VOLUME 1, ISSUE 3

FridsonVision
HIGH YIELD STRATEGY

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Publisher

Yield Up, Price WAY Up. Whaaa?

PLUS: Is the market really ALWAYS ahead of the ratings?

- *A high yield benchmark showed a large price gain as its yield rose. It is in the interest of portfolio managers and risk managers to understand how that works. This report examines a phenomenon we dub the Rebalancing Act.*
- *Conventional wisdom among high yield practitioners holds that the market is invariably ahead of the rating agencies. Conventional wisdom requires at least a minor revision.*

An Anomaly

Bottom-tier credits racked up impressive relative performance in the 12 months ending June 30, 2024. As detailed in **Exhibit 1**, the ICE BofA CCC & Lower US High Yield Index delivered a 13.35% total return. That compared with 10.05% for the ICE BofA BB-B US High Yield Index.

The BB-B subindex's total return included a 3.46% price return on top of income of 6.59% for the period. That gain reflected a drop of 7.66% - 6.78% = 0.88% in effective yield. With a bit of simplification, we can multiply the BB-B index's beginning effective duration of 3.25 by 0.88 to get a price return of +2.86%, rounding off to the same integer (3%) as the actual +3.46% figure.

EXHIBIT 1: Comparative Performance

June 30, 2023-June 30, 2024		
Return (%)	**CCC & Lower**	**BB+B**
Price Return	3.63	3.46
Income Return	9.72	6.59
Total Return	13.35	10.05
Effective Yield (%)		
June 30, 2023	13.80	7.66
June 30, 2024	13.95	6.78
OAS (Basis Points)		
June 30, 2023	943	337
June 30, 2024	953	231
Effective Duration		
June 30, 2024	3.19	3.25

Source: ICE Indices, LLC

Published bi-weekly for subscribing financial professionals.

FridsonVision High Yield Strategy is a bi-weekly research service produced by FridsonVision LLC and geared to finance professionals. Its publisher is Martin Fridson, CFA, who was the #1 Institutional Investor All America Research High Yield Strategist while at a leading investment bank and is an inductee to the Fixed Income Analysts Society Hall of Fame.

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This logic breaks down in the case of the CCC & Lower index, however. The ***rise*** of 15 basis points (bps) in the index's effective yield could not possibly have produced the +3.63% price return. As all fixed income practitioners learned on their first day on the job, if not earlier in an institution of higher learning, when yields go up, bond prices go down. What could possibly explain the CCC & Lower index's seemingly strange behavior over the last 12 months?

Rebalancing's Formidable Impact

ICE Indices, LLC readily supplies the answer to this question. Its indexes do not consist of static universes of bonds. Rather, they are "rebalanced" at the end of each month.[1] This term should not be confused with periodic rebalancing of an investment portfolio to maintain a targeted weighting of its constituents or sectors. Rather, it refers to reconstituting the index each month to reflect changes in the universe of bonds that qualify for inclusion.

In the case of the CCC & Lower index, bonds are added as a consequence of new issuance, exchanges, and downgrading from higher rating tiers. Likewise, bonds exit as a result of upgrading to B or higher, redemption, partial retirement that reduces their amount outstanding below the threshold for inclusion (currently $250 million), default, and aging out, i.e., shortening to inside the one-year minimum remaining life required for inclusion. As a result of rebalancing, the index represents, at the beginning of each month, the actual investable universe of bonds satisfying the inclusion criteria.

On the ***Index Characteristics*** page of each index's documentation, ICE Indices, LLC discloses the impact of monthly rebalancing on all of its metrics, including effective yield, option-adjusted spread, effective duration, and so forth. For the CCC & Lower index, each monthly rebalancing of effective yield, with the exception of a small negative impact in July 2023, was positive. The largest adjustment, +55 basis points (bps), occurred with the January 2024 rebalancing. All told, the cumulative adjustment came to +287 bps, an amount sufficient to offset the substantial decline that otherwise would have occurred, as did happen in the case of the BB-B index.

Note that the BB-B index's effective yield decline was a function of a large decline in its option-adjusted spread (OAS) versus Treasuries. The ICE BofA Current 5-Year US Treasury Index's effective yield ***rose*** from 4.12% to 4.34% over the period. Barring some exceptionally odd circumstance, a major decrease in the BB-B risk premium would have been accompanied by a comparable (likely larger) decrease in the CCC & Lower index's risk premium and hence a decline in ***its*** effective yield.

Rebalancing and Market Anticipation of Downgrading

This second portion of the report aims to shed further light on the impact of rebalancing on the CCC & Lower Index. We do not undertake the massive task of a basis-point-for-basis-point reconciliation of key metrics of the beginning and ending CCC & Lower index. Instead, we focus specifically on bonds of the 21 issuers that entered the CCC & Lower index between

[1] ICE BofA indexes originally rebalanced daily. The index managers changed to monthly-only rebalancing at the request of investment managers, who said that procedure would more fairly facilitate their relative performance measurement.

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June 30, 2023 and the month-end rebalancing that produced the June 2024 index (on May 31, 2024).[2]

In terms of ***issuers***, as opposed to issues, we found that 24% of those represented in the CCC & Lower index in June 2023 were not represented in the June 2024 index. We further found that 15% of the issuers represented in the June 2024 index had not been represented in the June 2023 index. Turnover, in short, was quite substantial.

We limited our analysis to one bond per issuer. The resulting issue-based **Exhibit 2** shows, for each new entrant via downgrading to the CCC & Lower index between June 2023 and June 2024, the effective yield on the day before downgrading. For the sake of consistency, we define the measurement date for this analysis as the first downgrade to the Caa or CCC tier subsequent to June 30, 2023. Due to the vagaries of composite ratings determinations in the

[2] Other issuers entered via new issuance with composite ratings in the CCC1 to CCC3 range. Conversely, many issuers that were represented in the index on June 30, 2024 exited for one of the reasons enumerated in the paragraph above that begins, "ICE Indices, LLC readily supplied..."

Exhibit 2: Comparative Yields and Option-Adjusted Spreads

Bonds That Entered ICE BofA CCC & Lower US High Yield Index by Downgrading Between June 2023 and June 2024

		Effective Yield (%)		OAS (Basis Points)	
Issue	**Measurement Date***	**Issue**	**CCC&Lower Index**	**Issue**	**CCC&Lower Index**
Alteryx 8.75% 4/17/24	April 17, 2024	7.64	13.85	291	918
Ardagh Metal Packaging 4% 9/1/29	March 13, 2024	8.20	12.85	398	849
Baffinland Iron Mines 8-3/4% 10/12/23	October 11, 2023	9.23	14.38	437	961
Grifols Equity Issuer 4-3/4% 10/15/28	March 15, 2024	10.26	15.26	584	1,139
Hughes Satellite Systems 5-1/4% 8/1/26	February 7, 2024	12.80	13.62	848	942
Level 3 Financing 3-5/8% 1/15/29	August 15, 2023	13.51	13.51	912	895
ModivCare 5% 4/2/24	April 1, 2024	11.97	13.09	760	859
Neon Holdings 10-1/8% 4/1/26	January 16, 2024	14.37	13.38	1,015	934
Office Properties 2.40% 2/1/27	November 29, 2023	14.25	14.02	1,480	960
Oriflame Investment Holding 5-1/4% 5/4/26	September 7, 2023	56.43	13.62	5,167	902
Petrofac 9-3/4% 11/15/26	April 15, 2024	72.77	13.66	6,784	894
Premier Entertainment 5-5/8% 8/1/29	March 7, 2024	11.89	12.93	777	868
Realogy Group 5-1/4% 10/15/28	October 30, 2023	13.92	15.41	906	1,041
Sinclair Television Group 5-1/8% 2/15/27	February 14, 2024	8.37	13.66	394	930
Spirit IP Cayman 8% 9/20/25	January 22, 2024	40.44	13.36	3,591	922
Stonemor 8-1/2% 5/15/29	December 15, 2023	14.26	13.16	1,028	904
United National Foods 6-3/4% 10/15/28	November 14, 2023	12.20	14.93	771	1,012
Veritas US 7-1/2% 9/1/25	November 13, 2023	20.94	14.02	1,585	985
W.R. Grace Holdings 5-5/8% 8/15/29	September 22, 2023	9.75	13.73	519	898
Wolverine World Wide 4% 8/15/29	August 21, 2023	10.11	14.42	566	900
WW International 4-1/2% 4/15/29	November 20, 2023	15.97	12.87	1,149	981

*Last trading day prior to first downgrade to Caa or CCC tier later than June 30, 2023 Source: ICE Indices, LLC context of multiple rating agencies, that downgrade may not have coincided with the issue's admission to the CCC & Lower index.

Those details do not affect a key takeaway from Exhibit 2: The mean effective yield for the index's newcomers on their respective measurement dates was 19.41%. On matching dates, the CCC & Lower index's mean effective yield was 13.80%. Clearly, the entry of issues through downgrading was a major offset to the substantial effective yield decline that the index otherwise would have experienced between June 30, 2023 and June 30, 2024.[3] This finding helps to explain why the CCC & Lower index posted a large price gain despite an almost unchanged yield between those two dates. The yield change was not a change on a fixed universe of bonds; it also reflected a sizable effect of issues entering and exiting the index.

Exhibit 2 also displays option-adjusted spread (OAS) data on the entrants-by-downgrading. Unsurprisingly, our findings are similar to those for effective yield. The issues' mean OAS was +1,427 bps versus +938 for the CCC & Lower index. If the index's constituents were a fixed universe, it would be highly counterintuitive to find that the index posted a 3.63% gain between June 30, 2023 and June 30, 2024 while its OAS increased by 10 bps, from +943 to +953 bps. Our analysis sheds light on what happened in reality: An especially wide average spread on the bonds that entered the index through downgrading offset spread-tightening on issues that were in the index throughout the period.

Quantifying Market Anticipation of Rating Downgrades

In the preceding analysis we had a specific reason for making our measurement date the trading day ***before*** downgrading to the Caa or CCC tier. That procedure enables us to kill a second bird with this report, namely, to address the belief, widely held among practitioners, that the rating agencies are invariably late in recognizing changes in credit quality. The market, according to many if not most market participants, ***always*** reaches the correct conclusion before Moody's, Standard & Poor's, or Fitch Ratings.

On average, as detailed above, the mean effective yield and OAS on the day before downgrading to the Caa or CCC tier was substantially higher than the CCC & Lower index's corresponding-day effective yield and OAS. At first blush, this would settle the question. Averages, however, can mask important facts within a dataset. As a classic formulation goes, "I have one foot in an ice bucket and the other in a hot oven. On average I feel fine."

Inspection of Exhibit 2 discloses that in the majority of cases (12 out of 21), the issue's effective yield one day prior to downgrading was lower than the CCC & Lower index's same-day effective yield. In eight cases the issue yield was higher than the index's and there was one tie. The overall mean issue yield exceeded the mean index yield thanks only to skewing by three outliers with effective yields ranging from 40.44% to 72.77%. Excluding those three bonds, the issue mean is 12.45%, lower than the corresponding index mean of 13.83%. For OAS, similarly, the issue mean is lower than the index mean, +801 bps versus +943 bps, when the

[3] A subtlety that would affect the not undertaken task of a complete reconciliation of changes in effective yield over the period is that the index reflects the yields and other metrics on a market-weighted basis, while our mean calculation effectively weights the effective yields equally. This is another case of a simplification that does not alter the conclusion, given the wide disparity between the 19.19% and 13.83% figures we cite.

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three outliers are excluded from the calculation.

To be fair to proponents of the market-always-gets-there-first claim, the fact that an issue's yield is lower in absolute terms than the CCC & Lower index's on the eve of its downgrading does not prove that the downgrade caught the market by surprise. For example, no knowledgeable person would argue that the 13.92% effective yield on Realogy Group 5-1/4% 10/15/28, one day before S&P lowered it from B- to CCC+, indicated that investors were oblivious to the likelihood of imminent downgrading, merely because the CCC & Lower index's effective yield on that day was higher, at 15.41%. After all, the 15.41% figure is a market-weighted average yield on that date. Many bonds within the index yield considerably less than 15.41%, implying that the market viewed the Realogy bond as a Triple-C comparable to those issues on October 30, 2023.[4]

To obtain a clearer indication of the market's consistency in anticipating downgrades to Triple-C over the latest 12 months, we compared each issue's prior-day OAS to the Single-B and CCC & Lower OAS on the corresponding day. In 15 out of 21 cases, the issue's OAS was closer to the CCC & Lower OAS than it was to the CCC & Lower OAS. It is fair to conclude that for those bonds, the market clearly signaled that a downgrade was warranted before the rating change occurred.

The six exceptions are listed in **Exhibit 3**. They continued to trade in line with Single-B spreads up until the day before their first post-June 2023 downgrade to Triple-C. Before discussing the analysis detailed in Exhibit 3, let us point out a complication to the preceding discussion. Five of the six issues in the table continued to trade closer to the Single-B spread than the Triple-C spread ***after*** entering the CCC & Lower index and through June 30, 2024. The only bond that shifted from a Single-B-like OAS to a Triple-C-like OAS was the Baffinland Iron Mines 8-3/4% 10/12/23. For the other five, we could not fairly maintain that the market's assignment of a Single-B-like spread prior to the drop to Triple-C demonstrated a failure to signal a coming downgrade.

Exhibit 3 summarizes a second test of the market's prescience, applicable whether or not an issue's post-downgrading OAS more closely resembles the prevailing Single-B or Triple-C OAS. In the former case, a sharp widening of the issue spread supports the conclusion that the market anticipated the downgrade. Accordingly, we looked for large price changes prior to the downgrade date. We then calculated the corresponding OAS change. To confirm that the OAS change did not merely reflect a general change in Single-B risk premiums over the period, we calculated the same-period change in the ICE BofA Single-B US High Yield Index's OAS.

[4] *In our terminology, "Triple-C" encompasses both Moody's Caa category and the CCC categories of Standard & Poor's and Fitch Ratings. "Single-B" encompasses the respective agencies' B1, B2, B3 and B+, B, B- grades.*

Exhibit 3: Changes in Risk Premiums in Advance of Downgrading to Triple-C

Issue	Measurement Date (Downgrade)	Dates of Major OAS Changes: Start	Dates of Major OAS Changes: End	OAS Change (bps): Issue	OAS Change (bps): B Index
Alteryx 8.75% 4/17/24	April 17, 2024	February 13, 2024	February 14, 2024	+313	+1
Ardagh Metal Packaging 4% 9/1/29	March 13, 2024	January 29, 2024	January 31, 2024	+63	+16
Baffinland Iron Mines 8-3/4% 10/12/23	October 11, 2023	October 10, 2023	October 11, 2023	-22	0
Grifols Equity Issuer 4-3/4% 10/15/28	March 15, 2024	February 23, 2024	March 15, 2024	+208	-5
Sinclair Television Group 5-1/8% 2/15/27	February 14, 2024	January 25, 2014	February 14, 2024	+119	-13
W.R. Grace Holdings 5-5/8% 8/15/29	September 22, 2023	September 13, 2023	September 22, 2023	+82	+5

Sources: Bloomberg; ICE Indices, LLC

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The table shows that all five of the bonds that continued to trade like Single-Bs after their downgrading to Triple-C experienced large spread-widening within a few months of the downgrading. Once again, the Baffinland Iron Mines 8-3/4% 10/12/23 stood out from the crowd. Its OAS ***narrowed*** by 22 bps on the day before its downgrading to Triple-C while the Single-B index's OAS was unchanged. By all tests we have applied, the Baffinland bond defied the overwhelmingly predominant pattern of the market signaling in advance a downgrade to Triple-C.

The absence of advance signaling of the Baffinland downgrade would not have undercut the market's reputation for foresightedness if the downgrade resulted from a shock that neither investors nor the rating agencies could have possibly foreseen. That was not the case, however, as demonstrated by this excerpt from Moody's October 12, 2023 rating rationale:

> The downgrade of Baffinland reflects its weak liquidity driven by the company's revolving credit facility expiring in May 2024, term loan due September 2024, and litigation payments that have significantly reduced cash this year.[5]

These were all slowly developing factors that the market could have reflected in the Baffinland bond's spread prior to the downgrade but did not. In the wake of the downgrade, the issue migrated from trading like a Single-B to trading like a Triple-C.

Conclusion

The first portion of this report showed that a bond index's average coupon and average maturity are not directly comparable to a bond's coupon and maturity. A fixed-rate bond's price performance over a stated period can be calculated after the fact using its yield change and duration. That sort of calculation, however, may produce a very inexact—even a directionally wrong—result for an index. The index's coupon and maturity can change significantly over a lengthy measurement period as bonds enter and exit it. In seeming defiance of a fundamental principle of bond math, the ICE BofA CCC & Lower US High Yield Index achieved a price gain even as its yield increased in the 12 months ending June 30, 2024.

In the final part of the report we showed that it is a mistake to state categorically that the market ***always*** "downgrades" (as indicated by the assigned spread) an issue before the rating agencies formalize the change. Our study of downgrades to Triple-C over a 12-month period generated only a single counterexample, but one is sufficient to render "always" inapplicable. Studies of other 12-month periods, covering a wider range of rating categories, might very well show that in most periods, exceptions to the rule are more common than we found in the 12 months ending June 30, 2024.

A final, important point about the timing of "market downgrades" and rating agency actions involves false positives. That is, spreads may at times widen without being followed by a downgrade, only to revert to a previous valuation in line with the existing rating. A fair assessment of the rating agencies' overall performance must take such incidents into account. Investigation of false positives, however, lies beyond the present report's scope.

[5] *"Moody's Downgrades Baffinland's CFR to Caa1; Outlook Negative." From* ***Bloomberg News****, October 12, 2023.*

MACRO MOMENT:

Leading Indicators vs. Economists

(With Implications for High Yield Valuation)

Embedded in current credit spreads is investors' collective opinion about the likelihood of an economic downturn that would surely trigger an escalation in the default rate. What if the consensus on that matter is overly optimistic? That might be the case, according to some evidence that is well worth considering.

Background

Motley Fool's Sean Williams recently wrote[1] as follows regarding the Conference Board's Leading Economic Index (LEI):

> [E]very previous instance where the LEI has fallen by at least 4% on a year-over-year basis has been followed by an eventual recession...But despite a recent year-over-year decline of up to 8% in the Conference Board LEI, no recession has materialized. With the year-over-year drop in the LEI now moderating to less than 5% as of April 2024[2], it's safe to say that this previously flawless indicator has had its first-ever false-positive reading.

Actually, economic forecasters surveyed by Bloomberg do not agree that one can safely say that LEI has uncharacteristically issued a false positive. Currently, the pundits' median estimate of the probability of a U.S. recession within the next 12 months stands at 30%. A far cry, that is to say, from the 0% that would indicate their consent to the proposition that LEI has cried wolf for the first time in its nearly 65-year history.

Some readers who have long since embraced the soft landing scenario may think, "Oh, well, forecasters are always going to cover their backsides against the chance that some event will come out of left field and trigger a recession, as happened with COVID-19 in 2020. A 30% probability-of-recession simply represents the bare minimum figure economists assign in order to avoid looking bad in that kind of situation."

This is not a crazy supposition, but neither does the record support the notion that 30% is anything like economists' rock-bottom estimate of 12-month recession probability. Since Bloomberg began surveying forecasters on this question, the median estimate was lower than 30% in 71% of all months. The low of just 10% was recorded in January and February 2011. In short, economic forecasters see much more than a nominal chance that the U.S. will lapse into recession within a year's time.

[1] For the First Time in 65 Years, This Recession Indicator Has Been Wrong -- but Wall Street Isn't Out of the Woods Just Yet (msn.com)

[2] *The April 2024 LEI year-over-year change was actually -5.5%.*

Leading Indicators vs. Economists

Economists from organizations deeply involved in the financial markets such as Deutsche Bank, Jefferies Group, MetLife Investment, Stifel Financial, and Wells Fargo are represented in the Bloomberg survey. It is therefore no great leap to surmise that something like a 30% consensus recession-probability estimate is embedded in the ICE BofA US High Yield's June 30 +321 bp option-adjusted spread (OAS). If so, the high yield spread may be narrower than it ought to be, even though many, if not most, market participants moved on from hard landing fears a long time ago. Our analysis finds that the forecasters have run ahead of LEI, which is itself a forward-looking indicator.

Analysis

Economic forecasters do not merely parrot economic indicators, but neither do they ignore such data. For example, the Bloomberg survey's probability-of-recession series has a strong 73% correlation with the Conference Board's LEI. It is therefore informative to consider where the forecasters stand, at a given juncture, on their probability-of-recession estimate, relative to the estimate one would derive directly from LEI, wthout the economists' intercession.

To determine the LEI-implied probability of recession, we began by downloading the index's complete monthly data from its 1960 inception. The readings ranged from a high of 14.6% (December 1983) to a low of -19.0% (March 2009). We grouped the data points into one-percentage-point ranges, 14.1% to 15.0%, 13.1% to 14.0%, etc.

The largest concentration of observations was in the 4.1% to 5.0% range, which encompassed 75 months. In just 8% of those months the U.S. economy was in recession at the time or within 12 months. Turning to the extremes, the incidence of concurrent or within-12-months recession was 100% for all LEI ranges of -17.9% or less and 0% for all ranges of 12.0% or greater.

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As detailed in the table below, in May 2024 the Bloomberg-surveyed economists' recession-probability estimate of 65% was a touch higher than the LEI-implied estimate of 63%. By the end of 2023, however, the forecasters had shot ahead of the leading indicators in lowering their estimate. It then stood at 50%, some 10 percentage points below the LEI-implied estimate of 60%. By May 2024 (the date of the most recently released LEI), the gap had more than doubled, from 10 to 24 percentage points. The economists handicapped recession at just 30%, while the leading indicators gave it a 54% probability.

Perhaps the economists have simply tired of waiting for the recession that never seems to arrive. After all, another renowned forerunner of recessions, an inverted Treasury yield curve (three months to 10 years), has been inverted for more than a year without clear evidence that the economy has begun to contract. Investors should keep in

Recession-Probability Estimates--Selected Months

Month	Leading Economic Index (%)	Recession Probability Within 12 Months (%)	
		LEI-Based	Forecasters
May 2023	-8.1	63	65
December 2023	-7.1	60	50
May 2024	-5.3	54	30

Sources: Bloomberg, FridsonVision calculations mind, however, that past recessions began only after the yield curve returned to a positive slope. By that standard, it is premature to rule out a recession in reaction to the Fed tightening that commenced in March 2022. Monetary policy works with long and varying lags and the lag was likely prolonged this time around by massive fiscal stimulus.

Conclusion

On June 30 the ICE BofA US High Yield Index's OAS of 321 bps was a stunning 152 bps less than the most recent fair value estimate of +473 bps. (See our June 20, 2024 report for details of the most recent fair value calculation.) A major component of the market's risk premium, along with an illiquidity premium, is an assessment of the default rate outlook. History shows that default rates rise sharply during recessions. Even in the wake of the March-April 2020 mini-recession, Moody's 12-month, U.S. speculative-grade-bonds-only, percentage-of-issuers default rate soared to 8.94% in January 2021. That compares with a median since December 1970 of 3.32%. (Mean = 4.25%)

We infer from these facts that the present high yield spread impounds little if any probability of recession within the next 12 months. This is even though forecasters surveyed by Bloomberg currently put the probability at 30%. Moreover, the 30% figure is considerably lower than the 54% we derive from the Conference Board's Leading Economic Index, which historically was closely linked to the economists' estimate.

Note, too, that LEI has a medium-strength correlation of 62% with the ICE BofA US High Yield Index's OAS since the inception of that metric in December 1996. Prior to 2024 there were four months in which LEI was in the range of -5.0% to -5.9%, consistent with May 2024's -5.3%. In those months, the high yield index's OAS ranged from +455 to +739 bps. The considerable excess of even the lowest of those numbers, much less the median of +628 bps, over the June 30 OAS of +321 bps adds to the evidence that the high yield risk premium is currently out of line with the economic fundamentals.

Managers of high yield mutual funds and institutional high yield mandates have neither an obligation nor an option to switch asset classes based on the attractiveness or vulnerability of their designated category at a point in time. Their clients have chosen to incur exposure to high yield bonds; the portfolio managers' charge is to strive for high relative return versus their benchmark. Asset allocators, at multi-asset institutions or funds, however, may wish to reflect on the current disconnect between (a) the Leading Economic Index's implications for recession probability and, by extension, the default rate and (b) the high yield risk premium.

MODEL UPDATES JUNE 30, 2024

For fuller descriptions of the models updated below click here.

Recommendations Summary

BB Distressed Bonds		No Special Opportunity at Present
CCC & Lower		Overweight
Distressed Bonds		Overweight
Emerging Markets	(Portfolios that also own U.S. High Yield)	Underweight
Europe	(Portfolios that also own U.S. High Yield)	Neutral
High Yield	(Portfolios that also own Investment Grade)	Underweight
Industry Relative Value		See highlighted industries below
Maturity Bucket Opportunities		No current reallocation recommendations
Market-Implied Default Rate Forecast		3.9%
Undervalued Bonds		See highlighted bonds below

BB Distressed Bonds

Our historical research has found that when 5% or more of the issuers represented in the ICE BofA US Distressed High Yield Index are rated BB, the market is overstating the default risk of those issuers' bonds. On June 30, 2024, none of the distressed index's 76 issuers had BB ratings. Accordingly, there is no current opportunity to pick up issues that have a strong likelihood of being undervalued on this basis.

Click here for a fuller description of this model.

CCC & Lower versus BB/B

To calculate fair value for the CCC-C spread at a point in time we apply the following regression formula:

$$y = 2.34x + 73.44$$

Where:

x = OAS of the ICE BofA BB/B US High Yield Index
y = OAS of the ICE BofA CCC & Lower US High Yield Index

With the BB/B spread at +231 bps on June 30, 2024, the formula yields a fair value OAS of +614 bps for CCC & Lower. That is below the actual OAS of +953 bps by 339 bps, which is above our threshold of 254 bps (one standard deviation) for deeming the CCC & Lower sector extremely undervalued. Accordingly, we currently recommend overweighting the CCC & Lower sector for value-oriented investors.

Click here for a fuller description of this model.

Distressed Debt's Attractiveness

We recommend that investors who customarily include some distressed bonds in their high yield portfolios overweight (underweight) the distressed sector when the market-implied forecast exceeds (falls short of) Moody's forecast by one percentage point or more.

To derive the Moody's forecast for the one-year default rate on U.S. speculative grade bonds, we take the agency's current percentage-of-issuers forecast for speculative grade debt (which includes loan-only issuers) and multiply it by the fraction consisting of the agency's all-regions bonds forecast divided by its all-regions bonds & loans forecast.

We calculate the market-implied default rate using the following formula:

y = 0.133 times $x^{-0.534}$

Where:

y = Distressed default rate

x = Percentage of issues in the ICE BofA US High Yield Index with option-adjusted spreads of +1,000 bps or greater (see note 1)

The market-implied default rate forecast for the next 12 months is:

Distress ratio times distressed default rate

Click here for a fuller description of this model.

These calculations currently produce a distressed default rate of 54.7%. Multiplying by the June 30, 2024 distress ratio of 7.09%, we find that the high yield market expects a 3.9% default rate over the next 12 months. That exceeds the 2.49% rate for Moody's U.S. speculative grade bond-only forecast by more than 1.0 percentage point. Therefore, we currently recommend overweighting the distressed sector.

That conclusion, by the way, is consistent with our findings, in a separate line of research covering the period 2003-2023, that the ICE BofA US Distressed High Yield Index usually delivers high returns in 12-month periods after its weighted average price dips below 60. On June 30, 2024 the index's price stood at 59.45.

Note that the overweight recommendation does not imply that distressed bonds are currently cheap in absolute terms. Rather, in an environment of very tight spreads, non-distressed high yield bonds are currently expensive relative to distressed issues.

Emerging Markets versus U.S.

To determine relative value for these two regions on a rating-for-rating basis, we compare option-adjusted spreads on the ICE BofA Merrill High Yield US Emerging Markets Corporate Plus Index and the BofA Merrill Lynch US High Yield Index. We recommend overweighting (underweighting) EM when its OAS is unusually wide (narrow) versus its U.S. counterpart according to our Equally Ratings Mix (ERM) methodology.

Click here for a fuller description of this model.

On June 30, 2024 the emerging markets ERM-based OAS was +309 bps. That exceeded the high yield index's ERM-based OAS of +245 bps by just 64 bps, placing it in Quartile 4 (narrowest differential) of historical experience. Accordingly, we currently recommend underweighting emerging markets debt in portfolios that also invest in U.S. high yield.

Europe versus U.S.

To determine relative value for these two regions on a rating-for-rating basis, we compare option-adjusted spreads on the ICE BofA Non-Financial High Yield Distressed Index and the ICE BofA US Non-Financial High Yield Constrained Index. We recommend overweighting (underweighting) European high yield when its OAS is unusually wide (narrow) versus its U.S. counterpart, according to our Equally Ratings Mix (ERM) methodology.

Click here for a fuller description of this model.

On June 30, 2024 the European ERM-based OAS was +333.5.0 bps. That exceeded the high yield index's ERM-based OAS of +250.8 bps by 82.6 bps, placing it in Quintile 2 (second widest differential) of historical experience, indicating that European high yield debt is only moderately cheap versus its U.S. counterpart. Accordingly, we currently recommend a Neutral weighting on European high yield debt in portfolios that also invest in U.S. high yield.

Investment Grade versus High Yield

Our empirical study has found that when the ICE BofA US High Yield Index's OAS exceeds the investment grade ICE BofA US Corporate Index's OAS by more than 700 basis points, there is a strong probability that high yield will beat investment grade in total return in the next quarter. We recommend overweighting high yield under those conditions. Further, we have found that when the high yield OAS exceeds the investment grade OAS by less than 265 basis points, there is a substantial probability that high yield will underperform investment grade for the next 2.5 years or more. We recommend underweighting high yield under those conditions.

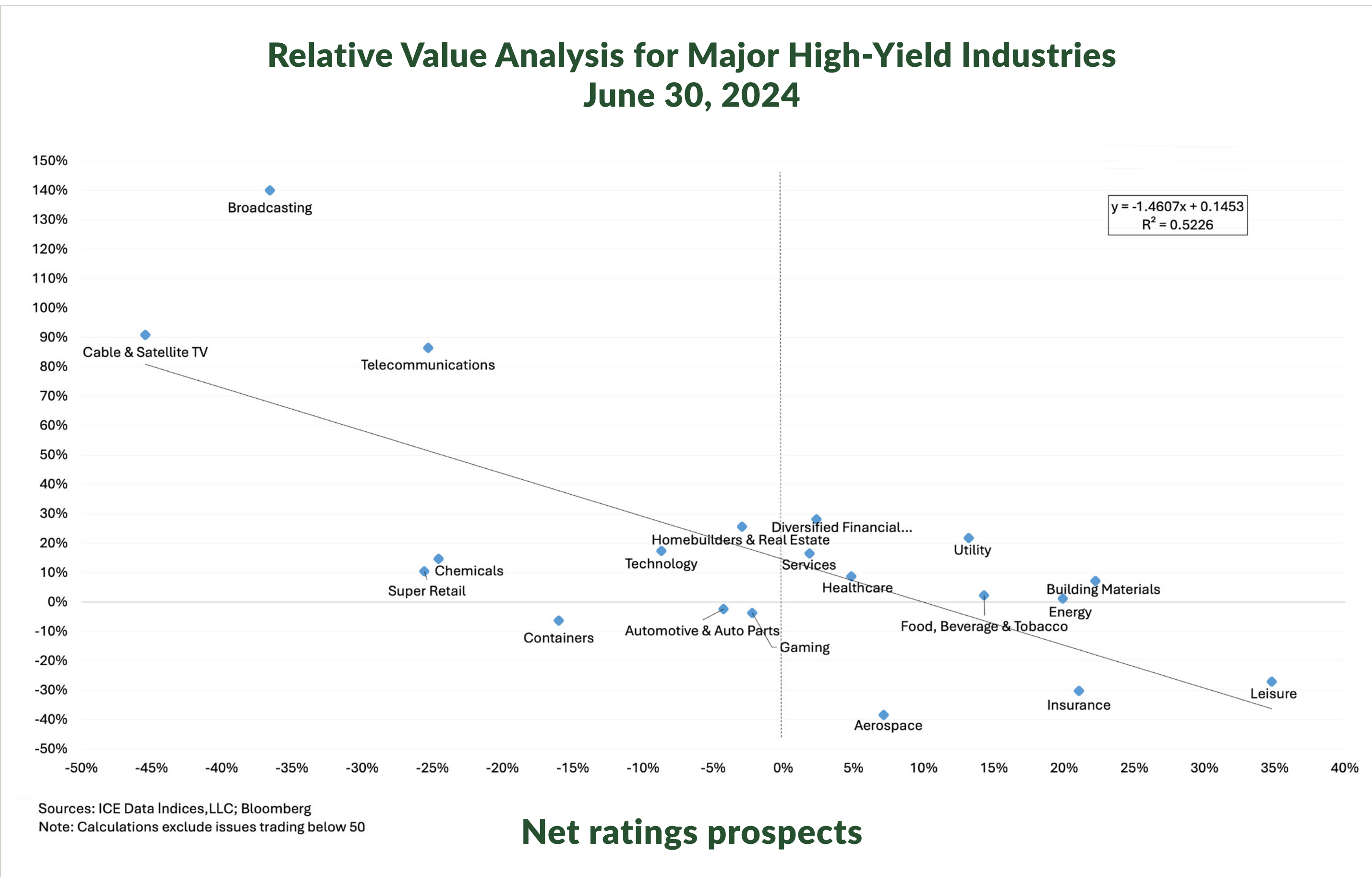
Click here for a fuller description of this model.

On June 30, 2024 the high yield OAS was +321 bps. That exceeded the investment grade index's OAS of +96 bps by only 225 bps. Accordingly, we currently recommend underweighting U.S. high yield debt in portfolios that also invest in U.S. investment grade corporates.

Industry Relative Value

In the graph below we plot each industry on the vertical scale according to the percentage by which its Equalized Ratings Mix-based OAS exceeds or falls short of the peer group average. On the horizontal scale we plot industries by their Net Ratings Prospects. (Each issue within the industry subindex has ratings outlooks or watchlistings of Positive, Stable, or Negative from some or all of the following agencies—Moody's, Standard & Poor's, and Fitch Ratings.) Coordinates for all industries appear in the table shown further down.

Click here for a fuller description of this model.



Major high-yield industries ranked by relative value June 2024

Industry	Symbol	Actual minus estimated spread as % of estimated	Net ratings prospects
Broadcasting	BR	140.05%	-36.59%
Cable & Satellite TV	CV	90.88%	-45.45%
Telecommunications	TC	86.51%	-25.30%
Diversified Financial Services	FI	28.17%	2.36%
Homebuilders & Real Estate	HB	25.69%	-2.94%
Utility	EL	21.77%	13.21%
Technology	TY	17.38%	-8.70%
Services	SE	16.55%	1.87%
Chemicals	CH	14.75%	-24.56%
Super Retail	SR	10.48%	-25.58%
Healthcare	HL	8.73%	4.84%
Building Materials	BL	7.15%	22.22%
Food, Beverage & Tobacco	FO	2.29%	14.29%
Energy	EN	1.16%	19.91%
Automotive & Auto Parts	AU	-2.32%	-4.26%
Gaming	AG	-3.66%	-2.22%
Containers	CT	-6.31%	-16.00%
Leisure	LE	-27.08%	34.78%
Insurance	IN	-30.19%	21.05%
Aerospace	AE	-38.40%	7.14%

Note: Calculations exclude issues priced below 50

Sources: ICE Data Indices,LLC; Bloomberg

Industries located above (below) the diagonal line are cheap (rich) on a rating-for-rating basis, taking into account their net ratings prospects. The most attractive positioning is in the northeast quadrant, indicating that an industry is cheap on a rating-for-rating basis even though the ratings agencies indicate that its ratings are likely to improve on balance. There are currently seven industries in that space, an unusually high number that likely indicates exceptional caution regarding credit risk on the part of high yield investors. Those seven are Building Materials; Diversified Financial Services; Energy; Food, Beverage & Tobacco; Healthcare; Services; and Utility. The population has also increased in the southwest quadrant, meaning that an industry is expensive on a rating-for-rating basis even though the rating agencies indicate that its ratings are likely to decline on balance. Continuing from last month in this less desirable location is the Containers industry. New to the southwest quadrant are Automotive & Auto Parts and Gaming.

Also cheap within the peer group, although not in the coveted northeast quadrant, are industries appearing above the diagonal line. (Twelve industries are currently above the diagonal and eight are below it.) At the extreme, Cable & Satellite TV has exceptionally negative net ratings prospects, but our analysis indicates that market spreads more than compensate investors for that disadvantage. Leisure, meanwhile, is expensive relative to its ratings, but its highly positive net ratings prospects more than justify that valuation.

Maturity Bucket Opportunities

We compare current option-adjusted spread differentials among the 1-3, 3-5, 5-7, and 7-10 year sectors of the ICE BofA US Cash Pay High Yield Index with their historical averages and recommend reallocation trades based on divergences of one standard deviation or more from their historical means. Portfolio managers can also look for security-level trades that exploit large divergences from historical norms. For example, the manager might swap out of a bond with a maturity in a relatively rich bucket into a pari passu bond of the same issuer with a maturity in a relatively cheap bucket.

The present output for this analysis is contained in the following three tables:

Exhibit 1
June 30, 2024 Spread Between Maturity Buckets
(Basis Points)

30-Jun-24

Horizontal Scale Value Minus Vertical Scale Value

Years ↓→	1 to 3	3 to 5	5 to 7	7 to 10
1 to 3	x	x	x	x
3 to 5	34	x	x	x
5 to 7	52	18	x	x
7 to 10	126	92	74	x

Source: ICE Indices, LLC

Exhibit 2
June 30, 2024 Spread versus Historical Mean
(Basis Points)

Horizontal Scale Value Minus Vertical Scale Value

Years ↓→	1 to 3	3 to 5	5 to 7	7 to 10
1 to 3	x	x	x	x
3 to 5	44	x	x	x
5 to 7	32	-13	x	x
7 to 10	65	21	33	x

Source: ICE Indices, LLC

Exhibit 3
June 30, 3024 Spread versus Historical Mean
(Standard Deviations)

Horizontal Scale Value Minus Vertical Scale Value				
Years ↓→	**1 to 3**	**3 to 5**	**5 to 7**	**7 to 10**
1 to 3	x	x	x	x
3 to 5	0.30	x	x	x
5 to 7	0.18	-0.22	x	x
7 to 10	0.32	0.25	0.65	x

Source: ICE Indices, LLC

At present, no maturity bucket is out of line with another by one standard deviation or more. Accordingly, we currently recommend no maturity-based reallocation trades.

It is likely, however, that attractive opportunities will arise in the not-too-distant future. On August 31, 2022, the 3-5 year bucket outyielded the 7-10 year bucket by 155 bps (9.02% versus 7.47%). That spread was 1.48 standard deviations greater than the historical average of 84 bps. Subsequent returns vindicated the conclusion that portfolio managers would have derived from this analysis, namely, that trades from 7-10 year maturities to 3-5 year maturities were attractive. Over the next 12 months, the 3-5 year high yield index returned 6.91%, beating the 7-10 year index's 5.68% by 123 bps.

Market-Implied Default Rate

Using the methodology described above in "Distressed Debt's Attractiveness" we calculate a 3.9% one-year market-implied percentage-of-issuers default rate forecast for U.S. speculative grade bonds.

Undervalued Bonds

Our Undervalued Bond Model identifies non-distressed bonds within the ICE BofA US High Yield Index that are cheaply valued and therefore have a high probability of outperforming the ICE BofA US High Yield Index. The details of our financial-data-driven Undervalued Bond Model are proprietary. Note, however, that past returns for periods detailed here on bonds selected by our methodology, have received attestation by the institutionally recognized boutique performance measurement consulting and GIPS® standards specialist firm TSG (also known as The Spaulding Group). Each month we highlight a few currently cheap bonds. Subscribers can view the full current list at www.fridson.com. The list includes issues with actual spreads that most exceed their model-estimated fair values spreads.

Click here for a fuller description of this model.

The most heavily represented industry in the current list of undervalued bonds is Financial Services (19 bonds), displacing last month's leader, Media. Once again in second place is Real Estate, now with 15 bonds, down one bond from May.

Cheapest of the cheap within each broad rating category, shown with Composite Rating and OAS (in basis points) are:

Scripps Escrow I 3-3/8% 1/15/29	BB3	+850
AMC Networks 4-1/4% 2/15/29	B3	+963
CommScope Holdings 6% 3/1/26	CCC1	+969

Our Cheap list does ***not*** include only beaten-up bonds with exceptionally wide spreads. The list also includes, among others with modest spreads, this one, with an OAS smaller than the ICE BofA US High Yield Index's +321 bps:

Alliance Resource Operating Partners 8-5/8% 6/15/29	BB3	+311

FridsonVision High Yield Strategy

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