NAIC National Association of Insurance Commissioners & The Center for Insurance Policy and Research — Capital Markets Special Report

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**Capital Markets Update: Mid-Year 2016**

**Introduction: From "Risk-on" to "Risk-off" and Back Again**

Since the Capital Markets Bureau's last *Capital Markets Update* was published in March 2016, financial markets have experienced wide swings in temperament, from relatively brief episodes of extreme volatility triggered by geopolitical or economic events—most notably the "Brexit" referendum in the U.K. on June 23—to longer periods of extreme calm. Most major global debt and equity markets rebounded relatively quickly following the Brexit vote, and remain in positive territory year to date (YTD) as of Aug. 17. Oil and commodities also have improved YTD, although the near-term outlook for oil prices has been muddied by an inventory surplus. Table 1 and Table 2 show representative total returns for select fixed income and equity benchmark indices thus far in 2016.

**Table 1: Selected Bond Index USD Total Returns (%), through Jul. 31, 2016**

| Selected Bond Index Total Returns (%) | | | | | | |
|---|---|---|---|---|---|---|
| **Index** | **2015** | **Q1/2016** | **Q2/2016** | **H1/2016** | **Jul. 2016** | **2016 YTD** |
| BAML US (IG) Corp & Gov Index | 0.30 | 3.50 | 2.68 | 6.27 | 0.79 | 7.11 |
| BAML US HY Master II Index | (4.64) | 3.25 | 5.88 | 9.32 | 2.53 | 12.08 |
| BAML US Muni Index | 3.55 | 1.64 | 2.72 | 4.41 | (0.05) | 4.35 |
| BAML Global Government Index | (2.61) | 6.96 | 4.12 | 11.37 | 0.42 | 11.84 |
| BAML Global HY&EM Sov | (3.39) | 4.00 | 4.58 | 8.76 | 2.50 | 11.48 |

Source: Bloomberg LP

**Table 2: Selected Equity Index USD Total Returns (%), through Aug. 15, 2016**

| Selected Equity Index USD Total Returns (%) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Index | 2015 | Q1/2016 | Q2/2016 | H1/2016 | Jul. 2016 | Aug. 2016 MTD | 2016 YTD |
| S&P 500 (US) | 1.37 | 1.35 | 2.46 | 3.84 | 3.69 | 0.58 | 8.29 |
| S&P/TSX Composite (Canada) | (23.00) | 11.40 | 5.04 | 17.02 | 3.18 | 2.39 | 23.64 |
| STOXX Europe 600 | (1.10) | (2.57) | (3.09) | (5.58) | 4.51 | 0.84 | (0.49) |
| FTSE 100 (U.K.) | (6.41) | (2.20) | (1.78) | (3.95) | 3.13 | 1.21 | 0.07 |
| DAX (Germany) | (1.67) | (3.24) | (5.49) | (8.56) | 7.60 | 3.00 | 1.34 |
| Nikkei 225 (Japan) | 9.94 | (4.80) | 1.48 | (3.40) | 7.26 | 3.11 | 6.84 |
| Hang Seng Index (HK) | (3.87) | (4.81) | 2.35 | (2.58) | 5.34 | 4.39 | 7.13 |
| Shanghai Composite (China) | 6.36 | (14.66) | 2.35 | (18.60) | 2.95 | 4.55 | (12.39) |
| ASX 200 (Australia) | (6.97) | 2.81 | 1.19 | 4.03 | 8.29 | 0.59 | 13.32 |
| MSCI Emerging Markets | (14.61) | 5.69 | 0.80 | 6.53 | 5.09 | 4.28 | 16.75 |

Source: Bloomberg LP

Ironically, the themes underlying both the relative calm of today's markets and the volatility in June and July are the same, and by now are familiar to most investors, including insurers:

- Global growth concerns, particularly with respect to China and the U.K., and ongoing price weakness of oil and most other commodities
- Continued monetary stimulus in Europe and Asia driving global bond yields ever lower, resulting in a rising proportion of negative-yielding government bonds
- Diverging expectations for short-term interest rates by region, albeit with an uncertain path for U.S. policy rates in the short term

**"Brexit" Heightens Global Growth Concerns**

In a referendum held on June 23, 2016, U.K. citizens voted to leave the EU. Few economic repercussions have been experienced thus far, as the process of EU exit is likely to take several years. Companies with significant business interests in the U.K. will have to respond to the new environment as it develops, contending with significant uncertainty in the meantime. The combination of political uncertainty and the uncharted waters of exit from the EU further complicated the already difficult task of economic forecasting, but the immediate result has been a lowering of expectations for economic growth in the U.K, greater Europe, and, to a lesser extent, the world. Table 3 shows the International Monetary Fund's (IMF) latest revisions to GDP growth forecasts for 2016 and 2017, published in its July *World Economic Outlook* update.

**Table 3: Brexit's Expected Impact on Global Growth**

| World Economic Outlook Projections (% change) | 2014A | 2015A | 2016E | 2017E | Change from 4/16 Projections 2016 | 2017 |
|---|---|---|---|---|---|---|
| U.K. | 3.1 | 2.2 | 1.7 | 1.3 | -0.2 | -0.9 |
| Euro Area | 0.9 | 1.7 | 1.6 | 1.4 | -0.1 | -0.2 |
| Japan | 0.0 | 0.5 | 0.3 | 0.1 | -0.2 | 0.2 |
| U.S. | 2.4 | 2.4 | 2.2 | 2.5 | -0.2 | 0.0 |
| Advanced Economies | 1.9 | 1.9 | 1.8 | 1.8 | -0.1 | -0.2 |
| Emerging Markets | 4.6 | 4.0 | 4.1 | 4.6 | 0.0 | 0.0 |
| World | 3.4 | 3.1 | 3.1 | 3.4 | -0.1 | -0.1 |

Source: International Monetary Fund *World Economic Outlook Update*, July 2016

**Financial Markets React, But Soon Recover on Prospect of Central Banks' Support**

The immediate investor reaction to the Brexit vote was swift and dramatic, causing a sharp spike in volatility as markets were surprised by the outcome. The British pound fell sharply against the major reserve currencies, the Yen—seen as a safe haven—strengthened against the pound, Euro and even the U.S. dollar, stock markets sold off, and safe-haven assets such as U.S. Treasury securities rallied. Volatility quickly subsided, however, and markets for risk assets—assets that carry risk and can fluctuate significantly in value, such as bonds, stocks, and real estate—generally have resumed their march higher, despite the fact that significant economic uncertainty remains.

To stimulate the persistently weak economic growth of recent years, economic policymakers have relied almost exclusively on monetary policy, with limited success and, arguably, diminishing returns, particularly in the EU and Japan. Repeated rounds of monetary easing have resulted in unprecedented declines in short-term and long-term interest rates, to zero percent or lower in many cases. Table 4 lists 24 countries around the globe (including 19 in the euro area), spanning six monetary authorities, that have adopted negative interest rate policies (NIRP). The large-scale asset purchase programs of central banks, known as quantitative easing (QE), also have significantly increased banks' excess reserves over the past several years. NIRPs incent banks to put more cash back to work by extending loans or purchasing other assets. A primary effect of these policies, however, has been to drive up the valuations of risk assets, such as bonds, stocks, and real estate, as investors scramble in search of positive returns. Yields fall as bond prices rise; as the right-hand column in Table 4 shows, 10-year government bond yields for Japan and most of Europe have approached or fallen below zero.

**Table 4: NIRP Countries as of Aug. 15, 2016**

| Country | Main Policy Rate | 10-year Government Bond Yield |
|---|---|---|
| Austria* | -0.40% | 0.06% |
| Belgium* | -0.40% | 0.11% |
| Cyprus* | -0.40% | NA |
| Denmark | -0.65% | 0.07% |
| Estonia* | -0.40% | NA |
| Finland* | -0.40% | 0.02% |
| France* | -0.40% | 0.14% |
| Germany* | -0.40% | -0.07% |
| Greece* | -0.40% | 8.14% |
| Hungary | -0.05% | 2.89% |
| Ireland* | -0.40% | 0.36% |
| Italy* | -0.40% | 1.06% |
| Japan | -0.10% | -0.09% |
| Latvia* | -0.40% | 0.55% |
| Lithuania* | -0.40% | 0.65% |
| Luxembourg* | -0.40% | NA |
| Malta* | -0.40% | NA |

| | | |
|---|---|---|
| Netherlands* | -0.40% | 0.03% |
| Portugal* | -0.40% | 2.69% |
| Slovenia* | -0.40% | 0.79% |
| Slovakia* | -0.40% | -0.03% |
| Spain* | -0.40% | 0.94% |
| Sweden | -0.50% | 0.04% |
| Switzerland | -0.75% | -0.51% |
| *Euro area | | |

Source: Trading Economics

**Bonds: Central Bank Policies Mean "Lower for Longer" Yields and Flat Yield Curves**

Global influences on the U.S. bond markets have been significant. The U.S. economic recovery continues to gather steam, and the Federal Open Market Committee (FOMC) clearly has shifted to a tightening monetary policy stance, but the FOMC has not raised the federal funds target rate since its December 2015 meeting nearly nine months ago, and has modestly backed off its earlier projections for hikes in the fed funds rate due to global growth concerns. Table 5 shows the changes in median expectations for the fed funds rate and key U.S. economic indicators from this past March to June, as well as the probability of a rate hike by year's end, derived from futures markets. Market expectations of a rate hike by year's end have almost returned to pre-Brexit levels, as investors return their focus to the improving U.S. economy, but the consensus expectation is that the Fed will raise rates very gradually, remaining sensitive to global influences.

**Table 5: The Fed Backs Off a Little**

| Median Projections of FOMC Members, June 2016 vs March 2016 | | | | |
|---|---|---|---|---|
| % | 2016 | 2017 | 2018 | Long Run |
| Real GDP Growth (ann.) | 2.0 | 2.0 | 2.0 | 2.0 |
| March projection | 2.2 | 2.1 | 2.0 | 2.0 |
| Unemployment rate | 4.7 | 4.6 | 4.6 | 4.8 |
| March projection | 4.7 | 4.6 | 4.5 | 4.8 |
| Core PCE Inflation | 1.7 | 1.9 | 2.0 | |
| March projection | 1.6 | 1.8 | 2.0 | |
| Fed Funds rate | 0.9 | 1.6 | 2.4 | 3.0 |
| March projection | 0.9 | 1.9 | 3.0 | 3.3 |

Source: Board of Governors of the Federal Reserve System

Yield curves around the world—including the U.S.—have flattened in response to central bank policies, and several countries' sovereign bond yields have fallen below zero, extending out as far out as 10 years or more. Chart 1 shows the trend in 10-year government bond yields over the past 10 months for several of the world's major government bond markets.

**Chart 1: 10-Year Government Yields, Major Advanced Economies (Oct. 31, 2015 to Aug. 17, 2016)**

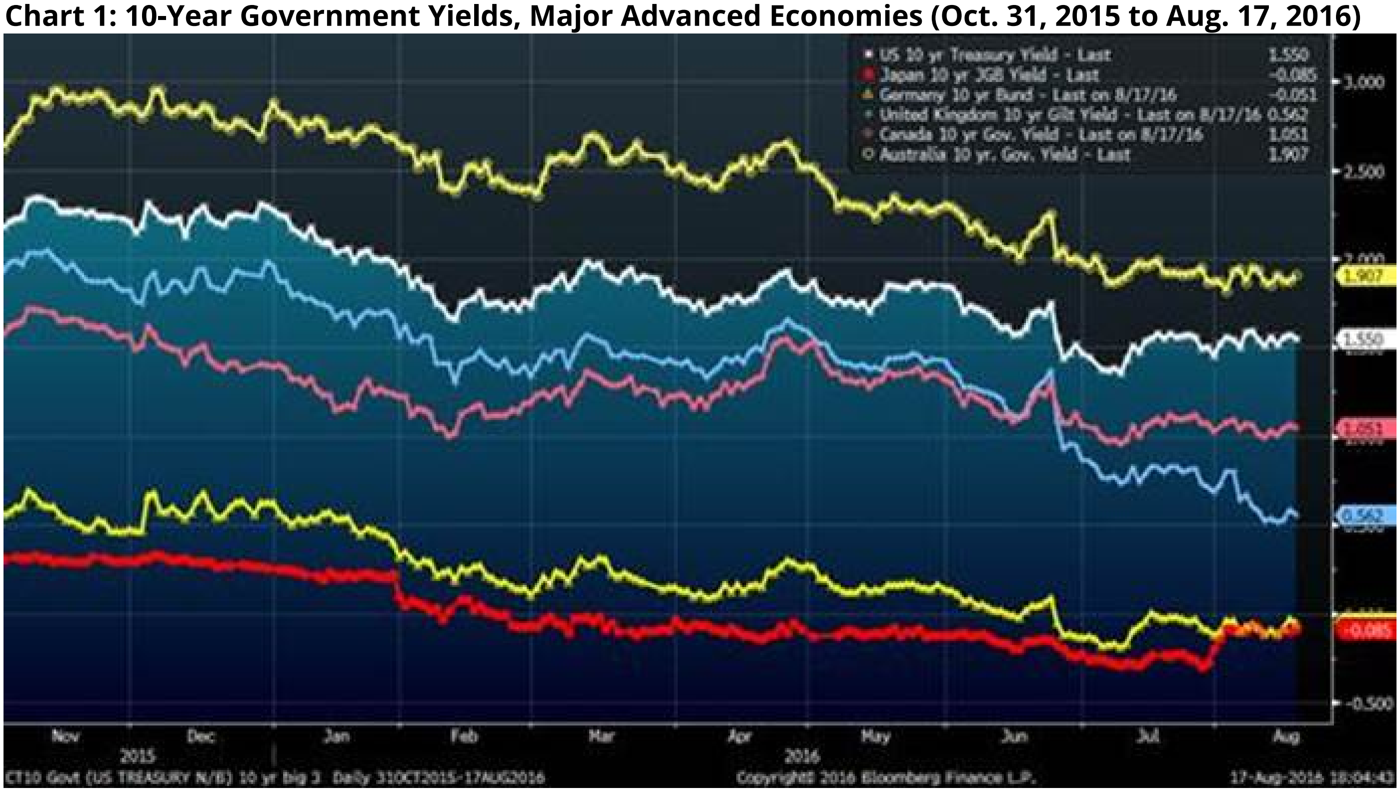


Chart 2 shows the ongoing flattening of yield curves in most major government bond markets over the past two years, expressed by the difference, or spread, between two-year and 10-year yields. Flattening yield curves and low yields are negative for insurers, especially life companies that may offer products with guaranteed minimum benefits..

**Chart 2: Flattening Yield Curves: Declining Two-Year-to-10-year Spreads Since 2014**


## Credit Risk Concerns Give Way to Demand for Yield

Chart 3 shows the continued tightening trend in credit spreads over the past 15 months for U.S. investment grade (IG) and high yield (HY) corporate bonds, as well as European and emerging market corporates, all represented by their respective benchmark credit default swap (CDS) indices. Long-term credit quality remains a modest concern, as default studies by the major rating agencies point to rising default rates in energy and other resource-based credits, but there has been little evidence of contagion in the broader market, and although energy and metals and mining credits account for 15%–20% of the HY bond market, U.S. insurers' exposure to these sectors is relatively small, and most is in IG issues.

**Chart 3: CDS Index Spreads, 15 Months Ending Aug. 17, 2016**


***Insurance Industry Impact***

The majority of U.S. insurance industry investments are in bonds, with a book/adjusted carrying value (BACV) of $3.9 trillion based on preliminary year-end 2015 data. U.S. government debt accounted for only 6.4% of total bond investments, but movements in government yield curves directly affect the market value of nearly all fixed-coupon instruments (including IG corporates, residential and commercial mortgages, and structured securities) and indirectly influence the value of most other asset classes (including real estate, HY debt, and equities). Foreign government bonds accounted for just 2.5% of total bond investments.

The U.S. insurance industry held $2.12 trillion in BACV of corporate bonds, or 54.2% of the industry's total bond investments. Only 5.7% of bond investments were designated NAIC 3 or lower (below-IG). Life insurers typically have significantly more exposure to corporates (61% of preliminary year-end 2015 bond investments) than P/C companies (34%), and have a slightly larger exposure to below investment grade credits–6.1% versus only 4.6% for P/C.

**Common Stocks: Still Climbing as Global Interest Rates Grind Lower**

The U.S. stock market is performing well this year; the S&P 500 index is trading near record levels, and has returned over 8% YTD. Within the index, there has been a disparity in returns by sector, as shown in Table 7, but all sectors of the S&P 500 are higher year to date. Whereas the flattish overall performance in 2015 was characterized by strength in defensive sectors and a lag in commodity-based sectors, that is not the case thus far in 2016. Indeed, some of last year's worst performing sectors are this year's leaders.

**Table 7: S&P 500 Index Sector Returns, 2015 and YTD through Aug. 16, 2016**

| Groups (10) | 2015 | Q1'16 | Q2'16 | Q3'16 (QTD) | 2016 YTD |
|---|---|---|---|---|---|
| S&P 500 Index | 1.37% | 1.35% | 2.46% | 4.07% | 8.06% |
| **All Groups** | | | | | |
| Telecom Services | 3.40% | 16.61% | 7.06% | -3.00% | 21.10% |
| Energy | -21.12% | 4.02% | 11.62% | 0.37% | 16.54% |
| Utilities | -4.84% | 15.56% | 6.79% | -5.67% | 16.42% |
| Materials | -8.38% | 3.61% | 3.71% | 4.99% | 12.82% |
| Industrials | -2.56% | 4.99% | 1.40% | 4.38% | 11.12% |
| Consumer Staples | 6.60% | 5.57% | 4.63% | -0.67% | 9.72% |
| Info Tech | 5.92% | 2.60% | -2.84% | 9.92% | 9.58% |
| Consumer Discretionary | 10.11% | 1.60% | -0.91% | 4.67% | 5.37% |
| Healthcare | 6.89% | -5.50% | 6.27% | 3.55% | 3.99% |
| Financials | -1.56% | -5.06% | 2.12% | 4.82% | 1.63% |

The CBOE Volatility Index, or VIX, which tracks investor expectations for stock market swings, based on the prices of S&P 500 options, closed at 11.39 earlier this month, its lowest level in the past 12 months.

Despite the U.S. stock market's strong performance YTD and the seeming calm indicated by low volatility, a number of high-profile hedge fund managers and investment luminaries have expressed strong negative views on U.S. stocks (and other risk assets), citing high valuations (the S&P 500's 12-month trailing P/E ratio recently reached 19.5, its highest level since 2010) driven by central banks' monetary policies. What these valuation metrics may mean for insurance companies and other investors is that equity returns in the years ahead may not measure up to that of recent years and might even be modestly negative, depending on the path of interest rates and economic growth.

***Insurance Industry Impact***

As of Dec. 31, 2015, the U.S. insurance industry held common stock investments totaling $673 billion (11.6% of total cash and invested assets), of which $269 billion (5.2%) were unaffiliated common stock or mutual fund holdings and $373 billion (6.4%) were affiliated holdings. P/C insurers' common stock exposure totaled $491 billion (28.3% of total invested assets), of which $251 billion (14.5%) was unaffiliated and $240 billion (13.9%) was affiliated, whereas life companies' exposure was only $148 billion (3.9%), of which only $30 billion (0.8%) was unaffiliated and the remaining $118 billion (3.1%) was affiliated. The robust stock market of recent years—in which the S&P 500 returned 13% or more, including dividends, in five of the seven years ending with 2015—has been a benefit, particularly for P/C insurers, that has helped alleviate some of the pressure to generate investment income from fixed income holdings in the low interest rate environment.

**Risks**

With stock and bond markets around the world being driven to ever-loftier valuations mainly by the liquidity provided by central bank policies, some key risk factors remain that could adversely affect markets over the intermediate term. Global growth remains a familiar concern, in view of the slowing and transitioning Chinese economy, the evolving Brexit situation and the wavering monetary policy stance of the Fed as it tries to gauge the likely impact of global factors on the U.S. economy. There is also the familiar concern that low or negative interest rates will persist for quite some time, as monetary stimulus seems to have limited efficacy, fostering a “lower for longer” interest rate scenario around the world that could depress investment yields for quite some time.

A third concern that has not been discussed as much–political risk–was brought to light by the Brexit vote. The forces that caused “leave” voters to prevail in the U.K. are not unique to the U.K.; they are secular global forces stemming from popular discontent in many parts of the world with economic inequality and so-called establishment political leaders. Increased uncertainty from rising political risk would be negative for economic growth and investment returns.

The NAIC Capital Markets Bureau will continue to monitor volatility and other capital market developments and their impact on the insurance industry, and publish additional research as deemed appropriate. The likely recurrence of periods of heightened volatility also highlights the need to remain attentive to changing market valuations, even for assets that insurers generally carry at some version of amortized cost.

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