Credit Benchmark®

VIX, Credit Spreads and Consensus Credit Risk

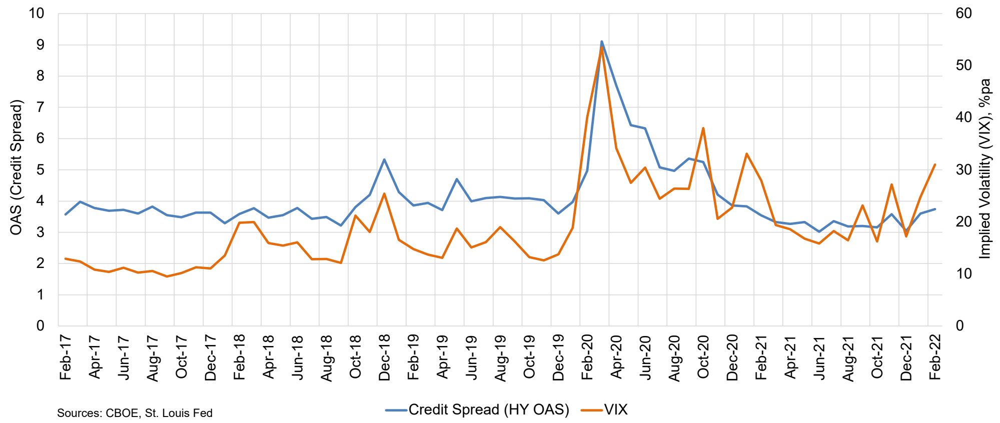
February 2022

With East-West tensions running high and interest rates at an inflection point, market risk indicators are increasingly important. Equity markets focus on the VIX volatility index, bond markets on credit spreads. These measures are linked: equity market volatility is a classic model input for credit risk estimates. Rising share price volatility implies higher default risk in the Merton framework, so it should not be surprising if credit spreads show positive correlation with the VIX.

Option-based equity volatility is, however, only a proxy for company asset volatility; credit spreads may spike because of an increase in the credit risk premium, rather than an increase in the real-world probability of default. And despite some very synchronized spikes during the early phases of the Covid pandemic, these risk metrics still show plenty of scope for short-term divergences. But whether the market measures are correlated or divergent, Credit Benchmark's consensus credit data[1] provides a third datapoint, and a direct read on the real-world probability of default, independent of short-term noise in the equity and bond markets.

Figure 1 plots monthly time series for the VIX index ("VIX") and the High Yield option-adjusted credit spread ("HY spreads") since 2017; Figure 2 shows credit consensus metrics for the same period. The bars in Figure 2 plot changes in median default risk (from a universe of 800+ industry/sector aggregates), and the line shows interquartile range ("IQR"). The latter measures sector risk divergence using the 25th and 75th percentiles of credit risk changes across the aggregate universe.

Figure 1: VIX and Credit Spreads

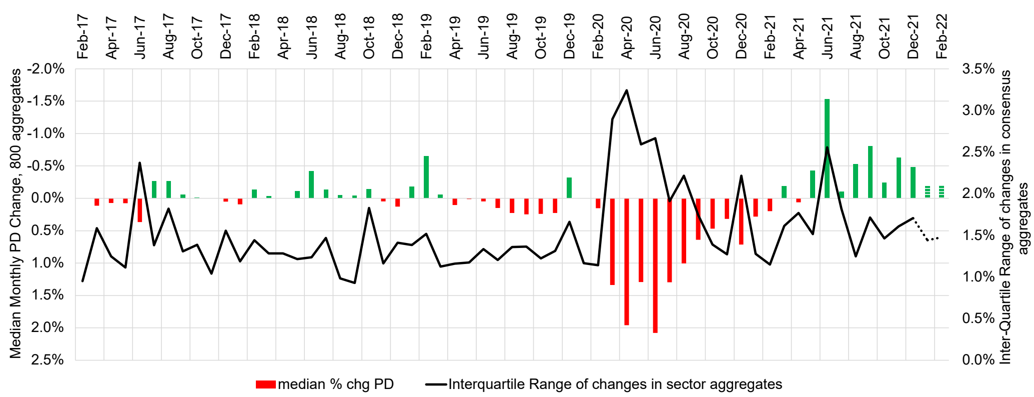


Both metrics show small spikes in Q4 2018, and again in Q2 2019.

The Covid outbreak pushed both indicators to near-record highs and both have more than halved since then.

The VIX entered a rather erratic uptrend from mid-2021 onwards, and HY spreads have also recently been climbing.

Figure 2: Consensus credit risk estimates, across 800+ sector aggregates.



The IQR often spikes at the same time as the VIX and the HY spread, and the early 2020 Covid spike led to months of rising median default risk.

But the early 2021 risk recovery saw another IQR peak in June. In recent months, like the VIX and the High Yield spread, the range is trending slightly higher.

NB: The last two plotted points are provisional based on contributor flash updates.

1*The consensus forward-looking credit views of major financial institutions covering more than 30,000 corporate and financial counterparts.

The interquartile range is one of a family of indicators that may anticipate shifts in real world credit risk estimates. Crucially, it can spike when either positive or negative changes in default risk are on the horizon. When assessed against the VIX and credit spreads, it can confirm or deny the current market view, or alert investors to credit portfolio and default risk changes – positive and negative – that may not yet be picked up by the usual market metrics.

At a time when the global economy is grappling with supply chain problems, Fed tapering and international tension, current data show all three measures heading higher. The market price of risk may be rising, but it looks like major financial institutions see current problems translating directly into higher default rates.

Volatility is usually measured by the standard deviation family of metrics, mainly because of their tractability for option calculations and parametric VAR estimates. However, percentile-based metrics have the advantage that they are non-parametric and naturally include any asymmetry (ie skewness); They can also be used to compare different points on the distribution of credit risk changes (such as comparing the 95th percentile with the 50th).

As long as robust aggregates are available, any volatility or range based metric can be applied to specific regions or countries, or in global subsets of the aggregate universe that focus on one industry, sector, or credit portfolio. The data reviewed here suggest that it can also anticipate credit risk changes in loans and assets where VIX or spread metrics are unavailable.

The data used in these calculations can also be used to assess the cross-sectional correlation between credit risk changes from one time period to another. For example, if the monthly cross section correlation has been high and positive for several months, and then turns negative, it indicates that the pattern of credit risk is changing – with risk dropping after a spike in some sectors, and vice-versa in others. In effect it signals the end of a period of one-way trending in sector credit risk estimates.

About Credit Benchmark

Credit Benchmark brings together internal credit risk views from 40+ of the world's leading financial institutions. The contributions are anonymized, aggregated, and published in the form of entity-level Credit Consensus Ratings (CCRs) and aggregate analytics to provide an independent, real-world perspective of risk. CCRs are available for 60,000 financials, corporate, funds, and sovereign entities globally across emerging and developed markets, and 90% of the entities covered are otherwise unrated.

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Credit Benchmark®

Credit Consensus Ratings and Analytics

Real-world risk views with unparalleled consensus coverage.

Credit Benchmark provides Credit Consensus Ratings and Analytics based on contributed risk views from 40+ of the world's leading financial institutions, including 15 GSIBs, domiciled in the US, Continental Europe, Switzerland, UK, Japan, Canada, Australia and South Africa.

For regulatory and business reasons, these financial institutions have each created their own regulated internal credit rating agency to assess the creditworthiness of tens of thousands of obligors. Credit Benchmark collects, aggregates and anonymises this information to provide an independent, real-world perspective of risk, delivered twice monthly to our partners.

Credit Benchmark fills an information gap left open by traditional credit risk content providers by offering a timely, comprehensive view of credit risk which proves complementary to issuer-paid rating agencies and third party model vendors. The first of its kind "credit consensus" data reflects the expertise of more than 20,000 credit analysts across the contributing group – a powerful example of the wisdom of crowds.

Credit Consensus Ratings and Analytics are available on over 60,000 corporate, financial, fund and sovereign entities globally, most of which are unrated by credit rating agencies.

Data that works for you

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- **Securities Finance**
- **Supply Chain Risk**
- **Trade Credit Insurance**
- **Fund Management**
- **Regulation, RWA & Capital**
- **Onboarding, KYC & Relationship Management**
- **Point-in-Time (PIT) Impairments**
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60,000+
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Aggregates

100+
Countries

75+
Months of Data

50+
Data Metrics

40+
Contributing Financial Institutions Representing a Pool of 20,000+ Credit Analysts

Real-world risk views with unparalleled consensus coverage

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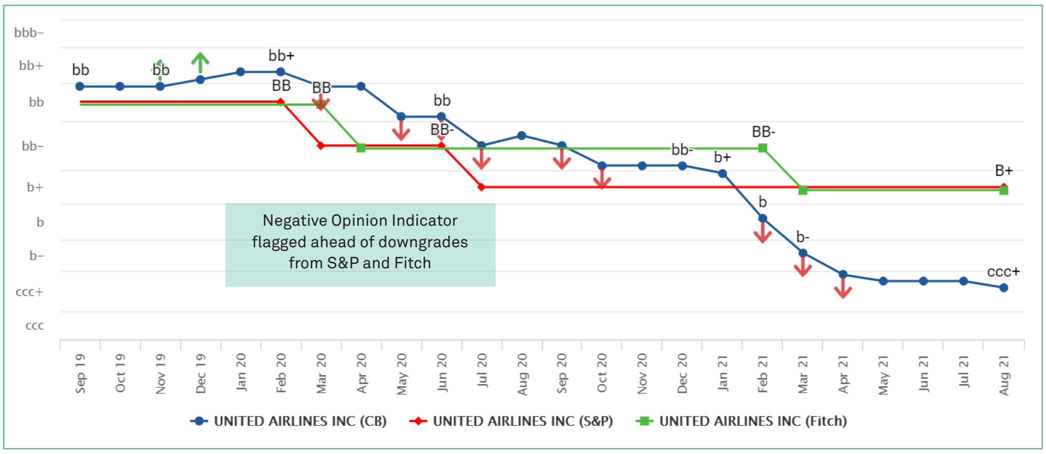
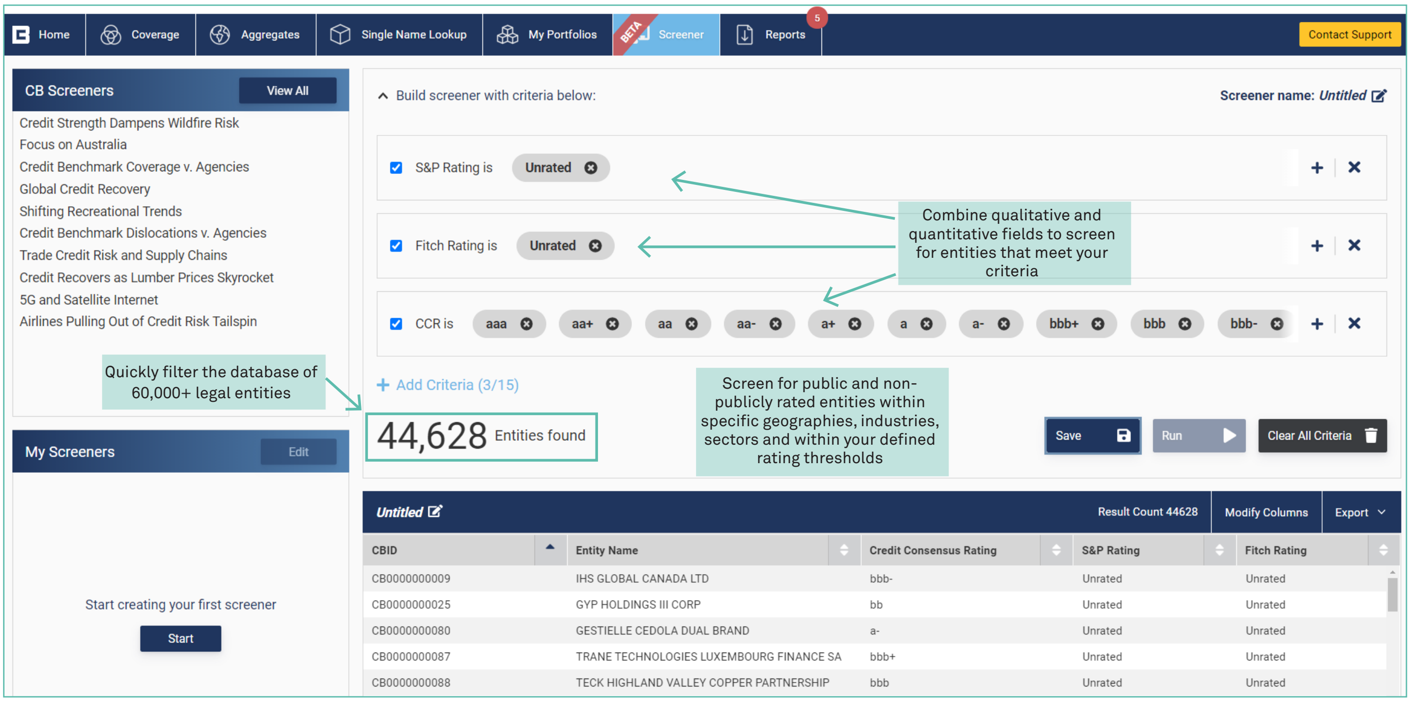


Credit Benchmark Web App: Entity-Level Data Sample

Credit Consensus Rating: Unique measure of creditworthiness based on the views of 40+ leading global financial institutions

Consensus Analytics: Insights into the depth, dispersion, movement, and directionality of the Credit Consensus Rating's underlying views

Opinion Indicator: Month over month observation-level net downgrades or upgrades



Credit Benchmark Web App: Data Screen Sample

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