NAIC National Association of Insurance Commissioners & The Center for Insurance Policy and Research

Capital Markets Special Report

The **NAIC's Capital Markets Bureau** monitors developments in the capital markets globally and analyzes their potential impact on the investment portfolios of US insurance companies. A list of archived Capital Markets Bureau Special Reports is available via the **index**

The Insurance Industry's Investments in Residential Mortgage-Backed Securities

The U.S. insurance industry has historically been a significant investor in residential mortgage-backed securities (RMBS). The following table is a breakdown of the industry's exposure as of year end 2010.

($millions)	Life	Property	Health	Fraternal	Title	Total
FNMA	97,945	48,478	7,106	5,364	189	159,083
FHLMC	93,064	33,371	4,276	4,147	70	134,929
GNMA	49,929	22,416	1,874	2,681	78	76,978
Total Agency	240,938	104,265	13,257	12,193	337	370,989
Non-Agency	109,615	14,292	775	3,121	3	127,806
Home Equity	412	32	0	10	0	454
Total RMBS	350,966	118,589	14,031	15,323	340	499,249

The majority of the industry's exposure (74%) is in agency-backed paper — Fannie Mae (chartered as the Federal National Mortgage Association or FNMA), Freddie Mac (the Federal Home Loan Mortgage Corporation or FHLMC) and Ginnie Mae (the Government National Mortgage Association or GNMA) — which have the backing of the U.S. government. The remaining exposure, $127.8 billion in book/adjusted carrying value (BACV), consists of non-agency, or private label, securities. The above table also includes a relatively small exposure in home equity loan securitizations, though often these are not considered part of the RMBS market because of their relatively unique characteristics. The U.S. insurance industry's exposure to RMBS totaled $499 billion at year-end 2010, a 4% decline from year-end 2009's total of $520 billion. Agency RMBS exposure increased modestly year-over-year for 2010, from a total of $364 billion to $371 billion. Non-agency exposure, on the other hand, declined more significantly to $128 billion from $151 billion as of year-end 2009.

The reduction in exposure in non-agency holdings is not surprising, given that there has been nearly no new issuance in the past few years. In the meantime, existing holdings declined as a result of amortizations, as well as disposition activity and selected revaluations due to ongoing credit concerns. (Valuation guidance under *SSAP No. 43R—Loan-Backed and Structured Securities – Revised*, requires an insurer to reduce its carrying value by taking a realized loss through an other-than-temporary impairment (OTTI) or an unrealized loss by marking a bond to fair value.) On the latter point, as previously reported, the insurance industry took impairments and negative fair value revaluations in 2009 that totaled approximately $15 billion. The industry followed up in 2010, with additional impairments of approximately $480 million. However, improvements in liquidity and market sentiment also allowed the insurance industry to record fair value improvements that almost entirely offset the impairments taken.

It is also worth noting that the industry has significant holdings in the direct issues of Fannie Mae and Freddie Mac.

($millions)	Life	Property	Health	Fraternal	Title	Total
FNMA	9,076	7,205	1,234	552	42	18,116
FHLMC	9,922	9,231	1,644	514	18	21,328
Total	18,998	16,436	2,878	1,066	60	39,444

RMBS Modeling for Non-Agency Holdings

Beginning with year-end 2009, the NAIC changed the process by which state-regulated insurance companies determined risk-based capital (RBC) charges for non-agency RMBS. Previously, individual RMBS holdings were assigned an NAIC designation based on a formulaic translation of ratings from nationally recognized statistical rating organizations (NRSROs). For 2009 and 2010, the NAIC decided to instead model each individual RMBS holding, numbering approximately 20,000 securities, based on a common set of economic scenarios. The scenarios were adopted at the end of each year, after public exposure and discussion, by the Valuation of Securities (E) Task Force (VOSTF) and its parent committees. For both 2009 and 2010, five different scenarios were used and each translated into expectations for changes in home price values over the near and longer term. The assumptions used for the two years are detailed in the following table:

Scenario	2009 Probability Weight	2009 peak to Trough	2010 Probability Weight	2010 Peak to Trough
Most Aggressive	2.5%	-33%	5%	-31%
Aggressive	22.5%	-35%	20%	-31%
Baseline	50.0%	-38%	50%	-34%
Conservative	22.5%	-41%	20%	-38%
Most Conservative	2.5%	-61%	5%	-59%

At the NAIC's 2011 Spring National Meeting, the VOSTF expressed the intention to follow the same process for year-end 2011, with the expectation that the current procedure would be continued for the foreseeable future.

This process not only reduces the NAIC's reliance on the NRSROs, but it also increases regulatory oversight of the process and ensures greater consistency over how NAIC designations are determined. In addition, it draws a comparison of the insurers' BACV price to the expected recovery value for a particular holding. The NRSRO process had assumed that all bonds were purchased and held at par value. In what has been, since 2008, an extremely volatile marketplace for RMBS, this has rarely been the case. Instead, purchases are made at prices significantly different from par. In addition, statutory accounting guidance requires a regular review of holdings and, where appropriate, impairments are taken to reflect recovery expectations. Certain holdings also are required to be held at the lower of cost or market value. Given historically high levels of delinquencies, defaults and foreclosures on residential mortgages nationwide, this has had a substantial impact on the overall market of RMBS, including those holdings of the insurance industry. A dramatic decline in liquidity also has had an additional negative impact on the market value of holdings.

2010 Results

Each individual RMBS held by an insurer was modeled using these different scenarios, utilizing loan-level details (dated as of November in each respective year) on the individual assets underlying the RMBS. Modeling results were delivered to insurers at the end of December for each of their respective holdings.

A comparison of the modeling results for 2010 vs. 2009 reveals that the average expected recovery value of the insurance industry's holdings for securities that were held in both years decreased modestly, from 83.29% to 80.61%.

NAIC	Expected Recovery %	BACV Price %	Total Carrying Value $	% of BACV
1	88.78	81.32	91,063,378,362	71.3
2	93.15	94.75	10,391,264,856	8.1
3	87.01	91.45	11,766,870,185	9.2
4	75.80	85.20	9,900,566,069	7.8
5	57.62	72.56	3,825,923,971	3.0
6	14.54	31.95	776,084,671	0.6
Total	84.82	80.94	127,724,088,114	

The breakdown by NAIC designation, shown in the table above for 2010, is not materially different from the results at the end of 2009, when 78.3% of the insurance industry's exposure received an NAIC designation of 1 or 2.

In considering the results, it is important to note not only the average of expected recovery values for each NAIC designation grouping, but also the relationship between those average expected recovery values and the average BACV prices for that NAIC designation. In the case of bonds receiving an NAIC 1 designation, the average BACV price is approximately 7.4 points below the average expected recovery value. The relationship reverses in the case of NAIC 2 and the margin of differential increases as the table progresses down to NAIC 6.

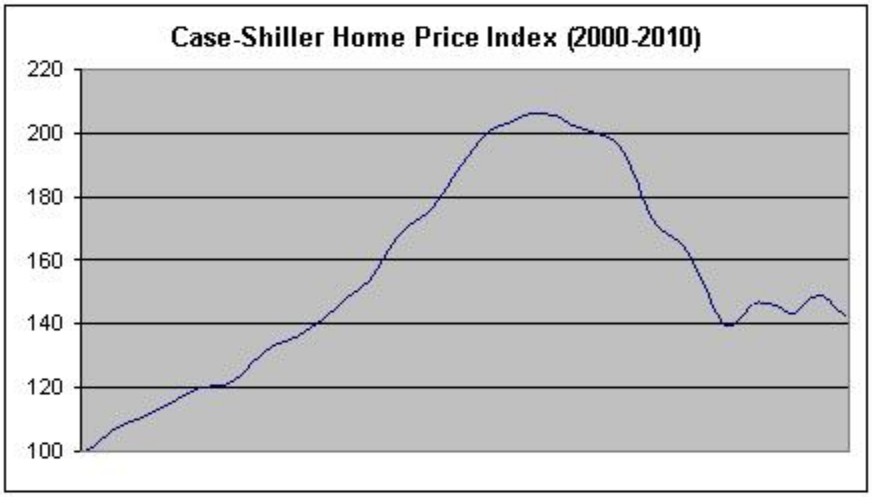
Using this modeling process, the relationship between the average BACV price and the average expected recovery value drives the differentials in NAIC designations, as opposed to the process employed prior to 2009, which relied on NRSRO ratings. The table below focuses on these differentials:

	Expected Recovery %	BACV %	Total BACV $	% of BACV	Total Par Value $
Higher Designation	79.57	73.10	73,376,858,004	59.0	94,782,617,784
No Change	92.68	90.85	48,407,848,212	37.9	52,201,869,917
Lower Designation	76.81	88.92	3,939,381,898	3.1	2,383,294,747

Following the same logic, bonds that received a higher, or better, designation than what otherwise would have resulted using NRSRO ratings had a BACV price significantly below the average expected recovery values. A significant percentage of bonds, 37.9%, reported the same designation. And, finally, a relatively small percentage was assigned a lower designation with the current procedure. The bonds that received a lower designation had a higher BACV price than the expected recovery value.

Prospects for the Future

There are indications that delinquencies in residential mortgages might be stabilizing. However, concerns continue to be prevalent. General home price indices have yet to show any significant or consistent strength. Without sustained improvement, the possibility of a further uptick in defaults will overhang the market. These concerns were highlighted in our previous special report titled, "Continuing Concerns for the Housing Market and Residential Mortgage-Backed Securities."



As the insurance industry's total exposure to RMBS has declined in recent years, especially in non-agency RMBS, an additional question is whether that trend will continue. Mortgage originations in general continue to be well below their peak in 2003–2005. Securitization of non-agency residential mortgages has been almost non-existent. At the same time, the federal government is discussing the prospect of unwinding Fannie Mae and Freddie Mac, and is looking to the private market to replace that capital. The beginning stages of that discussion were highlighted in another special report titled, "Issues and Challenges in Reforming the U.S. Housing Finance Market." The non-agency securitization market's ability to replace that capital will be impacted by rules regarding risk retention. However, if that is the long-term solution, it is difficult to imagine the insurance industry not playing a prominent role as a provider of long-term capital.

April 29, 2011								
Major Insurer Share Prices			**Change %**			**Prior**		
		Close	**Week**	**QTD**	**YTD**	**Week**	**Quarter**	**Year**
Life	Aflac	$56.19	4.7	6.5	(0.4)	$53.66	$52.78	$56.43
	Ameriprise	62.06	(2.3)	1.6	7.8	63.52	61.08	57.55
	Genworth	12.19	1.4	(9.4)	(7.2)	12.02	13.46	13.14
	Lincoln	31.23	4.7	4.0	12.3	29.83	30.04	27.81
	MetLife	46.79	5.4	4.6	5.3	44.38	44.73	44.44
	Principal	33.75	6.1	5.1	3.7	31.81	32.11	32.56
	Protective	26.91	2.8	1.4	1.0	26.18	26.55	26.64
	Prudential	63.42	2.7	3.0	8.0	61.73	61.58	58.71
	UNUM	26.48	2.6	0.9	9.3	25.80	26.25	24.22
PC	ACE	$67.25	3.0	3.9	8.0	$65.32	$64.70	$62.25
	Axis Capital	35.36	(0.1)	1.3	(1.4)	35.38	34.92	35.88
	Allstate	33.84	6.9	6.5	6.1	31.65	31.78	31.88
	Arch Capital	104.00	2.4	4.8	18.1	101.61	99.19	88.05
	Cincinnati	31.68	(1.4)	(3.4)	(0.0)	32.12	32.79	31.69
	Chubb	65.19	5.9	6.3	9.3	61.56	61.31	59.64
	Everest Re	91.12	1.5	3.3	7.4	89.77	88.18	84.82
	Progressive	21.94	3.9	3.8	10.4	21.12	21.13	19.87
	Travelers	63.28	3.2	6.4	13.6	61.32	59.48	55.71
	WR Berkley	32.61	2.7	1.2	19.1	31.76	32.21	27.38
	XL	24.42	1.0	(0.7)	11.9	24.19	24.60	21.82
Other	AON	$52.17	(0.0)	(1.5)	13.4	$52.18	$52.96	$46.01
	AIG	31.15	(3.1)	(11.4)	(35.5)	32.16	35.14	48.27
	Assurant	39.70	4.2	3.1	3.1	38.11	38.51	38.52
	Fidelity National	15.44	3.3	9.3	12.9	14.95	14.13	13.68
	Hartford	28.97	5.2	7.6	9.4	27.54	26.93	26.49
	Marsh	30.28	1.7	1.6	10.8	29.78	29.81	27.34
Health	Aetna	$41.38	5.9	10.6	35.6	$39.06	$37.43	$30.51
	Cigna	46.83	3.4	5.8	27.7	45.29	44.28	36.66
	Humana	76.12	5.2	8.8	39.1	72.34	69.94	54.74
	United	49.23	3.0	8.9	36.3	47.81	45.20	36.11
	WellPoint	76.79	6.3	10.0	35.1	72.27	69.79	56.86
Monoline	Assured	$17.00	(0.8)	14.1	(4.0)	$17.13	$14.90	$17.70
	MBIA	10.32	(5.2)	2.8	(13.9)	10.89	10.04	11.99
	MGIC	8.66	7.3	(2.6)	(15.0)	8.07	8.89	10.19
	PMI	2.16	7.5	(20.0)	(34.5)	2.01	2.70	3.30
	Radian	5.93	7.4	(12.9)	(26.5)	5.52	6.81	8.07
	XL Capital	24.42	1.0	(0.7)	11.9	24.19	24.60	21.82

April 29, 2011								
Major Market Variables			**Change %**			**Prior**		
		Close	**Week**	**QTD**	**YTD**	**Week**	**Quarter**	**Year**
Dow Jones Ind		12,810.54	2.4	4.0	10.7	12,505.99	12,319.73	11,577.51
S&P 500		1,363.61	2.0	2.8	8.4	1,337.38	1,325.83	1,257.64
S&P Financial		220.49	1.7	(0.1)	2.7	216.86	220.71	214.77
S&P Insurance		199.30	2.8	2.2	5.9	193.82	194.96	188.22
US Dollar $			**Change %**			**Prior**		
	/ Euro	$1.48	1.8	4.6	10.6	$1.45	$1.42	$1.34
	/ Crude Oil bbl	113.93	1.5	6.8	23.5	112.29	106.72	92.22
	/ Gold oz	1,556.40	3.5	8.2	9.5	1,503.20	1,438.90	1,420.78
Treasury Ylds %		%	**Change**			%	%	%
	1 Year	0.19	(0.02)	(0.09)	(0.08)	0.22	0.28	0.27
	10 Year	3.29	(0.10)	(0.18)	(0.01)	3.39	3.47	3.30
	30 Year	4.40	(0.07)	(0.11)	0.06	4.47	4.51	4.34
Corp Credit Spreads -bp			**Change %**			**Prior**		
	CDX.IG	75.13	(6.7)	(10.4)	(11.6)	80.48	83.81	85.00

April 29, 2011
Major Insurer Bond Yields

	Company	Coupon	Maturity	Price Current	Price Change	Price Yield	Spread B.P.	Spread Change
Life	Aflac	8.500%	5/15/2019	$123.38	$1.57	4.94%	198	(11)
	Ameriprise	5.300%	3/15/2020	$108.57	$0.97	4.13%	104	1
	Genworth	6.515%	5/15/2018	$101.89	$1.07	6.18%	343	(5)
	Lincoln National	8.750%	7/15/2019	$129.06	$1.49	4.46%	151	(3)
	MassMutual	8.875%	6/15/2039	$140.88	$1.67	5.88%	150	(2)
	MetLife	4.750%	2/15/2021	$102.25	$0.96	4.46%	116	0
	Mutual of Omaha	6.800%	6/15/2036	$104.84	($1.94)	6.41%	221	23
	New York Life	6.750%	11/15/2039	$116.77	$1.19	5.57%	117	(0)
	NLV Financial	7.500%	8/15/2033	$116.91	$1.60	6.10%	207	(2)
	Northwestern Mutual	6.063%	3/15/2040	$108.15	$1.31	5.50%	108	(1)
	Pacific Life	9.250%	6/15/2039	$134.89	$1.89	6.52%	217	(3)
	Principal	6.050%	10/15/2036	$105.96	$0.88	5.61%	134	(1)
	Prudential	4.500%	11/15/2020	$100.26	$1.00	4.47%	121	(1)
	TIAA	6.850%	12/15/2039	$116.58	$2.01	5.67%	129	(4)
P&C	ACE INA	5.900%	6/15/2019	$112.76	$1.17	4.04%	107	(3)
	Allstate	7.450%	5/15/2019	$121.08	$1.07	4.32%	138	(0)
	American Financial	9.875%	6/15/2019	$125.86	$1.85	5.83%	285	(17)
	Berkshire Hathaway	5.400%	5/15/2018	$111.60	$0.75	3.52%	83	3
	Travelers	3.900%	11/15/2020	$96.98	$1.11	4.29%	105	(3)
	XL Group	6.250%	5/15/2027	$101.50	$1.71	6.10%	246	1
Other	AON	5.000%	9/15/2020	$103.10	$0.99	4.59%	135	(3)
	AIG	5.850%	1/15/2018	$106.20	$1.11	4.76%	215	(2)
	Fidelity National	7.875%	7/15/2020	$111.44	$0.19	6.22%	423	5
	Hartford	5.500%	3/15/2020	$104.54	$1.64	4.86%	175	(9)
	Marsh	9.250%	4/15/2019	$128.95	$0.88	4.82%	188	(2)
	Nationwide	9.375%	8/15/1939	$127.18	$1.72	7.13%	277	(4)
Health	Aetna	3.950%	9/15/2020	$98.71	$1.19	4.12%	88	(2)
	CIGNA	5.125%	6/15/2020	$105.97	$0.91	4.32%	112	1
	United Healthcare	3.875%	10/15/2020	$97.37	$1.13	4.21%	97	(1)
	Wellpoint	4.350%	8/15/2020	$101.28	$0.83	4.18%	100	2

Questions and comments are always welcome. Please contact the Capital Markets Bureau at **CapitalMarkets@naic.org**.