

# Market Briefing

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**Subject:** The Evolving Landscape of US Insurer Investments

**Introduction:** Over time, the investments of US insurers have changed. This has been inevitable as market dynamics have shifted and US insurers have needed to adjust investment strategies and practices to accommodate. In recent years, the evolution has accelerated as US insurers have been driven, as have all other investors, by relatively low interest rates and the resulting low investment yields. With year-end 2018 financials of US insurers and the required detailed investment schedules, we can consider year over year differences and the resulting impacts on US insurers' investment profiles, as well as potential risks and concerns. For this, we have relied on S&P Global's SNL data, which is sourced from the NAIC. The data used is what is available as of March 25<sup>th</sup>, and therefore subject to changes with late filings and modifications. Notable in the last five years are two new disclosure requirements adopted by the NAIC, one beginning in 2016 for Bond Exchange-Traded Funds (Bond ETFs) and a second in 2018 for Loans, in each case separating out those investments from other line items.

## US LIFE INSURANCE INDUSTRY CASH AND INVESTED ASSETS

LIFE INDUSTRY	2014Y	% GT LT	2015Y	% GT LT	2016Y	% GT LT	2017Y	% GT LT	2018Y	% GT LT
<b>SHORT TERM INVESTMENTS</b>										
Total: ST Investments & Cash Equivalents	83,402,162		93,673,138		90,122,538		91,851,138		90,260,051	
<b>LONG TERM INVESTMENTS</b>										
Unaffiliated Corporate Bonds	1,595,598,433	47.9	1,642,171,896	48.2	1,720,037,847	48.0	1,796,772,436	47.8	1,804,132,116	47.3
Unaffiliated Loans	NA		NA		NA		NA		39,597,411	
Unaffiliated Government Bonds (incl Municipals)	385,266,432	11.6	403,055,340	11.8	426,468,502	11.9	450,902,795	12.0	385,758,478	10.1
Unaffiliated Agency CMBS	23,848,098	0.7	25,295,312	0.7	31,179,786	0.9	40,031,204	1.1	47,337,564	1.2
Unaffiliated Agency RMBS	195,566,649	5.9	183,400,721	5.4	183,690,034	5.1	180,157,289	4.8	174,272,422	4.6
Unaffiliated Agency ABS	16,803,919	0.5	17,536,536	0.5	17,730,996	0.5	18,075,129	0.5	16,464,017	0.4
Unaffiliated Non-Agency CMBS	133,132,416	4.0	125,245,781	3.7	125,702,510	3.5	122,995,077	3.3	130,321,623	3.4
Unaffiliated Non-Agency RMBS	91,585,411	2.7	87,005,054	2.6	85,606,572	2.4	78,755,933	2.1	75,014,358	2.0
Unaffiliated Non-Agency ABS	196,239,228	5.9	204,758,576	6.0	224,046,387	6.3	236,802,949	6.3	266,561,066	7.0
Unaffiliated Hybrids	14,995,629	0.4	13,432,870	0.4	12,088,855	0.3	11,900,875	0.3	12,652,254	0.3
Bond ETFs					2,183,445	0.1	3,808,885	0.1	3,584,454	0.1
<b>Subtotal Unaffiliated Bonds</b>	<b>2,653,036,216</b>	<b>79.6</b>	<b>2,701,902,086</b>	<b>79.3</b>	<b>2,828,734,933</b>	<b>78.9</b>	<b>2,940,202,573</b>	<b>78.2</b>	<b>2,955,695,764</b>	<b>77.5</b>
Unaffiliated Preferred Stock	8,568,205	0.3	9,076,080	0.3	9,055,743	0.3	9,946,682	0.3	11,382,134	0.3
Unaffiliated Common Stock	29,503,162	0.9	24,969,769	0.7	26,913,486	0.8	30,004,463	0.8	27,055,982	0.7
Unaffiliated Funds reported as Common Stock	5,033,781	0.2	5,072,224	0.1	5,730,890	0.2	7,124,735	0.2	6,556,588	0.2
<b>Subtotal Unaffiliated Equity</b>	<b>43,105,149</b>	<b>1.3</b>	<b>39,118,073</b>	<b>1.1</b>	<b>41,700,119</b>	<b>1.2</b>	<b>47,075,880</b>	<b>1.3</b>	<b>44,994,704</b>	<b>1.2</b>
Commercial Mortgage Loans	339,570,065	10.2	364,279,245	10.7	393,123,446	11.0	427,438,471	11.4	465,816,960	12.2
Mezzanine Loans	6,167,096	0.2	8,236,695	0.2	8,722,098	0.2	9,912,936	0.3	9,823,804	0.3
Residential Mortgage Loans and Other	27,014,140	0.8	31,096,101	0.9	35,176,967	1.0	39,152,794	1.0	44,917,419	1.2
Problem Mortgages	513,556	0.0	857,487	0.0	923,987	0.0	866,873	0.0	967,736	0.0
Non-Insurer Occupied Real Estate	16,430,313	0.5	18,285,257	0.5	18,528,886	0.5	17,534,782	0.5	13,392,092	0.4
<b>Subtotal Real Estate Related</b>	<b>389,695,169</b>	<b>11.7</b>	<b>422,754,785</b>	<b>12.4</b>	<b>456,475,383</b>	<b>12.7</b>	<b>494,905,856</b>	<b>13.2</b>	<b>534,918,011</b>	<b>14.0</b>
Other Long term Assets	89,965,039	2.7	85,885,601	2.5	86,778,225	2.4	92,726,075	2.5	101,605,311	2.7
Affiliated Investments (incl Insurer Occupied RE)	157,559,088	4.7	157,987,291	4.6	169,392,622	4.7	184,604,869	4.9	176,150,602	4.6
<b>Grand Total - Long Term Investments</b>	<b>3,333,360,660</b>	<b>100.0</b>	<b>3,407,647,837</b>	<b>100.0</b>	<b>3,583,081,282</b>	<b>100.0</b>	<b>3,759,515,253</b>	<b>100.0</b>	<b>3,813,364,392</b>	<b>100.0</b>

**Life Industry Invested Assets:** Life insurers' invested assets continue to be predominantly fixed income in nature with a majority in bonds. However, this mix as of 2018 is different from what it was five years ago. Within fixed income, there has been a material shift from investments reported as bonds to those reported as commercial mortgage loans. As a percent of unaffiliated long term investments, bonds dropped from 83.5% to 81.3%, while commercial mortgage loans increased from 10.7% to 12.8%. This reflects an overall increase in assets tied to commercial real estate.

Adding everything together from Schedule A (Real Estate), Schedule B (Mortgage Loans), real estate related lines from Schedule BA and both Agency and Non-Agency CMBS lines from Schedule D, the total has grown from 17.5% of unaffiliated long term investments in 2014 to 24.7% in 2018. Market-wide, commercial mortgage loan originations

have rapidly recovered since the 2008 financial crisis as commercial real estate values have recovered on a national level. This latter trend in the national index though can mask significant differences geographically and across property types. For example, the retail sector continues to be a significant source of concern. There is also concern that in the pursuit of investment yield, originators may be loosening underwriting standards, increasing loan-to-value ratios and decreasing debt service coverage ratios. Another consideration in monitoring this increase is that Commercial Mortgage Loans are generally less liquid than publicly registered bonds and common stock, and the performance of the underlying properties can be much more idiosyncratic.

Overall, Structured Securities (formally Loan-Backed and Structured Securities) has declined from 20.7% in 2014 to 19.5% in 2018. The major area of decline is in RMBS, while CMBS as stayed relatively flat and Asset-Backed Securities (ABS) has grown. Within ABS, one significant area of increase has been in Collateralized Debt/Loan Obligations (CDO/CLOs), though the numbers remain relatively small as a percent of total invested assets. The growth reflects a resurgence in market issuance of those assets since 2012, especially in 2016 and 2017. This has drawn considerable attention on the Federal level, not just in the securitized version, but also in the market for the underlying assets (referred to often as bank loans, leveraged loans and middle market loans). More so than the aggregate increase in insurers' exposure is a shift from sticking strictly to senior classes of CDO/CLOs to the mezzanine and subordinate classes. Monitoring investments in non-senior classes of all kinds of Structured Securities is important given the different loss severity profile.

There are also other assets that have drawn attention, but are not substantial exposures on an industry wide basis. Life companies have historically not maintained a large exposure to unaffiliated Common Stock. That exposure declined in 2018 by almost 10%, with an overall decrease of 8.3% over the five years from 2014. The decline in 2018 should be taken in the context of a weak equities market in which the S&P 500 declined 6.4%. Investments reported on Schedule BA (Other Long Term Assets) increased significantly in 2018 and now represent 2.8% of unaffiliated long term investments. Investments in mutual funds reported as common stock and bond ETFs reported as bonds both declined slightly in 2018.

Life Industry Bond Portfolio Maturities	2014Y	2015Y	2016Y	2017Y	2018Y
<b>Bond Portfolio Maturity Score</b>	13.73	13.78	13.83	14.10	13.95
1 or less	8.8%	8.4%	8.0%	6.6%	6.9%
1 to 5	24.2%	24.6%	24.7%	24.9%	25.0%
5 to 10	30.6%	30.4%	30.1%	29.9%	30.3%
10 to 20	15.5%	15.8%	16.4%	17.8%	17.4%
greater than 20	20.9%	20.9%	20.7%	20.8%	20.4%
Greater than 10 year	36.4%	36.7%	37.2%	38.6%	37.8%
Life Industry Bond Portfolio NAIC Designations	2014Y	2015Y	2016Y	2017Y	2018Y
<b>Bond Portfolio Credit Score</b>	1.46	1.46	1.47	1.47	1.48
NAIC 1	63.4%	62.5%	62.4%	62.0%	60.4%
NAIC 2	30.7%	31.6%	31.5%	32.3%	34.2%
NAIC 3	3.8%	3.9%	3.8%	3.6%	3.3%
NAIC 4	1.6%	1.5%	1.6%	1.6%	1.5%
NAIC 5	0.4%	0.4%	0.5%	0.5%	0.5%
NAIC 6	0.1%	0.1%	0.1%	0.1%	0.1%
Below Investment Grade	5.9%	5.9%	6.1%	5.7%	5.3%
Life Industry Other Line Items	2014Y	2015Y	2016Y	2017Y	2018Y
Gross Yield - Bonds	4.90	4.72	4.65	4.50	4.46
Gross Yield - Mortgage Loans	5.39	5.13	4.88	4.68	4.57
BACV for Reinvest Collateral Asset of Sec Lend Pgm	53,672,760	49,336,281	47,345,872	48,811,068	41,817,594
Repurchase/ Reverse Repurchase Agreements	24,383,663	24,063,665	23,948,228	23,257,272	26,181,481
Restricted Assets not including Sec Lending and Repos	116,383,169	122,142,750	145,200,671	150,678,960	165,244,547
Including assets pledged as collateral	85,049,668	89,231,717	115,640,246	119,788,282	134,915,459
Other Than Temporary Impairments (OTTI)	2,015,196	3,837,668	3,352,094	2,163,596	5,972,872
Derivatives - Notional Value	1,891,731,263	1,816,086,898	2,014,713,013	1,945,092,460	2,072,126,684

**Other Investment Details for Life Companies:** Besides the changes in overall asset mix, Life companies have also adjusted their bond portfolios in less obvious ways that may add some risk. Using available details on the maturities of the bond portfolios, Life companies have extended their durations. This has been accomplished mostly by adding to bonds with maturities of greater than ten years, continuing a trend that began back in 2010. However, since 2014, the Life industry's bond portfolio has lengthened by an additional quarter of a year. While this is not a major change, any increase in duration does add to the industry's interest rate risk. With very long duration bonds, an increase of 100 basis points in yield can cause the fair value of the bond to drop 15% to 20%.

After adding to its below investment grade bond exposure from 2009 to 2016, the percentage of bonds with NAIC Designations of 3 or below declined in both 2017 and 2018. This has been offset by a material increase in bonds with NAIC 2 Designations. As such, the weighted average credit profile of the Life Industry's bonds has continued to decline slightly over the five year period. While bond investments remain largely investment grade, the drift to BBB-rated bonds is significant, especially to the extent that the drift is to the weaker BBB-minus level. In the event of a weakening economy and/or a general turn in the credit cycle, those bonds are at greatest risk of downgrade to below investment grade.

Gross yields on bonds and mortgage loans have continued to decline with the prevailing low interest rate environment. However, the rate of decline on bonds has slowed substantially as older, and higher, coupons have for the most part already rolled off with the cash reinvested at current yields. Investment practices that involve securities lending and repurchase agreements remain modest relative to the overall size of the Life Industry's assets, and has declined slightly in the last five years. On the other hand there has been increasing activity that results in assets being pledged as collateral. Those totals have increased from \$85 billion in 2014 to \$135 billion in 2018. This is likely closely related to the Life Industry's activities with respect to its membership within the Federal Home Loan Bank System. Many Life companies have used borrowings from FHLBs at attractive rates to reinvest in higher yielding assets. While this adds to the net portfolio yield, it also increases liquidity risk as the typical assets pledged are also the most liquid, depriving the company access to them. Finally, while notional value of derivatives is not a good measure of exposure or risk, it is an accepted measure of derivatives activity. Among US insurers in general, the predominant users of derivatives are Life companies. The notional value of derivatives transactions of Life companies increased in 2018, after declining in 2017. Since 2014, the aggregate reported notional value has increased 9.5% to \$2.1 trillion. It is important to note that US insurers have historically used derivatives almost entirely to manage or reduce risk, or hedge. Also, the derivatives market overall has been noted as having an aggregate notional value of over \$650 trillion, meaning the US insurance industry participation is relatively insignificant.

### US PROPERTY & CASUALTY INSURANCE INDUSTRY CASH AND INVESTED ASSETS

P&C INDUSTRY	2014Y	% GT LT	2015Y	% GT LT	2016Y	% GT LT	2017Y	% GT LT	2018Y	% GT LT
<b>SHORT TERM INVESTMENTS</b>										
Total ST Investments & Cash Equivalents	68,037,145		70,047,672		76,258,354		103,585,902		88,014,612	
<b>LONG TERM INVESTMENTS</b>										
Unaffiliated Corporate Bonds	301,104,129	20.8	311,614,132	21.4	323,843,440	21.5	335,919,596	21.1	352,775,574	21.9
Unaffiliated Loans	NA		NA		NA		NA		11,684,628	
Unaffiliated Government Bonds (incl Municipals)	433,982,515	30.0	434,367,946	29.9	438,268,346	29.1	430,111,607	27.1	414,997,228	25.8
Unaffiliated Agency CMBS	7,960,769	0.5	9,459,907	0.7	10,970,964	0.7	15,209,570	1.0	20,701,617	1.3
Unaffiliated Agency RMBS	81,583,185	5.6	75,873,770	5.2	79,943,600	5.3	81,052,899	5.1	86,544,988	5.4
Unaffiliated Agency ABS	8,231,709	0.6	8,791,866	0.6	8,924,895	0.6	8,214,020	0.5	7,236,598	0.4
Unaffiliated Non-Agency CMBS	31,486,745	2.2	33,205,952	2.3	31,836,852	2.1	32,756,428	2.1	37,603,010	2.3
Unaffiliated Non-Agency RMBS	20,164,108	1.4	18,722,175	1.3	18,644,402	1.2	17,912,055	1.1	18,843,925	1.2
Unaffiliated Non-Agency ABS	41,912,826	2.9	43,805,264	3.0	46,372,066	3.1	49,303,515	3.1	61,092,866	3.8
Unaffiliated Hybrids	1,779,923	0.1	2,325,469	0.2	2,877,001	0.2	2,857,352	0.2	3,063,649	0.2
Bond ETFs					942,271	0.1	2,459,705	0.2	2,171,942	0.1
<b>Subtotal Unaffiliated Bonds</b>	<b>928,205,910</b>	<b>64.1</b>	<b>938,166,481</b>	<b>64.5</b>	<b>962,623,839</b>	<b>63.8</b>	<b>975,796,747</b>	<b>61.4</b>	<b>1,016,716,025</b>	<b>63.2</b>
Unaffiliated Preferred Stock	13,549,227	0.9	13,733,972	0.9	10,573,251	0.7	5,144,182	0.3	5,154,053	0.3
Unaffiliated Common Stock	244,243,385	16.9	234,270,504	16.1	252,189,073	16.7	301,496,095	19.0	286,035,529	17.8
Unaffiliated Funds reported as Common Stock	17,381,309	1.2	17,615,036	1.2	19,881,934	1.3	23,950,193	1.5	20,257,222	1.3
<b>Subtotal Unaffiliated Equity</b>	<b>275,173,921</b>	<b>19.0</b>	<b>265,619,512</b>	<b>18.3</b>	<b>282,644,258</b>	<b>18.7</b>	<b>330,590,471</b>	<b>20.8</b>	<b>311,446,804</b>	<b>19.4</b>
Commercial Mortgage Loans	9,560,574	0.7	11,861,329	0.8	14,422,074	1.0	15,858,735	1.0	17,930,103	1.1
Mezzanine Loans	241,549	0.0	270,805	0.0	254,846	0.0	323,806	0.0	357,789	0.0
Residential Mortgage Loans and Other	225,849	0.0	347,018	0.0	409,515	0.0	1,193,254	0.1	1,656,784	0.1
Problem Mortgages	7,609	0.0	6,087	0.0	3,310	0.0	11,672	0.0	37,912	0.0
Non-Insurer Occupied Real Estate	1,678,094	0.1	2,980,970	0.2	3,353,838	0.2	3,775,184	0.2	4,407,456	0.3
<b>Subtotal Real Estate Related</b>	<b>11,713,675</b>	<b>0.8</b>	<b>15,466,210</b>	<b>1.1</b>	<b>18,443,583</b>	<b>1.2</b>	<b>21,162,650</b>	<b>1.3</b>	<b>24,390,044</b>	<b>1.5</b>
Other Long term Assets	42,499,230	2.9	42,922,185	3.0	43,980,565	2.9	48,533,489	3.1	50,037,720	3.1
Affiliated Investments (incl Insurer Occupied RE)	191,212,942	13.2	191,966,866	13.2	200,911,057	13.3	212,522,796	13.4	205,600,447	12.8
<b>Grand Total - Long Term Investments</b>	<b>1,448,805,678</b>	<b>100.0</b>	<b>1,454,141,253</b>	<b>100.0</b>	<b>1,508,603,301</b>	<b>100.0</b>	<b>1,588,606,153</b>	<b>100.0</b>	<b>1,608,191,040</b>	<b>100.0</b>

**P&C Industry Invested Assets:** For Property & Casualty insurers, fixed income investments also represent a majority of the total, but have historically been less dominant than for Life companies. The mix of fixed income investments also differs from that of Life companies. P&C insurers have a larger exposure to Government Bonds, with a substantial weighting to the tax exempt Municipal Bond market. P&C insurers also have a considerably larger exposure to common stock, although this is somewhat skewed by a handful of the larger P&C insurers. While not

insignificant, investments in commercial real estate related assets is lower. P&C insurers have also been more reliant on investments in mutual funds reported as common stock and bond ETFs reported as bonds.

Over the five years from 2014 to 2018, the profile of P&C industry investments has also changed. Government Bonds have declined from 34.5% of unaffiliated long term investments to 29.6%, with small percentage point increases in Corporate issues (including Loans), from 23.9% to 26.0%, and Structured Securities, from 15.2% to 16.5%. For Structured Securities, the growth has been in CMBS and ABS, while RMBS has declined as a percent. P&C insurers have historically had a sizeable exposure to Municipal Bonds, taking advantage of the tax-exempt status of most of that market, while also benefiting from their relative liquidity in the marketplace. Structured Securities on the other hand can be relatively complex investments and also somewhat less liquid, especially in a stressed environment. However, two factors may have contributed to a noticeable decline in Government Bonds overall and Municipal Bonds specifically, with a commensurate increase in Structured Securities. With low investment yields overall, the even lower coupons on tax-exempt bonds are more difficult to justify. Also, P&C companies have increasingly become members of the Federal Home Loan Bank System, which gives them access to advances as needed, as long as they are members in good standing and have suitable assets to pledge as collateral. This gives them ready access to that source of liquidity as needed. Structured Securities, on the other hand, typically offer a premium yield for the complexity and volatility. The ABS part of the market also tends to offer bonds with shorter maturities, which may be a better fit with the P&C industry's shorter duration liabilities.

The P&C industry's exposure to unaffiliated common stock had been increasing gradually from 2014 before a significant jump in 2017, followed by a drop off in 2018. At its peak at the end of 2017, the total of unaffiliated equity, including preferred stock, common stock and mutual funds reported as common stock, represented 24.0% of unaffiliated long term investments.

P&C Industry Bond Portfolio Maturities	2014Y	2015Y	2016Y	2017Y	2018Y
<b>Bond Portfolio Maturity Score</b>	8.73	8.66	8.66	8.52	8.38
1 or less	16.8%	16.3%	15.5%	15.4%	13.9%
1 to 5	37.1%	35.9%	36.3%	37.2%	39.6%
5 to 10	30.8%	33.7%	34.5%	34.3%	34.3%
10 to 20	9.6%	9.0%	8.7%	8.6%	8.3%
greater than 20	5.7%	5.1%	5.0%	4.5%	3.9%
Greater than 10 year	15.3%	14.1%	13.7%	13.1%	12.2%

P&C Industry Bond Portfolio NAIC Designations	2014Y	2015Y	2016Y	2017Y	2018Y
<b>Bond Portfolio Credit Score</b>	1.24	1.27	1.28	1.26	1.27
NAIC 1	83.8%	81.7%	81.0%	80.9%	79.9%
NAIC 2	12.0%	13.9%	14.2%	14.7%	16.2%
NAIC 3	1.9%	2.1%	2.3%	2.2%	2.0%
NAIC 4	1.2%	1.3%	1.6%	1.7%	1.6%
NAIC 5	1.0%	0.9%	0.9%	0.3%	0.3%
NAIC 6	0.1%	0.2%	0.2%	0.1%	0.1%
Below Investment Grade	4.2%	4.5%	4.9%	4.4%	4.0%

P&C Industry Other Line Items	2014Y	2015Y	2016Y	2017Y	2018Y
Gross Yield - Bonds	3.6	3.4	3.4	3.3	3.4
Gross Yield - Mortgage Loans	4.9	5.0	4.7	4.7	4.9
BACV for Reinvest Collateral Asset of Sec Lend Pgm	2,946,363	2,888,537	3,153,778	5,077,847	5,941,209
Repurchase/ Reverse Repurchase Agreements	2,188,145	1,881,762	1,726,698	1,751,418	1,484,445
Restricted Assets not including Sec Lending and Repos	120,384,585	115,649,152	117,463,782	124,242,669	129,999,340
Including assets pledged as collateral	13,034,371	17,629,064	21,675,658	22,140,010	25,050,017
Other Than Temporary Impairments (OTTI)	1,897,496	3,180,463	1,975,910	1,018,204	1,303,274
Derivatives - Notional Value	37,915,058	42,364,010	40,580,669	42,615,823	52,885,563

**Other Investment Details for P&C Companies:** The P&C Industry generally has a shorter duration portfolio than Life companies, and using bond maturities as a simple measure, the bond portfolio has shortened further in 2017 and 2018 by a little more than a quarter of a year. Over the last five years, the percentage of bonds with maturities greater than ten years has declined from 15.3% of the total to 12.2%. In addition to better duration matching with typical P&C company liabilities, shorter duration bonds also tend to be more liquid, especially when bond market volatility is higher.

In terms of the credit quality of the bond portfolio, P&C insurers have tended to take less credit risk than Life companies. The differential between Life and P&C did narrow fairly significantly from 2009 to 2016 as P&C substantially increased their below investment grade holdings, peaking at 4.9% in 2016. As was the case with Life

companies, this percentage exposure did come back down in 2017 and 2018. P&C insurers are also more heavily skewed within the investment grade universe to bonds with an NAIC 1 Designation. Bonds with an NAIC 2 Designation did increase from 12.0% in 2014 to 16.2% in 2018, with a commensurate decrease in NAIC 1 Designations.

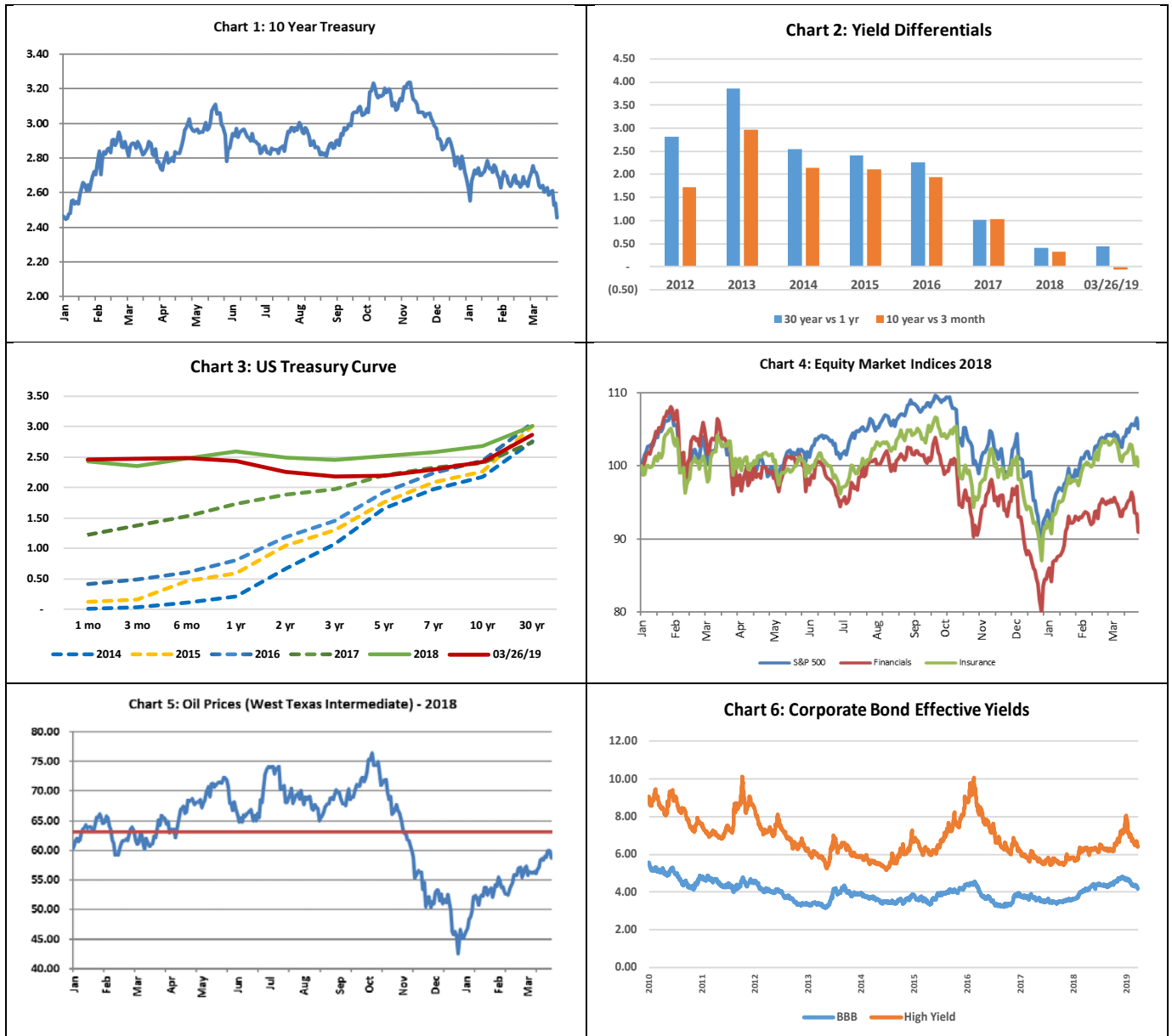
The P&C Industry is less active in Securities Lending and Repurchase Agreements, as well as in derivatives transactions. P&C insurers have also accounted for a significant portion of the growth in insurers as members of the Federal Home Loan Bank System. However, P&C companies have tended to use that membership as a liquidity backstop, and have had minimal actual borrowings. This trend accelerated as a result of the financial crisis in 2008 when access to many of the traditional short term funding sources was unavailable.

#### MARKET UPDATE (data as of March 22, 2019)

Market conditions in the last few months have seen a degree of uncertainty. There has been a significant recovery in the value of risk assets. The S&P 500 is up since the beginning of the year, though it remains below its recent peak in September 2018 and exhibits occasions of negative sentiment (Chart 4). Credit spreads based on various index levels for the CDX and the ITRAXX have also moved back to their relative low levels. Emerging markets credit spreads have also tightened, though still significantly wider than where they were at the beginning of 2018. This has led many to believe that the correction seen in the second half of 2018, that accelerated in the last couple months of the year, was overdone, but nonetheless some pullback was justified.

While most economic and corporate earnings news remains positive, there are concerns about growth in the near and intermediate term future. Global GDP growth forecasts by the IMF have been scaled back. There have been concerns about a possible recession as early as 2020, though sentiment has been mixed. Reduced growth expectations and the possibility of a recession have been reflected in interest rates as exemplified by Treasury yields. Longer term Treasury yields have continued their decline which began in October of last year (Chart 1). The differential between the 30-year and 1-year Treasury has rested in the 45 to 50 basis point range since the beginning of the year. The last time this differential was this low was in 2007. Another benchmark measure, the differential between the 10-year and 3-month Treasury, has tightened to being completely flat. As of this date, the Treasury yield curve is actually negative between the 3-month and 10-year points in the curve (Chart 2 and 3). A flat or negatively sloped yield curve reflects market expectations for a weakening economy, a desire to reduce risk and an increased probability for monetary easing. While the nationwide index data for commercial and residential real estate values remain strong, there has been softness in some of the underlying data. Oil prices are higher so far in 2019, but they remain significantly below mid-2018 levels (Chart 5). Reflecting many of these factors, flows of funds into mutual funds and exchange traded funds have recovered from their steep outflows at the end of 2018. However, the recovery is considerably stronger for bonds than for equities.

Besides general market concerns, there are two significant exogenous factors that are weighing heavily on market expectations. Fed watchers have read into recent announcements that the FOMC may not need to raise the short term Fed Funds rate in 2019 and is scaling back on its plans to reduce its balance sheet as indications that US monetary authorities may be concerned about the direction of the economy. Also, progress towards the United Kingdom's exit from the European Union (Brexit) has come to a virtual halt as Prime Minister May's efforts to pass a high level agreement have now failed twice. Prime Minister May has since reached an agreement with the EU to delay the official exit past the original March 29<sup>th</sup> deadline. The EU has, however, expressed no desire to reopen negotiations. Since the referendum in 2016, the market has largely priced in expectations of a difficult transition as a best case scenario, but "no resolution" and the possibility of a hard exit may result in increased market volatility in Europe, that then could further impact the US economy.



The Final Word? Following along with other investors, US insurers in 2018 continued the gradual shifts in asset mix that began many years ago, reducing percentage exposures to Corporate and Government Bonds, while increasing exposures especially to commercial real estate related assets in all of its various forms and structures. Within that space, Commercial Mortgage Loans are still the largest component. However, increasing participation is going to CMBS, Mezzanine Loans, direct Residential Mortgage Loans and various real estate related funds. Non-Agency RMBS continues to decline in importance while ABS becomes an increasing share. While offering higher yields in the challenging environment of low investment yields, the trends also mean an increasing level of complexity, less transparency and reduced liquidity. Liquidity issues have also continued to rise in importance with higher exposures to privately placed bonds and loans. Concerns about the liquidity of investment portfolios are compounded by levels of uncertainty in the market place about the economy and asset valuations, as well as decreased liquidity for investment grade corporate bonds due to changes in the regulatory oversight of banks and broker-dealers since 2008.