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SKY HARBOR
CAPITAL MANAGEMENT

# SKY Harbor Weekly Briefing

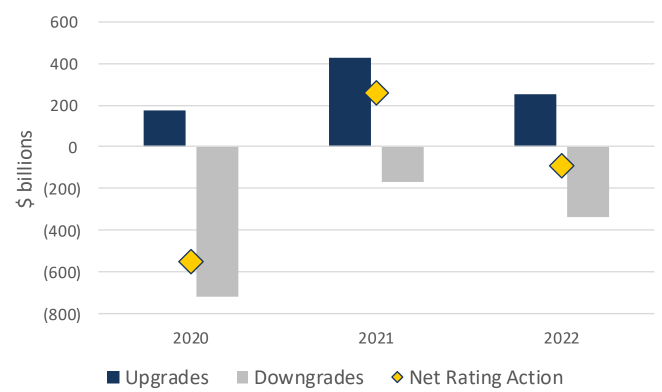
## SKYView: Beware the Downgrade Wave

A mixed set of economic datapoints continued to trickle in over the last week, providing the market little in the way of net new information to break the stalemate between modest recession and modest expansion camps. We remain convinced, however, that earnings growth expectations will come down in the coming months, as quarterly investor calls and subsequent updates on guidance potentially provide a catalyst for moderation. Though we continue to believe that such headwinds will be manageable for high yield issuers in aggregate, we expect an uptick in rating agency activity as earnings season progresses. With that in mind, we focus this *Weekly Briefing* on the impact downgrades may have on the pricing of market risk, introducing a new internally generated projection model in the process.

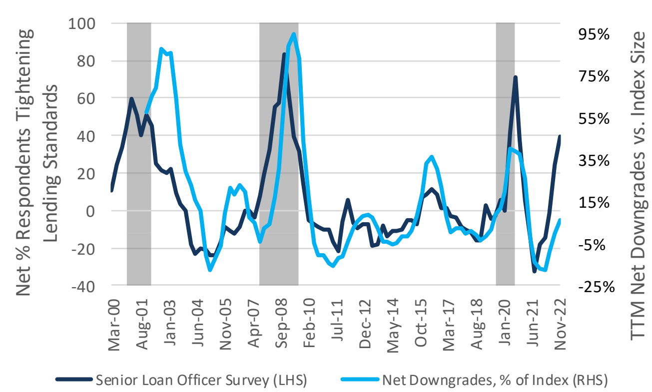
### Downgrades Already Outpacing Upgrades

On average, in any rolling 12-month period since January 2000, we estimate that at least 1/3 of the high yield index (by face value) is impacted by a rating change. **While both upgrades and downgrades occur across all phases of the business cycle, they do tend to skew in accordance with the economic outlook**. As demonstrated below, rating action was prevalent in a COVID-impacted 2020, with downgrades (over $700bn) outnumbering upgrades (less than $200bn) by a healthy margin. Strong earnings growth and balance sheet repair led to a partial reversal of that dynamic in 2021, while 2022 proved more balanced. Perhaps a better way to view rating activity is on a net basis, normalized by the size of the high yield index. For example, downgrades outnumbered upgrades in 2020 by nearly $550bn, or 37% of the index by face value. A rolling time series is provided below (right side), demonstrating the tendency for migration rates to favor downgrades in times of stress, with a high degree of overall correlation to bank lending standards.

**Rating Activity Likely Skewed to Downside in '23**
annual data, face value




**Tighter Lending Standards Correlate to Net Downgrades**
annual data, face value

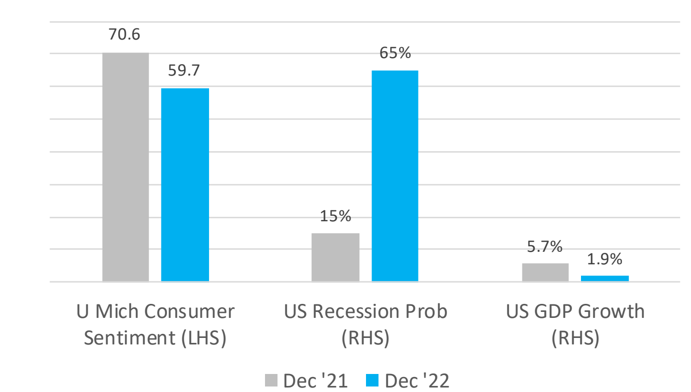



Source: SKY Harbor, BofA Merrill Lynch, Moody's, Federal Reserve

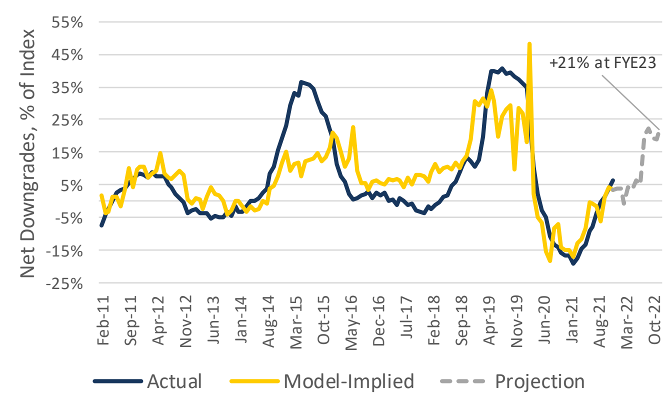
### A Rating Migration Rate Model

So, what can we expect in the coming year? Leveraging a database of key economic indicators, fundamental credit ratios, and various high yield and ancillary asset class index metrics, we created a multi-variable regression model to project credit rating migration rates (a rolling 12-month measure of downgrades vs. upgrades relative to index size, with positive rates indicating a greater proliferation of downgrades). **Due, in large part, to falling consumer sentiment, a higher probability of recession, weakening GDP growth prospects, and partially offset by low (though perhaps rising) unemployment rates and gross leverage ratios, the model projects a 21% net downgrade rate in 2023**. In absolute terms, this translates into downgrades outpacing upgrades by nearly $300bn (above the 13% average over the last two decades, but half of the relative downgrade pressure in 2020).

**Key Economic Indicators Have Softened…**
monthly data, since 2011




**…Moving Our Migration Model Into Net Downgrade Territory**
monthly data, since 2011




Source: SKY Harbor, BofA Merrill Lynch, Univ. of Michigan, Bloomberg Economics, Bureau of Economic Analysis, ICE Data Indices, Bureau of Labor Statistics

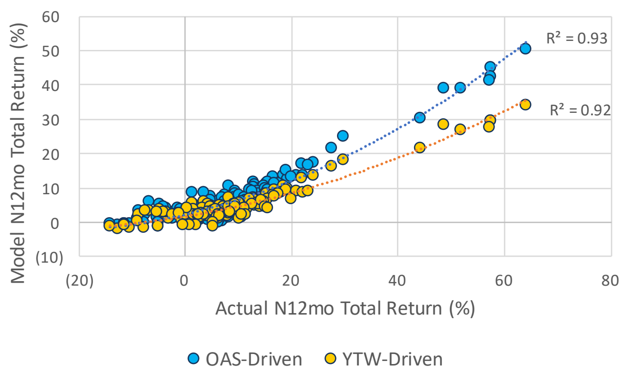
## A Completely Average Year

To put expected downgrades into proper context, we first need to generate an estimate of index total returns in 2023. Acknowledging that a debate over the proper methodology and appropriate model inputs for generating total return expectations could occupy the next two dozen *Weekly Briefing* topics, we will streamline the process by using perhaps the simplest approach – starting spread and yield levels. As demonstrated below, the option-adjusted spread and average yield-to-worst levels of the ICE BofA US High Yield Index (H0A0) at the beginning of the year were 481 bps and 9.0%, respectively. **Historically, those levels would coincide with subsequent 12-month total returns of +4% to +9%, or a midpoint of +6.5%** (coincidentally, +6.5% is nearly identical to the average annual index return over the last 25 years, though we expect little else this year to be average).

### Starting OAS and YTW Levels Historically a Good Proxy for Next 12 Month Total Returns

monthly data; OAS and YTW levels in table are as of the start of 2023

| | Starting OAS (bps) | Model N12 Tot Ret (%) | Starting YTW (%) | Model N12 Tot Ret (%) |
|---|---|---|---|---|
| **HY Index (H0A0)** | **481** | **4.6** | **9.0** | **8.6** |
| BB Index (H0A1) | 308 | 4.7 | 7.3 | 8.8 |
| B Index (H0A2) | 515 | 5.2 | 9.3 | 7.9 |
| CCC Index (H0A3) | 1,170 | 9.8 | 15.7 | 12.9 |
| Est. '23 HY Index Total Return Range --> | + 4% to + 9% | | | |
| Midpoint of Range --> | + 6.5% | | | |




Source: SKY Harbor, ICE Data Indices

## The Importance of Selection

With our projection of net downgrade rates in hand, we next attempt to gauge the impact this group may have on return generation. First, we note a few assumptions to be aware of (and highlight that the following analysis employs a number of estimates and an over-simplification of dynamics that are likely to contribute to actual performance):

- Downgrades occur uniformly across all rating buckets
- Downgrades are not already fully reflected in current bond prices
- Default candidates in the coming year will likely be downgraded beforehand, so we net out the impact of defaults from our downgrade loss projection
- Spread widening of a downgrade candidate is commensurate with convergence to comps rated one to three notches lower
- Ending price of a downgrade candidate is a function of aforementioned spread widening in the context of average cohort starting price and duration

**A 21.7% net downgrade migration rate (or, 17.2% after excluding a 4.5% projected default rate), concurrent with our price decline estimate stemming from a bond re-rating, equates to ~ 115 bps of return downside in the coming year**. This, coupled with our default loss estimate, implies nearly 300 bps of total return at stake when it comes to avoiding credit hits. As such, whether in the context of average annual total returns (6% to 8%, which includes the historical impact from defaults and net downgrades) or the starting yield-to-worst level at present (8% to 9%, which does not), the value of selection will be of the utmost importance this year. For added context, high yield index returns in 2017 were similar to expected total return and starting YTW levels at present (+7.48%). **In that year, we estimate[1] the difference separating 25th and 75th percentile active managers was ~ 311 bps**.

### Default & Downgrade Losses Appear Material Relative to Total Return Outlook

SKY Harbor estimates; data rounded for simplicity

| | BB | B | CCC | Index |
|---|---|---|---|---|
| % of Index (face value) | 49% | 38% | 13% | 100% |
| Est. Default Rate | 0.7% | 4.0% | 20.0% | 4.5% |
| *Default Target Characteristics* | | | | |
| Est. Universe Price | 64.0 | 58.0 | 40.0 | |
| Est. Recovery | 40.0 | 35.0 | 25.0 | 35 |
| Est. Default Loss (bps) | 24 | 159 | 750 | |
| **Est. Contribution to Index Default Loss (bps)** | | | | **~ 175 bps** |

| | BB | B | CCC | Index |
|---|---|---|---|---|
| % of Index (face value) | 49% | 38% | 13% | 100% |
| Net Downgrade Rate | 21.7% | 21.7% | 21.7% | 21.7% |
| Rating Bucket Default Rate | 0.7% | 4.0% | 20.0% | 4.5% |
| Non-Default Downgrade Rate | 21.0% | 17.7% | 1.7% | 17.2% |
| *Downgrade Target Characteristics* | | | | |
| Est. Starting Price | 86.1 | 84.3 | 56.5 | |
| Est. Ending Price* | 80.5 | 79.3 | 32.6 | |
| Est. Downgrade Loss (bps) | 138 | 106 | 70 | |
| **Est. Contribution to Index Downgrade Loss (bps)** | | | | **~ 115 bps** |

*Assumed average price correction to widen toward OAS commensurate with downwardly revised rating
Source: SKY Harbor, ICE Data Indices

## A Credit Picking Year

Though investors are divided on the prospects of a recession in '23, output growth is expected to be modest, at best. In the face of continued inflation and strong FY22 volumes, this dynamic likely leads to negative EBITDA growth in the near to intermediate term. As such, we envision downgrades outpacing upgrades in the next few quarters as rating agencies react to a changing market backdrop. Though we continue to expect a '23 default rate (4.5%) below typical recessionary levels (8%+), potential credit + downgrade losses will likely be material relative to ultimate total returns. As such, avoiding negative surprises will likely be paramount when it comes to generating outperformance this year.

[1] Based on a custom peer group of high yield managers in the eVestment database

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