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 U.S. insurance companies. A list of archived Capital Markets Bureau Special Reports is available via the index.

Capital Markets Update: Fall 2015

Key Points:

- **Since the middle of 2014, the most significant force in the capital markets has been the shift in economic and interest rate trends across the developed world: In the U.S. and United Kingdom (UK), bond yields have gradually trended higher in anticipation of tighter monetary policy as their economies improve. Europe and Japan continue to maintain near-zero interest rate policies and aggressive central bank bond buying programs, as they wrestle with disinflation and tentative economic recoveries.**
- **The economic slowdown in China—the result of structural headwinds and an unsustainable credit binge—continues to have a significant effect on the global economy and world markets, particularly energy and raw materials commodities, which sold off drastically over the past two years.**
- **In the past three months, global capital markets have been buffeted by uncertainty; market participants have lacked conviction with regard to economic and interest rate trends as the world's leading economies lost some momentum and inflationary pressures remained minimal. This caused U.S., European and Japanese bond yields to resume—for a time—their convergence on zero, while stocks around the world endured a turbulent third quarter.**
- **The U.S. dollar (USD) remains strong relative to most currencies in the developed world and the emerging markets, and its strength has had a profound effect on oil prices, which once again are about 50% below their 2014 peak levels. Many other commodities are under price pressure as well.**

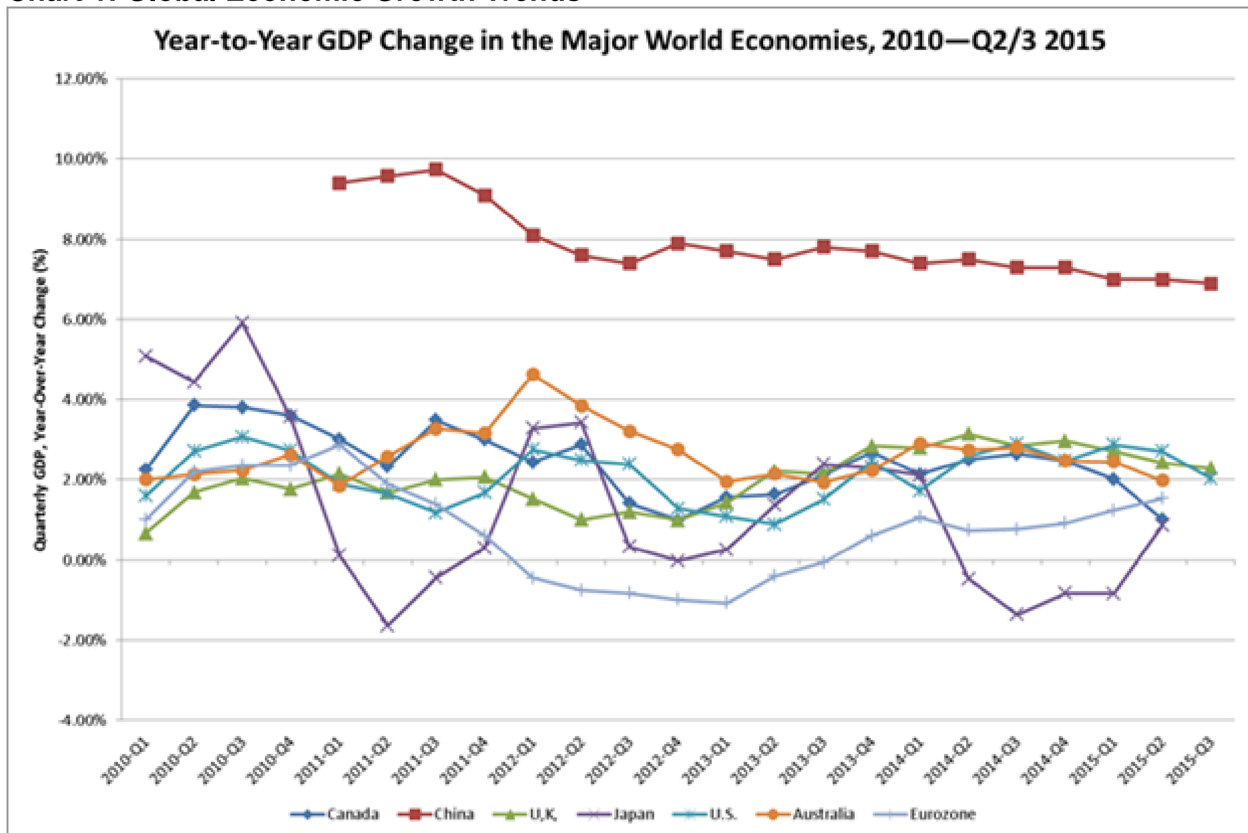
The major financial markets were relatively calm for most of the past three years, as bond and stock markets in the U.S., Europe and Japan were buoyed by accommodative monetary policy in the form of historically low short-term interest rates and central bank securities purchases—known as quantitative easing (QE). However, these markets have experienced episodes of heightened volatility since late 2014, reflecting shifting macroeconomic trends, monetary policy expectations and capital flows; changes in market structure and liquidity due to evolving regulatory regimes; and geopolitical developments around the world. In this report, we discuss movements in the capital markets in key regions around the world through early November 2015, as well as currencies and commodities.

Economic and Interest Rate Trends

The deep 2008–2009 recession forced global economic cycles and market returns in most major regions to converge, but the disparate pace of recoveries in different parts of the world since then reflects different policy responses and structural conditions in each regime. The NAIC Capital Markets Bureau's periodic reviews of capital markets activity over the past year and a half have highlighted the shift in economic and interest rate trends—particularly with respect to the U.S., where bond yields have gradually trended higher in anticipation of tighter monetary policy as the economy improves. U.S. short-term yields have diverged to some extent from the EU and Japan, where economic recovery has been more fragile, and near-zero interest

rate policy regimes persist. Chart 1 shows the disparity in economic growth between the U.S., Japan, Canada, the U.K., Australia, the European Union (EU) and China since 2010; it shows that growth slowed in most key regions in Q2 and Q3, sparking some market uncertainty regarding the course of future monetary policy in the U.S. Eurozone gross domestic product (GDP) growth accelerated in the first two quarters of 2015 to 1.2% and 1.5%, respectively. Note, however, that there is considerable disparity in economic health among the Euro-area countries; Q2 strength in France and Italy was offset by a hiccup in German GDP. Global growth concerns center on China, whose annual GDP growth averaged 10% for the past three decades, but is now expected to slow to between 6% and 7% by most estimates.

Chart 1: Global Economic Growth Trends



Source: Organisation for Economic Co-operation and Development (OECD)

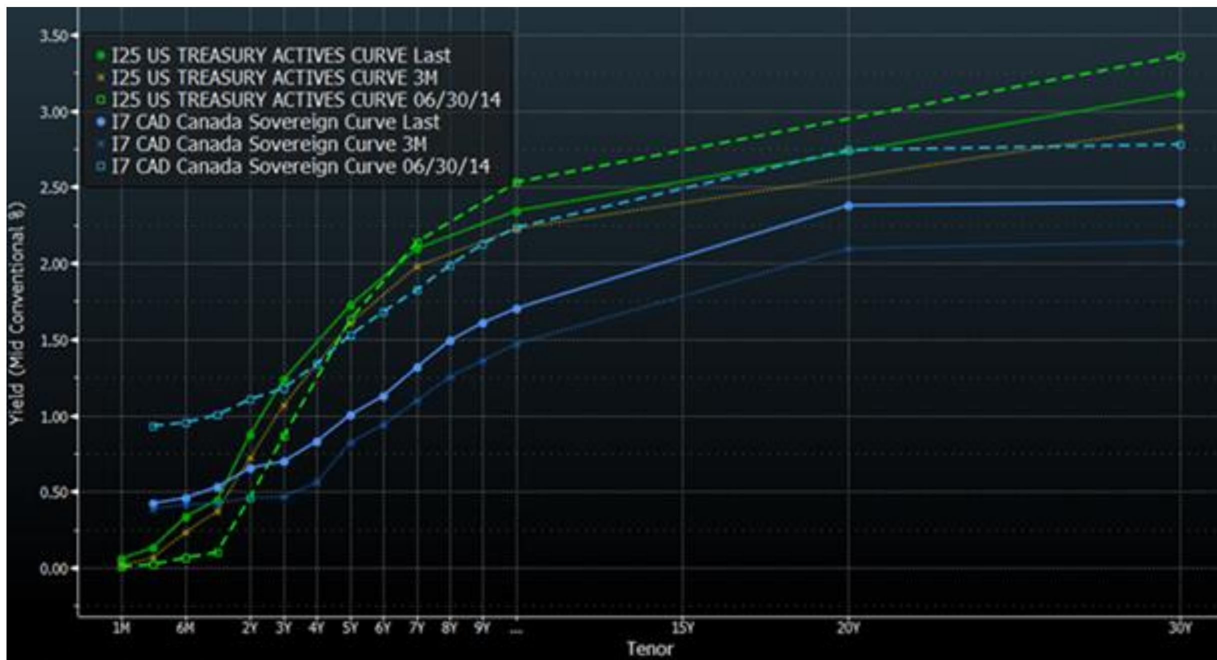
Two-year yields mostly reflect market expectations for central bank policy. Hence, as of Nov. 10, 2015, the 2-year U.S. Treasury note yield is up 67 basis points (bps) from its April 2013 low of 0.21%, in anticipation of the Federal Reserve's (Fed) first tightening move in 11 years. Two-year Japanese government bonds (JGBs) and German Bunds continue to mark time at or below zero percent.

Longer-term government bond yields (shown in Chart 2) reflect long-run expectations for short-term rates, inflation and other factors; from a Jan. 31 market peak, equating to a 1.64% yield to maturity, the U.S. 10-year Treasury reversed direction, and the yield increased to about 2.5% by mid-June; it has remained in a range between 2% and 2.5% since then.

Chart 2: Ten-Year Government Bond Yields, 12 Months Ended Nov. 10, 2015

The relationship between short-term and long-term investor expectations is illustrated in the term structure of interest rates (the yield curve), which changes to reflect shifting economic views and monetary policy expectations. Chart 3 through Chart 5 show the changes in the yield curves for the major government bond markets around the world since mid-2014 and over the past three months. Notably, the U.S. yield curve has flattened considerably, with short-term rates rising and long-term rates falling. The UK government yield curve has behaved similarly; this should not be surprising because the U.S. and UK economies are further along in their recovery, and their short-term rates have risen. German government yields have shifted sharply lower across the curve, with short-term rates below zero and long-term rates driven to extreme lows by QE. Japan’s curve reflects similar policy actions taken as it struggles to emerge from recession.

Charts 3-5: Government Yield Curve Changes, Three Months Ending Nov. 10, 2015, Versus June 30, 2014


I25 US TREASURY ACTIVES CURVE Last
I25 US TREASURY ACTIVES CURVE 3M
I25 US TREASURY ACTIVES CURVE 06/30/14
I7 CAD Canada Sovereign Curve Last
I7 CAD Canada Sovereign Curve 3M
I7 CAD Canada Sovereign Curve 06/30/14
Yield (Mid Conventional %)
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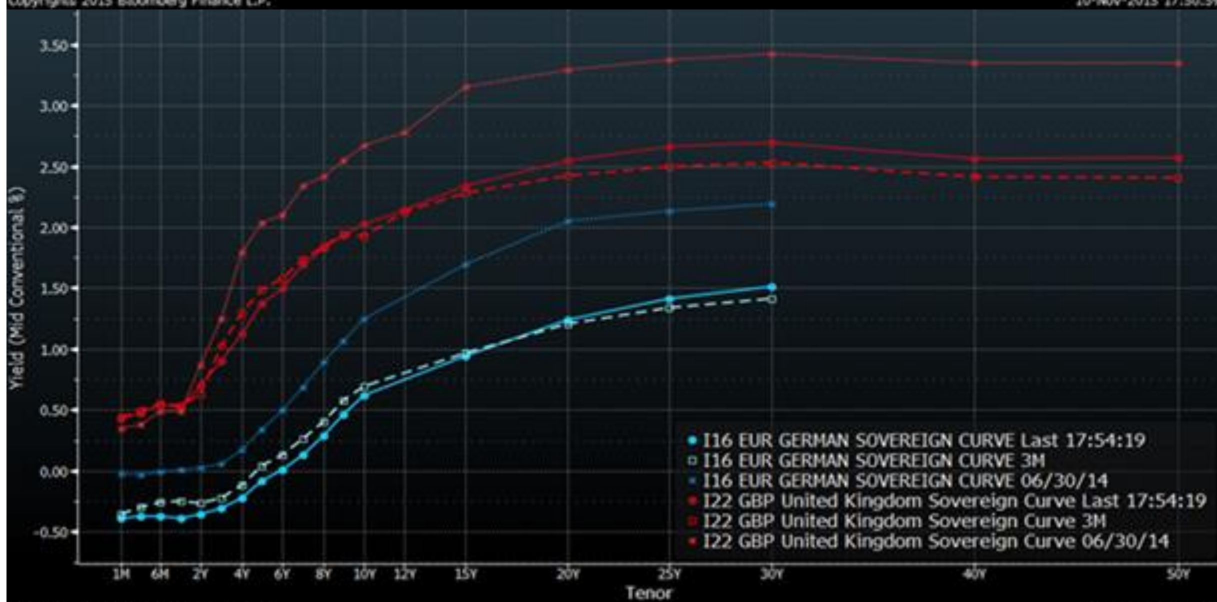
I16 EUR GERMAN SOVEREIGN CURVE Last 17:54:19
I16 EUR GERMAN SOVEREIGN CURVE 3M
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I22 GBP United Kingdom Sovereign Curve Last 17:54:19
I22 GBP United Kingdom Sovereign Curve 3M
I22 GBP United Kingdom Sovereign Curve 06/30/14
Yield (Mid Conventional %)
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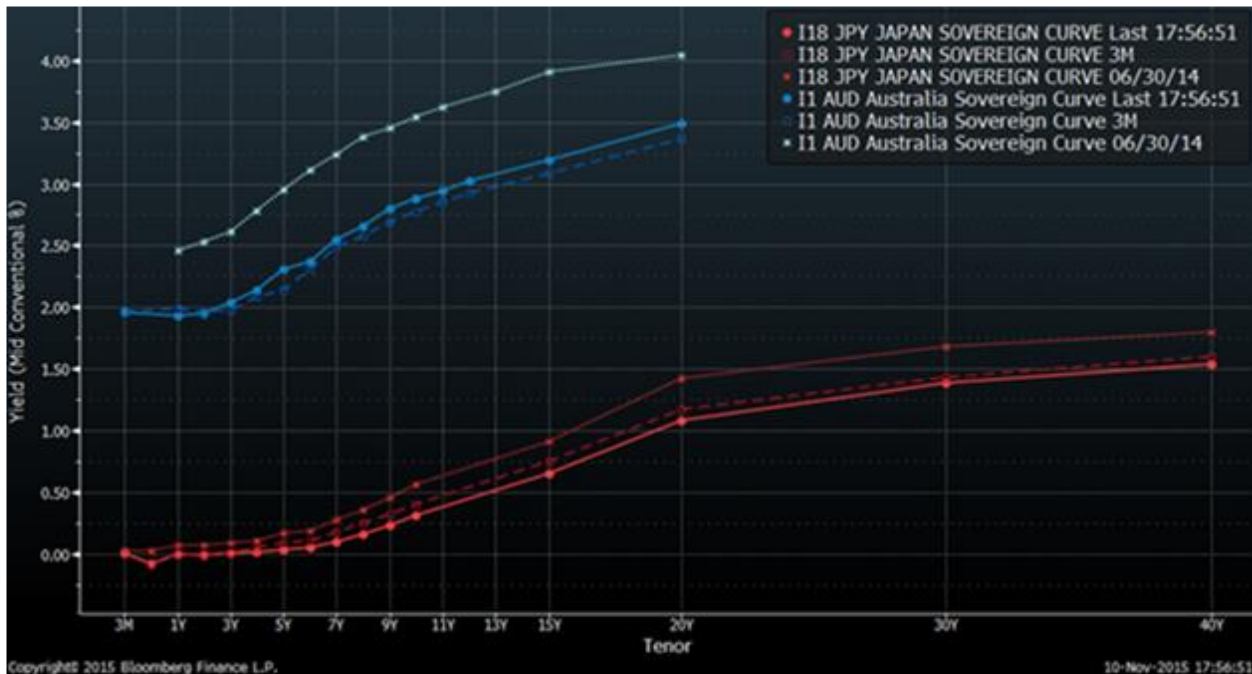

Curve flattening and monetary tightening have significant ramifications for insurance companies. Near-zero interest rate policies in some of the world's main economic regimes have driven stocks and bonds to ever-richer valuations, creating a paucity of attractive investment opportunities for insurers (and other institutions), potentially causing them to reach for yield by taking on more risk. In addition, low long-term bond yields place many investment-oriented products offered by life companies at a competitive disadvantage to other investment managers. Furthermore, there is concern that when conditions become less favorable, many leveraged trades dependent on low-cost funding will be unwound, causing a scramble that could temporarily disrupt markets. Such an unwinding may have exacerbated the late 2014 sell-offs in high yield, emerging market credit and equity markets.

Insurance Industry Impact

The majority of U.S. insurance industry investments are in bonds, with a book/adjusted carrying value (BACV) of $3.86 trillion as of year-end 2014. At $244 billion, U.S. government debt accounted for only 6.3% of total bond investments, but movements in government yield curves directly affect the market value of nearly all fixed-coupon instruments and indirectly influence the value of most other asset classes.

Bond price movements due to interest rate changes can be significant; for example, the 10-year Treasury note—an acceptable proxy for the interest rate sensitivity of life companies' bond portfolios—experienced a swing in market value of about 12% over the 13 months ended Jan. 30, 2015. Portfolios associated with other insurer types may have shorter average maturities, however, with significantly less sensitivity to interest rate changes. Note that life insurers, in particular, are traditionally "buy-and-hold" investors that try to match the duration of their assets and liabilities, thereby limiting their net interest rate exposure; as such, they carry the vast majority of their assets at amortized cost. Market risk is only a concern if an insurer needs to sell bonds before maturity, in which case losses will be realized if bond yields have increased.

USD Strength and Commodity Price Weakness

As Chart 6 shows, the dollar has maintained its strength against the euro and yen. The dollar appreciated sharply in late 2014 as the Eurozone's recovery stalled and U.S. economic data grew more robust, raising the potential for tighter U.S. monetary policy—now widely viewed as inevitable by early 2016 at the latest—while the European Central Bank (ECB) and the Bank of Japan (BoJ) will likely remain locked into monetary ease.

The most significant development in the foreign exchange markets in recent months occurred when the People’s Bank of China (PBOC) surprised the markets with three consecutive devaluations of the yuan, which shaved a combined 3% from its value. The first devaluation, on Aug. 11, 2015, was the largest single drop in the exchange rate in 20 years. Since 2005, the yuan had appreciated 33% against the U.S. dollar, and markets had grown accustomed to its stability. (China’s foreign exchange policy follows a “managed float” approach.) Developed and emerging stock markets around the world fell in response to the devaluation, interpreting it as an indication that China’s economy was performing worse than expected and as a move to make exports more competitive.

Chart 6: USD – Yen, USD – Euro (Inverted) and USD - Yuan, Mid-2014 Through Nov. 10, 2015

The rising dollar and slowing Chinese economy have had profound effects on commodity prices—oil in particular. As has been reported previously, the global price of crude oil fell sharply beginning in mid-June 2014; as Chart 7 shows, U.S. West Texas Intermediate (WTI) crude has mostly remained range-bound between $45 and $50 per barrel—more than 50% below its mid-June 2014 peak. Demand remains modest, as U.S. economic momentum has been offset by the sluggish Eurozone recovery. Similarly, other commodity prices have been falling; the Thomson Reuters Core Commodity CRB Index—a broad measure of commodity prices—has fallen more than 30% from its mid-2014 peak.

Chart 7: Crude Oil and Commodity Price Trends, Past Five Years Ending Nov. 10, 2015

Insurance Industry Impact

The U.S. insurance industry's direct exposure to foreign currency risk remains modest. Based on statutory filing data, the industry had total foreign currency exposure, translated to USD, of $100.7 billion as of Dec. 31, 2014, of which the five largest exposures were $39.3 billion in Japanese yen, $26.1 billion in Canadian dollars, $17.9 billion in British pounds, $12.2 billion in euros and $2.8 billion in Australian dollars.

As energy prices have remained weak, the effect on the global economy and financial markets has become more pervasive. Still, insurers' exposure to energy sector corporate bonds, as of Dec. 31, 2014, is modest at $207 billion (13.1% of total industry corporate bond holdings and 3.6% of total cash and invested assets) as of Dec. 31, 2014. The industry is also indirectly exposed through financial institutions that lend to oil producers, suppliers to the oil sector, municipalities dependent on the energy sector and real estate investments in oil-rich geographies. No one of these exposures is material by itself, and the industry's aggregate exposure to falling oil prices probably is manageable, albeit more significant.

Corporate Bonds: Credit Spreads Widening; Low Liquidity Could Heighten Volatility

High-yield credit markets experienced heightened volatility in the second half of 2014, as mutual fund investors withdrew from the sector amid concerns about elevated valuations and talk of a "credit bubble." As shown in Chart 8, from a July 2014 tightest credit spread point of 291 bps, the Markit CDX High-Yield (HY) Index began to reverse shortly thereafter and widened to 407 bps by Dec. 16, 2014. Market conditions then improved and spreads tightened through March 2015, but again reversed direction and widened to 509 bps at the end of September, before tightening to the index's current level of 444 bps. Investment-grade corporate credit behaved similarly during this period, although the magnitudes of the shifts were far more subdued. The Markit CDX Investment Grade (IG) Index peaked at 95 bps on Oct. 1, 2015, and currently resides around 81 bps.

Chart 8: High-Yield, Investment-Grade and Emerging Markets Credit Default Swap (CDS) Spread Changes, Mid-2014 Through Nov. 10, 2015

Many causes were cited for the weakness in credit markets, including anticipated Federal Reserve rate hikes, emerging market headwinds, global growth concerns and stock-market volatility. More specific to the HY market was the strengthening of the USD and attendant fall in oil prices; this raised investor concern about the credit quality of energy companies, which have been heavy debt issuers.

The high volume of overall corporate issuance—up 14.8% year to date (YTD) through October and on track to exceed $1.4 trillion for the third consecutive year, according to Securities Industry and Financial Markets Association (SIFMA) data—also has raised concern among some investors that a “credit bubble” is forming, not unlike 2007. High yield issuance, however, is 14.2% off last year’s pace YTD through October, suggesting that investors have grown more skittish about taking on credit risk at current yield levels. Outflows from mutual funds also have been cited as a driver of the weakness in corporate bond markets; taxable bond fund outflows totaled $49.2 billion in Q3, resulting in a net YTD cumulative outflow of $2 billion. Declining market liquidity is another concern. Net corporate bond inventories of primary dealers have dwindled to a mere $454 million as of Oct. 28, 2015, down from $21.8 billion a year earlier. Corporate bond trading statistics also raise liquidity concerns: Despite steady growth in average daily volume YTD, turnover—trading volume relative to the total amount of corporate debt outstanding—has been falling, suggesting that it may take bondholders longer to exit positions, especially in less-liquid issues.

Q3 2015 saw a sharp selloff in emerging credit markets, driven by concerns about China’s slowing economy; the abrupt reversal of Chinese stocks into a bear market and the government’s drastic market intervention; ongoing pressure on commodity-driven economies such as Colombia, Malaysia and South Africa; political strife in Brazil; Russia’s entry into armed conflict in Syria; and Turkey’s struggles both internally and with its neighbors.

Insurance Industry Impact

As of year-end 2014, the U.S. insurance industry held $2.06 trillion in BACV of corporate bonds, which accounted for 53.4% of the industry’s total bond investments. Only 6% of bond investments were designated NAIC 3 or lower (below investment grade), a slight increase from

5% at year-end 2013. This suggests that insurers in aggregate are not taking on significant additional credit risk to reach for yield, as many other investors appear to have done based on the robust demand for speculative-grade paper. Life insurers typically have significantly more exposure to corporates (61% of year-end 2014 bond investments) than P/C companies (34%). Similarly, life insurers have a slightly larger exposure to below investment grade credits. 6.1% of life insurer bond investments were designated NAIC 3 through NAIC 6, versus only 4.4% for P/C insurers; both figures are little changed from the prior year. It is interesting to note, however, that since year-end 2009, below investment grade exposure for life companies has decreased from 7.7% of total bond investments, while for P/C insurers, it has increased from just 2.5%. Because their exposures are limited, adverse developments in HY credit should only have the potential to affect insurers' investment returns at the margin, unless those developments spill over into the broader corporate market.

Equity Markets: The August–September Swoon

As Charts 9–11 show, the world's major stock markets trended higher and were less volatile into April and May. However, their advances all faltered at one point or another in Q2, and volatility returned to the equity markets in June, July and August in a big way—their sell-off driven by global growth concerns raised by the slowing Chinese economy and the August devaluation of the yuan. In late August, the Standard & Poor's (S&P) 500 Index was down as much as 12.5% from the May peak. Technical factors aside, U.S. equities came under pressure from slowing corporate earnings growth and price-to-earnings (P/E) multiples that seemed unsustainable in light of an imminent rate hike and slowing economic growth, and Federal Open Market Committee (FOMC) chair Janet Yellen's comments after the Fed's September meeting only served to heighten volatility by reinforcing global growth worries. U.S. and international stocks have since rebounded, as U.S. investors refocused on corporate earnings that were not as weak as many feared, and global markets were buoyed by the promise of continued government stimulus in Europe and China. Still, continued volatility should be expected given shifting expectations for Fed action, global economic growth and inflation, varying corporate earnings, and mergers and acquisitions activity.

Charts 9-11: World Stock Indices, YTD Ending Nov. 10, 2015

Within the U.S. market, there has been considerable dispersion of returns by sector (shown in Table 1), with energy the standout loser, reflecting the drop in oil prices, and basic materials stocks also lagging, reflecting declining commodity prices and the strengthening USD. Year to date, the S&P 500 Index has in essence moved sideways; many former top performing stocks of the past year corrected, while modest gains in the defensive sectors were offset by the weakness in energy and cyclical stocks.

Table 1: S&P 500 Sector Returns, Q3, YTD to Sept. 30 and Nov. 10, 2015

Q3

YTD to 9/30

YTD to 11/10

Financials
-6.7%
-7.1%
1.0%
Technology
-3.7%
-3.0%
8.6%
Health Care
-10.7%
-2.1%
5.7%
Industrials
-6.9%
-9.8%
-2.4%
Energy
-17.4%
-21.3%
-20.3%
Consumer Discretionary
-2.6%
4.1%
19.2%
Consumer Staples
-0.2%
-1.0%
1.8%
Telecom
-6.8%
-3.9%
-10.0%
Utilities
5.4%
-5.9%
-8.3%
Materials
-16.9%
-16.5%
-8.5%
S&P 500
-6.4%
-5.3%
2.1%
Source: S&P Dow Jones Indices

Insurance Industry Impact:
As of Dec. 31, 2014, the U.S. insurance industry held common stock investments totaling $684 billion (11.9% of total invested assets, including affiliated holdings). P/C insurers' exposure to common stocks was $497 billion (28.5% of total invested assets), whereas life companies' exposure was only $149 billion (4%). The robust stock market of recent years—in which the

S&P 500 returned 13% or more, including dividends, in five of the past six years ending with 2014—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. That calculus could change going forward, however, if volatility remains elevated and interest rates continue to rise.

Conclusion

In summary, in the past three months, the financial markets have been reacting to uncertainty as to the direction of global economic trends and monetary policy shifts around the world, as well as the effect on global economic growth of the slowing Chinese economy. The NAIC Capital Markets Bureau will continue to monitor market volatility and its impact on the insurance industry, and publish additional research as deemed appropriate.

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

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