

Q1 2020 corporate bond performance

Implications for U.S. life insurers

May 2020

IN BRIEF

- During Q1 2020, U.S. investment-grade corporate spreads widened from ~100bps on January 1 to a peak of ~400bps on March 23, before settling at ~300bps at quarter end. Given U.S. life insurers' significant allocation to corporate bonds, many are questioning the resiliency of their portfolios amid the sharp sell-off.
- To help quantify the relative risk embedded in insurers' portfolios, we decompose Q1 2020 corporate bond returns for the life industry and identify the key drivers of performance.
- We find that recent underperformance due to security selection is associated with higher levels of historical risk-taking both within corporate bonds and across other fixed-income asset classes, making a subset of insurers particularly sensitive to economic contractions.

BACKGROUND

As markets reel from concerns over the economic downturn, many insurers have asked for insight into the investment positioning of their peers. In response to these inquiries, we have worked closely with several clients to develop analyses focused on the investment implications of COVID-19-induced economic pressures. Over the next several weeks, we will share short papers summarizing our findings. In this note, we analyze the corporate bond portfolios of U.S. life insurers in light of recent market volatility.

As of year-end 2019, life insurers held ~USD1.5T in investment-grade (IG) corporate bonds, representing approximately one-third of the industry's unaffiliated assets. Given their long-term investment horizon and focus on book income, insurers tend to place limited importance on day-to-day trading results.¹ However, significant corporate spread widening could still be cause for concern since it tends to precede adverse credit events, such as downgrades and impairments, which negatively impact insurers' solvency ratios. Accordingly, the Q1 2020 sell-off in corporate spreads has many insurers questioning the resiliency of their portfolios.

While we are not in a position to precisely forecast downgrades and impairments, we believe there is useful information embedded in recent spread returns that can help quantify the relative risk present in insurers' corporate bond portfolios. In this paper, we (i) decompose recent spread returns to isolate the key drivers of corporate bond performance and (ii) show that more aggressive security selection in IG corporates (the "safe" part of an insurer's portfolio) is indicative of increased risk-taking in other fixed-income asset classes.

¹ Most fixed-income assets are carried at amortized cost for regulatory purposes, insulating insurers' balance sheets from short-term volatility.

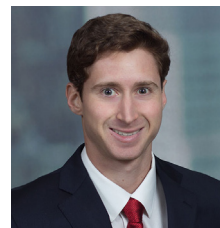
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AUTHOR



David Molay
Portfolio Strategist
Insurance Strategy & Analytics

CORPORATE SPREADS AND FALLEN ANGELS

Prior periods of sustained credit sell-offs have been followed by heightened frequencies of “fallen angel” downgrades. Downgrades from NAIC 2/BBB to NAIC 3/BB can be particularly difficult for insurers to endure given the substantial increase in required capital (~3.5x).

EXHIBIT 1 provides detail on spread widening and fallen angel downgrades during the Global Financial Crisis and the 2014–2016 oil price decline. These two periods account for ~67% of investment-grade to high-yield downgrades over the 13-year period from January 2007 to December 2019.^A

Exhibit 1: Credit sell-offs and fallen angels

EXHIBIT 1A: GLOBAL FINANCIAL CRISIS

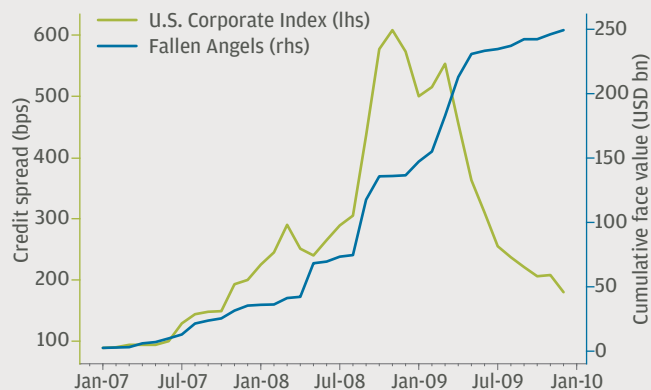
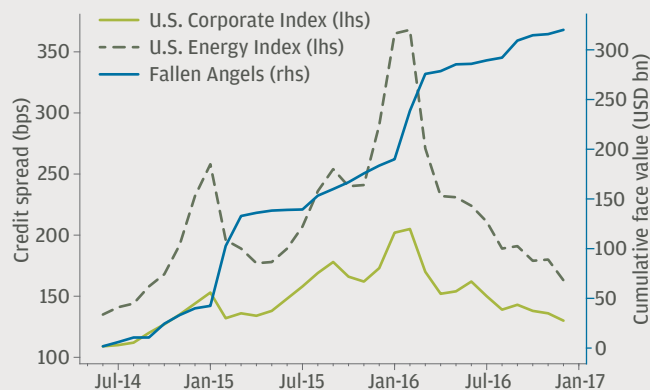


EXHIBIT 1B: 2014–16 OIL PRICE DECLINE



^A Source: ICE BofAML, J.P. Morgan Asset Management. Fallen angel volumes are based on the face value of month-over-month investment-grade to high-yield downgrades for securities in the ICE BofAML U.S. Corporate Index.

ATTRIBUTION FRAMEWORK FOR IG CORPORATES

Since significant spread widening is a harbinger of increased credit migrations (see Exhibit 1), insurers' performance during the Q1 2020 credit sell-off may provide insight into future downgrades. With this in mind, we believe it is useful to decompose recent corporate bond returns to better understand the relative risk embedded in insurers' portfolios. We focus on the credit-risky portion of corporate bond returns (i.e., excess returns over duration-matched Treasuries) and further isolate the returns due to spread duration, credit quality, sector exposure and security selection.

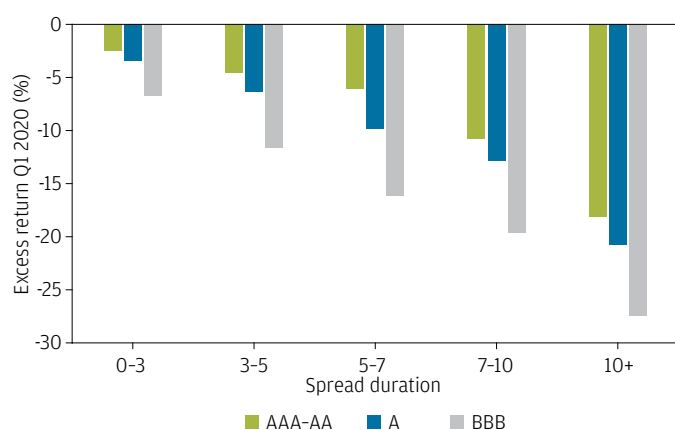
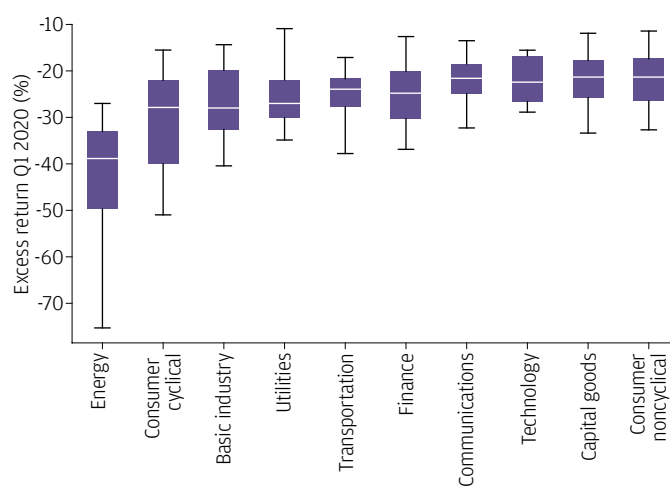
EXHIBIT 2 shows how these four factors influenced excess returns in Q1 2020. **EXHIBIT 2A** illustrates the impact of spread duration and credit quality, while **EXHIBIT 2B** focuses on the effect of sectors and security selection. As expected, higher

spread duration and lower credit quality were associated with larger excess return declines. After controlling for these factors, energy and consumer cyclicals had the largest average losses and highest security-level return dispersion, while more defensive sectors offered some protection on a relative basis.

Q1 2020 RELATIVE PERFORMANCE FOR U.S. LIFE INSURERS

Using these four drivers of excess returns, we quantify the impact of portfolio allocation decisions on insurers' recent corporate bond performance. In particular, we compare performance of the 125 largest IG corporate investors in the life industry (“Life 125”) versus an aggregate of all life insurers' IG corporate holdings (“Life Aggregate”).²

² We obtained pricing and analytics for 15,950 unique securities representing more than 94% of the ~USD1.5T of publicly traded IG corporates held by U.S. life insurers as of December 31, 2019. U.S. life insurers' holdings are based on the 2019 year-end statutory filings. Securities for which we could not obtain pricing and analytics were excluded from the analysis.

Exhibit 2: Dimensions of U.S. corporate excess returns**EXHIBIT 2A: AVERAGE RETURNS BY SPREAD DURATION AND QUALITY****EXHIBIT 2B: DISTRIBUTION OF RETURNS BY SECTOR FOR CORP BBB 10+**

Source: ICE BofAML, J.P. Morgan Asset Management. Plots show excess returns for subsets of the ICE BofAML U.S. Corporate Index. The box plot in Exhibit 2B shows returns for securities within Corp BBB 10+. The box extends from the 25th to 75th percentiles, the solid line indicates the 50th percentile and the whiskers range from the 5th to 95th percentiles.

EXHIBIT 3 shows the distribution of out- and underperformance versus the Life Aggregate. Unsurprisingly, spread duration was the largest source of variation in insurers' returns (see Exhibit 2A for the near-linear impact of spread duration on excess returns). While spread duration is clearly an important driver of mark-to-market performance, it does not provide much insight into downgrades and impairments insurance portfolios may experience in the wake of market shocks. Indeed, while Q1 2020 spread returns were worse for long duration AAA-AA corporates than for short duration BBB corporates (see Exhibit 2A), we expect the latter category will incur higher impairments. Moreover, the duration positioning of life insurers is typically driven by their liabilities—it is rarely an active portfolio management decision. Accordingly, spread duration is a

confounding factor for which we must control so we can appropriately measure the impact of other portfolio management decisions.

After controlling for spread duration, we see the typical asymmetric risk/return profile of investing in IG credit. In particular, security selection returns exhibit left-skew—the magnitude of underperformance for the bottom insurers is roughly 2x-3x that of outperformance for the top insurers. Left-skew is a consequence of the fact that the best possible outcome for “buy-and-hold” investors is a modest return from coupon and principal payments, while in the worst case they face substantial losses from issuer defaults.

Spread return relative to the Life Aggregate (%)**EXHIBIT 3: DISTRIBUTION OF SPREAD RETURNS FOR INSURERS IN THE LIFE 125**

Percentile	Individual components				Overall return	Return ex. spread duration
	Spread duration	Credit quality	Sector exposure	Security selection		
Min	-4.90	-1.86	-2.12	-3.33	-7.98	-5.23
5 th	-3.81	-1.23	-0.83	-1.46	-4.72	-2.73
25 th	-2.03	-0.50	-0.18	-0.39	-2.57	-0.82
50 th	-0.23	-0.03	0.02	-0.03	-0.60	-0.22
75 th	1.51	0.29	0.28	0.21	1.74	0.53
95 th	5.01	1.07	0.80	0.66	5.22	1.52
Max	6.68	1.63	1.12	1.37	7.42	3.81

Source: Bloomberg Barclays, ICE BofAML, SNL Financial, J.P. Morgan Asset Management. Table shows the drivers of Q1 2020 corporate bond excess returns for insurers in the Life 125 relative to the Life Aggregate.

RELATIONSHIP BETWEEN RECENT PERFORMANCE AND HISTORICAL RISK-TAKING

Equipped with the above return attribution framework, we now turn to an analysis on the relationship between insurers’ recent performance and historical risk-taking. We find that insurers with the largest losses from security selection in their IG corporate portfolios often purchased riskier, higher-yielding bonds over the last five years. Notably, we observe that insurers with more aggressive purchasing behavior in IG corporates tend to deploy similarly risky purchasing in other fixed-income asset classes, making these insurers particularly sensitive to economic contractions.

Within corporates: Trailing purchase yields versus recent returns

In our prior paper ([“The Life Insurance Search for Yield”](#)), we showed that many life insurers “reach for yield” by systematically purchasing wider spread corporate bonds after controlling for duration, quality and sector. Moreover, we found that most insurers’ purchase behavior is consistent over time—insurers that buy wider (or narrower) spread corporate bonds tend to do so year after year. During the decade-long bull run, “reaching for yield” worked well from both book yield and total return perspectives. However, yield-seeking insurers may come under

stress in a recessionary environment. To better understand how insurers’ historical purchase behavior contributed to recent returns, we compare trailing five-year yields generated from security selection to Q1 2020 performance.

In **EXHIBIT 4A**, we sort insurers into quintiles based on incremental purchase yield from security selection, with Q1 representing the lowest level of incremental yield and Q5 the highest level. In addition, we show recent security selection returns for each quintile. We find a monotonic decline in return from Q1 to Q5—meaning the least aggressive purchasers delivered the strongest recent performance, while the most aggressive purchasers delivered the weakest performance. Roughly speaking, recent market-to-market performance has erased ~1.3 to ~1.5 years of incremental yield for the more aggressive purchasers (Q4 and Q5).

In **EXHIBIT 4B**, we perform a similar analysis. While Exhibit 4A, focused on yield and return due to security selection alone, Exhibit 4B shows the combined impact of credit quality, sector exposure and security selection. We think it is important to view these effects in combination since higher-yielding BBB credits in cyclical sectors likely pose the most risk. In general, Exhibit 4B points to similar conclusions as Exhibit 4A. It is worth noting that when we view the combined impact in Exhibit 4B, recent market-to-market performance has erased ~2.5 to ~3 years of incremental yield for the more aggressive purchasers (Q4 and Q5).

Exhibit 4: Corporate bond purchase yields and returns

EXHIBIT 4A: SECURITY SELECTION

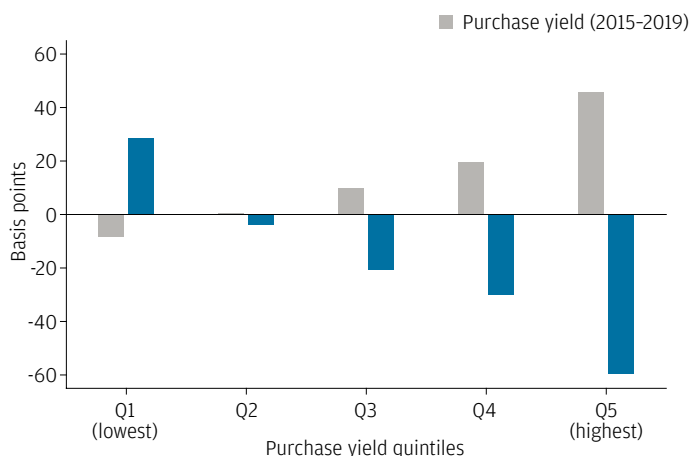
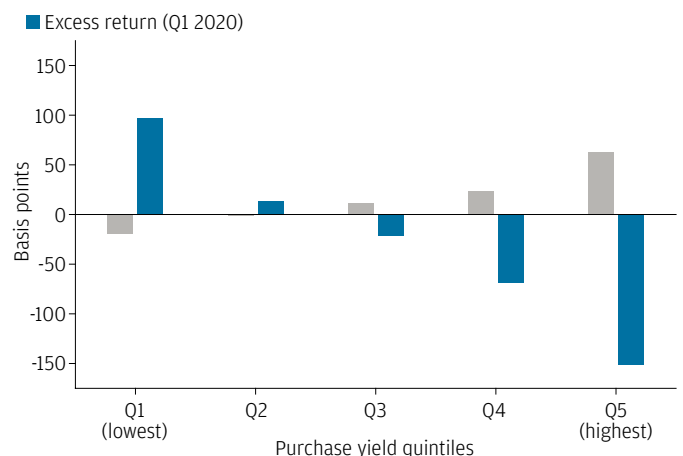


EXHIBIT 4B: QUALITY, SECTOR AND SECURITY SELECTION



Source: Bloomberg Barclays, ICE BofAML, SNL Financial, J.P. Morgan Asset Management. Plots compare historical corporate bond purchase yields to recent excess returns for insurers in the Life 125. Panel 4A illustrates the standalone influence of security selection, while Panel 4B shows the combined impact of quality, sector and security selection. Averages are shown for each quintile.

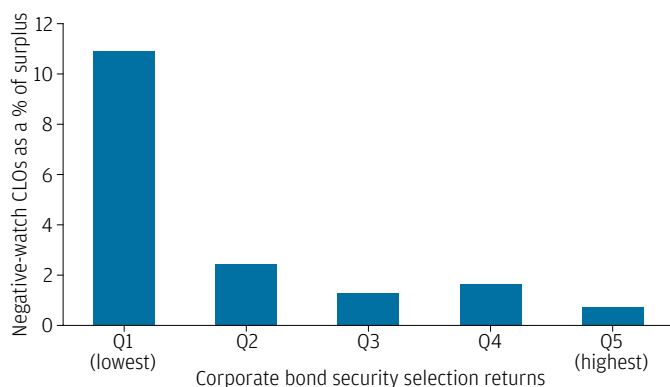
Across fixed-income asset classes: CLO watch-lists and corporate returns

We find that more aggressive security selection in the corporate bond market is indicative of higher risk holdings in other fixed-income asset classes. In particular, we observe a strong connection between risk-taking in corporate credit and CLO markets.

CLOs grabbed headlines on April 17, 2020, as Moody's and S&P put 859 and 155 CLO securities, respectively, on negative watch. Concerns over the structures mount as the underlying high-yield loans face downgrades and other negative ratings actions.

EXHIBIT 5 compares insurers' negative-watch CLO exposures to corporate bond security selection returns. We sorted insurers into quintiles based on corporate bond security selection, with Q1 representing the lowest returns and Q5 the highest. We find that insurers with the worst security selection returns (Q1) are significantly more exposed to watch-list CLOs. In particular, these insurers average ~11% of their surplus in negative-watch CLOs, which is roughly 5x-15x the exposure of insurers in other quintiles.

EXHIBIT 5: AVERAGE ALLOCATION TO WATCH-LIST CLOS VERSUS Q1 2020 CORPORATE BOND RETURNS



Source: Bloomberg Barclays, Fitch, ICE BofAML, Moody's, S&P, SNL Financial, J.P. Morgan Asset Management. Plot compares negative-watch CLO allocations to recent excess returns for insurers in the Life 125. Negative-watch CLOs are based on Fitch, S&P and Moody's outlooks as of April 20, 2020. U.S. life insurance holdings and surplus are based on the year-end 2019 statutory filings.

CONCLUSION

Mark-to-market volatility alone does not pose serious risks to the majority of U.S. life insurers, as most fixed-income assets are carried at amortized cost for regulatory purposes. However, if the recent spread widening portends future downgrade activity, some insurers could face significant reductions in solvency ratios given the ~3.5x increase in required capital for downgrades from NAIC 2/BBB to NAIC 3/BB.

The more concerning implication of our analysis is that insurers with riskier corporate credit portfolios are also more aggressive investors in other fixed-income markets. Insurers' risk preferences appear to span fixed-income asset classes, as larger losses from corporate credit selection are associated with higher exposure to at-risk CLOs. While significant uncertainty remains over the breadth and depth of COVID-19-induced credit shock, we at least have some clarity on which insurers are well positioned to weather the storm.

FOR MORE INFORMATION

If you work at an insurance company and are interested in additional information regarding this analysis, please contact your J.P. Morgan Asset Management client advisor or email Insurance_Strategy_and_Analytics@jpmorgan.com.

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