ALIRT
INSURANCE RESEARCH

Independent Analysis of
Insurance Company Risk Trends
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First Quarter 2020 and its Impacts on Life Insurers

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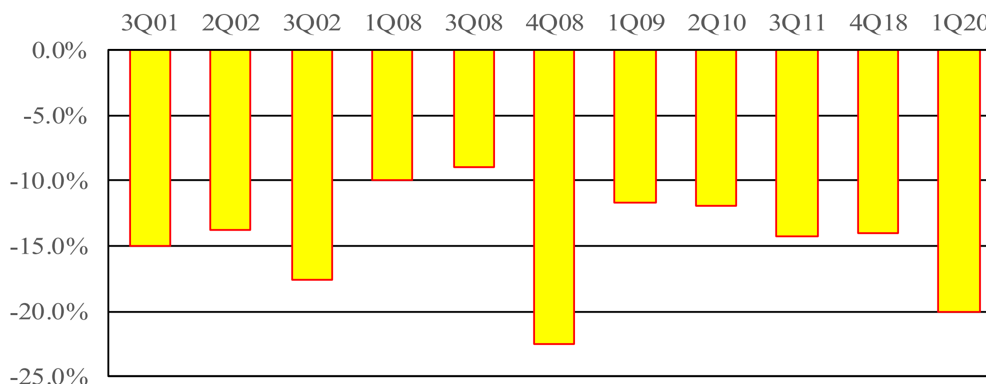
Publicly-held insurance organizations normally release and discuss a summary of their Three Month consolidated financial results in late April or early May, and their "10-Q" filings with the SEC are due on May 15. For insurance companies themselves, their quarterly statutory financial statements must be filed at state insurance departments by May 15. Given U.S. Federal and State Government orders and guidelines as to social distancing and halting "non-essential" in-person work, it is possible that these normal timetables may not apply in the coming weeks.

However, with the first quarter 2020 now complete, we wanted to reflect for clients the state of the financial markets and compare this past quarter to previous periods of financial and equity market turmoil.

Stock Markets

The S&P 500 fell 20.0% in the first quarter 2020 and was down 23.7% from a market peak on February 19, 2020. The chart below highlights quarters in the 21st century with materially lower stock markets. The past quarter was the worst for the stock market since the fourth quarter 2008, though the fourth quarter 2008 was the fifth (of six) consecutive quarters with lower stock markets, and the total market decline was 57% from the October 2007 peak to the bottom in March 2009.



Thus, the first quarter 2020 in terms of its effects on insurers is not the same as the fourth quarter 2008, and instead it more closely resembles a rougher version of the fourth quarter 2018, third quarter 2011, or second quarter 2010. Nevertheless, the market decline in the First Quarter 2020 will lead to the following:

- Insurers with variable annuities or variable life insurance will have to increase reserve levels in their general account that cover variable annuity living and death benefit guarantees, as lower markets make it somewhat more likely that an insurer's own funds will be needed to fund a policyholder's living or death benefit guarantee.
- The higher reserve levels may lead to reduced earnings and/or capitalization.

- Note that for a living benefit guarantee this does not result in an actual cash payment, as any withdrawal or income benefit drawn by a policyholder will come first from the policyholder's account, and only when the account is zero does the guarantee come from the insurer's funds.

- Insurer asset management fees are tied to account value size, and thus with the lower account values insurer fees could be reduced going forward.

Of course, in the event stock markets remain deteriorate further (either in magnitude or duration of decline), life insurance industry conditions could deteriorate and in an extreme scenario could eventually match or exceed the market downturn of 2008-2009. Note that these effects would be disproportionately borne by those insurers that issue variable products.

Relative to other recent time periods, the mix of variable annuity business for the industry as a whole is somewhat less risky as compared to the financial crisis years, as some of the more generous (in terms of their embedded guarantees) variable annuities are no longer in force, due to "normal" policyholder attrition over the last 12 years and "buy out" offers executed by many companies. However, some insurers have issued most of their variable annuities in the years since the financial crisis, and the sharp decline in markets may serve as the most significant test thus far for these blocks of business.

To manage the risks associated with lower equity markets or fluctuating interest rates, insurers with variable and indexed products utilize various strategies. These can include elements of product design, an insurer's overall business mix, and especially the purchase of financial derivative assets that move in an opposite direction to the variable(s) being hedged.

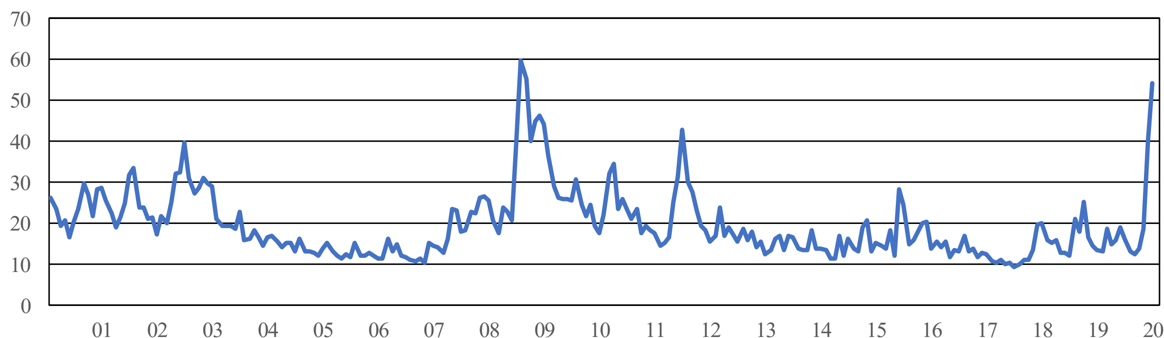
The cost of these financial instruments can vary, depending on these (and other factors):

- The number of counterparties for such transactions
- Availability of counterparty capital
- Interest Rates
- Market Volatility

Given the disruption in the financial markets over the last several weeks, counterparty capital is likely at a greater premium than was the case just a month or two ago, as the investment and commercial banks that typically serve as an insurer's counterparty for hedging transactions may be husbanding capital given the deterioration in economic conditions. This may result in higher hedging costs for both variable and indexed products, as well as changes in some of the crediting mechanisms and rates for indexed products.

As for interest rates, below is a chart of the 10 Year U.S. Treasury Bond rate over the last several years. Until the beginning of this year, rates were mostly within a range of 1.50%-3.00% since the middle of 2011 and were well below levels of previous decades. However, interest rates declined sharply in 2019 and this decline accelerated in the early months of 2020, which in part reflected a flight to safety among investors given the economic shock (current and expected future) of the coronavirus.

Hedging costs are also driven in part by market volatility, and below we show the Chicago Board of Exchange Volatility Index. Volatility was at low levels for much of the 2010s, but spiked dramatically in the early months of 2020, and this may have pushed hedging costs higher. The much higher market volatility and sharply lower interest rates are the biggest differences in the First Quarter 2020 as compared to other quarters of falling stock markets in the 2010s.



Investments

Declining investment returns are one of the most consequential items that affected the life insurance industry over the last decade. The drop in U.S. Treasury Bond yield rates in the First Quarter 2020 was precipitous and reflected a flight away by investors from risk assets of all types. This included not only equities but also corporate bonds and mortgage-backed securities.

The additional risk premium for corporate bonds and mortgage-backed and asset-backed securities offset the lower U.S. Treasury Bond yield rates, and "new money" investment rates for the types of assets that dominate life insurer investment portfolios rose in the early months of 2020. As a proxy for this, the chart below shows the spread for NAIC Class 2 (BBB rated) bonds, and though nowhere near as wide as 2008-2009, the increase in spread thus far in 2020 is still considerable. ***This may alleviate some of the pressure on the operating performance for the industry's existing policy contracts and may serve to buttress crediting rates and policy features for new business***. However, insurer desire to conserve statutory capital given the uncertain economic times may offset this.

However, the increased risk premium has depressed market values for existing bonds. Statutory accounting rules that govern insurers' regulatory financial statements prescribe that bonds are carried at their book values, and as a result, capital losses result only from the sale or impairment of a bond. However, GAAP accounting rules require that most bonds are carried at market values, and thus insurers' GAAP shareholders' equity at 3/31/2020 may be significantly lower than year end 2019 levels. This could reduce capital available for public companies to pay shareholder dividends or repurchase their common shares (the decline in markets and economic conditions may depress these activities further).

Moving forward, the decline in economic performance, and possible investment defaults and/or impairments that could result from the disruption, is a large overhanging factor on life insurance company financial performance and capitalization. During the financial crisis years of 2008-2009, the ALIRT Life Industry Composite[1] incurred net capital losses of over $100 billion, which was equal to about one third of the composite's total surplus position. The vast majority of the losses were attributable to losses on bonds, mortgage loans, and alternative investments.

In addition, efforts underway by governments to require forbearance on the part of lenders for residential mortgages and other installment debt could reduce (or at least delay) investment income for insurers' existing mortgage-backed and asset-backed securities, mortgage loans, or other assets.

The life insurance industry's strong capitalization going into the financial crisis was able to shoulder these losses, and there were only three sizable life insurance companies that were taken over by state insurance regulators during that time period. However, many life insurers experienced rating downgrades, radically adjusted their product offerings going forward, or in some cases exited the business altogether.

The industry entered the current period with fairly strong capitalization, as reported capitalization measures at year end 2019 were above 2007 levels, as shown in the table below. However, ALIRT believes that the quality of industry capital currently is less than was the case in 2007, due to the increased use of affiliated reinsurance for reserve-heavy product lines. When adjusting for these factors, the industry's capital position at the end of 2019 was likely comparable to 2007 levels.

In terms of investment portfolios, ALIRT believes that investment risks were accumulated at a greater rate in the second half of the 2010s, given benign economic conditions, and falling interest rates that made achieving yield more difficult. The chart below highlights various asset classes as a percent of surplus for the ALIRT Life Composite in 2007 and 2019. Exposures to NAIC Class 2 (BBB rated) bonds, privately placed securities, and asset-backed securities are somewhat higher, which were offset to some degree by reduced leverage to non-investment grade bonds.

Various Capitalization Measures: ALIRT Life Industry Composite		
	2007	2019
"Pure" Capital Ratio	11.3%	12.1%
Risk-Based Capital Ratio	418%	454%
Investments as a % of Surplus		
BBB rated Bonds (NAIC Class 2)	170%	199%
Mortgage/Asset-Backed Securities	125%	154%
Private Placement Bonds	167%	218%
Mortgages & Real Estate	108%	118%
Non-Investment Grade Bonds	41%	31%
Alternative (Schedule BA) Assets	35%	40%

Data for mortgage-backed and asset-backed securities in the regulatory financial statements in 2019 was not comparable to what was reported in 2007, and thus it is not possible to compare this information exactly. However, exposures to residential mortgage-backed securities are less in 2019 than was the case in 2007, and exposures to asset-backed securities (which include but are not limited to securities backed by bank loans) are higher.

Given that the economic disruption just began in recent weeks, it is not likely that the life insurance industry or any specific companies will incur material investment impairments in the first quarter 2020

[1] The ALIRT Life Composite is comprised of a 100 of the largest U.S. life insurers (= 90% of 2018 industry general account invested assets).

financial reports. Instead, any losses are likely to be incurred later in 2020 (or beyond) and will be highly dependent on the duration and magnitude of economic decline. The fluid nature and uncertain timing of government actions attempting to control the coronavirus, as well as the highly uncertain nature of what life looks like after conditions return to "normal", make it impossible to determine which investment classes and industries might face the largest impact, and which insurers might incur the greatest losses.

In the event investment losses that result from the economic disruption of the coronavirus prove less than or equal to losses incurred in 2008-2009, the life insurance industry should be able to absorb these losses without a dramatic deterioration in financial strength or solvency. However, reduced capital positions and/or public rating agency downgrades could still result in this scenario. If investment losses prove higher than 2008/2009, the effects on the industry could also be larger.

Conclusion

The first quarter 2020 represents the worst quarter for the stock markets in over 12 years, both in terms of the decline in valuations and the dramatic/rapid increase in volatility. The risk premium for all assets increased sharply, which led to higher yields for corporate bonds and mortgage-backed and asset-backed securities, but also reduced market valuations for existing industry holdings. These factors may depress reported first quarter 2020 industry earnings (statutory and GAAP) and capitalization (mostly GAAP).

However, the activity in the First Quarter 2020 did not approach the adverse conditions faced by life insurers during the financial crisis in 2008-2009. The decline in stock markets was less severe than that incurred during the 2007-2009 bear market, and thus the impact to insurer statutory reserving, earnings, and capitalization in 1Q2020 is likely to be correspondingly smaller than during 2008-2009.

More importantly, the large investment losses incurred by life insurance companies during the financial crisis had yet to materialize in the first quarter 2020. Thus, reported financial results for the first Three Months 2020 (GAAP or statutory) are not likely to be impacted significantly by investment losses.

What is unknown at this point is the duration and severity of the current weak markets and economic conditions. The life industry weathered very poor conditions in 2008-2009 with respect to both lower stock markets and very high investment losses, and it has similar capacity to do so at this time. Individual life insurance company financial results will vary by company and are dependent on the level of variable product exposure, the composition of their investment portfolios, and their capitalization.

Despite this, public rating agency downgrades and product changes (for existing or new issues) for insurers are possible across the industry during this period.

Should economic conditions or stock market performance prove worse than 2008-2009, the effects on industry financial results could be larger, while a quicker recovery could reduce any such impacts.

The "normal" filing date for Three Month financial results (GAAP or statutory) is May 15. Given the extraordinary disruptions in everyday living, it is not out of the question that this deadline could be extended, but for now ALIRT plans to have analysis on the Three Month 2020 information starting at the end of May. Should any material news or announcements for an insurer come before then, we will comment as appropriate.

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