Market Briefing

From: Edward Toy – Senior Manager, Investment Specialist (edward.toy@riskreg.com)

Date: July 15, 2019

Subject: Asset Liquidity

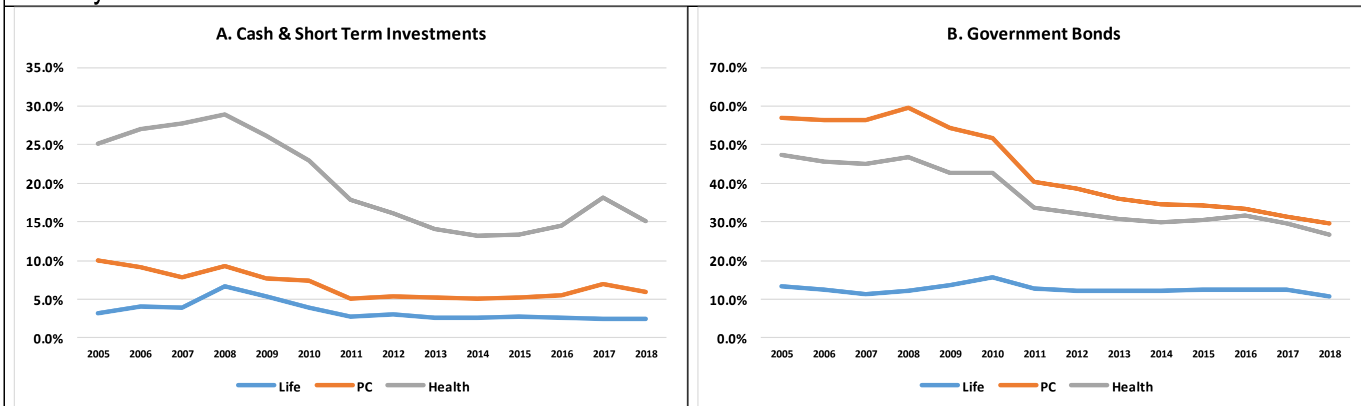
Introduction: There have been many lessons learned over the years as to what can cause problems for investors, including insurance companies, when economies weaken and markets struggle. One of the most significant out of the financial crisis of 2007/8, is that liquidity should be a focus. In the short term, liquidity issues can outweigh adequacy of capital as perception and reality clash. Cash flow demands can increase unexpectedly while asset markets fluctuate. Insurers typically satisfy claims with incoming cash flows, consisting of premiums on policies, investment income and maturing fixed income assets. Asset liability management focuses on matching the duration of assets with that of liabilities and providing for contingencies. Sudden increases in claims can occur for Property/Casualty insurers and on a smaller scale of Health insurers, though largely unrelated to the economy or markets. This is less likely for Life insurers given the nature of their liabilities. This stability has been based not only the contractual provisions of those policies, but also on the long term nature of the products they offer that have an important influence on the behaviors of policyholders. However, this stable profile for Life insurers has been shifting over recent years, as Life companies have been offering products that have greater liquidity. For any of the insurer types, if claims on cash increase beyond what has been provided for, the insurers may be put in the position of needing to sell invested assets. Given this possibility, the liquidity of an insurers assets is an important part of regulatory oversight.

U.S. Insurer Long Term Invested Assets as Percent of Total

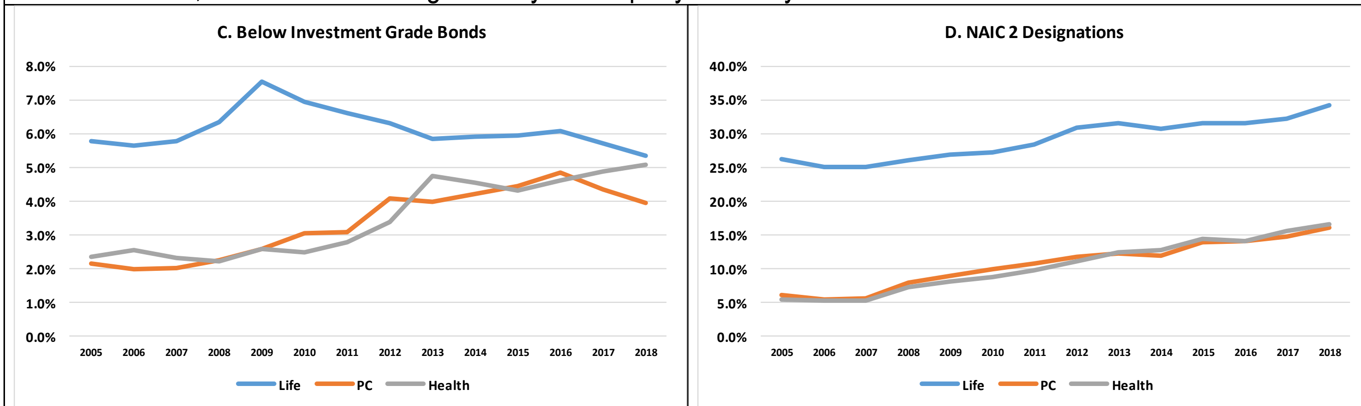
	LIFE		P&C		Health		TOTAL	
LONG TERM INVESTMENTS	2017Y	2018Y	2017Y	2018Y	2017Y	2018Y	2017Y	2018Y
Corporate Bonds	47.8	47.3	21.1	22.0	27.9	28.3	39.5	39.4
Loans		1.0		0.7		1.0		0.9
Government Bonds (incl Municipals)	12.0	10.1	27.1	25.8	26.3	23.9	16.8	15.1
Agency CMBS	1.1	1.2	1.0	1.3	0.5	0.7	1.0	1.2
Agency RMBS	4.8	4.6	5.1	5.4	9.2	9.8	5.0	5.0
Agency ABS	0.5	0.4	0.5	0.4	0.2	0.2	0.5	0.4
Non-Agency CMBS	3.3	3.4	2.1	2.3	2.1	2.6	2.9	3.1
Non-Agency RMBS	2.1	2.0	1.1	1.2	0.6	0.7	1.8	1.7
Non-Agency ABS	6.3	7.0	3.1	3.8	4.3	5.8	5.3	6.0
Hybrids	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3
Bond ETFs	0.1	0.1	0.2	0.1	0.9	0.8	0.1	0.1
Subtotal Bonds	78.2	77.5	61.4	63.3	72.2	73.9	73.2	73.3
Preferred Stock	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Common Stock	0.8	0.7	19.0	17.9	5.3	4.4	6.2	5.8
Funds reported as Common Stock	0.2	0.2	1.5	1.3	7.5	6.9	0.8	0.7
Subtotal Equity	1.3	1.2	20.8	19.4	13.1	11.6	7.2	6.8
Commercial Mortgage Loans	11.4	12.2	1.0	1.1	0.1	0.1	8.0	8.6
Mezzanine Loans	0.3	0.3	0.0	0.0	-	0.0	0.2	0.2
Residential Mortgage Loans and Other	1.0	1.2	0.1	0.1	0.0	0.0	0.7	0.8
Problem Mortgages	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Non-Insurer Occupied Real Estate	0.5	0.4	0.2	0.3	0.2	0.1	0.4	0.3
Subtotal Real Estate Related	13.2	14.0	1.3	1.5	0.2	0.2	9.4	10.0
Other Long Term Assets	2.5	2.7	3.1	3.1	3.5	3.5	2.7	2.8
Subtotal Unaffiliated Long Term	95.1	95.4	86.6	87.4	89.0	89.2	92.5	92.9
Affiliated Investments (incl Insurer Occupied RE)	4.9	4.6	13.4	12.6	11.0	10.8	7.5	7.1
Total - Long Term Investments	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

©Risk & Regulatory Consulting LLC - Not to be Duplicated Without Prior Consent

The following is a review of some of the key components of liquidity for the U.S. insurance industry's invested assets that should be considered. For this, we have relied on S&P Global's SNL data, which is sourced from the National Association of Insurance Commissioners (NAIC). As has been noted often, the invested assets of insurers has been evolving over the years. This evolution has been driven by market place dynamics and market demands. Capital markets have changed and the universe of investment vehicles available is very different. Low interest rates and investment yields over the last few years have also led investors in general and insurers specifically to look for different ways to enhance the yield on their portfolios. This has been true for all three insurer types. Structured Securities and investments, directly and indirectly, in Commerical Real Estate are two that have gained the attention of analysts.



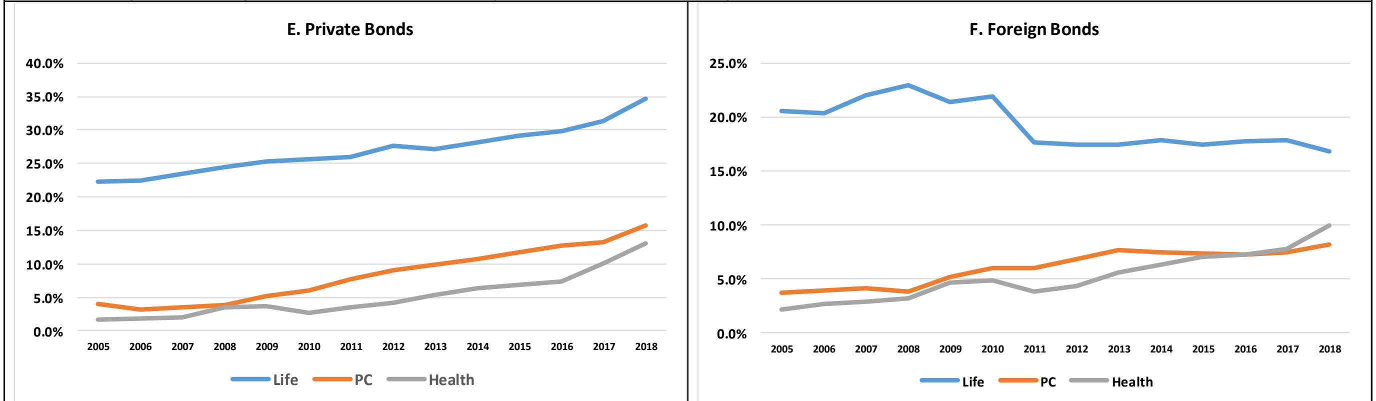
Any insurer's ability to meet claims begins with incoming cash flows as well as Cash and Short Term Investments on hand. For all three insurer types, Cash and Short Term Investments (Chart A) as a percent of total cash and invested assets has declined since 2008. This has been most pronounced among Health insurers. Often viewed as a secondary source of liquidity are Government Bonds (Chart B), given their generally higher credit quality. This includes U.S. Government obligations as well as debt of U.S. Government agencies and municipal bonds issued by state and local goverments. As a percent of long term invested assets, this has been relatively stable over the years for Life insurers, but has declined significantly for Property/Casualty and Health insurers.



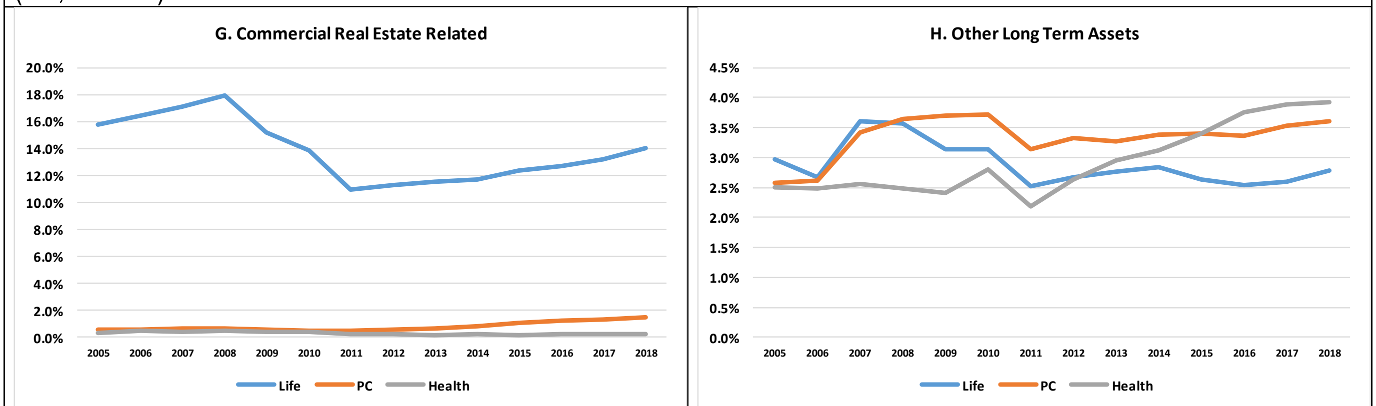
The majority of insurers' long term investments are bonds. The liquidity profile of bonds are not equal, especially in stressed scenarios. The market for Below Investment Grade Bonds is smaller given the higher credit risk. The market value volatility of those bonds is also higher, given the higher credit risk and the smaller market. While liquidity for Below Investment Grade Bonds is reasonable in a benign environment, in a period of market stress, market values will decline substantially and liquidity will dry up. Bid-ask spreads will also widen significantly. The exposure to Below Investment Grade Bonds (Chart C) has generally been in decline among Life insurers since 2009 when the percentage peaked due to downgrades. While still less than for Life insurers, the exposure to Below Investment Grade Bonds for Property/Casualty and Health companies has been on the rise, increasing from roughly 2.0% to between 4.0% and 5.0% of total bonds. Although still deemed investment grade, bonds assigned an NAIC 2 Designation (Chart D) have been increasing for all insurer types. This follows with the shift in the overall market,

©Risk & Regulatory Consulting LLC - Not to be Duplicated Without Prior Consent

where bonds with a rating from a Nationally Recognized Statistical Rating Organization (NRSRO) in the BBB category now represents more tha half the investment grade bond market, up from roughly 25% in 1991. This could have a material impact on the liquidity in this market as investors may become concerned about the potential for downgrade to below investment grade. While not part of this analysis, a very relevant issue is if the bond is rated by one the NRSROs, as opposed to being assigned a designation by the NAIC's Securities Valuation Office (SVO). While deemed appropriate for U.S. insurers, investors in general do not pay attention to SVO-assigned designations. SVO-assigned designations are for use by state insurance regulators.



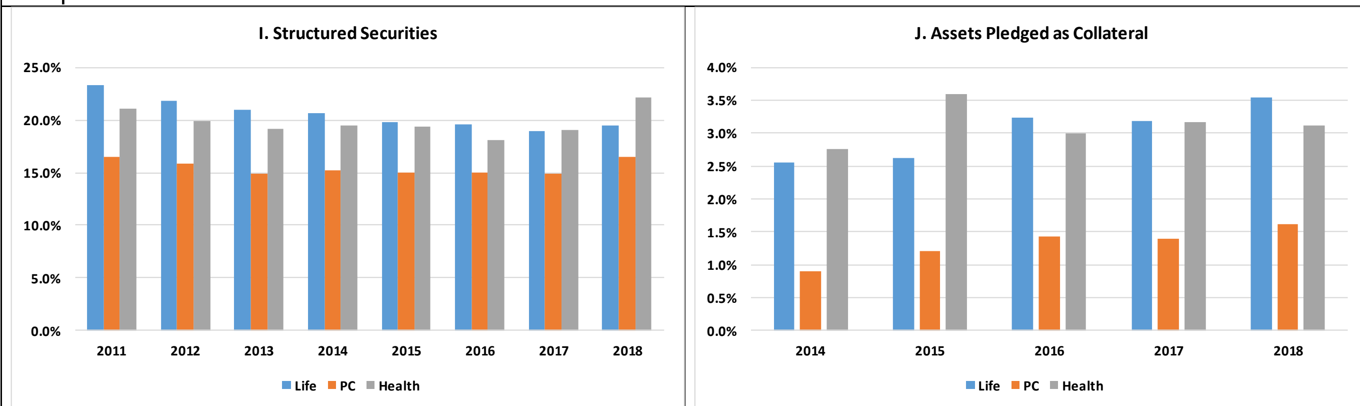
The ability of investors to trade bonds is greatly enhanced when the securities are registered with the Securities and Exchange Commission (SEC), or meet the minimum disclosure requirements that allow them to trade under Rule 144A exemptions to registration. Life insurers in particular have historically been willing to trade off the relative illiquidity of privately placed bonds for the higher yields in that market. That appetite among Life insurers has grown and in recent years has also gained acceptance at Property/Casualty and Health insurers (see Chart E). Property/Casualty and Health insurers has also tracked a similar pattern for Foreign Bonds. For Life insurers, holdings of Foreign Bonds (Chart F) have been a staple that has stayed relatively steady over the years in dollar amount, but has declined as a percent of total bonds. There is most likely an overlap between bonds that are privately placed and Foreign Bonds. There is also significant overlap between Private Bonds and those rated BBB (i.e., NAIC 2) or Below Investment Grade.



Two areas that have drawn considerable attention in recent years are exposures to Commercial Real Estate (Chart G) related assets and those investments reported on Schedule BA, referred to as Other Long term Assets (Chart H). Note that Chart G does not include investments in Commercial Mortgage-Backed Securities (CMBS) which has increased significantly for all insurer types over the time period. Commercial Real Estate related assets consist primarily of commercial mortgage loans and real estate equity that is held for income producing reasons (non-insurer occupied). Both of those remain relatively small exposures among Property/Casualty and Health insurers, though there has been some growth among Property/Casualty companies. Life insurers, meanwhile, have been significant investors in the market for decades and, unlike the market broadly, only endured a small increase in problems during the financial crisis. Commerical Real Estate related investments are by their nature privately placed, but also are

©Risk & Regulatory Consulting LLC - Not to be Duplicated Without Prior Consent

recognized for the idiosyncratic nature of the investments. While there has been some standardization of structures and investment approaches, the asset class remains considerably less liquid with a much smaller market. Other Long Term Assets, which includes investments in private equity funds and hedge funds, should be considered largely illiquid. Besides being privately placed, information about the investments is often considered highly confidential resulting in virtually no market-based transparency. Many such investments are also very complex, with returns and cash flows that are difficult to predict. Exposure in Other Long Term Assets has been relatively static among Life and Property/Casualty insurers, but has seen considerable growth among Health insurers. Not shown here, but warranting some attention, has been a shift in the overall exposure to smaller insurers from the large Life companies.



Separate disclosure of Structured Securities (Chart I), which the NAIC refers to as Loan-Backed and Structured Securities (LBaSS), began in 2011. Exposure has been relatively static across the industry since then, after declining significantly following the financial crisis. This includes Residential Mortgage-Backed Securities (RMBS), CMBS, and Other LBaSS which are more commonly referred to as Asset-Backed Securities (ABS). It is not shown separately, but there has been growth in ABS, while RMBS has declined. Structured Securities are generally less liquid than corporate bonds and other issuer obligations. This is given the additional analytical requirements for understanding the underlying assets and oftentimes the complexity of the cash flows. Both of these features were largely ignored running up to the financial crisis. During the financial crisis and for a period afterwards, there was virtually no liquidity at all in Structured Securities. The problem was especially acute for non-senior classes of the capital structure.

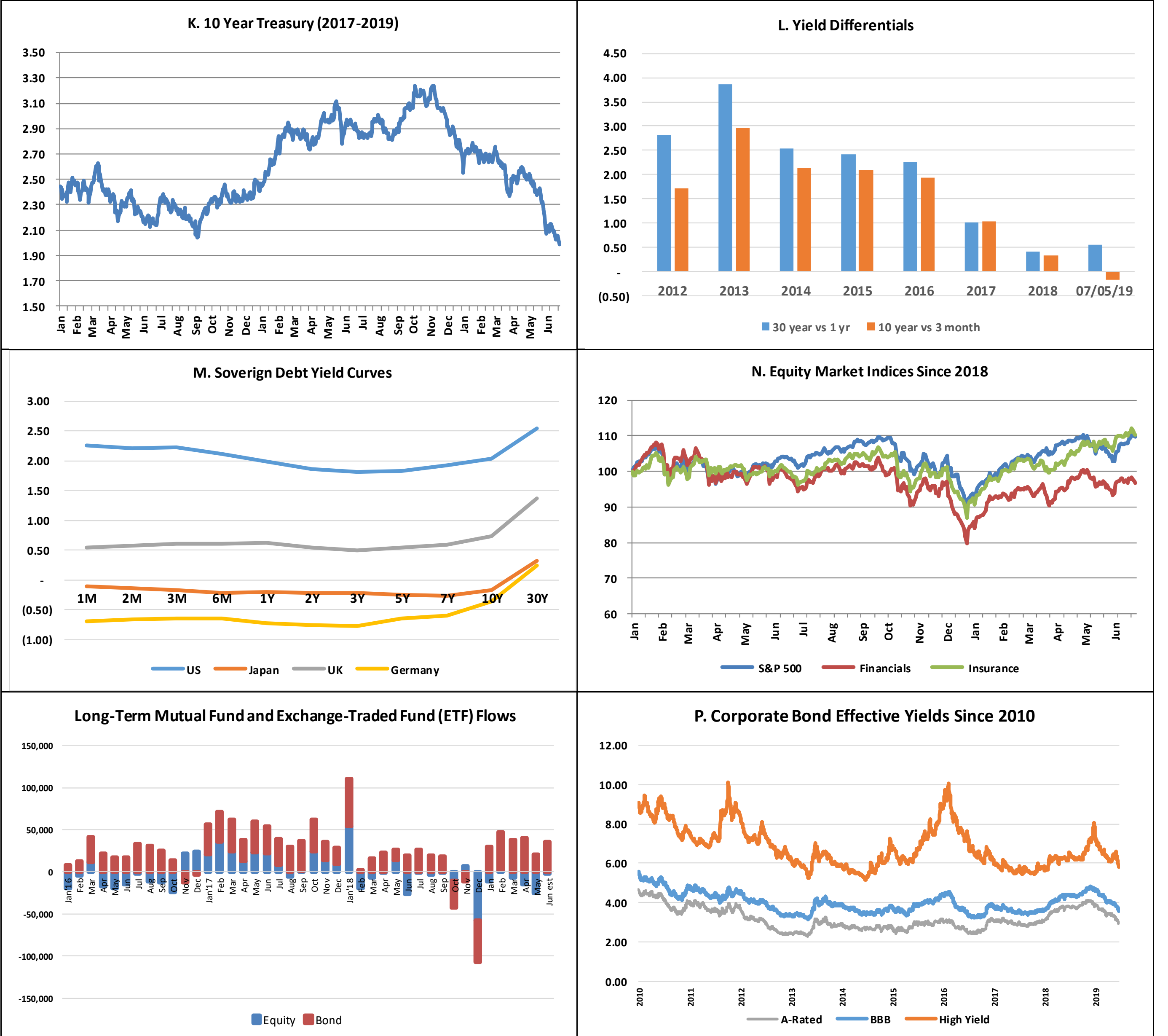
Beyond the characteristics of different asset classes and the individual investments held by insurers, an additional consideration is whether or not the insurer has ready access to the investments, or if they are defined as Restricted Assets under NAIC guidance. One category of Restricted Assets are those investments that have been pledged as collateral. This would occur as margin requirements for derivatives exposures or as collateral for borrowings. Asset Pledged as Collateral (Chart J) have not been a significant percentage of long term invested assets. However, it is important to note that typically Assets Pledged as Collateral are the more liquid assets of an insurer's portfolio. Derivatives counterparties, including central clearinghouses and exchanges, and lenders typically prefer higher quality, more liquid assets, because of their reliable market value. As such the discount and resulting overcollateralization is lower.

MARKET UPDATE (data as of July 5, 2019)

Market activity since the last Market Briefing, dated as of March 25, 2019, has generally lacked a firm direction. While equity markets continued their recovery from the year-end 2018 difficulties, and saw some new higher levels, there has been considerably more day to day volatility since May with concerns over the impact of tarrifs and trade negotiations weighing on growth expectations that have continued to soften slightly. Looking at Chart N, the S&P 500 is up substantially since the beginning of 2019, and looking over a longer period of time, is up about 10% since the beginning of 2018. Financials in general have underperformed the broader market in that time period. The insurance sector over the 18 months is roughly in line with the S&P 500. Bond markets have also been substantially

©Risk & Regulatory Consulting LLC - Not to be Duplicated Without Prior Consent

more volatile showing considerable concerns about future economic growth and have begun to factor in expectations of a renewed round of interest rate cuts by the Federal Reserve. Longer term Treasury yields continued their decline, resulting in an inverted yield curve between the 3-month and 10-year Treasuries (Chart L). Flat and inverted yield curves in the U.S. and elsewhere are the result of market expectations for a weaker economy and a possible recession (Chart M). This is driven by both the possibility or interest rate cuts from the Federal Reserve and a general repositioning of the market away from different risk assets and into assets considered safe-harbors, such as Treasury bonds. In the last few weeks, the 10-year Treasury (Chart K) yield dropped below 2.0% as demand drove Treasury prices up. Reflecting on the bond and equity markets are flows of funds into mutual funds and exchange-traded funds (ETFs). Chart O shows that flows continue to be flat to down slightly for equity funds so far in 2019, but stronger for bond funds.



The Final Word? The liquidity of assets is only one part of the equation. This analysis must be, and is only relevant, when combined with an understanding of an insurer's liability structure. What are the insurer's cash flow needs under normal conditions and under stressed scenarios.

©Risk & Regulatory Consulting LLC - Not to be Duplicated Without Prior Consent

In addition, what other sources of liquidity does the insurer have? Will the insurer have access to the capital markets. This will likely not be case, or not be desireable when the market is in turmoil. In the last ten years, the insurance industry has developed a stronger relationship with the Federal Home Loan Bank System (FHLB). This relationship is generally a positive one, but requires monitoring in terms of how the insurer uses the available lines of credit as well as requirements for the pledging of assets to the FHLBs. There has in recent years been increased disclosure and monitoring of this activity.

Simple measures of liquidity, or the notion that capital requirements can be prescribed based on fixed assumptions on the liquidity of certain invested assets, are more than likely to lead to both false positives and false negatives. This will inevitably result in either overly restrictive regulation or a misplaced confidence. Oversight of an insurer's asset liability management, requirements for asset adequacy and cash flow testing are a few of the tools that insurance regulators have in the regulatory framework. Liquidity has also become a substantive part of the financial examination process, leading to extensive control testing. Nonetheless, it is critical that the focus on an insurer's liquidity relative to its liabilities continue to evolve and improve. Insurers' investment portfolios have, and will continue to, become more complex and be subject to the vicisitudes of market volatility. Insurers' product offerings will also continue to adjust to meet policyholder demands, including products that allow for more cashability.

©Risk & Regulatory Consulting LLC - Not to be Duplicated Without Prior Consent