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

Diverging Economies and Correlated Markets: The Impact of Economic Trends and Capital Flows on the Global Investment Landscape

Introduction: Why Global Economic Trends and Capital Flows Matter to Insurers

This special report connects shifts in economic growth around the world, the responses of policymakers and investor behavior in the years since the financial crisis in order to establish a global context within which insurers and other investors will have to operate in the intermediate term or longer. Despite the fact that, in aggregate, the U.S. insurance industry has relatively little direct exposure to foreign currencies, China, the emerging markets or other non-U.S. investments, the global context is important because the U.S. investment landscape is increasingly influenced by external forces. For example, although the direct investment exposure of U.S. insurers to China is small, the Chinese economy significantly affects many other economies, especially in emerging markets. Foreign interest rate and currency movements—and the forces behind them, such as divergent economic trends—not only affect the revenues and earnings of multinational companies in which insurers invest, they can alter the supply and demand balance for financial assets around the world that do not have direct international exposure. Although nominal U.S. interest rates have been trending lower for the past two decades, the unprecedented decline in rates in recent years has caused increasing concern for insurers, especially life companies, for a couple of reasons:

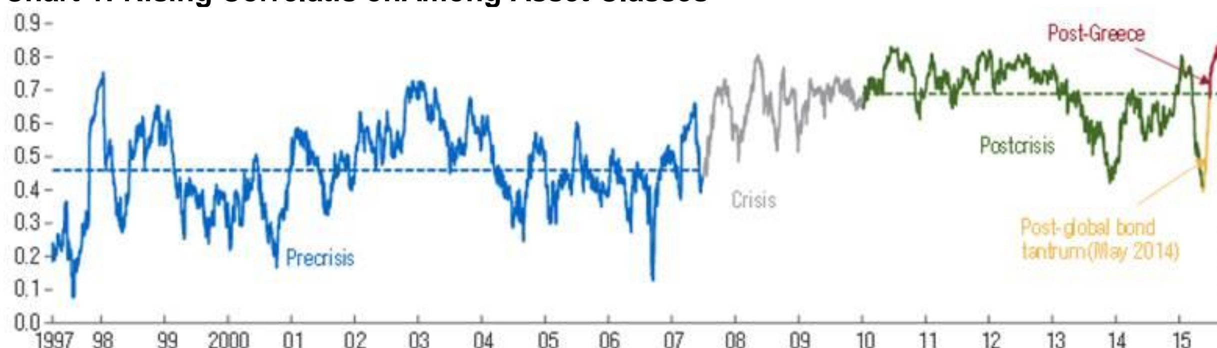
- Changes in interest rates impact asset adequacy and asset/liability management. New insurance premiums and proceeds from maturing bonds are invested at lower yields than in prior years. In addition, extremely low interest rates go hand in hand with unsustainably rich asset valuations that inevitably must come down when rates eventually rise.
- Sustained low rates can affect insurance pricing and/or profitability. When portfolio yields decline, the margin over guaranteed minimum benefits shrinks. Analysis done by the NAIC has shown the margin to have shrunk significantly since 2007, although it has remained reasonably stable over the last five years. Nonetheless, this remains a challenge for life insurers.

Volatility and uncertainty are still prevalent, with the U.S. on a likely, albeit uneven, recovery path—setting the stage for diverging interest rate outlooks compared to the Eurozone and Japan. The pressure of continued extreme monetary stimulus in many developed economies, however, suggests that insurers will contend with very low reinvestment rates this year and perhaps next. At the same time, a number of risks are emerging. Credit risk is increasing, albeit from low levels, especially in resource-related sectors and emerging markets as a result of the collapse in commodity prices. Liquidity risk is a growing concern, reflecting heightened regulatory pressure on financial institutions that appear to have curtailed market-making activity in some sectors. Significant capital flows driven by central bank stimulus, foreign exchange intervention and sovereign wealth fund activity have heightened the correlation between financial assets in the years since the financial crisis. This has led to herd-like investor behavior often referred to as "risk-on, risk-off," which describes investors' movement back and forth

between riskier, potentially higher yielding investments and safer, lower yielding investments. In global markets, periods of perceived low financial risk, where economic growth and inflation are the leading perceived prospects for the economy, encourage risk-on behavior. Periods of perceived high financial risk, where stagnation and deflation are more of a prospect, create a risk-off situation. In times of economic uncertainty, the risk-on, risk-off switch is more frequent and extreme.

The mass movement of large institutions and investors—primarily hedge funds and exchange-traded funds—in and out of asset classes has caused many assets to become highly correlated. Since 2008, stocks, bonds and commodities have become more highly correlated, as Chart 1 shows. This is a potentially dangerous trend for investors because high correlation thwarts investors' efforts to reduce risk through diversification. In addition, the combination of herd-like risk-on, risk-off behavior and diminished liquidity could lead to large price swings, especially to the downside. Although mark-to-market risk is limited for most U.S. insurers—at least in the short run—given limited portfolio turnover and a preponderance of investment-grade fixed income securities and other assets—such as mortgages and real estate that are carried at some version of amortized cost—in the invested asset mix, heightened volatility could adversely affect insurers' high yield and equity investments, and more generally could make portfolio adjustments more difficult.

Chart 1: Rising Correlatis onAmong Asset Classes



Source: IMF Global Financial Stability Report, October 2015. Note: The correlation index summarizes the median daily cross-asset correlations of Sharpe ratios across all of the following asset classes: U.S. Standard & Poor's 500, MSCI Emerging Markets, U.S. Treasuries, EMBI Global Bond Index, GBI Emerging Markets Bond Index (local currency), U.S. High Yield, and Commodities.

Review of Macroeconomic Trends Post-Financial Crisis

Since the financial crisis of 2008, the world's advanced economies are in varied stages of a very long recovery, but most are still feeling the effects of the financial crisis. Economic growth has been unusually slow in much of the world, in part because—as empirical research suggests—financial crises tend to cause lasting damage to economic activity. One manifestation of this damage is the economy's heightened vulnerability to additional shocks—for example, bank bailouts and declines in tax revenues, due to lower economic activity and fiscal stimulus, and weakened government finances. The financial crisis incited concern about the sustainability of public finances in Greece, Spain and Italy— thus sowing the seeds for the sovereign debt crisis. The attendant increase in sovereign risk premia drove private sector financing costs higher, and fiscal reforms aimed at mitigating sovereign debt risk further squeezed economic output. The combined effect of these two crises in quick succession contributed to the largest pullback in southern Europe's economic output since the great depression.

The financial crisis led to a subdued pace of investment, inhibiting productivity and limiting potential economic growth globally. The International Monetary Fund (IMF) now estimates that world economic activity grew 3.1% in 2015, 0.3 percentage points slower than in 2014, and 0.2

percentage points below the July 2015 forecast. Economic prospects across—and within—the world's main countries and regions are uneven. In 2016, growth among the advanced economies is expected to pick up slightly relative to last year, but emerging market (EM) and developing economies are expected to decelerate. Table 1 summarizes growth, inflation, monetary and fiscal indicators and forecasts for key advanced and developing economies around the globe.

Table 1: Summary of Economic Indicators and Forecasts

Country/Region	GDP 2015E	GDP 2016F	GDP 2017F	S.T. Interest Rate	Inflation Rate	Unem-ployment Rate	Gov. Deficit /GDP	Debt/ GDP	Current Account / GDP
World	3.1%	3.4%	3.6%						
Advanced Economies									
U.S.	2.5%	2.6%	2.6%	0.50%	1.0%	5.0%	-2.5%	104%	-2.7%
Euro Area	1.5%	1.7%	1.7%	0.00%	-0.1%	10.3%	-2.2%	94%	3.7%
Germany	1.5%	1.7%	1.7%	0.00%	0.3%	4.3%	0.5%	72%	8.8%
France	1.1%	1.3%	1.5%	0.00%	-0.2%	10.3%	-3.5%	96%	-1.4%
Italy	0.8%	1.3%	1.2%	0.00%	-0.2%	11.7%	-2.6%	133%	2.2%
Spain	3.2%	2.7%	2.3%	0.00%	-0.8%	20.9%	-5.2%	101%	1.5%
China	6.9%	6.3%	6.0%	4.35%	2.3%	4.1%	-2.3%	41%	2.7%
Japan	0.6%	1.0%	0.3%	-0.10%	0.3%	3.3%	-6.0%	229%	2.9%
U.K.	2.2%	2.2%	2.2%	0.50%	0.3%	5.1%	-4.4%	89%	-5.2%
Canada	1.2%	1.7%	2.1%	0.50%	1.4%	7.3%	-0.3%	87%	-2.1%
Emerging Economies									
Brazil	-3.8%	-3.5%	0.0%	14.25%	10.4%	8.2%	-10.3%	66%	-3.3%
Mexico	2.5%	2.6%	2.9%	3.75%	2.9%	4.2%	-3.5%	31%	-2.8%
India	7.3%	7.5%	7.5%	6.75%	5.2%	4.9%	-3.9%	66%	-1.4%
Saudi Arabia	3.4%	1.2%	1.9%	2.00%	4.2%	5.6%	-15.0%	2%	10.3%
Russia	-3.7%	-1.0%	1.0%	11.00%	8.1%	5.8%	-0.5%	18%	3.1%
Nigeria	3.0%	4.1%	4.2%	12.00%	11.4%	10.4%	0.1%	11%	2.6%
S. Africa	1.3%	0.7%	1.8%	7.00%	7.0%	24.5%	-3.8%	50%	-4.4%

Source: Trading Economics, IMF World Economic Outlook Update January 2016 (gross domestic product [GDP] estimates and forecasts)

Several key trends have significantly influenced the world economy in recent years:

- Slowing output growth in China, and the planned transition of its economy from a manufacturing, investment and export focus toward consumption.
- The collapse in prices for energy and other commodities.
- Divergence in monetary policies between the U.S. (beginning to tighten in anticipation of improving economic growth and rising inflation) and several other regimes, especially the EU and Japan (still easing in response to slow growth and deflation concerns).
- Weak productivity growth in the developed world.
- Slowing growth in developing economies dependent on commodity exports.

Oil prices continued their decline in early 2016, dipping below $30 per barrel, which was lower than many market participants and observers expected, before staging a partial rebound to the $35 to $40 range. Strong production from OPEC, U.S. shale producers and Russia, as well as Iranian crude coming back into the market following the end of international sanctions, has

weighed on prices, with demand for oil growing steadily but slowly. Base metals and other basic materials prices are also under pressure. China had been the big demand driver; its share of world consumption went from 10% to 20% in the early 2000s to more than 50%, reflecting a boom in manufacturing and especially investment and construction from 2009 to 2013, but excess capacity that was added when prices were high and funded with cheap debt came on as demand slowed. While lower commodity prices tend to benefit advanced economies (more so in Europe than the U.S. and Japan), commodity exporters have suffered. All else held equal, the IMF asserts that the plunge in commodity prices will trim almost one percentage point from the average economic growth rates of commodity exporting countries from 2015 to 2017, compared to 2012 to 2014; it is expected to be worse (about 2¼ percentage points) for exporters of fuel and metals.

Policy Responses

Monetary Policy — ZIRP and QE

For the advanced economies reeling from the financial crisis, central bankers prescribed some strong and controversial medicine: extremely aggressive monetary easing, or zero (and, more recently, negative) interest rate policy (ZIRP or NIRP). Japan first used ZIRP in the 1990s—with limited success—to combat the stagnation and deflation that followed the collapse of a bubble in asset prices. Faced with a sharp contraction in economic output, a sharp jump in unemployment and deflation that ensued from the financial crisis, the U.S. Federal Reserve (Fed) pursued a similarly aggressive monetary easing in 2008 to stabilize the U.S. economy, bringing the overnight federal funds rate down to 0.25%—where it would remain until December 2015—and also applying an unconventional strategy known as quantitative easing (QE), whereby the Fed purchased extremely large quantities of bonds in order to boost asset prices and thus improve bank balance sheets and increase lending capacity, spurring economic activity.

In the U.S., the strategy largely worked, although by some measures, the recovery has been quite slow. ZIRP/QE is not without risks, however. The potential pitfalls of these strategies have been highlighted by the experience of Japan and the European Union (EU), where ZIRP has extended further than in the U.S., resulting in short-term interest rates that are right at—or below—zero, thereby potentially rendering further monetary stimulus efforts ineffective and creating a host of potential problems for financial institutions.

Official Reserves

The role of official reserves in helping countries weather the financial crisis and subsequent recovery is not entirely clear, but it appears that large reserve accumulations before the crisis helped some countries weather the storm. Such reserves—hard currency (mostly U.S. dollars and the euro), gold, special drawing rights and other claims held by a country's central bank—were originally important for countries with fixed exchange rates because they could serve as a buffer to support the currency. This is still true in certain emerging market countries—including China—where international reserves are necessary to maintain foreign exchange stability, as well as a tool that monetary authorities employ in currency intervention strategies. In recent years, there have been three principal currency interveners on the world stage whose actions and attendant capital flows have significantly affected the global investment landscape:

1. **China ($3.20 trillion in official reserves as of Feb. 29, 2016, largest in the world but down from over $4 trillion):** The yuan has been a controversial topic in recent years, largely because of China's burgeoning exports of goods to the U.S. since the 1990s. Contrary to the rhetoric of some critics, however, in recent years the yuan actually has appreciated against most currencies, including the dollar. China's currency does not float freely, and although the authorities are taking steps to make its economy more open and its currency more market-sensitive, the yuan is still officially pegged to a basket including the dollar and euro. China's export-driven economy has a natural tendency to sell dollars and buy yuan, which, without intervention, would drive the yuan too high and threaten exports. The People's Bank of China

(PBOC)—the central bank—intervened by buying U.S. dollars and selling yuan, which can be printed as needed. As a result, China accumulated foreign currency reserves—mostly U.S. dollars as well as euros—to the point China's reserves became the largest in the world. Most of these reserves are invested in U.S. Treasury securities. Last August, as China's economy began to slow and the PBOC cut interest rates, the PBOC intervened several times to devalue the yuan. However, as investors feared more depreciation, capital outflows accelerated, and the PBOC intervened heavily to buy yuan, draining about $300 billion of official reserves between July and December. Out of a record $510 billion in FX reserve drain last year, China sold $295 billion in Treasury and agency securities and $92 billion of U.S. stocks, driving U.S. bond and stock prices lower (and yields higher) last September through October. China continued to drain reserves in the first two months of 2016, albeit at a slowing pace.

2. **Switzerland ($605 billion in official reserves as of Jan. 31, 2016):** Long viewed as a safe haven, the Swiss franc (CHF) appreciated during the financial crisis. In 2009, the Swiss National Bank (SNB) began to sell CHF (and buy foreign exchange) to stem its appreciation, because an expensive CHF hurts Swiss exports, which account for more than 70% of the gross domestic product (GDP). The SNB amassed about $480 billion of foreign currency reserves before pegging the currency to a floor of CHF 1.20 per euro. When the SNB abandoned the peg in early 2015, the euro fell roughly 40%. Since then, the SNB has sold CHF and cut interest rates to weaken the CHF, and it has partially succeeded, as it has retreated to CHF 0.92 per euro. However, Switzerland has had to drive interest rates well below zero to achieve this. As a result, short-term rates are about -1.0%, and virtually the entire Swiss yield curve is below zero.

3. **Japan ($1.254 trillion, as of Feb. 29, 2016):** To stem deflationary pressures that plagued Japan from 1998 to 2005, and constrained because the Bank of Japan (BoJ) had already implemented ZIRP, the BoJ sold yen and bought dollars in an effort to slow the yen's appreciation, keep exports competitive and reflate the economy. Economic conditions have remained much the same in recent years, however; years of near-zero interest rates, massive fiscal stimulus and currency intervention, and snowballing public debt did little to ease the chronic deflation that has weighed on Japan since the late 1980s. Japan has not intervened in the currency markets since 2011, although recent strengthening in the yen ignited some speculation that another round of yen-selling is due soon.

Market Players

Governments

Central banks have played a key role in economic and market developments, and have had great influence over global financial markets through their direct involvement in monetary policy (ZIRP/NIRP and QE) and foreign currency intervention. Governments also have had an impact on financial markets via regulatory changes implemented after the financial crisis.

Sovereign wealth funds (SWFs) also wield considerable influence in today's markets. An SWF is a state-owned fund investing globally, in real and financial assets such as stocks, bonds, real estate and precious metals, or in alternative investments such as private equity funds or hedge funds. Most SWFs are funded by revenues from commodity exports—especially oil—or from foreign-exchange reserves held by the central bank. SWFs may be set up as official investment

companies, state pension funds, sovereign oil funds or other vehicles. Unlike foreign exchange reserves, SWFs aim to maximize long-term return, rather than short-term currency stabilization and liquidity management. SWFs proliferated as many central banks have accumulated reserves well in excess of their needs for mere liquidity or foreign exchange management. Many are invested conservatively—in low-risk, liquid investments—but as their assets grew and global investment yields kept falling, some SWFs allocated funds to less-liquid assets, such as real estate, private equity and other hard-to-trade investments.

According to the Sovereign Wealth Fund Institute (SWFI), a research and consulting group, at least 40 SWFs have been established since 2005. Together, they account for more assets than all of the world's hedge funds and private equity funds combined. From September 2007 to December 2015, SWF assets more than doubled, to $7.2 trillion, of which oil- and gas-related SWFs accounted for about $4.3 trillion, and assets managed by state funds as a portion of global equity and bond market capitalization soared from 5% in 2007 to almost 9% in 2015, according to research firm Capital Economics. More than three-quarters of SWF assets are in the funds of emerging market nations, with many of the biggest based in the Middle East and Asia, and the latest wave coming from Africa. Leading SWFs include Norway's Government Pension Fund Global ($873 billion, as of June 2015); Abu Dhabi Investment Authority ($773 billion); China Investment Corporation ($747 billion); Saudi Arabia's SAMA Foreign Holdings ($686 billion); Kuwait Investment Authority ($592 billion); China's SAFE Investment Company ($568 billion); Singapore's GIC Private Limited ($344 billion); and Qatar Investment Authority ($256 billion).

In recent years, especially due to the drop in oil prices, some funds are shrinking. SWFs have borrowed roughly $100 billion since 2007 (according to Dealogic and *The Wall Street Journal*), about two-thirds by net oil exporters such as Bahrain and Kazakhstan. Additionally, some countries have drawn down their SWFs to prop up their economies as revenues fall. For example, the Saudi Arabian Monetary Agency (SAMA), which functions like an SWF in some respects, withdrew about $70 billion from external managers last year to support its economy, as the nation's budget deficit is at a record high; its reserves have fallen 17%, to $584 billion in the 12 months through February 2016. All told, SWFs pulled about $100 billion from asset managers in the six months ended Sept. 30, 2015, according to Morgan Stanley. Norway also plans to tap its $825 billion fund—the world's largest—in 2016. The Sovereign Wealth Fund Institute (SWFI) said state funds in need of cash are selling liquid assets, such as high-grade bonds and equities, in particular.

In September 2015 the Basel, Switzerland-based Financial Stability Board (FSB) said global financial regulators are investigating "potential vulnerabilities" of sovereign-wealth funds that could affect world markets. The IMF, in examining the ramifications of low oil prices, stated last October that a large-scale liquidation of SWFs' bond holdings could push up interest rates: "A substantial change in the path of asset accumulation by sovereign wealth funds will likely have a direct effect on financial markets." U.S. Federal Reserve economists have estimated that the five-year Treasury rate would rise by 40 bps to 60 bps if foreign purchases of U.S. Treasurys were to fall by $100 billion in any given month.

Financial Institutions

The financial crisis exposed significant weaknesses in the global financial system, as well as risks that stem from today's interconnected global markets. New capital and bank structure rules are being implemented to boost the financial system's resilience in any future crises and to better protect consumers. Key legislation in the developed world, such as the federal Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) and the European Markets and Infrastructure Regulation (EMIR), has resulted in sweeping changes to the structure of financial markets and financial institutions, particularly with regard to increasing the transparency and safety of derivatives markets, improving trade reporting and processing, curbing market abuses, and curbing banks' proprietary trading and certain other investments. At

the same time, the Basel III accord seeks to implement a comprehensive set of reforms, developed by the 27-nation Basel Committee on Banking Supervision (BCBS), to strengthen the banking sector, particularly by improving its ability to absorb shocks arising from financial and economic stress, improving risk management and governance, and enhancing banks' transparency and disclosure. Basel III was scheduled to be introduced from 2013 until 2015; however, changes delayed its implementation until March 31, 2019. For banks, the main effect of Basel III—with some differences depending on jurisdiction—is a significant tightening of Tier 1 (equity) capital, leverage and liquidity requirements.

Heightened regulation, particularly with respect to capital and leverage requirements, has raised concern among financial market participants that market liquidity may be declining, especially for bonds, and that as a result, the risks associated with a liquidity shock may be rising. High, resilient market liquidity—the ability to rapidly buy or sell sizable quantities of securities at low cost and with limited impact on prices—is considered vital to the efficient transfer of funds from savers to borrowers, which promotes economic growth. Corporate bond inventories at U.S. primary dealers totaled $9.1 billion as of Feb. 1, 2016, down from $11.3 billion a year earlier and $20.8 billion two years ago; in October 2015, inventories actually dwindled to just $454 million.

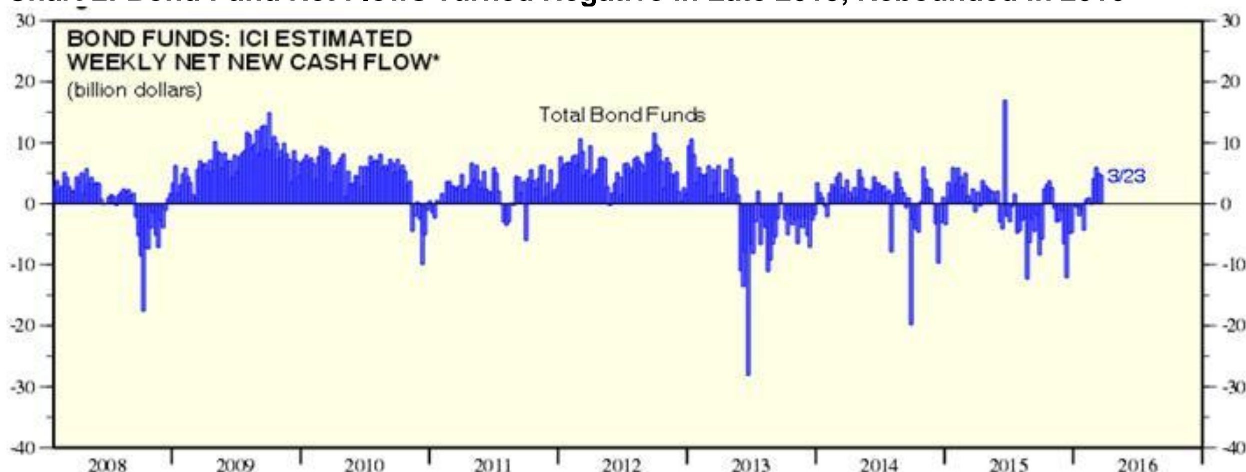
In its 2015 Financial Stability Report, the IMF stopped short of solely blaming heightened regulation for the decline in market-making activity in the bond markets in recent years, which has decreased market liquidity. It did, however, acknowledge that in other areas, such as derivatives trading, regulatory restrictions have diminished the liquidity of underlying assets.

The Rise of Funds and Exchange Traded Funds (ETFs)

Other changes in market structure appear to have made liquidity more fragile. Larger holdings of corporate bonds by mutual funds—and a higher concentration of holdings among mutual funds, pension funds and insurance companies—are associated with less resilient liquidity; simply put, large concentrated positions are harder to build and unwind. Bond funds have experienced inflows through most of the past decade; they have received about $1.9 trillion in net inflows and reinvested dividends since 2005, according to Investment Company Institute (ICI) data. Secular factors have supported this long-term growth in bond funds, particularly the aging of the U.S. population as surveys show that investors are less willing to take investment risk as they age.

Although they may vary significantly by asset class, bond fund flows are also typically correlated with the performance of bonds, which is primarily driven by the U.S. interest rate environment. In 2014, as long-term interest rates declined, bond prices, which are inversely related to interest rates, rose, generating positive returns for bonds and bond funds. Bond funds experienced net inflows of $44 billion in 2014, compared with net outflows of $71 billion the prior year. Net inflows continued for much of 2015, but then turned decidedly to net outflows as market turmoil and uncertainty with regard to the outlook for global economic growth and inflation, U.S. interest rate policy and corporate credit-worried investors. Bond fund net outflows continued into early 2016 but have recovered in recent weeks, as Chart 2 shows.

Chart 2: Bond Fund Net Flows Turned Negative in Late 2015, Rebounded in 2016



Source: Yardeni Research, Inc.

Fixed income ETFs also have grown rapidly in recent years, thanks to burgeoning interest, at first from retail investors and, increasingly, from institutions. While retail investors have benefited because ETFs are low cost and trade on exchanges, institutional investors embraced them also as an alternative to corporate bonds, which were becoming too illiquid to trade in large size. The growth in bond ETF assets has fueled concerns, however, that retail and institutional investors alike may, as the interest rate cycle continues to turn in the U.S., try to unwind too many bullish bets on bonds at one time, thereby fueling another round of volatility reminiscent of what has occurred in the markets from time to time since late 2014.

Financial Markets Behavior: Putting it all Together

Faced with the economic, regulatory and structural challenges described in this special report, the behavior of public and private market participants has created a set of conditions—e.g., very low reinvestment rates and high asset correlations—that could pose the following challenges to insurance companies and other investors:

1. **Foreign exchange movements:** Weakening commodity prices were reflected in sizable exchange rate depreciation for many commodity exporters with flexible exchange rate regimes. But emerging market currencies more generally have seen sharp depreciations since the spring of 2015. Exchange rate movements across major advanced economies have been relatively modest in the past year, after large changes between August 2014 and March 2015.

2. **China devaluation:** Exchange rate volatility increased in August 2015, particularly after the depreciation of the yuan associated with the PBOC's announced increase in exchange rate flexibility. Despite its 4%-5% depreciation with respect to the U.S. dollar since August 2015, the yuan remains nearly 10% stronger than its 2014 average in real effective terms. More generally, exchange rate movements across floating-rate currencies over the past year have reflected large swings in underlying fundamentals—such as expected demand growth at home and in trading partners, the declines in commodity prices and country-specific shocks—and thus countries with weakened growth prospects and terms of trade are facing pressure to devalue their currencies. Countries that have experienced sharp, persistent exchange rate changes will likely see significant changes in net external demand.

3. **Volatility, flattening yield curves and reaching for yield:** Financial market volatility spiked in August 2015, as global risk aversion was triggered by concerns about China's deceleration and uncertainty about its new exchange rate regime, leading to broader emerging markets concerns.

Equity prices fell sharply, credit spreads widened, and yields on safe assets fell, all—as discussed earlier—against the backdrop of sharp declines in commodity prices and currency depreciation. Subsequently, bond yields rose, reflecting improving economic activity in the U.S. and Europe, the apparent bottoming out of headline inflation, and, in the euro area, a correction after earlier declines to extremely compressed levels in response to increased bond purchases by the European Central Bank (ECB). As 2015 ended and 2016 began, a resurgence in global growth concerns once again drove bond yields lower as investors fled to safety, and both the ECB and BoJ promised continued monetary support via QE. Financial stability concerns associated with a protracted period of near- or even below-zero interest rates remain, particularly in advanced economies with modest slack. Insurance companies and pension funds face difficult reinvestment, pricing and funding challenges in this respect. Further, the flattened yield curves' compressed term premiums—i.e., minimal yield pickup for an extension in maturity—imply a potential risk of a sharp increase in long-term rates as the yield curve returns to a more "normal" shape, possibly spilling over to emerging markets.

4. **Uncertainty and Divergence:** Financial conditions have tightened in most emerging and developing economies, with differences across countries and regions. Credit spreads in general have widened: From mid-July 2014 through mid-February 2016, the option-adjusted spread (OAS) of the BofA Merrill Lynch US Corporate Master index—a benchmark index tracking the U.S. investment-grade corporate bond market—more than doubled, from as little as 107 bps to a peak of 220 bps (subsequently tightening to 169 bps as of Apr. 1, 2016), while the respective option-adjusted spreads for the benchmark BofA Merrill Lynch US High Yield Master II index and Emerging Markets Corporate Plus indices widened from 336 bps in mid-July 2014 to 864 bps, and from 284 bps to 510 bps, respectively; both have tightened modestly since then, to 705 bps and 429 bps). World stocks' have been mixed and volatile since most major equity indices peaked at one point or another in early or mid-2015 and subsequently sold off significantly through mid-February of this year. For example, from its May 20, 2015 high, the S&P 500 index fell 15.2% (it has since regained 14.5%, through Apr. 1, 2016), while the Euro STOXX 50 index fell 30% from its April 13, 2015, peak (it has since recovered 10.1%), and Japan's Nikkei 225 index dropped 29.1% between June 2015 and February 2016 (it has since rebounded 8.7%).

5. **Emerging market capital flows:** Developing countries have integrated to a larger extent with global financial markets over the past few decades; annual gross private capital inflows increased from $4 billion in the early 1980s to more than $60 billion in recent years, representing almost 6.4% of those countries' GDP in 2013, according to the IMF. This acceleration occurred in concert with the boom in commodities, driven by foreign direct investment, which increased from about 2% of GDP in the early 2000s to more than 4% since 2011. The IMF sees a causal relationship between capital flows and domestic private credit in developing countries, confirming the potentially enabling role of global financial integration for deepening the financial sector in these countries, potentially driving their economic growth and development. Now, however, the slowdown in China, the fall in commodity prices, the commodity-led turn of the credit cycle and the reversal in emerging markets nations to capital outflows bode ill for growth prospects in those regions.

Summary

The responses of investors, policymakers and regulators to the financial crisis, and the era of slow global growth that followed, establish the global context within which insurers and other investors will have to operate in the intermediate term, if not longer. Uncertainty still prevails as interest rate outlooks diverge between the U.S. and Europe/Japan, but pressures from continued QE measures in the EU and Japan suggest that insurers may face very low

reinvestment rates this year and next. At the same time, credit risk appears to be increasing, and liquidity risk is a growing concern, exacerbated by the heightened correlation between many financial asset classes that has led to "risk-on, risk-off" behavior, potentially leading to greater market volatility and more challenging investing and trading conditions.

The Capital Markets Bureau will continue to monitor trends and developments throughout the capital markets and will report any developments deemed appropriate.

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

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