Q3 2020 CORPORATE CREDIT OUTLOOK

# Mixed signals

Despite multiple "worst-ever" indicators, U.S. equity and corporate credit markets rallied back to near pre-pandemic levels in Q2. With markets trending one way and economic data another, we're left with mixed signals. We believe current, positive sentiment hinges on a view that while the impact from the pandemic is severe, the duration will be brief. Against this backdrop, we see opportunities in credit for Q3.

**Robert Hoffman**

**Managing Director, Investment Research**

As Managing Director of Investment Research, Robert leads the team that analyzes the fundamentals behind market movements, macroeconomic trends and the performance of specific industries—as well as their potential impact on investors. His nearly two-decade tenure in the financial services industry includes experience as a loan portfolio manager and senior credit analyst focused on corporate loan issues. Robert serves as the firm's primary subject matter expert on the corporate credit markets and select alternative investment solutions, developing targeted communications and educational resources.

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**INDEXES**

High yield bonds represented by the ICE BofAML High Yield Master II Index. ICE BofAML U.S. High Yield Master II Index is designed to track the performance of U.S. dollar-denominated below investment grade corporate debt publicly issued in the U.S. domestic market. Loans represented by the S&P/LSTA Leveraged Loan Index. S&P/LSTA Leveraged Loan Index is a market value-weighted index designed to measure the performance of the U.S. leveraged loan market.




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As we wrote our Q2 outlook around the time markets bottomed near the end of March, we noted that in periods of great uncertainty companies often withdraw their forward guidance for earnings. It seemed appropriate to do the same regarding our outlook for credit markets at that time as record declines across asset classes signaled pervasive pessimism. How could we possibly forecast how markets would handle what was anticipated to be the worst quarter for GDP growth since WWII, if not ever?

**KEY TAKEAWAYS**

- The bounce back in credit has been almost as swift as the decline, with strong returns from all major asset classes quarter to date.
- A "don't fight the Fed" mentality surfaced as sentiment for risk assets has broadly improved.
- Decomposing returns by rating shows that the recovery has been orderly, with higher-quality credits performing well. Dispersion in return by rating could present opportunities for active managers.
- Revenue and EBITDA growth took a huge hit in Q1, and we expect statistics to show further deterioration when Q2 data is released.
- We're continuing to watch supply/demand dynamics as credit markets face excess supply even as investors have piled back into high yield bonds and the CLO market has thawed, increasing demand for loans.

In our opinion, actual returns for Q2 are shaping up to be a perfect reflection of why we refrained from making a forecast. Despite a macroeconomic backdrop posting multiple "worst-ever" statistics, markets rebounded. And they didn't just have the type of mild rebound often witnessed after periods of large declines—they rallied almost all the way back to where they were before the crisis. While we are not convinced that the implications of the pandemic for markets and macro fundamentals are over, equity and corporate credit markets in the U.S. today are trying hard to look past them.

Where does this leave expectations for credit markets in the third quarter? We believe current positive sentiment hinges on a view that while the magnitude of the impact from the pandemic is severe, the duration will largely be short. Through this lens, upside surprises in data can be cheered and negative numbers can be partially disregarded as lagging indicators of a crisis and recession coming to an end. We believe that this sentiment, combined with low rates, has pushed forward P/E ratios for the S&P 500 to their 92nd percentile going back to 1985. If we apply this level of optimism to credit markets, we believe there is upside for both U.S. high yield bonds and senior secured loans for Q3 beyond their roughly 1.7% quarterly income return. Spreads in both high yield and loans have tightened significantly since bottoming on March 23, but they are still just barely out of the bottom quartile for high yield and in the bottom quintile for loans. For both markets, 100 basis points (bps) of spread tightening is not an unreasonable assumption, given where equities are trading today, as it would still leave both high yield and loans in the bottom half of their historical spread history and quite wide relative to current high P/E ratios for equities. Given lingering uncertainty, we are not prepared to assume all of this spread tightening will occur in Q3, but even half that much would result in quarterly returns for high yield and loans approaching 3.7% and 3.0%, respectively. For both markets, that's an annualized return roughly double their historical average.

This outlook for Q3 also assumes a bit of a status quo as it relates to the pandemic. In our view, sentiment surrounding the outlook for COVID-19, potential second waves and a possible vaccine could cause actual returns to be significantly different than our expectations. Credit markets are still over 200 bps wide of their highs from February, and definitive positive news about a vaccine, for instance, could cause credit markets to tighten despite a residual default wave coming from companies being impact by the shutdown. Conversely, negative news about a resurgence in cases or disappointing results from vaccine trials could easily shift sentiment across multiple markets, bringing down U.S. credit markets in sympathy.

As we discuss below, there are both pluses and minuses to many of the market statistics that we follow. However, we believe there is one overwhelmingly positive piece of data that is a first for U.S. corporate credit markets. The direct intervention by the U.S. Federal Reserve into credit markets and its pledge to purchase hundreds of billions of dollars in corporate bonds has acted as a downside mitigant for investment grade markets, where the Fed is primarily focused, as well as high yield and loan markets. While corporate credit markets had already started to heal by the time the Fed announced facilities targeting both primary and secondary corporate bond markets, this additional show of force further cemented a belief that the Fed would call upon unconventional means to avoid a 2008-style meltdown. Early action by the Fed sought to alleviate real liquidity concerns in the very large ultra-high quality areas of credit markets, like U.S. Treasury bonds and AAA rated structured products. But this next wave of intervention signaled that the Fed would look to measures never before seen in U.S. financial markets for additional insurance so that credit markets would remain open for borrowers and maintain a sense of normalcy. If broad sentiment skews more negative, we believe investors can't ignore the unprecedented support that the Fed has now brought to corporate credit markets and the impact of that support in offsetting downside pressure.

Digging into underlying fundamental and technical (supply/demand) conditions for high yield bond and senior secured loan markets paints an uneven picture. Starting with credit fundamentals, companies had already faced a meaningful slowdown in revenue and EBITDA growth rates throughout 2019 compared to the previous two years. While first quarter data, the only data currently available, showed a meaningful further deterioration in revenue and EBITDA trends across both bond and loan issuers, we expect these numbers to look even more terrible once Q2 data is released.

As credit fundamentals have weakened, default rates have risen. In fact, high yield bond and loan market default rates are now at 10-year and 5-year highs, respectively. This data bears watching as some market forecasters have indicated that default rates could as much as double by the end of the year. Interestingly, default data is typically regarded as a backward-looking statistic. In the financial crisis, default rates peaked at the end of 2009, but by then the market was already amid a massive recovery that took hold early in the year. However, in the default wave following the tech bubble, defaults peaked in the middle of 2002, which also roughly coincided with credit market lows. As markets have rallied strongly following the lows in February, current performance seems to be following the trend of the financial crisis, whereby markets are looking past current defaults. However, the relationship between market performance and elevated defaults certainly bears monitoring.

Deteriorating fundamentals and risks related to the pandemic have also resulted in rising downgrades by rating agencies. The speed at which rating agencies moved to downgrade companies in the loan market resulted in the upgrade-to-downgrade ratio dropping to its lowest level in history, surpassing that of the financial crisis. The rate of downgrades in the high yield market has been swift as well, and the ratio has nearly matched that of the financial crisis. This has broad implications for investors, but the pain is most acute for CLO managers that have to manage to minimum average rating requirements and maximum CCC rated limitations. It also creates opportunities for managers that don't have to manage to rating agency limitations, allowing them in some instances to take advantage of forced selling by rating-sensitive investors.

Market technicals, or supply/demand dynamics, are also mixed. For the year, both high yield bond and loan markets have witnessed greater supply than demand. On its face, this is a negative for both markets and a clear reversal from conditions throughout 2019. Early on, record-setting levels of retail outflows for both high yield bonds and loans added to selling pressure as markets fell. The high yield market also had a record number of fallen angels, or previously investment grade rated issuers that were downgraded to high yield, which created additional supply for the market. However, as markets have recovered, so too has the broad picture for market technicals. While overall supply is still outpacing demand, the high yield market has seen record inflows back into the asset class, providing strong support for bonds. While the loan market continues to suffer from outflows, new loan issuance has been subdued and CLO issuance, which creates demand for loans, has risen. We believe these statistics are creating a balanced tone for high yield and loans heading into the third quarter, although the excess supply in high yield could become an issue if retail demand wanes.

Parsing through the data could easily lead to different conclusions. We continue to believe that these markets will reward those investors that can remain active and tactical, perhaps now more so than if the pandemic had never materialized. Opportunities will be created for investors that can capitalize on defaults and restructurings, rating downgrades and fallen angels, as well as investments in CLOs impacted by market turmoil. Even if spreads continue to moderately tighten, we believe the bulk of the beta-driven rally is probably over for now. Returns may be more uneven across asset classes, sectors and ratings categories as the recovery moves beyond its initial snapback. However, with interest rates as low as they are, the potential returns available for investors in the high yield bond and senior loan markets may be compelling versus other fixed income investments.

# Return outlook

**KEY TAKEAWAYS**

- The recovery in high yield bonds and loans has been rapid.
- Based on current prices, we still see opportunity for further appreciation.

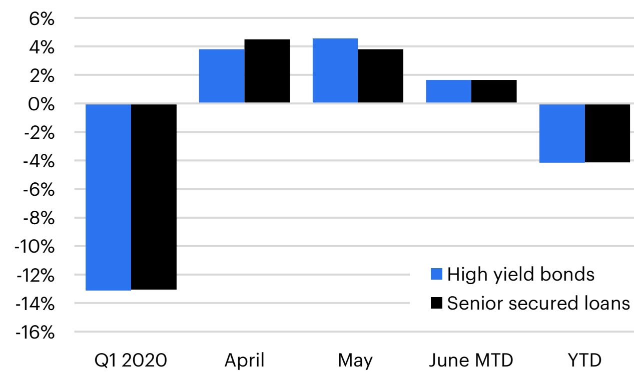
Less than six months ago, in our Q1 2020 outlook, we reflected on the credit markets' banner year in 2019. We found ourselves asking the question: How much more room does credit have to run? And now, following record declines in Q1 and record gains in Q2, we find ourselves asking the same question.

The snapback was almost as quick as the descent, as markets surged for much of the second quarter on the backs of unprecedented monetary and fiscal stimulus and optimism surrounding reopening the economy. We may be asking ourselves the same question regarding forward returns, but they come against a vastly different economic backdrop and higher spreads versus the start of the year. The ultimate shape of the recovery is still extremely uncertain. Some positive signs (e.g., surprisingly strong May jobs numbers and retail sales) have emerged, but doubts linger given the realities of being in the midst of a recession with rising COVID cases. Market tailwinds in the form of the Fed's commitment to continue stimulus measures (which now include direct intervention in credit markets) and rising equity prices have successfully shifted the sentiment tide back to positive for now.

We will caveat our outlook by saying that specific return forecasts are difficult under any circumstance and nearly impossible given the degrees of uncertainty we currently face. As we are not epidemiologists, we will make forecasts using prior recoveries as our guide and under the assumption that no further prolonged shutdowns will occur.

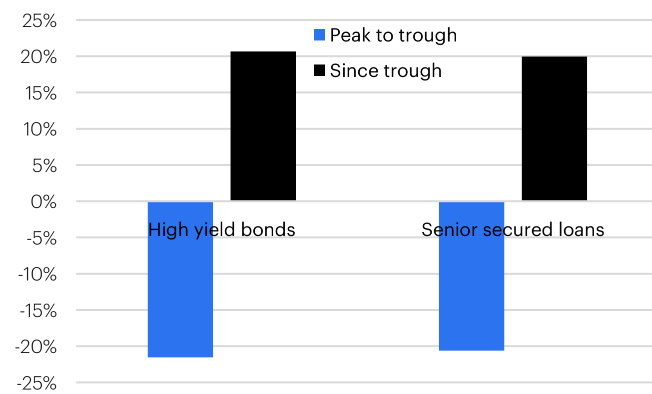
High yield bonds and loans are both currently yielding roughly 6.7%, which implies a 1.7% income return over the next quarter. While 100 bps of spread tightening for both markets could be a reasonable assumption given strong equity multiples, we are assuming that roughly half that much tightening occurs in Q3.

**2020 HIGH YIELD BOND AND LOAN RETURNS**




Source: Bloomberg, as of June 15, 2020.

**SELLOFF VS RECOVERY**




Source: Bloomberg. Peak to trough: Feb 19, 2020-March 23, 3030. Since trough: March 23,2020-June 15, 2020.

This results in a total return assumption for Q3 of roughly 3.7% for high yield and 3.0% for loans. While this is certainly more modest than second quarter returns, it would still be approximately double historical averages for quarterly returns.

We continue to think that returns across sectors, asset classes and ratings categories will be uneven. The broad, beta-driven rally in Q2 will be more difficult to repeat in Q3. Given heightened volatility and dispersion of returns as well as elevated defaults and downgrades, we believe our Q3 expectations may favor those managers that can remain active and tactical across the multiple dislocations in credit that we expect to persist.

# Return decomposition

**KEY TAKEAWAYS**

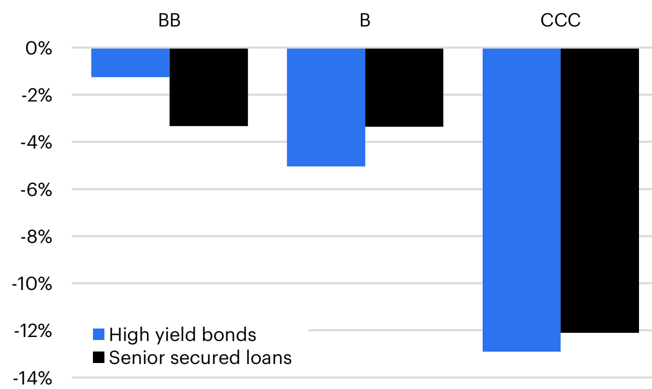
- BB and B rated assets have recovered well while CCCs remain the clear laggard.
- Spreads have remained extremely wide in certain industries, which may present pockets of opportunity for active managers.

In past outlooks, we've broken down both high yield and loan returns by credit rating to observe trends driving performance and provide guidance about potential value opportunities.

Throughout the sell-off and recovery, performance by rating was as anticipated. Lower-rated assets sold off more, and the initial recovery was driven by strong returns in higher-rated assets as investors typically exercise caution at the outset. Lowest-rated CCCs have remained the clear laggard, with CCC bonds still down over -11% year to date and CCC loans down over -12%. (Compare to BB bonds, which are roughly flat on the year, and BB loans, down -3.6%.) We have historically been cautious about recommending that investors reach indiscriminately into broad-based CCC exposure to boost returns, and we continue to refrain from doing so. However, we do think some opportunity may exist in these lower-rated assets due to technical dislocation, especially in the loan market. Given limitations on the amount of CCC loans CLOs can hold, there is a dearth of demand for these assets, which may be keeping prices low. Active managers may be able to discern some opportunity in that end of the market.

Beyond return dispersion by rating, we have seen heightened return and spread dispersion by sector. As discussed further in our spread section below, broad index-level spreads have retraced a good deal of their March widening. Looking at spreads at an industry level, however, shows that the tightening was not uniform and could indicate pockets of opportunity for further tightening. Of course, the spreads that have remained wide are in industries that are more susceptible to a prolonged economic downturn or less likely to bounce back quickly. This may present opportunities for managers that can discern businesses with strong balance sheets and operating models that have been unfairly punished alongside their broader industries.

**CCC RATED CREDIT IS THE CLEAR LAGGARD YEAR TO DATE**




Source: Bloomberg, as of June 15, 2020.

**SPREAD WIDENING ACROSS INDUSTRIES (SPREAD TO WORST)**

| | 2/21/2020 | 6/12/2020 | Change |
|---|---|---|---|
| Transportation | 594 | 1,143 | 549 |
| Financial services | 299 | 694 | 395 |
| Leisure | 275 | 662 | 387 |
| Capital goods | 316 | 691 | 375 |
| Real estate | 323 | 668 | 345 |
| Services | 360 | 644 | 284 |
| Basic industry | 315 | 578 | 263 |
| Automotive | 333 | 591 | 258 |
| Technology & electronics | 257 | 508 | 251 |
| Energy | 785 | 1,020 | 235 |
| Health care | 319 | 553 | 234 |
| Media | 258 | 489 | 231 |
| Retail | 427 | 651 | 224 |
| Utility | 326 | 486 | 160 |
| Consumer goods | 372 | 498 | 126 |
| Telecommunications | 433 | 464 | 31 |

Source: Bloomberg, ICE BofAML U.S. High Yield Index.

# Spread environment

**KEY TAKEAWAYS**

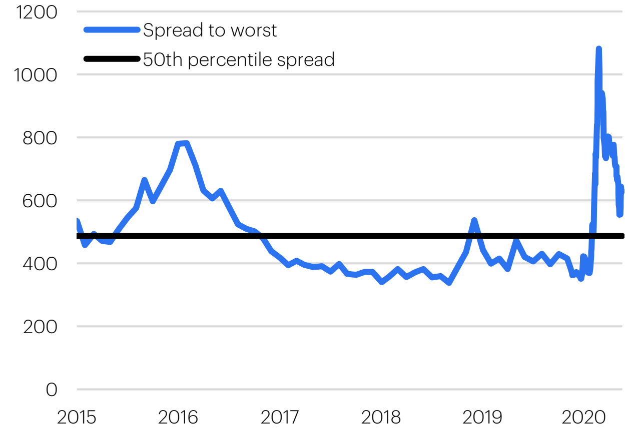
- Spreads in both high yield bonds and senior secured loans have tightened considerably since March highs.
- Compared to equity valuations, credit still looks extremely attractive.

High yield bond spreads started the year near post-financial crisis lows before rapidly widening to a peak of 1,082 bps. Since then, spreads have recouped much of that widening and as of June 15 sit at 629 bps. The senior secured loan market saw a similar run-up and retracement, with spreads peaking at over 1,300 bps before tightening to their current level of 673 bps. In both markets today's spreads do, of course, look tight when compared to their March 23 peak. But looking over a longer historical context can give us clues about whether to expect further tightening.

Comparing spreads, which serve as a proxy for valuation, to the rebound in equity markets shows that, on a relative basis, credit has not recovered as fully as equities. The S&P 500 P/E multiple is currently in the 92nd percentile, while high yield bond and loan spreads are in the 29th and 17th percentiles, respectively. Said another way, equities have been more expensive than they are today only 8% of the time. Comparatively, high yield bonds have been more expensive than they are today 71% of the time and loans 83% of the time. We believe we could see some further spread tightening from these levels. We won't call for pre-COVID spread levels in the near term given the vastly changed economic backdrop, but even a conservative assumption of spreads returning to their 50th percentile implies 142 bps of further tightening in high yield and 167 bps in loans.

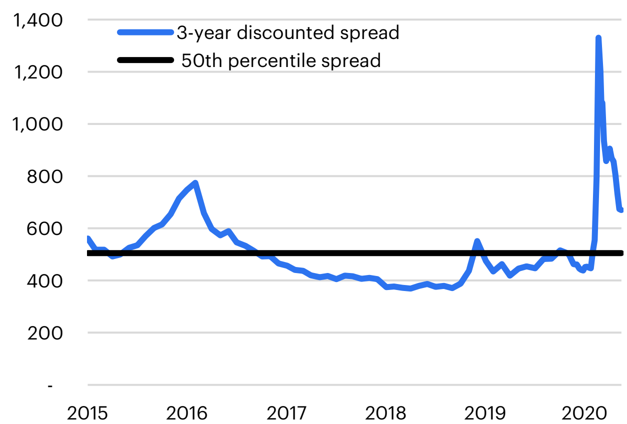
With stocks currently extremely expensive from a historical perspective, even after the Q2 rebound, we believe on a relative basis credit may be more attractive. High yield bonds and loans offer investors the ability to continue to participate in positive sentiment while starting from a place with cheaper valuations.

**HIGH YIELD BOND SPREADS**



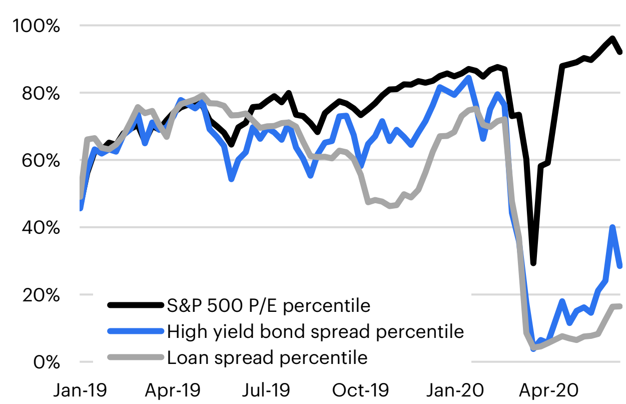

Source: Bloomberg, as of June 15, 2020. Historical percentiles from 1997.

**SENIOR SECURED LOAN SPREADS**




Source: Bloomberg, as of June 15, 2020. Historical percentiles from 1997.

**CREDIT VALUATIONS ATTRACTIVE RELATIVE TO EQUITIES**




Source: Bloomberg, as of June 15, 2020. Historical percentiles for equities from 1986, and high yield bonds and loans from 1997.

Corporate credit

# Credit fundamentals

**KEY TAKEAWAYS**

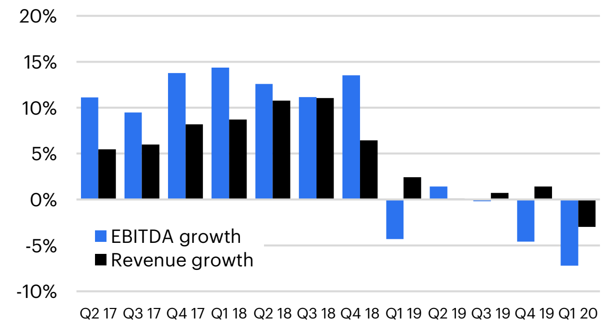
- Revenue and EBITDA growth in both markets have slowed considerably, and statistics deteriorated across the board in Q1.
- We expect fundamentals to decline further in Q2.

Unsurprisingly, credit fundamentals deteriorated across the board in Q1 2020, according to the most recently available data. EBITDA growth, which had slowed for both high yield bond and loan issuers in Q4 2019, turned decidedly negative. Loan issuers managed to post slightly positive year-over-year revenue growth while bond issuers saw declining top-line figures. With many people stuck at home, declines were steepest in the most heavily impacted sectors such as transportation, retail, gaming, lodging and leisure.

Unsurprisingly, leverage and interest coverage ratios deteriorated during Q1. The virtual economic shutdown and corresponding impacts to sales and cashflow all but guaranteed these figures would be challenged.

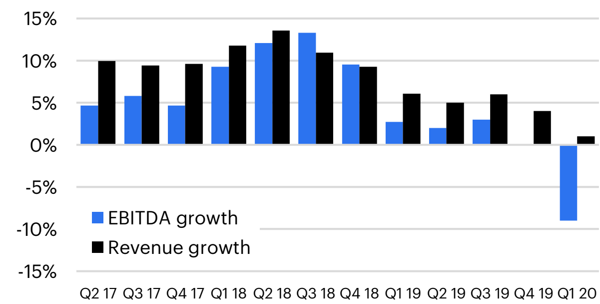
Q1 data looked this bad with shutdowns in place for less than a full month of the quarter. Thus, we expect Q2 data to look even worse. Progress toward reopening in most places was not made until late in the quarter and will likely be unable to offset the impact of the virtual standstill in economic activity during April and much of May. In such a rapidly changing environment, data becomes stale quickly—the world looks very different today than it did 2.5 months ago and will likely look very different in 2.5 months when Q2 data is released. There is little doubt that deteriorating fundamentals will translate into higher downgrade and default levels, but as discussed further in other sections of our outlook, those statistics tend to be lagging indicators of the current state of fundamentals.

**HIGH YIELD EBITDA AND REVENUE GROWTH**



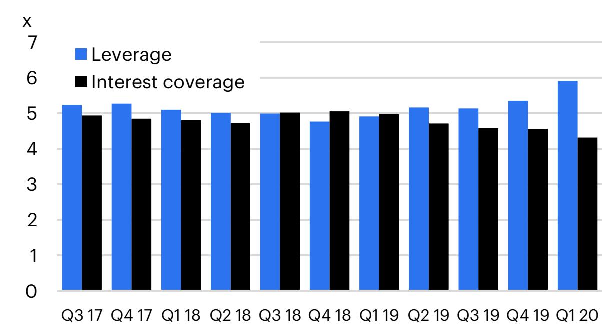

Source: J.P. Morgan, as of March 31, 2020.

**LOAN EBITDA AND REVENUE GROWTH**



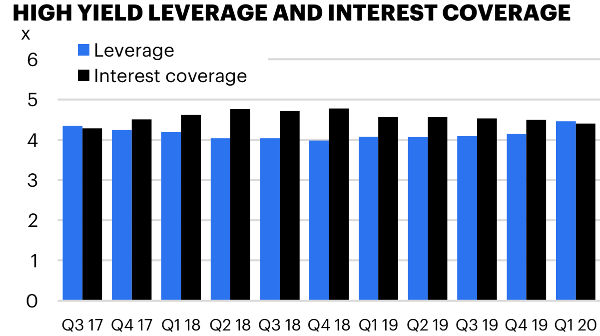

Source: J.P. Morgan, as of March 31, 2020.

**LOAN LEVERAGE AND INTEREST COVERAGE**




Source: J.P. Morgan, as of March 31, 2020.

**HIGH YIELD LEVERAGE AND INTEREST COVERAGE**




Source: J.P. Morgan, as of March 31, 2020.

# Downgrades and defaults



**KEY TAKEAWAYS**

- Default rates spiked during the quarter, as expected, and are now well above long-term averages.
- We expect large amounts of ratings downgrades which may present some opportunities to find value at attractive prices, especially in fallen angel bonds.

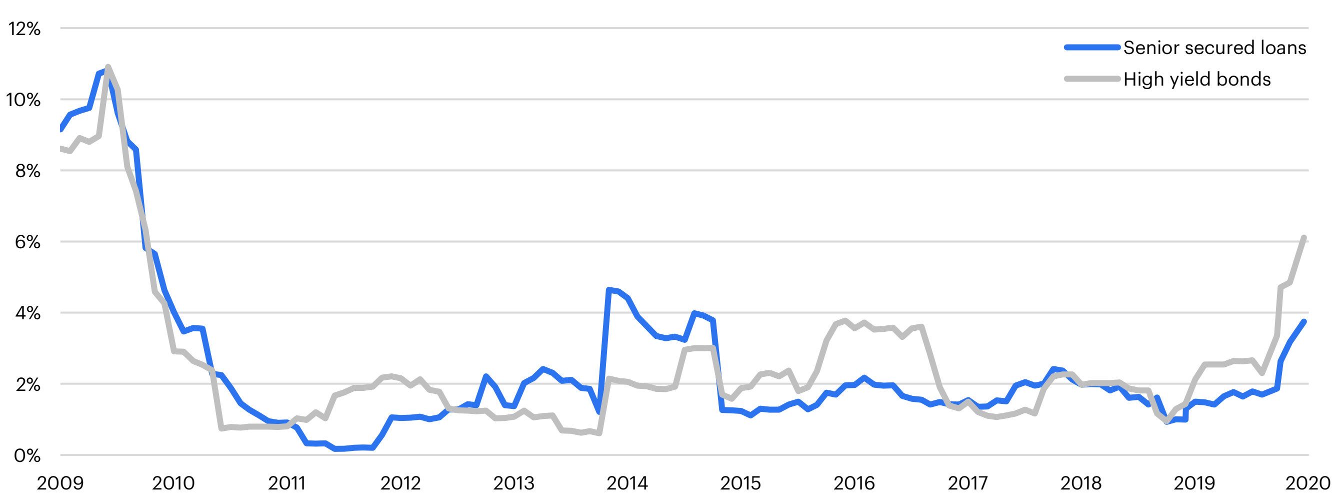
As expected, leveraged credit default rates increased significantly during the quarter and sit above long-term averages in both markets. As of June 15, the high yield bond default rate hit 6.11%, a 10-year high. Default activity in loans was more modest, reaching 3.75%, a 5-year high. For context, the long-term default rates for high yield bonds and loans are 3.74% and 3.00%, respectively.

Most of the default activity came during the first half of June, which, after only two weeks, has already seen the sixth-highest monthly default activity on record. Energy has seen the lion's share of default activity year to date, as oil prices have remained lower than a level at which many firms can remain profitable.

We'll also continue to watch the distressed ratio in both markets, which can be an indication of potential future default rates. Distress is defined in high yield as issues trading with spreads greater than 1,000 bps, and in the loan market as those with prices less than 80 cents on the dollar. Currently, 10.26% of the high yield index and 11.53% of loans trade at distressed prices, with the majority composed of energy names. As of now, these levels are in line with forecasted default rates. One thing to bear in mind is that during the financial crisis, the default rate in high yield topped out at close to 11% while distressed ratios peaked over 80%. Although they can be a helpful indicator, the distressed ratio and default rate do not always mirror one another.

Beyond default rates, we expect to see large levels of ratings downgrades. Ratings agencies have already acted swiftly. The upgrade-to-downgrade ratio in the loan market was 0.08 as of the end of May, meaning for every 100 loans that were downgraded, only 8 were upgraded. This is the lowest ratio in history. Dynamics in the bond market have been similar, with the ratio at 0.33, a level not seen since the financial crisis. These actions have far-reaching impacts. For loans, large amounts of downgrades can overwhelm the ratings requirements in CLOs, potentially creating downward pressure and inefficiencies for loan prices. In high yield, there is potential that record levels of fallen angels will overwhelm high yield supply, pressuring prices. For further analysis on each of these topics, see our research reports on fallen angels and CLOs.

**TRAILING 12-MONTH DEFAULT RATES**




Source: J.P. Morgan, as of June 15, 2020.

# Supply/demand technicals

**KEY TAKEAWAYS**

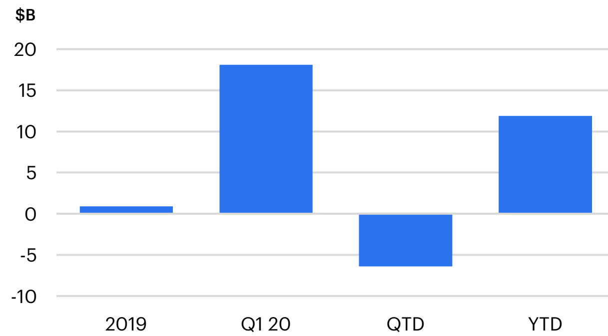
- High yield bonds have fully recouped their COVID-related outflows, and then some. Loans are still seeing outflows but at a lower rate.
- The Fed's credit market actions have boosted sentiment broadly, almost irrespective of traditional supply/demand dynamics.

While 2019 was a year marked by massive net supply deficits in the high yield market, a backdrop that is supportive of prices, 2020 has been the polar opposite. However, conditions have started to improve as markets enter the third quarter. Initially, the COVID sell-off prompted record outflows from high yield mutual funds and ETFs. But as markets started to recover, investors poured back into bond funds, which have pulled in more than $47 billion, fully recouping their March outflows of $20 billion.

This recent uptick in demand has been outstripped by supply. Fallen angels have been the big story as record amounts of recently downgraded debt have entered the market, with some forecasts of further downgrades ranging upwards of $500 billion. Year to date, fallen angel downgrades have totaled $180 billion—which exceeds any full year in history—the majority of which came during Q1. Critics will be quick to point to the supply/demand imbalance that these fallen angels create; however, we continue to view them as a source of opportunity for active managers. Primary new issuance of high yield bonds has also been strong on the back of healthy demand as the market recovered in the second quarter. YTD new issue volume is up 40% year over year. While net supply deficits in 2019 have changed to net supply surpluses in 2020, we believe that record retail inflows have allowed the market to absorb this change. Furthermore, absent the fallen angel-driven increase in supply, the high yield bond market would still be facing net supply deficits.

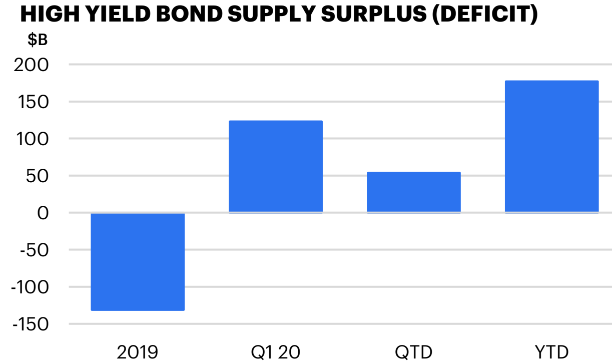
Conditions in the loan market are more supportive of prices, but for different reasons. The primary loan market has seen a dearth of new issuance as companies instead have turned to the high yield bond market for financing. Net loan issuance is down -29% year over year. This lack of supply is

**LOAN MARKET SUPPLY SURPLUS (DEFICIT)**




Source: J.P. Morgan, as of May 31, 2020.

**HIGH YIELD BOND SUPPLY SURPLUS (DEFICIT)**




Source: J.P. Morgan, as of May 31, 2020.

critical, as loan funds have seen continued retail outflows. Demand in the loan market has historically been dominated by institutional CLO buyers, which account for roughly 60% of all loan purchases. The primary CLO market was essentially shut down during March but has begun to reopen thanks to assistance by the Fed and improving sentiment. This has resulted in the loan market actually seeing a net supply deficit during the second quarter.

We would also be remiss if we did not mention the newest entrant to the high yield market: the Federal Reserve. Although to date its purchase of sub-investment grade products has been relatively small, limited to a handful of high yield bond ETFs, the signaling effect has been strong. We won't go so far as to say that old supply/demand dynamics are completely irrelevant going forward. But we do believe that the Fed acting as a backstop source of demand for corporate bond markets will continue to be the rising tide lifting all credit boats.

Corporate credit

# CLO market outlook

**KEY TAKEAWAYS**

- Primary and secondary CLO markets have recovered thanks to Fed stimulus and improving sentiment, but they still lag broader credit.
- Current price levels imply potential further appreciation.

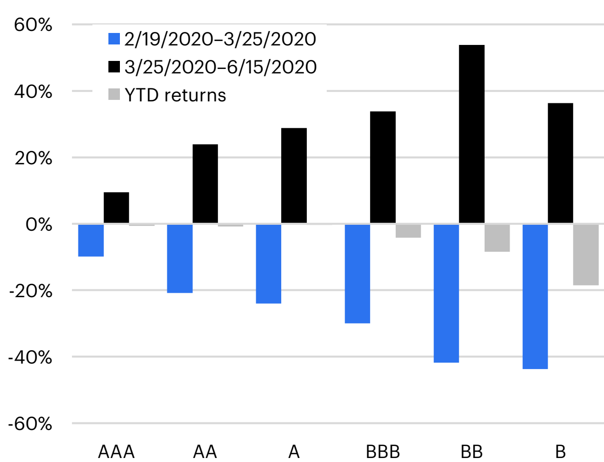
CLOs were not immune to the COVID-induced market rout in March. The sell-off was broad based and indiscriminate, driven by a combination of need for liquidity and concerns about the impact that broad credit weakness would have on the asset class. Fears of widespread downgrades in loans raised further concerns for CLOs, as there are limits to the amount of CCC rated debt that can comprise collateral pools and tests related to maintaining minimum average rating requirements.

Initial Fed stimulus measures seemed to leave CLOs behind, but since then the central bank has announced policies that have directly benefited the asset class. As a result, we have seen the primary issue market continue to thaw and a bounce back in sentiment in secondary prices. Primary issuance is still down -50% year over year, but May's volume was up 54% over April's, with momentum continuing through the first two weeks of June.

On a relative basis, CLO returns have still lagged broader credit. This is not completely surprising, as historical data shows a tendency for underlying loans to rebound first. Current spread levels indicate we could see further tightening in some CLOs. Higher-quality tranches, primarily AAA and AA, have nearly recovered to pre-pandemic levels, but we still see opportunity in lower-rated tranches.

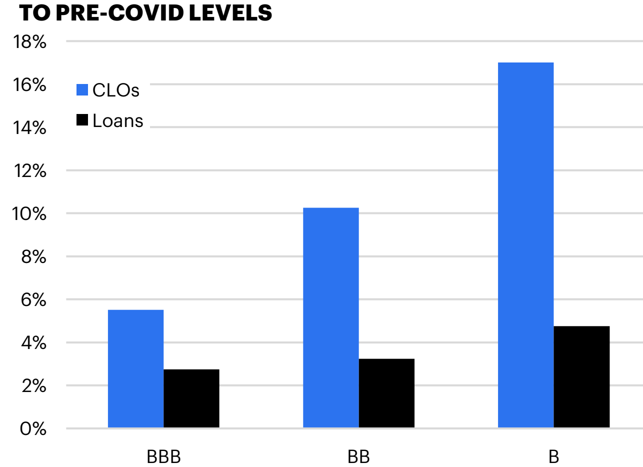
Comparing current prices for CLOs versus loans implies significantly more price upside for CLOs versus comparably rated loans. Returning to pre-pandemic levels implies a 9.62%, 17.50% and 42.28% price upside for BBB, BB, and B rated CLOs, respectively. These same figures for loans are 2.75%, 3.23% and 4.76%, for BBB, BB and B rated, respectively.

**CLO RETURNS**




Source: J.P. Morgan CLOIE Index, as of June 15, 2020.

**PRICE APPRECIATION TO RETURN TO PRE-COVID LEVELS**




Source: J.P. Morgan CLOIE Index, S&P/LSTA Leveraged Loan Index, as of June 15, 2020.