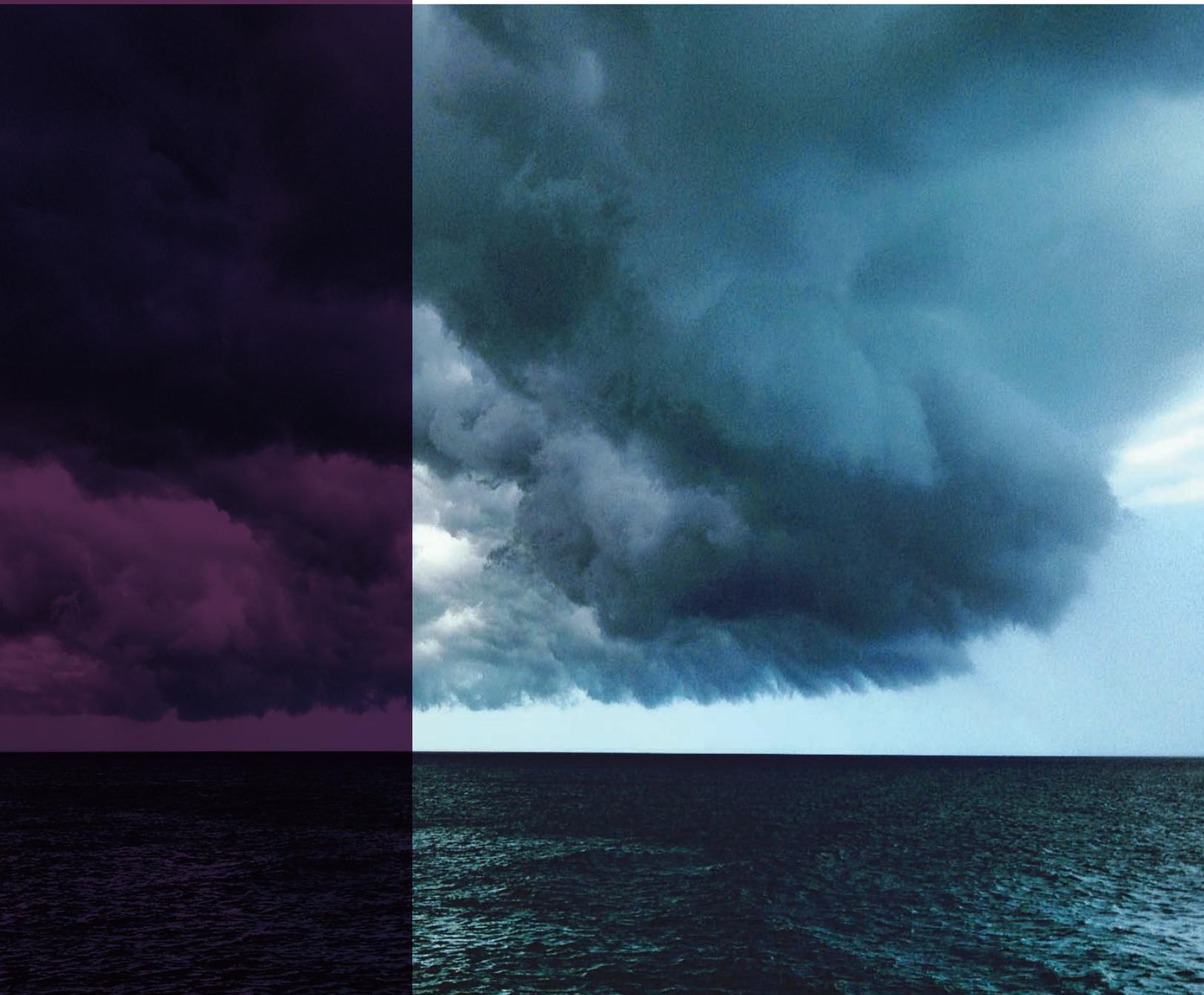


GUGGENHEIM

April 2019

Positioning Life Insurance Portfolios for the Next Recession (and Beyond)



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From the Desk of the Global CIO

Given that we are late in the business cycle, it is time to revisit insurance company portfolio management in and around recessions, particularly as it relates to the painful lessons learned in the last crisis. It is vital to be mindful that some of the accounting considerations that are intended to stabilize life insurance companies and protect policyholders may lull portfolio managers into complacency. Our analysis indicates that the next recession will begin as early as the first half of 2020, so life insurers should prepare their portfolios now for the downturn-related market challenges. The key is to manage this shift in a timely manner.

Our outlook for the timing of the next recession informs the investment decisions we make on behalf of our clients. We prepared this report with our insurance company clients in mind.

A handwritten signature in black ink, appearing to read "Scott Miner". The signature is fluid and cursive, with a large initial "S" and "M".

Scott Miner

Chairman of Investments and Global Chief Investment Officer

Positioning Life Insurance Portfolios for the Next Recession (and Beyond)

Scott Miner
Chairman of Investments
Global CIO

Anne B. Walsh, JD, CFA
CIO, Fixed Income

Jeremy Rosenbaum, CFA
Insurance Strategy

Frank Beardsley
Insurance Portfolio
Management

Life insurance companies have earned a reputation among institutional investors as being among the most prudent and longest-term investors in the fixed-income market. They provide guarantees to policyholders that last decades into the future and have generally fulfilled their promises. However, the reality is that while life insurance companies are experts in managing risk—and can weather some storms longer than other investors—they are nevertheless still imperiled by the same investment risks as other bondholders. Given that we are late in the business cycle, it is now time to revisit insurance company portfolio management in and around recessions, particularly as it relates to the painful lessons learned in the last crisis.

Preparing for the End of the Current Business Cycle

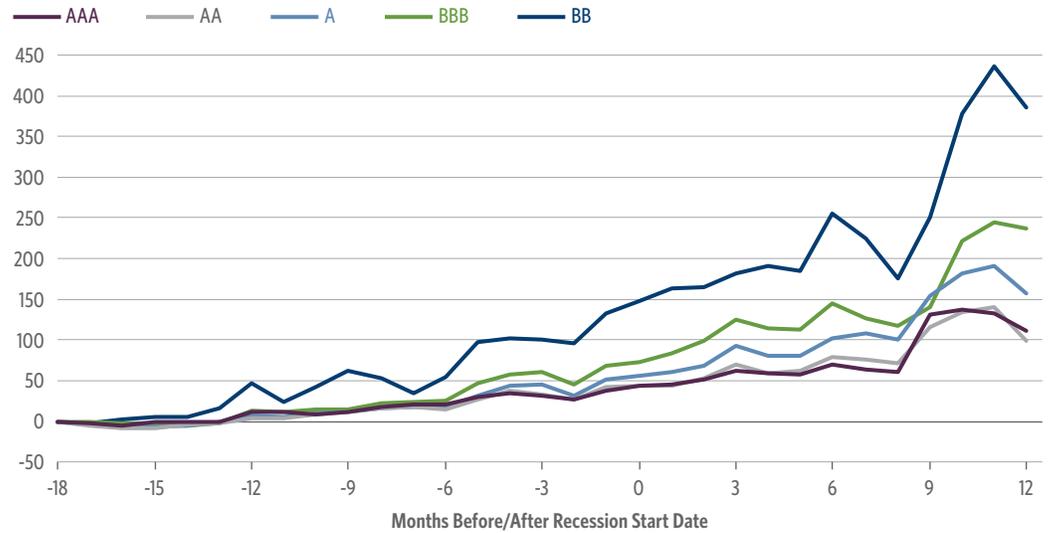
The business cycle is one of the most important drivers of investment performance, which is why it is critical for investors to adjust portfolio allocations according to where we are in the cycle. Our view on the timing of the next downturn is informed by the historical late-cycle behavior exposed by a series of economic and market indicators, including the labor market, monetary policy, leading economic indicators, the shape of the yield curve, and consumer spending. Together, these indicators have historically shown advance warnings of a downturn. Our analysis indicates that the next recession will begin as early as the first half of 2020.

Informed investors understand the history of market performance during the runup to past recessions and position their portfolios appropriately. Not only do certain indicators reliably presage when a recession is likely to occur, but markets also tend to behave in a predictable fashion in the 12 months leading up to the recession. In the last five comparable cycles, the S&P 500 has rallied an average of 16.2 percent in the penultimate year of the expansion, before falling 3.8 percent in the final 12 months prior to the beginning of the recession and continuing to fall during the recession. When confronting a looming recession, investors should bear in mind that periods of apparent strength represent opportunities to take money off the table and move up in quality.

In credit markets, spreads tend to stay relatively flat in the penultimate year of the expansion before widening in the final year, and they continue to widen during the recession. Rising defaults and increasing credit and liquidity risk premiums tend to drive a sharp pullback in the performance in high-yield bonds before and during recessions.

Credit Spreads Will Widen as Recession Fears Mount

Corporate Spreads to Treasuries by Rating: Cumulative Change in Basis Points Around Recessions, Average of Last Three Cycles*



Source: Guggenheim Investments, Bloomberg, Data as of 8.2.2018. *Note: includes recessions beginning in 1990, 2001, and 2007. 1990 cycle data begins at -13 months for AAA, AA, A, and BBB due to limited data availability. One basis point is equal to 0.01 percent.

The economic environment is always evolving and despite adjustments in monetary policy and recent market volatility, our view about the timing of the next recession is still intact. Growth is now on a downward trajectory in year-over-year terms. The combination of tighter monetary policy and fading fiscal stimulus will ensure that growth in 2019 is weaker than it was in 2018. Leading indicators confirm that the peak in growth is behind us: Global manufacturing purchasing managers' indexes are softening, the ongoing Brexit saga is still unresolved, and the steady slide in Chinese growth has prompted authorities to announce a series of stimulus measures.

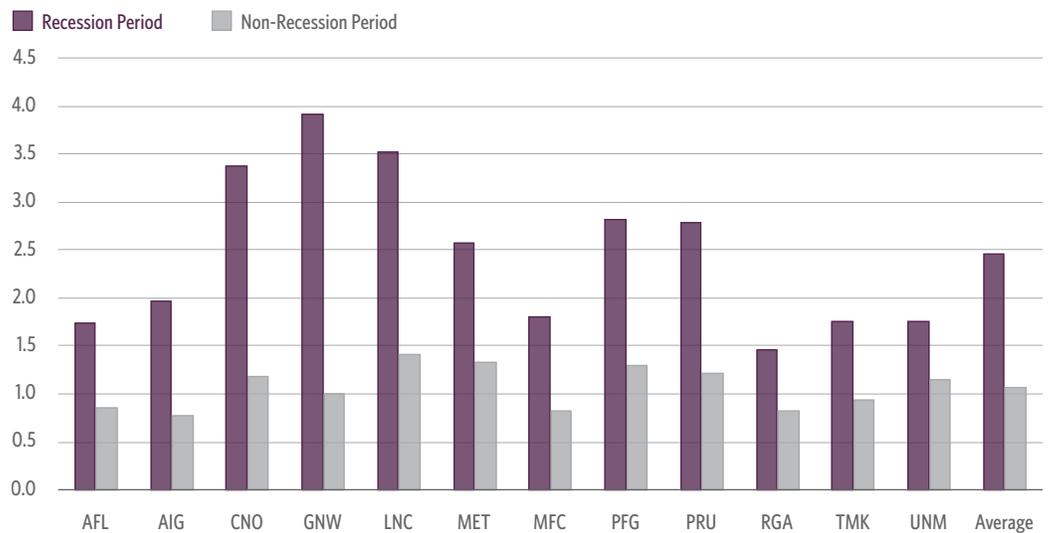
Against this backdrop, the Federal Reserve (Fed) has moved to the sidelines, as it has done before previous recessions. Our recession forecasting tools, including our Recession Probability Model and Recession Dashboard, continue to point to a downturn beginning as early as the first half of 2020.

Lessons for Life Insurers from the Last Recession

While the makeup of the next recession will not resemble the last, it is worth examining how life insurance companies fared under the duress of recessionary conditions in 2008-2009. The effect of fixed-income portfolio risks on life insurance companies was particularly stark during 2008-2009 when the sector was thrown into turmoil. Publicly traded life insurers, whose stocks generally have a market beta of close to one, experienced volatility of approximately two and a half times the market average.

Life Insurers' Equity Beta Was More than Double Market Average During the Financial Crisis

Beta of Life Insurers in Recession 6.30.2008-6.30.2009 vs Non-Recession 12.31.2017-12.31.2018



Source: Guggenheim Investments, Bloomberg. Data as of 12.31.2018. Insurance company abbreviations: AFL: AFLAC Inc.; AIG: American International Group; CNO: CNO Financial Inc.; GNW: Genworth Financial; LNC: Lincoln National Corp.; MET: Metlife Inc.; MFC: Manulife Financial Corp.; PFG: Principal Financial Group; PRU: Prudential Financial Inc.; RGA: Reinsurance Group of America; TMK: Torchmark Corp.; UNM: Unum Group.

During the financial crisis and resulting economic downturn, a wave of impairments, market volatility, and illiquidity led to a crisis of confidence in many life insurers and sent the industry into a tailspin. Many insurers were forced to raise capital at high rates of interest to restore confidence. In the aftermath of the crisis, three life insurers were designated as non-bank systemically important financial institutions (SIFIs), underscoring the amount of concern that was engendered and the vital role insurers play in the capital markets. The last of these companies had its SIFI designation removed in 2018.

The net income loss for the U.S. life statutory entities in 2008 was \$28 billion (excluding AIG), with over \$21 billion in realized losses charged to the Asset Valuation Reserve. To offset losses and restore financial strength, life insurers injected \$19 billion to their operating companies in 2008 and on a net basis raised another \$10 billion in surplus notes in 2008 and 2009.

While this capital raising successfully averted disaster, it served merely to restore financial strength and did not afford life companies the ability to take advantage of the market dislocation. Instead, many life insurance companies were forced to sell holdings into a buyer's market. In contrast, well-prepared insurers were in a position to opportunistically provide liquidity, which helped buttress yields in their portfolios in the decade that has ensued.

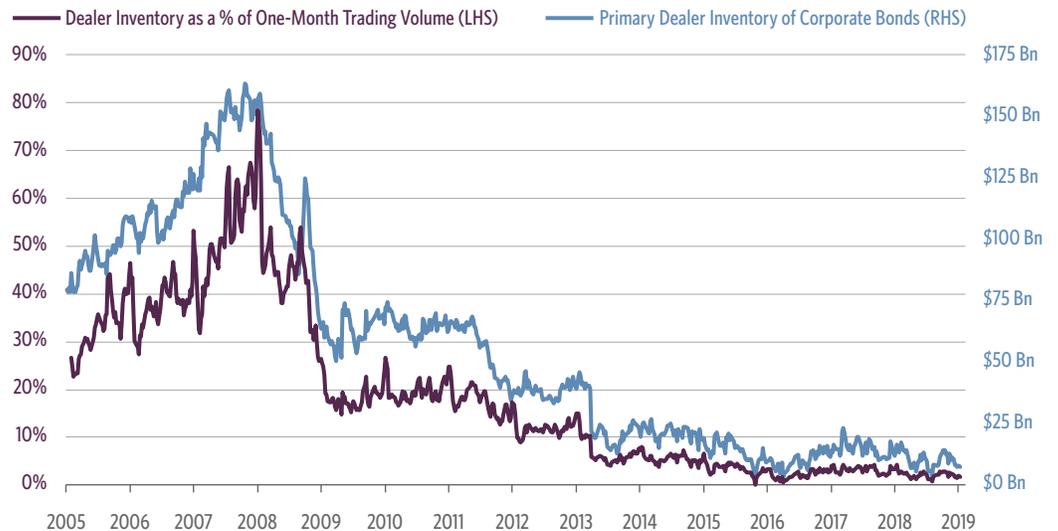
What Will the Next Recession Look Like?

Financial crises are always centered where there is too much leverage, and right now that is in the corporate sector. We believe it will start in the riskiest categories, such as high-yield corporate bonds, but the impact will eventually be felt throughout the fixed-income universe before the storm passes.

Today's excesses are the result of easy borrowing conditions. In 2007, less than 40 percent of Bloomberg Barclays U.S. Corporate Bond Index was rated BBB. The index held \$1.9 trillion of corporate bonds. By the fourth quarter of 2018, about 52 percent of the index was rated BBB, and the total size of the index had ballooned to over \$5 trillion. According to Moody's the unconditional probability of a BBB-rated issuer being downgraded to non-investment grade within five years is 17 percent. Conditional on a recession occurring in the next several years, a large wave of downgrades is likely, which could overwhelm the high-yield corporate bond market. Insurance companies whose capital and regulatory requirements compel them to hold mostly investment-grade debt are particularly at risk from this potential wave of downgrades.

Liquidity Is Falling in the Corporate Bond Market

Primary Dealer Net Inventories and Share of Trading Volume

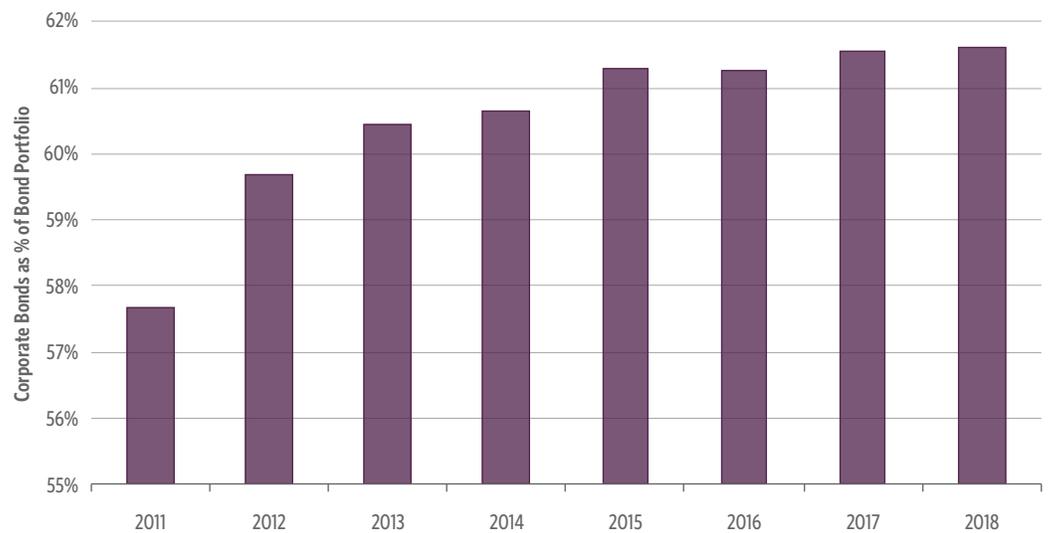


Source: Guggenheim Investments, Federal Reserve Bank of New York, Bloomberg. Data as of 1.16.2019.

Another serious issue is the lack of liquidity in fixed-income markets, as seen in falling dealer inventories. Shrinking bank balance sheets and a multitude of post-crisis regulations have resulted in a 92 percent decline of primary dealer inventory of corporate bonds since its peak in October 2007. Prior to the financial crisis, primary dealer inventory represented at least 40 percent of monthly trading volume in corporate bonds. Today, primary dealers hold less than 5 percent of corporate bond monthly trading volume.

To be sure, life insurance companies are not as exposed to residential real estate, which was ground zero in the last recession. However, with the effects of the coming recession likely to be centered in corporate credit, risks are mounting in insurance company portfolios. Life insurers' bond portfolio concentration in corporate credit has risen from 58 percent in 2011 to 62 percent in 2018. The increase in holdings of \$378 billion during this period is equal to 96 percent of the capital and surplus in the industry at the end of 2018.

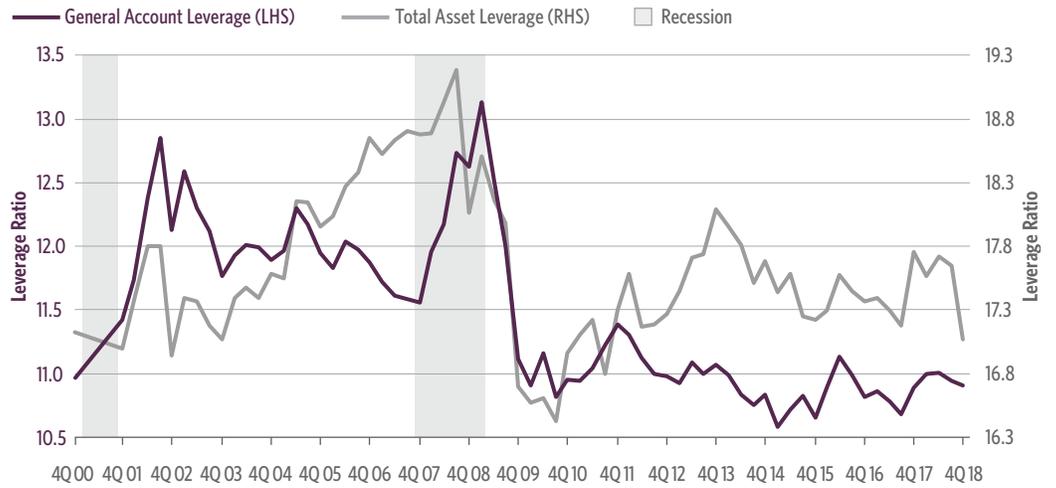
Corporate Bond Exposure Is Rising



Source: Guggenheim Investments, SNL. Data as of 12.31.2018.

Underscoring the challenge as we approach the next recession is the levered nature of life insurance companies. As of the fourth quarter of 2018 the industry general account leverage is 11:1 (and including separate accounts is almost 18:1). This suggests that even small losses would have a major impact on both capital and surplus. In the last two recessions, we saw this ratio deteriorate to 13:1, and the result was a raft of downgrades by ratings agencies. The exposure to risky sectors in the midst of a recession becomes magnified due to the leverage in the portfolios.

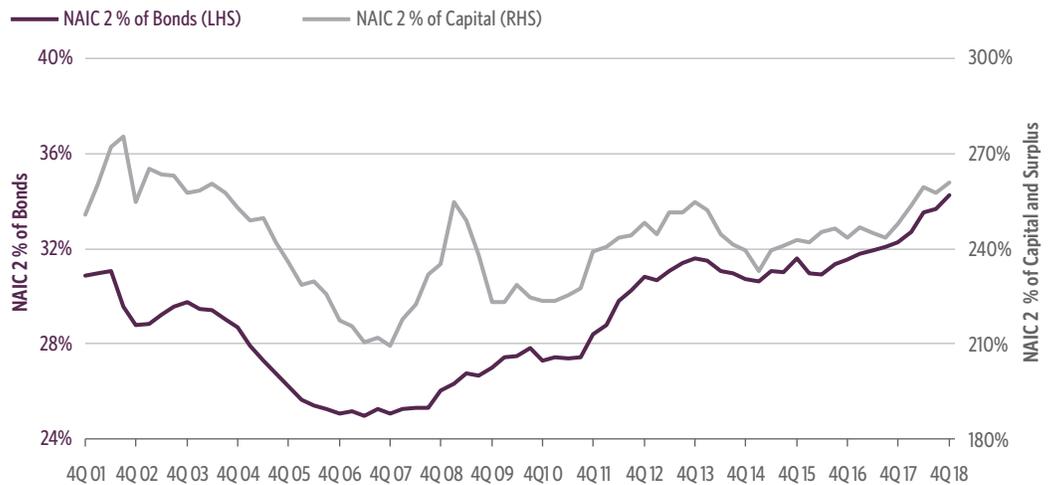
Leverage Can Increase Sharply in a Recession



Source: Guggenheim Investments, American Council of Life Insurers, SNL. Data as of 12.31.2018.

As an example, BBB-equivalent NAIC 2 rated debt—the cohort we suspect will produce a slew of fallen angels, leading to forced selling and a subsequent flooding of the high-yield corporate bond market—now makes up 34 percent of life insurance company bond holdings, up from 25 percent in 2007. After the 2001 recession, in which industry losses were more concentrated in the corporate sector than the last crisis, holdings in NAIC 2 debt were only 31 percent. Perhaps more ominously, NAIC 2 holdings as a percentage of capital have already breached the highs that the industry set in the aftermath of the last crisis at 261 percent and are approaching 2002's high of 275 percent.

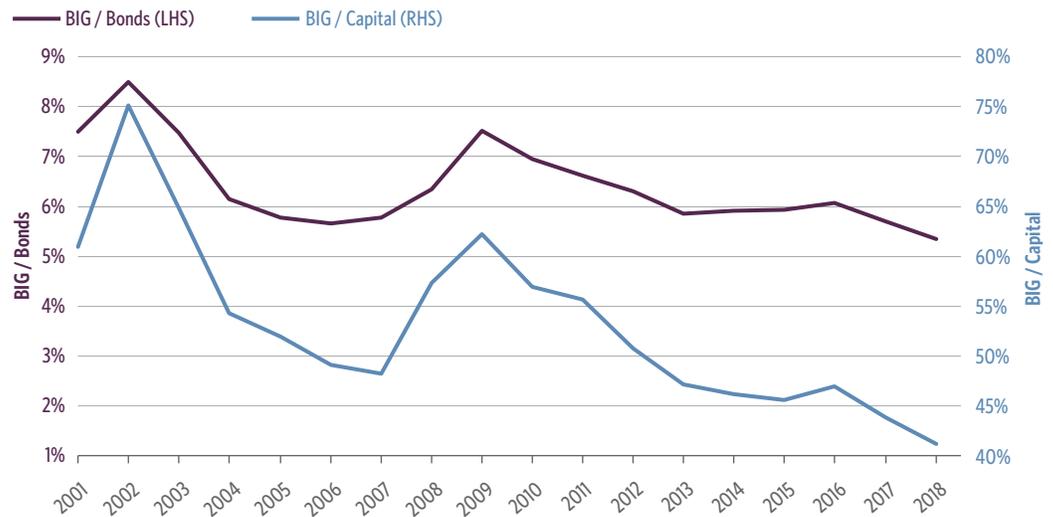
NAIC 2 Holdings Have Surpassed Crisis Highs



Source: Guggenheim Investments, NAIC. Data as of 12.31.2018.

The same lesson applies in below investment-grade bonds. A seemingly conservative portfolio can quickly become stressed in a recession. Below investment grade bonds, designated NAIC 3-6, increased from trough to peak by only 1.9 percent as a percentage of invested assets from 2007 to 2009, but as a percentage of capital they increased more meaningfully from 48 percent to 62 percent. Even at that, the trough to peak increase was muted by \$17 billion of paid-in capital, a net \$6 billion of surplus notes raised, and many billions more from permitted accounting practices approved by state regulators.

Small Increases in Below Investment-Grade Holdings Can Put Capital at Risk



Source: Guggenheim Investments, NAIC. Data as of 12.31.2018.

Action Items for Insurers

Like in prior recessions, life insurance companies will need to manage losses, closely monitor unrealized losses from spread movement, and consider ways to meet increased capital requirements. Maintaining a sustainable risk-based capital (RBC) ratio that takes into account projected losses and downgrades is essential for investors and policyholders to maintain confidence in the industry. Using Moody's published one-year average credit migration rate, we estimate that in order for the industry to maintain an RBC ratio of 450 percent it would need to raise approximately \$19 billion of capital, or 5 percent of capital and surplus. But by that time, portfolio repositioning will be to no avail as crystalizing realized losses will lead to capital degradation and deterioration of RBC ratios.

While there are no guarantees in investing, we believe that prudent positioning now can help minimize losses and allow investors to take advantage of market downturns by picking up assets at attractive valuations. In the short term, this may mean sacrificing some spread

before the recession. This defensive positioning involves trading up in quality wherever possible and limiting spread duration. The upside is that life insurance companies will be prepared to be liquidity providers in the coming recession. The industry thus far has been reluctant to adopt this posture; indeed, risks continue to build in portfolios.

While trading up in credit is prudent late in the cycle, we also believe that the generally illiquid nature of life insurers' liabilities allows for a thoughtful allocation to less liquid asset classes. Failing to pursue these opportunities sacrifices an optimization of portfolio yields and forgoes a vital avenue of portfolio diversification. For example, commercial mortgage loans, while illiquid, tend to be a good duration match for annuity liabilities. Privately issued debt is a sector that could enhance yield and allow for increased investor protection through negotiated covenants while sacrificing some liquidity. Collateralized loan obligations (CLOs) are another pocket of illiquidity where there is also opportunity. However, not all CLOs are created equal, and insurance companies should monitor and measure risk in the asset class, particularly spread duration, and actively trim assets that could lead to impairments during the recession.

As indicated earlier, as we approach the coming recession in 2020, life insurance companies should consider positioning themselves to be suppliers of capital and providers of liquidity when others require it most. To accomplish this, it is vital to be mindful that some of the key accounting considerations that are intended to stabilize life insurance companies and protect policyholders may lull portfolio managers into complacency. These considerations include focusing on book income over total return, and accounting for assets at amortized cost as opposed to fair value under statutory accounting. Taken together, these can lead to uneconomic decisions favoring buy-and-hold strategies that can potentially force life insurance companies to sell securities into illiquid markets once the crisis hits.

The key for fixed-income portfolio managers is to manage this shift in a timely manner. A recession is coming. It is imperative to prepare now for the period leading up to the downturn and beyond.

Contact Us

New York

330 Madison Avenue
New York, NY 10017
212 739 0700

Chicago

227 W Monroe Street
Chicago, IL 60606
312 827 0100

Santa Monica

100 Wilshire Boulevard
Santa Monica, CA 90401
310 576 1270

London

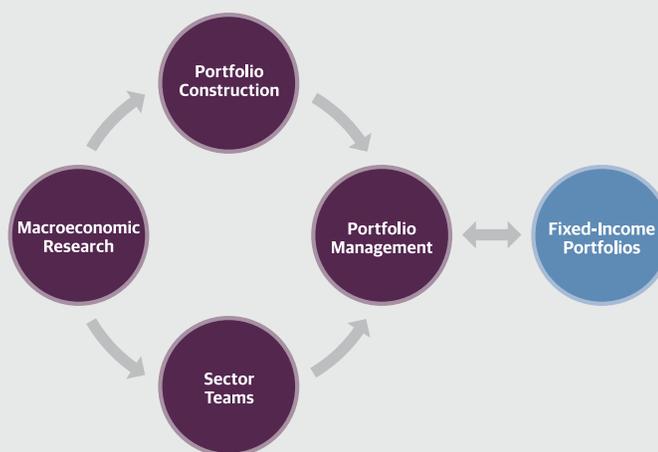
5th Floor, The Peak
5 Wilton Road
London, SW1V 1LG
+44 20 3059 6600

Tokyo

Otemachi First Square, West Tower
1-5-1, Otemachi, Chiyoda-ku
Tokyo 100-0004
+81 03 4577 7880

Guggenheim's Investment Process

Guggenheim's fixed-income portfolios are managed by a systematic, disciplined investment process designed to mitigate behavioral biases and lead to better decision-making. Our investment process is structured to allow our best research and ideas across specialized teams to be brought together and expressed in actively managed portfolios. We disaggregated fixed-income investment management into four primary and independent functions—Macroeconomic Research, Sector Teams, Portfolio Construction, and Portfolio Management—that work together to deliver a predictable, scalable, and repeatable process. Our pursuit of compelling risk-adjusted return opportunities typically results in asset allocations that differ significantly from broadly followed benchmarks.



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Guggenheim Investments is the global asset management and investment advisory division of Guggenheim Partners, with more than \$203 billion¹ in total assets across fixed income, equity, and alternative strategies. We focus on the return and risk needs of insurance companies, corporate and public pension funds, sovereign wealth funds, endowments and foundations, consultants, wealth managers, and high-net-worth investors. Our 300+ investment professionals perform rigorous research to understand market trends and identify undervalued opportunities in areas that are often complex and underfollowed. This approach to investment management has enabled us to deliver innovative strategies providing diversification opportunities and attractive long-term results.

About Guggenheim Partners

Guggenheim Partners is a global investment and advisory firm with more than \$265 billion² in assets under management. Across our three primary businesses of investment management, investment banking, and insurance services, we have a track record of delivering results through innovative solutions. With 2,400+ professionals based in offices around the world, our commitment is to advance the strategic interests of our clients and to deliver long-term results with excellence and integrity. We invite you to learn more about our expertise and values by visiting GuggenheimPartners.com and following us on Twitter at twitter.com/guggenheimptnrs.

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Enduring Values.®

Important Notices and Disclosures

Beta: a statistical measure of volatility relative to the overall market. A positive beta indicates movement in the same direction as the market, while a negative beta indicates movement inverse to the market. Beta for the market is generally considered to be 1. A beta above 1 and below -1 indicates more volatility than the market. Beta between 1 to -1 indicates less volatility than the market.

NAIC: National Association of Insurance Commissioners.

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