\$1,194.2	23.01%	\$1,283.2	23.54%
FNMA/FHLMC Portfolio	1,109.4	31.03	1,232.5	30.79	1,260.9	28.18	1,123.2	21.65	1,150.0	21.10
Foreign Investors	235.0	6.57	285.0	7.12	490.0	10.95	802.0	15.46	850.0	15.59
Mutual Funds	375.0	10.49	387.0	9.67	375.0	8.38	405.0	7.80	400.0	7.34
Personal Sector	120.0	3.36	200.0	5.00	235.0	5.25	355.0	6.84	360.0	6.60
Life Insurance Cos.	235.0	6.57	240.0	5.99	265.0	5.92	285.0	5.49	300.0	5.50
Public Pension Funds	95.0	2.66	120.0	3.00	152.0	3.40	180.0	3.47	190.0	3.49
Priv. Pension Funds	90.0	2.52	105.0	2.62	115.0	2.57	160.0	3.08	175.0	3.21
FHLBanks	96.4	2.70	97.9	2.45	113.1	2.53	122.3	2.36	127.8	2.34
Securities Brokers & Dealers	40.0	1.12	35.0	0.87	50.0	1.12	95.0	1.83	115.0	2.11
REITs	12.7	0.36	28.6	0.71	79.0	1.77	107.4	2.07	112.1	2.06
DEPOSITORY & MAJOR INVESTORS	\$3,345.5	93.56%	\$3,741.6	93.46%	\$4,273.2	95.50%	\$4,829.1	93.06%	\$5,063.1	92.89%
All Other Investors*	\$230.2	6.44%	\$261.9	6.54%	\$201.2	4.50%	\$360.0	6.94%	\$387.5	7.11%
TOTAL OUTSTANDING	\$3,575.7	100.00%	\$4,003.5	100.00%	\$4,474.4	100.00%	\$5,189.1	100.00%	\$5,450.6	100.00%

Notes: Mortgage-related securities, or MRSs, include all securities or debt obligations collateralized by either residential mortgages or MBSs. Estimates are in italics and from Inside MBS & ABS based on available Federal Reserve Board data. * Other investors include hedge funds, nonprofits, other groups, property/casualty Insurers, and state/local government where MRS data is not available.

Source: Inside MBS & ABS



Change in Commercial Bank Holdings of MBS

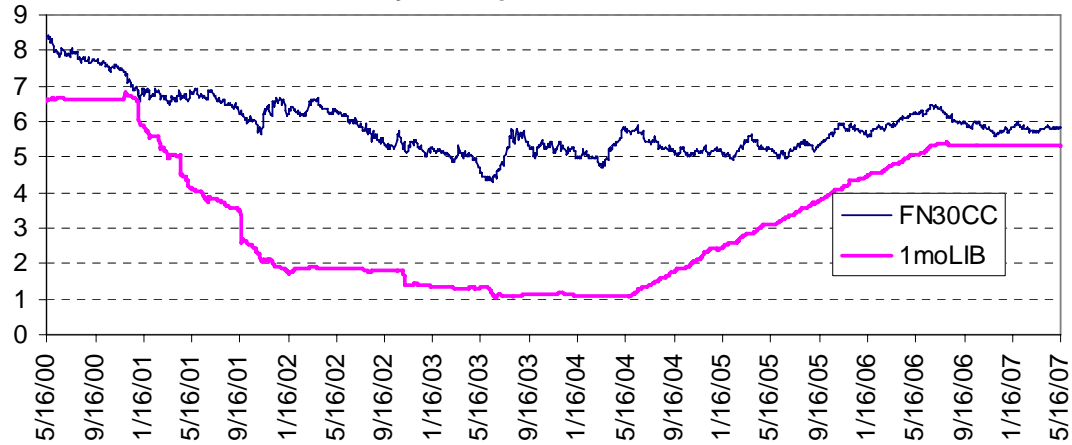


Source: Federal Reserve



Spread Over Marginal Funding

Spread Over Marginal Funding
FN 30yr Cur Cpn vs 1-Month LIBOR



Difference (FN 30yr CC – 1-mo LIBOR)




Growth Of FN & FH Retained Portfolios

Year	FNMA		FHLMC	
	YrEndBal*	Rate (An)**	YrEndBal*	Rate (An)**
1988	\$103,013	10.21%	\$12,129	34.92%
1989	\$107,756	4.60%	\$15,697	29.42%
1990	\$113,875	5.68%	\$16,328	4.02%
1991	\$126,486	11.07%	\$22,515	37.89%
1992	\$156,021	23.35%	\$31,718	40.87%
1993	\$189,892	21.71%	\$54,090	70.53%
1994	\$220,525	16.13%	\$72,203	33.49%
1995	\$252,588	14.54%	\$107,424	48.78%
1996	\$286,259	13.33%	\$137,755	28.23%
1997	\$316,316	10.50%	\$164,421	19.36%
1998	\$415,223	31.27%	\$255,009	55.10%
1999	\$522,780	25.90%	\$324,443	27.23%
2000	\$607,399	16.19%	\$385,693	18.88%
2001	\$705,167	16.10%	\$491,719	27.49%
2002	\$794,253	12.34%	\$568,173	15.55%
2003	\$898,445	13.12%	\$645,466	13.60%
2004	\$904,555	0.68%	\$652,936	1.16%
2005	\$727,545	-19.57%	\$710,017	8.74%
2006	\$724,400	-0.43%	\$703,959	-0.85%
Jan-07	\$721,442	-4.79%	\$706,521	4.46%
Feb-07	\$712,145	-9.73%	\$709,505	4.82%
Mar-07	\$712,806	-6.25%	\$714,454	6.10%

* Amounts in \$Millions.

** Growth Rate = ((Current Balance/Last Years Balance)^(12/current month))-1

 **UBS** Source: Freddie Mac and Fannie Mae

Sources of GSE Income

Year	Fannie Mae			Freddie Mac		
	Net Interest Income	Mgmt & Guarantee Fee	% of Interest /Total Income	Net Interest Income	Mgmt & Guarantee Fee	% of Interest /Total Income
1990	1,593	536	75%	619	654	49%
1991	1,778	675	72%	683	792	46%
1992	2,058	834	71%	695	936	43%
1993	2,533	961	72%	852	1,033	45%
1994	2,823	1,083	72%	1,047	1,173	47%
1995	3,047	1,086	74%	1,298	1,185	52%
1996	3,592	1,196	75%	1,542	1,249	55%
1997	3,949	1,274	76%	1,631	1,298	56%
1998	4,110	1,229	77%	1,927	1,307	60%
1999	4,894	1,282	79%	2,540	1,405	64%
2000	5,674	1,351	81%	3,758	1,252	75%
2001	8,090	1,482	85%	7,448	1,392	84%
2002	18,426	2,516	88%	9,525	1,527	86%
2003	19,477	3,281	86%	9,498	1,653	85%
2004	18,081	3,604	83%	9,137	1,382	87%
2005	11,505	3,779	75%	5,370	1,450	79%
2006	n/a	n/a	n/a	4,235	1,672	72%

Reserve Accumulation Dynamics

- ◆ FX reserves are up 4-fold over the past decade.
- ◆ A decade ago, countries had reserves equal to 3-4 months of imports. Liquidity was important. With the tremendous growth in reserves, investment opportunities can be longer term in nature.
- ◆ Realize that official FX reserves understate the extent of official holdings. Increasingly, sovereign assets go into “stabilization funds”. There are approximately \$1.5 trillion in stabilization funds (aka pension funds, investment funds) growing at the rate of \$400 billion per annum. Examples include the Strategic Petroleum Fund in Norway, the Abu Dhabi Investment Authority. Other countries with known funds include: Singapore, South Korea, Columbia, Venezuela, Chile, Russia, Kazakhstan, Azerbaijan, U.A.E., Kuwait, Oman, Qatar, Brunei. China has recently established such a fund.

Trends in Approved Asset Classes—1998–2006

(% of Central Banks which have approved the asset class)

	Asset class	2006	2005	2004	2003	2002	2001	2000	1999	1998
1	U.S. Agencies	84	82	76	78	75	71	62	68	54
2	Suprationals	70	74	63	62	60	62	54	63	60
3	Sovereign Eurobonds	64	60	60	58	58	61	60	66	66
4	Sovereign Globals	53	54	50	56	54	52	44	50	34
5	Pfandbriefes	50	48	44	38	35	37	34	28	12
6	Bank Debt	48	41	21	24	21	26	20	16	4
7	MBS / ABS	44	39	39	27	22	17	19	12	2
8	Corporates	40	38	38	32	28	22	20	15	10
9	Landesbank Debt	40	37	33	27	30	30	32	28	12
10	Yankee Bonds	16	19	12	14	16	22	28	12	18
11	TIPs	28	16	9	na	na	na	na	na	na
12	Local Government	22	14	12	14	16	16	18	18	8
13	Canadian Provinces	11	9	10	10	8	9	10	10	12
14	Equities	18	5	3	2	na	na	na	na	na

Source: UBS Central Bank Surveys, 1998-2006

Results from UBS Central Bank Survey

- ◆ Only 3% of respondents invest only in U.S. Treasuries, down from 31% 4 years ago.
- ◆ 64% of respondents stated they purchased securities with embedded options, which is handily up from 44% in 2005 and 18% in 2001.
- ◆ The asset classes most frequently mentioned for increased allocations in 2006-2007 are: MBS (21%), Agencies (16%); ABS (14%); Covered Bonds (12%); Gold (8%); TIPS (8%); Corporate Bonds (5%) and Equities (4%). U.S. Agencies and Treasuries were listed as the asset classes mostly like to be reduced (6% and 5%, respectively). EM debt is also likely to be reduced.

Why Corporate Crossover Buyers?

Issuer	Rating	Coupon	Maturity	Sprd T-Crv
2003 FNCL 4.5	Agency	4.500	-	100/C/144 (7.84 yr)
2003 FNCL 5.0	Agency	5.000	-	103/C/162 (7.33 yr)
CIT CIT Group	A2/A	5.400	1/30/16	116
DIS Walt Disney	A3/A-	5.625	9/15/16	69
COP Conoco	A1/A-	5.625	10/15/16	69
DIAG DIAGEO CAP PLC	A3/A-	5.500	9/30/16	93

Prices as of the close on Monday, May 14, 2007.

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