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Industry Report

Financials

Private Mortgage Insurers

Implications for Private Mortgage Insurance Industry from Sale of United Guaranty by AIG to Arch Capital

Arch Capital Group (AGCL, Not Rated) CEO Constantine Iordanou during the company's 2Q16 conference call in late July emphasized the need for the company to diversify its revenue streams as a means of offsetting the impact of narrowing reinsurance returns on its operating results. AGCL yesterday after the market close took a large step toward that desired diversification when it agreed to buy private mortgage insurer (PMI) United Guaranty from AIG (AIG, Not Rated) for \$3.4bn in cash and preferred stock.

- The deal, which is subject to regulatory approval and expected to close in late 4Q16 or early 1Q17, had implications for the valuations and perhaps the operating prospects of the five firms – Radian Group (RDN, Buy, \$22 PT), MGIC Investment Corporation (MTG, Buy, \$12 PT), Essent Group (ESNT, Buy, \$31 PT), NMI Holdings (NMIH, Buy, \$10 PT) and Genworth Financial (GNW, Buy, \$5 PT) – that together with Arch Mortgage Insurance and United Guaranty make up the U.S. PMI industry.
- ▶ From a valuation standpoint, the \$3.4bn that AGCL agreed to pay for United Guaranty represented 9.5x of its 2015 earnings per share. As seen in the table on page 3, applying that multiple to BTIG's FY18 EPS estimates for RDN, MTG, ESNT and NMIH – the pure-play U.S. PMIs – translates into upside of 37%, 38%, 5% and 62%, respectively, versus their closing prices yesterday. With that said, we believe the faster growth trajectories of ESNT and NMIH may merit higher multiples than their slower-growth peers.
- While GNW is a more diversified insurer than the other PMIs, the success of its hoped-for split hinges on the valuation of its U.S. mortgage insurance unit, and the United Guaranty print appears to have helped its cause. The company's long-term goal is to separate its U.S., Canada and Australia mortgage insurance units from its life and long-term care insurance businesses as a means of unlocking shareholder value.
- If anything, we believe the multiple implied by the price AGCL agreed to pay for United Guaranty might have been higher if AIG had not been a motivated seller; the giant insurer's alternative was to sell part of its mortgage insurance business via an initial public offering – with an uncertain reception amidst a weak market for new issues.



- Also potentially contributing to AIG's willingness to accept a lower valuation for United Guaranty as a condition of selling all of the unit is the contribution such a sale would allow toward its goal of returning \$25bn in capital to shareholders by YE17.
- Moreover, we believe that AGCL was likely the only player in the U.S. PMI space that had the size and wherewithal to make the deal happen, and that lack of other plausible bidders may have been a factor in limiting the price that AIG received - a factor unlikely to be in play if the other, smaller PMIs were to be targeted.
- The deal represented the first movement in years toward what some believe to be much-needed consolidation in the PMI space. MTG CEO Patrick Sinks during an investor conference in June created some buzz when he observed that "I don't know that there's enough business to go around for seven [mortgage insurance] companies in the long term."
- While others such as ESNT CEO Mark Casale subsequently disagreed – he asserted that the U.S. could support seven PMIs – the backtracking by the U.S. government on its previously outlined intentions to cede a larger portion of the nation's mortgage insurance volume to the PMIs given a change in leadership at the FHFA caused some investors to question the insurers' growth prospects absent increased risk-sharing with the government or consolidation within the industry.
- Some investors had seen the potential for the planned IPO of United Guaranty to make the business less competitive such that a portion of its 20% market share within the U.S. could be more readily contested. After AIG in January announced its plan to sell up to 19.9% of United as a first step toward a full separation, Moody's gave fuel to investor concerns - and perhaps its PMI peers' market-share ambitions - by noting the potential for the mortgage insurer to face a higher cost of capital and more compliance expenses as a public company.
- With Arch as its new parent, United Guaranty is unlikely face such issues, and the competitive boost some had hoped would be enjoyed by the other PMIs given a stand-alone United is not apt to materialize. Arch is rated 'A+' by Standard & Poor's, A.M. Best and Fitch and 'A1' by Moody's, and its mortgage insurance unit already has a robust compliance apparatus while generating about 11% of its premium revenue.



Valuations Implications of United Guaranty Sale

BTIG Diluted EPS Estimates	2015A	2016E	2017E	2018E
Essent Group Itd.	\$1.72	\$2.30	\$2.61	\$2.88
MGIC Insurance Corporation	\$1.13	\$0.87	\$0.98	\$1.11
NMI Holdings Inc.	(\$0.44)	\$0.14	\$0.67	\$1.20
Radian Group Inc.	\$1.23	\$1.53	\$1.81	\$1.95
Source: BTIG Estimates and Company Documents				

Valuation at 9.5X Diluted EPS	2015A	2016E	2017E	2018E
Essent Group Itd.	\$16.29	\$21.86	\$24.84	\$27.37
MGIC Insurance Corporation	\$10.73	\$8.23	, \$9.28	\$10.54
NMI Holdings Inc.	(\$4.19)	\$1.31	\$6.36	\$11.38
Radian Group Inc.	\$11.71	\$14.52	\$17.17	\$18.51
Source: BTIG Estimates and Company Documents				

Upside (Downside) to 08/15/16 Closing Price2018EEssent Group Itd.5.2%MGIC Insurance Corporation38.2%NMI Holdings Inc.61.9%Radian Group Inc.37.4%

Source: BTIG Estimates and Company Documents



Essent Group Operating Model

Operating Model - ESNT	Dec-14	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Dec-17	Dec-18
(\$ millions)	2014A	2015A	1Q16A	2Q16A	3Q16E	4Q16E	2016E	1Q17E	2Q17E	3Q17E	4Q17E	2017E	2018E
Net premiums written	276.78	370.57	100.47	108.51	116.48	119.14	444.60	118.25	124.08	129.12	131.05	502.51	547,49
Increase in unearned premiums	(53.55)	(44.10)	(6.06)	(7.80)	(8.63)	(8.83)	(31.32)	(7.74)	(8.12)	(8.45)	(8.57)	(32.87)	(35.82)
Net premiums earned	(55.55) 223.23	(44.10) 326.47	(8.08) 94.40	(7.80) 100.71	(8.65) 107.85	(8.85) 110.31	(51.52) 413.28	(7.74) 110.52	(8.12) 115.96	(8.45) 120.68	(٥.57) 122.48	(32.87) 469.63	511.67
Net premums earned	223.23	320.47	94.40	100.71	107.85	110.51	415.28	110.52	115.90	120.08	122.48	469.65	511.67
Net investment income	12.29	19.89	6.18	6.70	6.84	6.97	26.69	7.32	7.69	8.07	8.47	31.55	38.35
Realized investment gains	0.93	2.55	0.47	0.58	-	-	1.05	-	-	-	-	_	-
Other income	3.03	4.38	1.41	0.17	0.17	0.18	1.93	0.19	0.20	0.20	0.21	0.80	0.87
Revenue	239.47	353.29	102.47	108.17	114.86	117.46	442.95	118.03	123.85	128.95	131.16	501.98	550.89
Provision for losses and LAE	6.31	11.91	3.73	2.96	3.19	3.43	13.31	3.68	3.96	4.26	4.57	16.47	20.70
Other underwritting and operating expenses	97.23	112.99	31.39	31.41	32.98	34.30	130.08	34.64	34.99	35.34	35.69	140.66	146.37
Losses and expenses	103.54	124.89	35.12	34.37	36.17	37.72	143.38	38.32	38.95	39.59	40.27	157.13	167.07
Loss before income taxes	135.93	228.40	67.35	73.79	78.69	79.74	299.57	79.71	84.90	89.36	90.89	344.86	383.82
Income tax expense (benefit)	47.43	71.07	19.40	21.53	22.82	23.12	86.88	23.12	24.62	25.91	26.36	100.01	111.31
Net income	88.50	157.33	47.95	52.26	55.87	56.61	212.70	56.59	60.28	63.44	64.53	244.85	272.51
Diluted EPS	1.01	1.72	0.52	0.57	0.60	0.61	2.30	0.61	0.64	0.68	0.69	2.61	2.88
Diluted shares outstanding	87.95	91.74	91.86	92.14	92.60	93.06	92.41	93.29	93.53	93.76	94.00	93.64	94.58
Average primary IIF	42,770.3	59,248.0	66,479.6	69,991.9	73,976.0	76,549.0	72,564.9	78,176.5	80,885.8	84,514.3	86,839.8	83,211.2	92,373.0
Total primary NIW	24,799.4	25,927.5	5,366.7	8,715.2	7,753.9	6,269.2	28,104.9	6,171.7	8,628.0	8,335.4	6,457.3	29,592.4	30,480.2
Average premium rate	0.56%	0.58%	0.58%	0.58%	0.57%	0.57%	0.57%	0.56%	0.56%	0.56%	0.56%	0.56%	0.55%
Book value per share	10.87	12.20	12.72	13.08	13.69	14.30	14.30	14.90	15.55	16.22	16.91	16.91	19.79
Tax rate	34.89%	31.12%	28.80%	29.18%	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%
Fourses RTIC Estimates and Company Desumen		31.12/0	20.00/0	23.10/0	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%	29.00%

Source: BTIG Estimates and Company Documents



MGIC Investment Corporation Operating Model

MGIC - Operating Model	Dec-12	Dec-13	Dec-14	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Dec-17	Dec-18
\$ Millions	2012A	2013A	2014A	2015A	1Q16A	2Q16A	3Q16E	4Q16E	2016E	1Q17E	2Q17E	3Q17E	4Q17E	2017E	2018E
Net premiums written	1,017.83	923.48	881.96	1,020.28	231.28	250.02	247.29	251.88	980.47	259.28	266.41	273.97	280.28	1,079.93	1,185.58
Increase in unearned premiums	15.34	19.57	(37.59)	(124.06)	(9.94)	(18.56)	(11.78)	(11.99)	(52.27)	(12.35)	(12.69)	(13.05)	(13.35)	(51.43)	(56.46)
Net premiums earned	1,033.17	943.05	844.37	896.22	221.34	231.46	235.51	239.89	928.20	246.93	253.72	260.92	266.93	1,028.50	1,129.12
Investment income	121.64	80.74	87.65	103.74	27.81	27.25	27.79	28.35	111.20	29.20	30.08	30.98	31.91	122.16	130.85
Realized investment gains	197.72	6.06	1.50	27.72	3.06	0.84	-	-	3.89	-	-	-	-	-	-
Total other than temporaty losses	(2.31)	(0.33)	(0.14)	0.64	-	-	-	-	-	-	-	-	-	-	-
Prostion of losses recognized in other comprehensive income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net impairment losses recognized in earnings	(2.31)	(0.33)	(0.14)	0.64	-	-	-	-	-	-	-	-	-	-	-
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Other revenue	28.15	9.91	8.42	12.46	6.37	3.99	4.03	4.07	18.48	4.07	4.12	4.16	4.20	16.54	17.04
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Total revenues	1,378.36	1,039.44	941.80	1,040.78	258.58	263.53	267.34	272.31	1,061.76	280.20	287.91	296.06	303.03	1,167.20	1.277.02
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Losses incurred	2.067.25	838.73	496.08	343.55	85.01	46.59	80.75	82.25	294.60	83.86	86.17	86.15	88.14	344.32	378.02
Change in premium deficiency reserve	(61.04)	(25.32)	(24.71)	(23.75)	_	-	-	_	-	-	_	-	-	-	-
Amortization of deferred policy acquisition costs	7.45	10.64	7.62	-	-	-	-	-	-	-	-	-	-	-	-
Underwritting and operating expenses	194.00	181.88	138.44	164.37	41.74	37.59	37.69	37.78	154.80	37.88	37.97	38.07	38.16	152.07	154.56
Loss on extinguishment of debt			-		13.44	1.87	-	-	15.31	-	-	-	-	-	
Interest expense	99.34	79.66	69.65	68.93	14.70	12.24	11.61	11.61	50.17	11.61	11.61	11.61	11.61	46.46	46.46
Total losses and expenses	2,307.01	1,085.59	687.07	553.09	154.89	98.30	130.05	131.64	514.88	133.35	135.75	135.83	137.91	542.85	579.04
	2,507.01	1,005.55	00/10/	333.03	134.05	50.50	150.05	151.04	514.00	100.00	100.70	100.00	157.51	5-12.05	5/ 5/04
Income (loss) before income taxes	(928.64)	(46.15)	254.72	487.69	103.69	165.24	137.29	140.67	546.89	146.85	152.16	160.22	165.12	624.35	697.98
Provision for income taxes	(1.57)	3.70	2.77	(684.31)	34.50	56.02	45.31	46.42	182.24	48.46	50.21	52.87	54.49	206.04	216.37
Net income (loss)	(927.08)	(49.85)	251.95	1,172.00	69.19	109.22	91.98	94.25	364.64	98.39	101.95	107.35	110.63	418.32	481.60
	(027100)	(15100)		-,	00.120		52.50	0.120		50.05	101.00	207100	110.00	.10.01	.02.00
Adjusted EPS	(\$4.59)	(\$0.16)	\$0.61	\$1.13	\$0.17	\$0.26	\$0.22	\$0.22	\$0.87	\$0.23	\$0.24	\$0.25	\$0.26	\$0.98	\$1.11
Diluted shares outstanding	201.89	311.75	413.55	460.85	431.37	446.14	446.14	446.14	442.45	446.59	447.03	447.48	447.93	447.26	450.73
	201.00	511/75	110100	100105	101107	110111	110111	110121	112113	110100	11/105		11/100	117120	130175
Tax rate	0.2%	-8.0%	1.1%	-140.3%	33.3%	33.9%	33.0%	33.0%	33.3%	33.0%	33.0%	33.0%	33.0%	33.0%	31.0%
Book Value per diluted share	0.270	2.20	2.36	4.78	5.43	5.63	5.84	6.05	6.05	6.26	6.48	6.72	6.96	6.96	7.95
	0.57	2.20	2.50	4.70	5.45	5.05	5.04	0.05	0.05	0.20	0.40	0.72	0.50	0.50	7.55
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Average primary IIF	166,537.5	159,425.0	160,350.0	169,300.0	174,750.0	176,250.0	179,437.5	182,771.4	178,302.2	186,361.5	191,487.0	196,923.5	201,455.8	194,057.0	213,041.8
Total primary NIW	24,100.0	29,800.0	33,400.0	43,000.0	8,300.0	12,600.0	9,300.0	8,330.0	38,530.0	9,130.0	10,710.0	9,997.5	9,163.0	39,000.5	40,170.5
	0.62%	0.59%	0.53%	43,000.0	0.51%	0.53%	9,500.0 0.53%	0.53%	0.52%	9,130.0 0.53%	0.53%	9,997.5 0.53%	9,165.0 0.53%	0.53%	40,170.5
Average premium rate	0.02%	0.39%	0.35%	0.35%	0.31%	0.33%	0.33%	0.35%	0.3270	0.33%	0.35%	0.35%	0.35%	0.35%	0.35%
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Source: BTIG Estimates and Company Documents



NMI Holdings Operating Model

NMIH - Operating Model	Dec-12	Dec-13	Dec-14	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Dec-17	Dec-18
\$ Millions	2012A	2013A	2014A	2015A	1Q16A	2Q16A	3Q16E	4Q16E	2016E	1Q17E	2Q17E	3Q17E	4Q17E	2017E	2018E
Net premiums written	-	3.54	34.03	114.21	38.13	48.86	55.42	64.75	207.16	60.71	63.14	64.35	67.10	255.30	310.23
Increase in unearned premiums	-	(1.45)	(20.62)	(68.70)	(18.32)	(22.82)	(23.75)	(27.75)	(92.65)	(20.24)	(18.04)	(14.85)	(13.42)	(66.55)	(60.04)
Net premiums earned	-	2.10	13.41	45.51	19.81	26.04	31.67	37.00	114.52	40.47	45.10	49.50	53.68	188.75	250.19
Net investment income	0.01	4.81	5.62	7.25	3.23	3.34	3.41	3.48	13.46	3.65	3.69	3.72	3.76	14.82	16.04
Net realized investment gains	-	0.19	0.20	0.83	(0.89)	0.06	-	-	(0.82)	-	-	-	-	-	-
Other revenues	0.28	(1.53)	2.99	1.93	0.03	0.04	-	-	0.07	-	-	-	-	-	-
Total revenues	0.28	5.56	22.21	55.51	22.19	29.48	35.08	40.48	127.22	44.13	48.79	53.22	57.44	203.58	266.22
Insurance claims and claims expense	-	-	0.08	0.65	0.46	0.47	1.90	2.23	5.06	5.06	5.64	6.19	6.71	23.59	31.60
Amortization of deferred policy acquisition costs	-	0.00	0.37	-	-	-	-	-	-	-	-	-	-	-	-
Underwritting and operating expenses	27.78	60.74	73.04	80.60	22.67	23.23	23.81	24.41	94.13	24.78	25.15	25.27	25.40	100.60	102.88
Total expenses	27.78	60.74	73.50	81.25	23.13	23.70	25.72	26.64	99.19	29.84	30.79	31.46	32.11	124.19	134.48
Gain (loss) from change in fair value of warrant liability		(1.53)	2.95	1.91	0.67	(0.06)	-	-	0.61	-	-	-	-	-	-
Interest expense	-	-	-	(2.06)	(3.63)	(3.71)	(3.71)	(3.71)	(14.75)	(3.71)	(3.71)	(3.71)	(3.71)	(14.83)	(14.83)
Income (loss) before income taxes	(27.49)	(56.71)	(48.34)	(25.89)	(3.91)	2.01	5.65	10.14	13.89	10.58	14.29	18.05	21.63	64.56	116.91
Income tax expense (benefit)	-	-	(2.39)	-	-	-	1.98	3.55	5.53	3.70	5.00	6.32	7.57	22.60	40.92
Net income (loss)	(27.49)	(56.71)	(45.96)	(25.89)	(3.91)	2.01	3.67	6.59	8.37	6.88	9.29	11.74	14.06	41.96	75.99
Diluted EPS	(0.73)	(1.01)	(0.79)	(0.44)	(0.07)	0.03	0.06	0.11	0.14	0.11	0.15	0.19	0.22	0.67	1.20
	27.04	56.01	50.00	50.50	50.04	50.00	C4 C 7	64 70	60.55	62.46	CO 55	CO T	62.07	62.65	
Diluted shares outstanding	37.91	56.01	58.28	58.70	59.01	59.83	61.62	61.78	60.56	62.40	62.55	62.71	62.87	62.63	63.42
Book value	488.75	463.22	426.96	402.73	410.06	422.44	426.11	432.70	432.70	448.34	467.14	488.91	513.89	513.89	634.01
DTA valuation	8.20	35.78	53.73	66.40	67.88	67.12	64.97	61.12	61.12	57.10	51.67	44.81	36.59	36.59	-
Adjusted book value	496.94	499.00	480.69	469.13	477.94	489.55	491.08	493.82	493.82	505.44	518.81	533.72	550.48	550.48	634.01
Book value per share	12.89	8.27	7.33	6.84	6.95	7.06	6.91	7.00	7.00	7.19	7.47	7.80	8.17	8.17	9.96
DTA valuation per share	0.22	0.64	0.92	1.13	1.15	1.12	1.05	0.99	0.99	0.92	0.83	0.71	0.58	0.58	-
Adjusted book value per share	13.11	8.91	8.25	7.97	8.10	8.18	7.97	7.99	7.99	8.10	8.29	8.51	8.76	8.76	9.96

Source: BTIG Estimates and Company Documents



Radian Group Operating Model

Radian - Operating Model	Dec-12	Dec-13	Dec-14	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Dec-17	Dec-18
\$ Millions	2012A	2013A	2014A	2015A	1Q16A	2Q16A	3Q16E	4Q16E	2016E	1Q17E	2Q17E	3Q17E	4Q17E	2017E	2018E
Net premiums earned - insurance	739.14	818.05	871.23	915.91	220.95	229.09	233.76	239.53	923.32	242.03	248.05	255.46	261.14	1,006.68	1,055.59
Services revenue	-	-	76.69	153.71	31.60	38.29	43.45	38.99	152.34	32.86	39.83	45.19	40.55	158.44	161.60
Net investment income	114.34	98.94	92.68	81.54	27.20	28.84	29.56	30.30	115.90	30.75	31.21	31.68	32.16	125.81	131.88
Net gains (losses) on investments	184.89	(145.52)	122.49	35.69	31.29	30.53	-	-	61.81	-	-	-	-	-	-
Change in fair value of derivatives	(144.03)	(70.36)	126.92	-	-	-	-	-	-	-	-	-	-	-	-
Net losses on other financial instruments	(82.27)	(5.79)	(0.90)	-	-	-	-	-	-	-	-	-	-	-	-
Other income	13.50	6.90	5.91	6.40	1.92	3.42	1.73	1.53	8.60	1.93	3.46	1.75	1.55	8.68	8.77
Total revenues	825.56	702.22	1,295.01	1,193.25	312.95	330.17	308.50	310.35	1,261.97	307.58	322.54	334.08	335.40	1,299.60	1,357.84
Provision for losses	959.17	571.27	249.55	198.59	42.99	49.73	51.79	53.07	197.57	54.05	55.39	57.04	58.31	224.79	261.28
Policy acquisition costs	61.88	39.57	29.51	22.42	6.39	5.39	5.42	5.45	22.65	5.47	5.50	5.53	5.56	22.06	22.51
Direct cost of services	-	-	43.61	89.16	21.75	24.86	24.98	25.11	96.70	25.36	25.49	25.61	25.74	102.20	104.77
Other operating expenses	196.67	276.12	267.52	246.96	58.99	65.68	66.01	66.34	257.02	65.68	66.33	67.00	67.67	266.67	272.00
Interest expense	51.83	74.62	90.46	91.10	21.53	22.55	18.14	18.14	80.35	18.14	18.14	18.14	18.14	72.54	72.54
Amortization of intangible assets	-	-	8.65	3.02	-	-	-	-	-	-	-	-	-	-	-
Loss on induced conversion and debt extinguishment	-	-	-	94.21	55.57	2.11	-	-	57.68	-	-	-	-	-	-
Change in reserve for premium defficiency	0.04	0.62	0.85	9.96	3.33	3.31	-	-	6.64	-	-	-	-	-	-
Total expenses	1,269.59	962.20	690.15	755.42	210.55	173.62	166.33	168.10	718.60	168.69	170.84	173.32	175.41	688.26	733.11
	(444.02)	(250.07)	604.07	427.02		456.55			542.27	430.00	454 70	460 76	450.00		624.72
Pretax income from continuing operations	(444.03)	(259.97)	604.87	437.83	102.40	156.55	142.17	142.26	543.37	138.90	151.70	160.76	159.99	611.34	624.73
Income tax expense (benefit)	7.27	(10.57)	(804.35)	156.29	36.15	58.44	49.76	49.79	194.14	48.61	53.10	56.27	56.00	213.97	193.67
Net income (loss) from continuing operations	(451.30)	(249.40)	1,409.22	281.54	66.25	98.11	92.41	92.47	349.24	90.28	98.61	104.49	103.99	397.37	431.06
Income (loss) from discontinued operations	(0.01)	52.42	(449.70)	5.39	-		-	-	-	-	-	-	-	-	-
Net income (loss)	(451.32)	(196.99)	959.52	286.92	66.25	98.11	92.41	92.47	349.24	90.28	98.61	104.49	103.99	397.37	431.06
Diluted EPS - continuing operations	(3.40)	(1.51)	6.03	1.14	0.28	0.43	0.41	0.41	1.53	0.41	0.45	0.48	0.48	1.81	1.95
Diluted EPS - discontinued operations	(0.00)	0.32	(1.93)	0.02	-	-	-	-	-	-	-	-	-	-	-
Diluted EPS	(3.40)	(1.19)	4.11	1.23	0.29	0.44	0.41	0.41	1.53	0.41	0.45	0.48	0.48	1.81	1.95
Diluted charge outstanding	132.79	165.27	233.58	247.11	239.71	226.20	224.70	223.20	228.45	221.70	220.20	219.20	218.20	219.83	221.21
Diluted shares outstanding	132.79	103.27	233.36	247.11	259.71	220.20	224.70	223.20	220.45	221.70	220.20	219.20	218.20	219.05	221.21
Tax rate	-1.6%	4.1%	-133.0%	35.7%	35.3%	37.3%	35.0%	35.0%	35.7%	35.0%	35.0%	35.0%	35.0%	35.0%	31.0%
Book Value per diluted share	5.57	5.43	8.64	10.07	11.10	12.40	13.04	13.69	13.69	14.33	15.03	15.74	16.46	16.46	18.99
				100.00/-		126 200 -	100 100 -		100 550 -		100 000 -				
Average primary IIF	133,340.0	153,966.3	167,097.3	173,821.5	175,485.0	176,529.0	180,128.8	184,578.5	180,553.8	187,987.0	192,657.3	198,412.5	202,828.9	197,743.1	210,157.7
Total primary NIW	37,061.0	47,255.0	37,349.0	41,411.0	8,071.0	12,921.0	10,337.8	9,554.0	40,883.8	8,514.9	12,275.0	10,958.1	9,936.1	41,684.0	42,309.3
Average premium rate	0.55%	0.53%	0.52%	0.53%	0.50%	0.52%	0.52%	0.52%	0.51%	0.52%	0.52%	0.52%	0.52%	0.51%	0.50%

Source: BTIG Estimates and Company Documents



BTIG Covered Companies Mentioned in this Report

NMI HOLDINGS, INC. (NMIH; Buy; CP: US\$7.03; US\$10 PT; Analyst Name: mark.palmer) ESSENT GROUP LTD. (ESNT; Buy; CP: US\$26.03; US\$31 PT; Analyst Name: mark.palmer) RADIAN GROUP, INC. (RDN; Buy; CP: US\$13.47; US\$22 PT; Analyst Name: Mark.Palmer) MGIC INVESTMENT CORPORATION (MTG; Buy; CP: US\$7.63; US\$12 PT; Analyst Name: Mark.Palmer) GENWORTH FINANCIAL, INC. (GNW; Buy; CP: US\$3.7; US\$5 PT; Analyst Name: mark.palmer)



Appendix: Analyst Certification and Other Important Disclosures

Analyst Certification

I, Mark Palmer, hereby certify that the views about the companies and securities discussed in this report are accurately expressed and that I have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report.

I, Giuliano Bologna, hereby certify that the views about the companies and securities discussed in this report are accurately expressed and that I have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report.

Regulatory Disclosures

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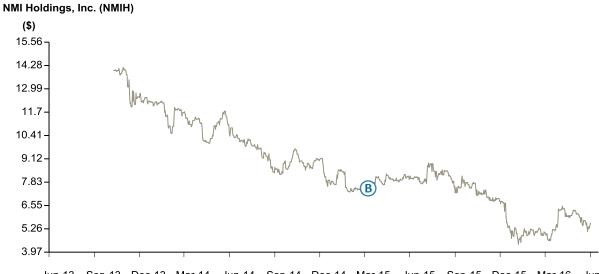
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Company Valuation and Risk Disclosures NMI Holdings, Inc. (NMIH, Buy, \$10 PT)

Valuation: Our price target of \$10 for NMIH is based on 10X our 2018E EPS of \$1.20 discounted back at 10% Risks: The primary risks to our thesis include: Additional moves by the FHA to make its mortgage insurance offering more competitive could adversely impact demand for NMIH's product. Competition with other PMIs could result in lower revenues and/or lower premium yields. A downturn in the U.S. economy could result in in higher delinquencies and higher losses on NMIH's existing portfolio.





Jun-13 Sep-13 Dec-13 Mar-14 Jun-14 Sep-14 Dec-14 Mar-15 Jun-15 Sep-15 Dec-15 Mar-16 Jun-16

Note: Closing	Price and Targe	t Price have been	adjusted for co	rporate actions.

Date	Closing Price (\$)	Target Price (\$)	Analyst	Rating
07-Apr-15	7.48	10	Mark Palmer	Buy

Essent Group Ltd. (ESNT, Buy, \$31 PT)

Valuation: Our price target of \$31 for ESNT is based on 12X our 17E EPS of \$2.61

Risks: Risks to our reccomendation include legislative or regulatory actions or decisions to change the role of the GSEs in the U.S. housing market, actions to decrease or discontinue the use of mortgage insurance or changes in the GSEs' eligibility requirements for mortgage insurers that could reduce ESNT's revenues or adversely affect its profitability and returns; a reduced amount of insurance ESNT may be able to write if lenders and investors select alternatives to private mortgage insurance; the negative impact on revenues, profitability and returns if ESNT were to lose a significant customer; the potential adverse impact on ESNT's business prospects and operating results if the Consumer Financial Protection Bureau's final rule defining a qualified mortgage (QM) reduces the size of the origination market or creates incentives to use government-supported mortgage insurance programs; a potential increase in ESNT's losses if a downturn in the U.S. economy or a decline in the value of borrowers' homes from their value at the time their loans close results in more homeowners defaulting.





Note: Closing Price and Target Price have been adjusted for corporate actions.

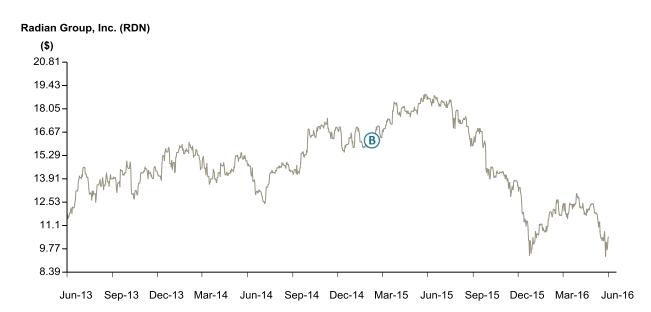
Date	Closing Price (\$)	Target Price (\$)	Analyst	Rating
31-Oct-13	21	28	Mark Palmer	Buy
13-Feb-15	24.18	31	Mark Palmer	Buy

Radian Group, Inc. (RDN, Buy, \$22 PT)

Valuation: Our price target of \$22 for RDN is based on 12X our 2017E EPS of \$1.81

Risks: The primary risks to our thesis include: Additional moves by the FHA to make its mortgage insurance offering more competitive could adversely impact demand for RDN's product. Competition with other PMIs could result in lower revenues and/or lower premium yields. A downturn in the U.S. economy could result in in higher delinquencies and higher losses on RDN's existing portfolio.





Note: Closing Price and Target Price have been adjusted for corporate actions.

Date	Closing Price (\$)	Target Price (\$)	Analyst	Rating
09-Mar-15	16.17	22	Mark Palmer	Buy

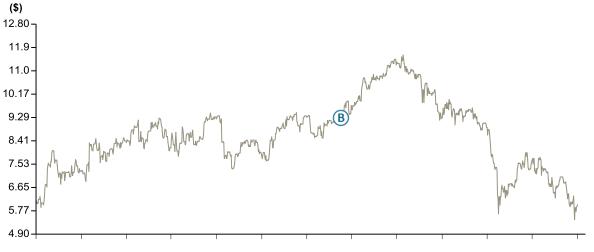
MGIC Investment Corporation (MTG, Buy, \$12 PT)

Valuation: Our price target of \$12 for MTG is based on 11X our 2018E EPS of \$1.11

Risks: The primary risks to our thesis include: Competition with other PMIs could result in lower revenues and/or lower premium yields. Additional moves by the FHA to make its mortgage insurance offering more competitive could adversely impact demand for MTG's product. A downturn in the U.S. economy could result in in higher delinquencies and higher losses on MTG's existing portfolio.



MGIC Investment Corporation (MTG)



Jun-13 Sep-13 Dec-13 Mar-14 Jun-14 Sep-14 Dec-14 Mar-15 Jun-15 Sep-15 Dec-15 Mar-16 Jun-16

Note: Closing Price and Target Price have been adjusted for corporate actions.

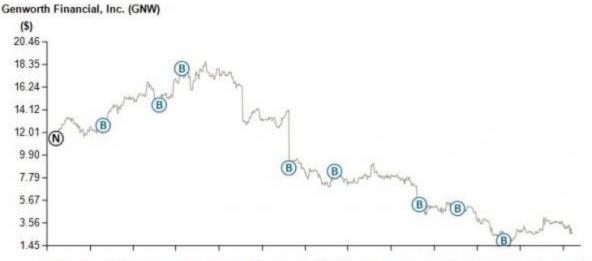
Date	Closing Price (\$)	Target Price (\$)	Analyst	Rating
09-Mar-15	9.27	12	Mark Palmer	Buy

Genworth Financial, Inc. (GNW, Buy, \$5 PT)

Valuation: Our \$5 price target on GNW is based on 0.25x the company's FY16E book value ex. AOCI per share of \$20.60.

Risks: The primary risks to achieving our price target include an accelerated rate of deterioration within GNW's U.S. Mortgage Insurance portfolio, the possibility that waivers granted by various states to the U.S. MI unit could be revoked, credit downgrades that could hamper new business generation in all segments, a more stringent definition of qualified residential mortgage (QRM) that could shut the company out of the U.S. MI market, exposure to troubled Eurozone countries, and reinvestment risk given the current low interest rate environment.





Jun-13 Sep-13 Dec-13 Mar-14 Jun-14 Sep-14 Dec-14 Mar-15 Jun-15 Sep-15 Dec-15 Mar-16 Jun-16

Date	Closing Price (S)	Target Price (\$)	Analyst	Rating
11-Apr-12	7.54	11	Mark Palmer	Buy
08-May-13	10.68		Mark Palmer	Neutral
08-Oct-13	12.62	17.50	Mark Palmer	Buy
04-Feb-14	14.53	18	Mark Palmer	Buy
24-Mar-14	17.93	22	Mark Palmer	Buy
06-Nov-14	8.66	16	Mark Palmer	Buy
11-Feb-15	8.33	15	Mark Palmer	Buy
10-Aug-15	5.24	13	Mark Palmer	Buy
30-Oct-15	4.87	10	Mark Palmer	Buy
05-Feb-16	1.86	5	Mark Palmer	Buy

Note: Closing Price and Target Price have been adjusted for corporate actions.

Company–Specific Regulatory Disclosures

BTIG LLC expects to receive or intends to seek compensation for investment banking services in the next 3 months from: NMI Holdings, Inc. (NMIH)

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