Anticipate the Unknown

Insights to Turn Market Risks into Business Opportunities

The big question for many organizations at the start of 2022 was how quickly world economies would recover from the COVID-19 pandemic. However, Russia's invasion of Ukraine in February of that year swiftly turned attention to a host of new macroeconomic challenges, including historically high inflation rates, additional supply chain disruptions, and concerns about energy security. In 2023, these market upheavals continue to create headwinds for rated and unrated, public and private entities alike.

Current conditions are especially painful for small- and medium-sized enterprises (SMEs) that were already strained by prolonged shutdowns and depressed demand from the pandemic. These firms account for approximately 90% of global businesses and more than 50% of employment worldwide, and the World Bank says they play a major role in most economies.[1] Tracking their financial stability has become more important than ever.

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[1] "SMEs Finance", The World Bank, 2017, www.worldbank.org/en/topic/smefinance.

A Trying Year Ahead

According to S&P Global Ratings,[2] strains on credit in 2023 leave little room for error. Many governments grew their debt during the pandemic and, as a result, have limited fiscal capacity to spend their way through this turn in the cycle. This means that credit pressures are likely to intensify in the near term. While there could be a stabilization of financing conditions in the latter half of the year, uncertainty remains high, with the Russia-Ukraine war and its implications for energy markets breeding the unknown.

Other Trends Add Complexity

Adding to market volatility is the increasing importance of sustainability and climate risk. Analysis shows that heatwaves, wildfires, water stress, hurricanes, and droughts present high risk to over 40% of the world's largest companies, while up to 23% of company profits are vulnerable to regional carbon pricing policies aimed at minimizing climate change impacts.[3] These issues can no longer be ignored, especially as mandatory disclosure and reporting of sustainability issues takes hold around the world.

Automation and digital strategies must also be considered as companies aggressively look for new ways to increase operational efficiencies and gain a competitive edge. The complex and rapidly changing digital ecosystem both complements and disrupts financial markets, with a wide range of operational, product, and credit implications for market participants.

Given this backdrop, how do firms anticipate what lies ahead and develop strategies to protect and possibly grow their businesses? This report looks at three important realities surrounding credit and provides insight into how businesses can turn these market risks into opportunities:

    I.   Market volatility: **The difference between risk and opportunity is perspective.**

    II.   Sustainability and climate risk: **Don't just make sustainability progress. Measure it.**

    III.   Automation and digitalization: **Is your intelligence evolving alongside your risk?**

I. Market Volatility. The difference between risk and opportunity is perspective.

In the near term, pressure on credit ratings is expected to intensify as corporate borrowers find it more difficult to pass high input costs through to consumers struggling with rising prices amid recession in some of the world's largest economies.[4] In this uncertain market, financial institutions need to monitor the resilience of portfolio companies and accurately calculate regulatory capital requirements, and corporations need to track the creditworthiness of their counterparties.

Assessing Financial Resilience in an Unstable Market

As market volatility persists, proactive monitoring of quantitative and qualitative risk factors can shed light on rising credit risks and possible investment opportunities. Factors to consider include:

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[2] "Global Credit Outlook 2023: No Easy Way Out", S&P Global Ratings, www.spglobal.com/_assets/documents/ratings/research/101570029.pdf.

[3] "Accelerating Progress on Climate Risk", S&P Global Market Intelligence, April 29, 2020, www.spglobal.com/marketintelligence/en/events/webinars/accelerating-progress-on-climate-risk.

[4] "Global Credit Outlook 2023: No Easy Way Out", S&P Global Ratings, December 1, 2022, www.spglobal.com/_assets/documents/ratings/research/101570029.pdf.

1. **Country risk:** Economic, governance effectiveness, and financial system risk, as well as payment culture or rule of law risk in the countries in which a company operates.

2. **Industry risk:** Industrial cyclicality and competitive risk, barriers to entry, the level and trend of industry profit margins, growth potential, secular change, and possible substitute products.

3. **Business and financial risk:** The degree of disruption caused by declines in demand and cash generation to manage the uncertainty and shock caused by market volatility on revenue, EBITDA, funds from operations, and other financial ratios.

4. **Liquidity:** Longer-term liquidity resources and uses, integrating the latest cash figures and updating assumptions for revenues and capital expenditures (capex), among others.

Applying These Factors to Bed Bath & Beyond

It can be assumed that these factors were top of mind for Bed Bath & Beyond (BB&B) when it was facing bankruptcy at the start of 2023. Using the Probability of Default Market Signals Model (PDMS) available through Credit Analytics, S&P Global Market Intelligence's ("Market intelligence's") suite of credit risk models, it is clear that the initial warning was the divergence between BB&B's market signal probability of default (PD) and that of its peer industry. As shown in Figure 1, this started in early April 2022 and peaked in July 2022 at a one-year PD of 32%. In contrast, the market signal PD remained constant for the home furnishing industry, showing that BB&B's increased PD was due to idiosyncratic risk rather than systematic risk.

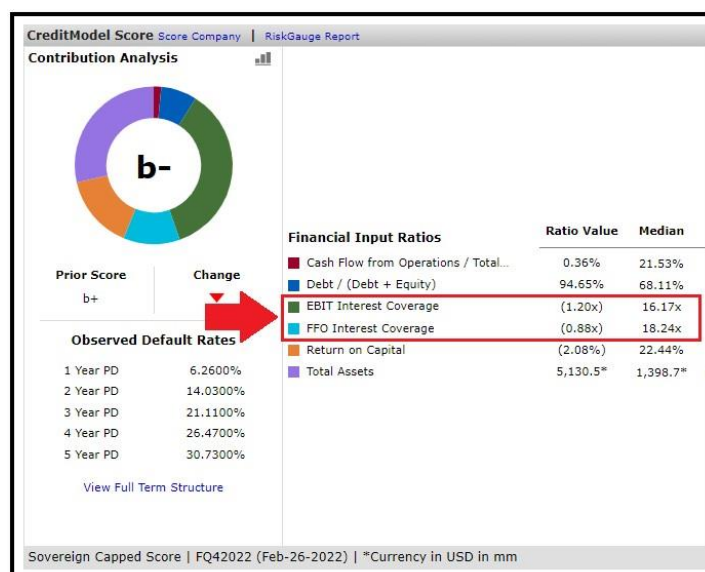**Figure 1: Market Signal PD for BB&B**
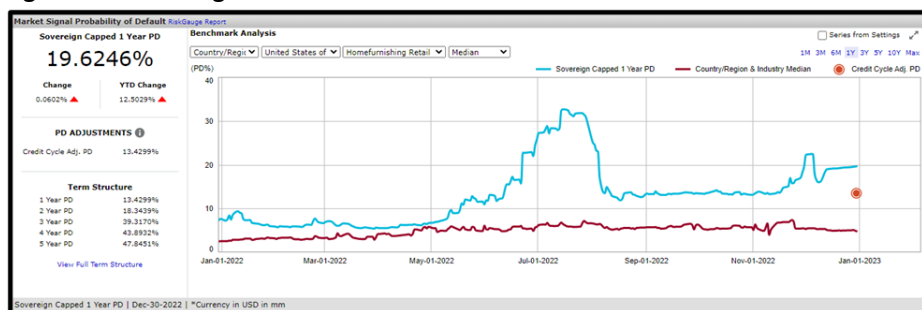
Source: Credit Analytics, S&P Global Market Intelligence. Data as of December 30, 2023. For illustrative purposes.

Looking at CreditModel™, a quantitative statistical model that uses S&P Global credit ratings to produce a lowercase credit score based on a 20-point scale, potential issues for BB&B were signaled as early as February 2022.[5] As shown in Figure 2, the company's EBIT interest coverage ratio fell to -1.2x from 3.76x in November 2021, making it unable to service interest expense obligations. BB&B also experienced negative EBIT in 2020 when the median EBIT and interest coverage remained positive for the industry overall, underscoring company-specific issues.

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[5]S&P Global Ratings does not contribute to or participate in the creation of credit scores generated by S&P Global Market Intelligence. Lowercase nomenclature is used to differentiate S&P Global Market Intelligence PD credit model scores from the credit ratings issued by S&P Global Ratings.

Figure 2: Financial Ratios for BB&B

Source: Credit Analytics, S&P Global Market Intelligence. Data as of December 30, 2023. For illustrative purposes.

BB&B has experienced volatile changes in cash in the past. According to S&P Capital IQ Pro's financial data, the company used all its short-term investments in February 2021, with additional cash burn in later months. This caused short-term liquidity pressures that will make its near-dated bond maturities unserviceable, increasing the likelihood of default without revised terms from creditors.

Evaluating Risk Appetite in Trade Credit

When a company assesses it exposure to counterparties, it is critical to understand its **Risk Appetite** (i.e., the theoretical maximum amount of risk it is willing to accept in pursuit of its strategic goals, such as profit or business growth). The MaxLimit (ML) framework from Market Intelligence helps assess the optimal monetary exposure (or trade credit limits) towards counterparties by tackling the most difficult part of the calculation, which is assessing the Risk Appetite.

ML defines Risk Appetite as the maximum monetary exposure a company is willing to withstand before its own credit score deteriorates by one notch. (e.g., deteriorating from 'bbb' to 'bbb-'), conditioned to the counterparty's risk profile and debt capacity.[6] To assess the Risk Appetite, ML combines the following four steps into a comprehensive framework:

1: Counterparty Debt Capacity

ML calculates a counterparty's credit and liquidity risk profile using financial and non-financial factors, business size, and the risk environment in which it operates, even when there is a lack of financial information. Building the credit risk profile is the first step in assessing the trade debt capacity the counterparty can withstand before downgrading by one notch.

The liquidity risk profile looks at changes in average days payables and quick liquidity ratios for the counterparty's industry. It also incorporates the counterparty's debt environment by analyzing changes in the cost of servicing its short-term debt, embedding corporate bond market information. Besides capturing changes in short-term debt spreads, available inventory and cash is also considered, all of which have proven fundamental in managing monetary exposure during the volatility caused by the pandemic, inflation, and financial market crashes.

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[6]Any notch move, such as a downgrade or upgrade, is referred to as the variation in credit score obtained via RiskGauge.

Step 2: Counterparty Risk Adjustments

ML benchmarks every counterparty's risk profile against its peers and adjusts accordingly, allowing for an adequate assessment relative to the counterparty's business environment. This helps avoid penalizing companies that might operate in riskier regions or industries, but have better credit than their peers. For both credit and liquidity risk profiles, early warning signals are calculated to help identify if there were significant changes in the counterparty's risk profile and business environment in recent periods.

Step 3: User Experience

ML incorporates a proprietary payment experience and internal judgment to reflect company-specific business relationships, which helps risk managers calibrate and manage monetary exposures and understand how different assumptions and conditions might impact the portfolio and Risk Appetite.

Step 4: Risk Appetite

ML combines the three steps described above with the maximum monetary exposure capacity the company itself can withstand before deteriorating materially on its own risk profile (i.e., measured by a one credit score notch deterioration).

This final step is fundamental as it intersects the counterparty's and company's risk dimensions. It thereby optimizes the monetary exposures to adequate levels, conditioned on the risk that surrounds the company.

The exposure capacity and risk profile are calculated through statistical methodologies that combine financial and non-financial factors with the business size and risk environment. Figure 3 shows a sample of the four-part process.

Figure 3: The ML Framework
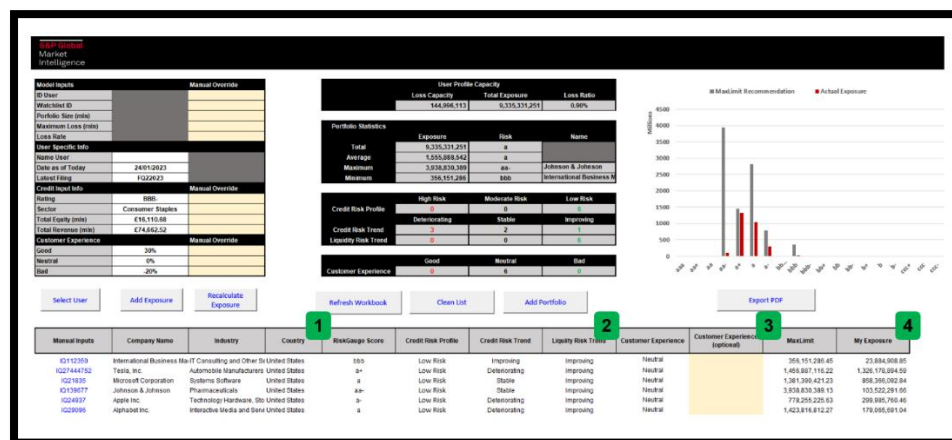
Source: S&P Global Market Intelligence, data as of February 2023. For illustrative purposes only.

Appling ML to the Oil and Gas Industry

Staying on top of trade credit exposure is fundamental for companies to help manage working capital and mitigate liquidity issues. This aspect of supply chain management and treasury operations is even more crucial during periods of market volatility and stressed economic conditions. For example, many companies within the oil and gas industry became insolvent and filed for bankruptcy during the first half of 2020, a time that was characterized by COVID-19 and an oil price war. This period of disruption offers a valuable timeframe to test how ML could perform, helping companies assess their exposures to counterparties and minimize losses in the event of defaults.

The following example looks at the period between January 15, 2020 and June 22, 2020 to assess the recommended maximum exposure for a portfolio of 1,056 public companies in the

U.S. oil and gas industry. Maximum exposure refers to the total amount of all exposures for a customer (i.e., the total of all payment receivables, invoices, bills, and other trade exposures).

The example was developed by: (i) maintaining a constant loss capacity of $1 million USD on the total exposure of the portfolio, which is the maximum loss the supplier can tolerate from the exposure losses, and (ii) using a benchmark for the credit risk assessment that is the median PD of this portfolio calculated using PDMS. As mentioned earlier in this paper, PDMS is a point-in-time credit risk model that dynamically assigns timely flags to anticipate deteriorations in a counterparty's creditworthiness based on market sentiments and uncertainties, enabling companies to quickly take action when conditions worsen. Table 1 summarizes key oil and gas events during the time in question.

Table 1: Key Oil and Gas Industry Events

|	31 Jan. 2020	6 Mar. 2020	9 Mar. 2020	13 Apr. 2020	20 Apr. 2020
Industry Key Events*	China slowdown	OPEC+ disagreement	Saudi Arabia oil price cut	OPEC+ agreement	Oil price drop

* Only the above key events were selected for the purposes of this article.
Source: S&P Global Market Intelligence, August 10, 2020. For illustrative purposes only.

The initial worldwide spread of COVID-19 resulted in a sudden stop to the global economy and the imposition of travel restrictions between and within major oil-consuming countries, triggering a significant drop in global demand for oil. The resulting oversupply led oil markets into a severe supply-demand imbalance entering the second quarter of 2020. While Saudi Arabia and Russia could not initially agree on production cuts, the oil price war between the two countries came to an end on April 13, 2020 when the Organization of the Petroleum Exporting Countries (OPEC), among other oil producing nations, agreed to collectively reduce supply. On April 20, 2020, the market saw the price of oil drop to the lowest value ever recorded.

During the period between January 2020 and May 2020, the credit risk for most companies within the oil and gas industry had risen, the payment behavior at an industry level had slowed, and the size of business had decreased. A series of key events were captured by the ML framework, as shown in Figure 4. The three relevant risk dimensions — credit risk, industry payment behavior, and business size — were considered and embedded in the calculation of the exposure limit.

**Figure 4: ML Exposure for the Portfolio of Oil and Gas Companies**
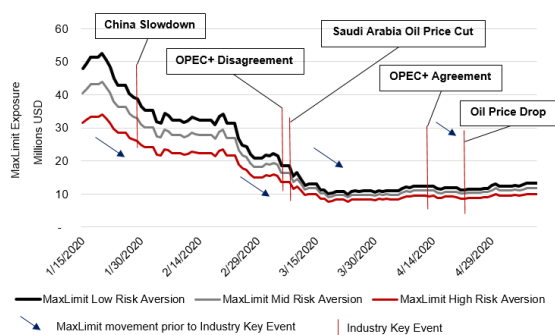
Source: S&P Global Market Intelligence. August 10, 2020. For illustrative purposes only.

Minimizing the Impact of Market Volatility on Capital Requirements

Regulatory capital is an ongoing challenge for most banks, bringing renewed concern among market players of all sizes given today's volatility, which impacts market, counterparty credit, and credit value adjustment (CVA) risks.

The market risk capital framework and counterparty credit risk capital framework cover the hedging of the mark-to-market risk of derivative transactions with other dealers or central counterparties. One of the key aspects that needs to be considered is where banks place these hedges in the different capital frameworks. Previously, the credit hedges were included in the CVA risk capital framework and market risk hedges in the market risk capital framework. That is changing, however. The revisions to the CVA risk capital framework are introducing two new types of risk models: the Basic Approach (BA-CVA) and the Standardized Approach (SA-CVA). Under SA-CVA, market risk hedges are included in the CVA risk capital framework. Banks can address these calculations with the Financial Risk Analytics solutions by Market Intelligence, which can calculate the required measures on large portfolios.

Figure 5: Typical Investment Bank Setup
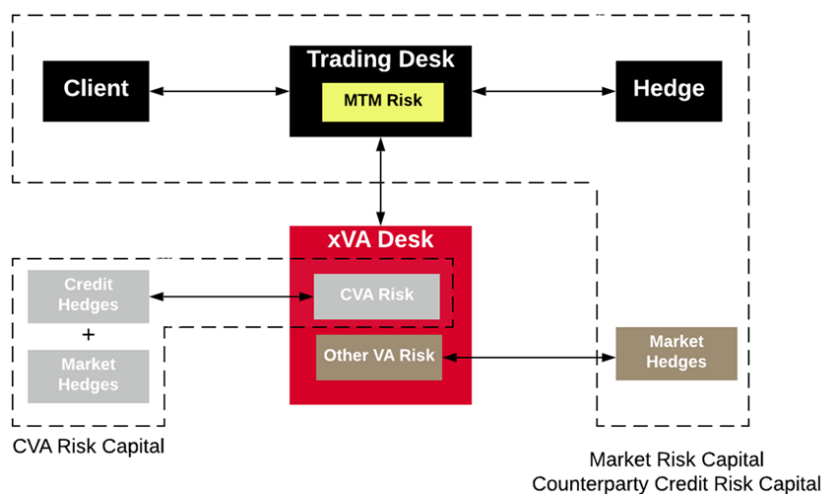
Source: S&P Global Market Intelligence. August 10, 2020. For illustrative purposes only.

Counterparty credit risk capital has been stable for some European banks over the last several years and, compared to market risk capital, was relatively unresponsive to the shocks of COVID-19. This reflects the design of the counterparty credit risk framework, where the risk weight used is dependent on the historical PD, which will not react quickly to market volatility. There are other downgrades that might be considered in an internal ratings-based (IRB) approach to capital requirements for credit risk. In the EU, all banks except for one are internal model method (IMM) approved banks.

The exposure at default is motivated by the simulation of the exposures, but these are also calibrated to historical-looking volatilities, which will not react quickly to current market changes. In addition, their volumes may only be updated quarterly or even semi-annually.

At this stage, there is not a lot of impact on the counterparty credit risk capital. However, it is likely that the PD will be increasing for Russian and Ukraine-based counterparties, with the risk weight changing going forward. In addition, a poorly diversified portfolio is a concern. With high interest rates coupled with inflation, the replacement cost term may increase.

Strategies to Minimize Capital Requirements

One of the strategies banks have been adopting to minimize capital requirements is to have as much of their trading book under the internal model approach (IMA), rather than split it between IMA and SA. Using Financial Risk Analytics, banks can compare the different approaches. The IMA approach provides the largest benefit from diversification across the positions in a trading book. Under the Fundamental Review of the Trading Book (FTRB) capital requirements, however, banks are now looking at different strategies to minimize their capital. They often hedge on a risk factor correlated to the risk exposure factor and, typically, the more risk factors they have that can be modeled, the lower the capital charge. This means that seeking out data pools and information providers is an excellent avenue to explore.

Another way to minimize capital under FRTB is to optimize which trading desks are put on SA versus IMA. This provides a diversification benefit across risk factors, and there is not diversification between the two approaches, creating an efficient frontier.

Under the standardized approach for counterparty credit risk (SA-CCR), it is quite punitive for directional portfolios. If banks can make their portfolios more balanced, they can make capital savings. For the standardized approach in the IMM, improving the strength of credit support annex (CSA) agreements and the quality of the collateral that minimizes the gap risk of collateral over the margin risks can reduce capital requirements.

One of the critical elements is having diversified portfolios and understanding the impact of a trade. An emerging trend is for banks to analyze their capital at deal time, which provides an understanding of the incremental change in the capital due to the deal. It also enables traders to more aggressively go after trades that are capital reducing, or to bypass trades that are not beneficial from a capital standpoint.

Doing a new deal considering SA-CCR, for example, the replacement costs provide a full netting benefit. However, in the potential future exposure (PFE) term, there are regulatory prescribed buckets and correlations between those buckets that dictate the extent to which there are diversification benefits.

For SA-CVA, the capital is calculated using the sensitivities-based approach, and sensitivities of a portfolio must be recalculated with the impact of the new trade. If that is calculated at deal time, it is possible to start quantitatively understanding the benefit of the new trade.

The other element is the total lifetime cost of the capital or the return on capital, which is measured through the CVA calculation. This helps understand not just the change in current capital, but the capital requirements associated with holding that trade to maturity. This calculation requires predicting the future capital requirements at every time step and exposure date within a simulation, requiring an understanding of the future exposure in the portfolio with the new trade, future variation, or initial margin requirements.

As mentioned, CVA is sensitive to market volatility. Banks that have a more accurate view of how CVA is changing due to market volatility can find opportunities by pricing more competitively.

I. **Sustainability and Climate Risk**: Don't just make sustainability progress. Measure it.

Sustainability and climate risk issues are growing in importance for credit risk assessments. The investment community recognizes the real threats they pose to the financial stability of markets, and developments are underway to build accounting standards that will eventually apply across the world for all forms of sustainability and climate risk reporting.

The formal inclusion of environment, social, and governance (ESG) issues in credit risk analysis became a recognized international best practice when the Principles for Responsible Investment (PRI) launched the "ESG in Credit Risk and Ratings Initiative" in 2016. The initiative's aim was to enhance the transparent and systematic integration of ESG factors in the credit assessment process.

Today, there is little doubt that sustainability and climate factors impact credit risk. For example, S&P Global Ratings downgraded multiple oil and gas companies in early 2021 citing "significant challenges and uncertainties engendered by the energy transition, including market declines due to growth of renewables".[7] These factors are therefore high on the agenda for investment and risk management professionals.

Not all ESG factors are important for credit risk. For example, companies producing high levels of carbon emissions to make products with no readily available substitutes (e.g., cement) would not be materially impacted from a credit perspective, even though these companies may be viewed negatively from a sustainability perspective. Thus, only a subset of ESG factors will impact credit assessments.

Climate Scenario Analysis: Embracing Uncertainty with Conviction

Financial regulators across the globe are increasingly looking to identify, assess, and understand how to mitigate climate risks in the financial system. Scenario analysis is employed as a well-established tool to address uncertainties over the future. There are challenges, however, including: the availability and standardization of data; the unconventionally long time horizons involved with climate-related scenarios; the quantification of the financial and credit risk impact of risks and opportunities at an entity level; and, the interplay between physical risk events (e.g., hurricanes and wildfires) and energy-related transition plans.

Another subtler source of uncertainty is model risk and how a chosen analytical approach influences the final results for a given scenario. For energy transition scenarios, model risk stems from the inability to back test these new financial and credit risk implications as corporations progressively invest in and adopt greener technology.

Two analytical tools can be used to quantify the financial and credit risk impact of climate change risks and opportunities: Climate Credit Analytics (CCA) and Climate RiskGauge (CRG). Both models employ a bottom-up approach, linking climate scenario variables to key drivers that impact firms' financial performance and credit risk profiles.

- **CCA** is a suite of sector-specific quantitative models built in conjunction with Oliver Wyman[8] that combine company financials, industry-specific granular data, and financial risk modelling to project full financial statements. Users have the ability to alter and simulate multiple combinations of future company behaviors to 2050 (e.g., Will a company buy back its shares?)

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[7]"S&P Global Ratings Takes Multiple Rating Actions On Major Oil And Gas Companies To Factor In Greater Industry Risks", January 26, 2021, https://press.spglobal.com/2021-01-26-S-P-Global-Ratings-Takes-Multiple-Rating-Actions-On-Major-Oil-And-Gas-Companies-To-Factor-In-Greater-Industry-Risks.
[8] Oliver Wyman is a third-party consulting firm and is not affiliated with S&P Global or any of its divisions.

- **CRG** focuses on the climate change implications of firms' projected carbon emissions, costs, revenues, earnings, and liabilities and translates them into a final credit risk impact over the chosen time horizon. The offering provides the ability to simulate multiple company responses (e.g., Will companies carry on with business as usual despite a carbon tax increase?)

Both models incorporate the Network for Greening the Financial System (NGFS) energy transition scenarios that can be used to benchmark results obtained on the same set of companies, when possible, and explore the uncertainty introduced by model risk. Figure 6 shows the credit risk impact modelled via CCA and CRG to 2050 for an anonymized set of airline companies and a select NGFS scenario ("Current Policies"). While the outputs of both models align directionally across this portfolio, the credit score changes differ significantly for individual companies (e.g., company 35 or 63).

Figure 6: Credit Risk Implications of the "Current Policies" NGFS Scenario by 2050 for CRG and CCA
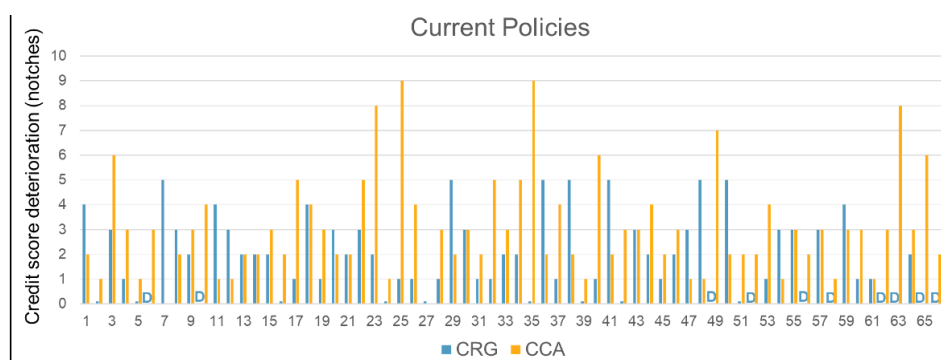
Source: S&P Global Market Intelligence. For illustrative purposes only. Sample includes 66 anonymized airline companies as of August 31, 2022. Impact is calculated on 2019 financial-year statements to remove the COVID 19 effect and does not account for physical risk losses. "D" stands for technical default (i.e., when the company's future implied market capitalization falls to zero).

Model risk plays a critical role and is driven by: the underlying bottom-up approach selected to translate the energy transition scenarios into a full or essential financial impact; the number of assumptions made in simulating a company's financial strategy to 2050; and, the robustness of the underlying data needed to run either model. In this instance, it would be erroneous to take the average of the two outputs. A more solid analytical approach would be to build a two-dimensional matrix, as shown in Figure 7, and partition it into four quadrants based on a user's risk appetite.

Figure 7: Model Risk Matrix (includes count of companies with credit score change (notches) modelled by CCA or CRG over the Current Policies NGFS scenario to 2050)

Source: S&P Global Market Intelligence. For illustrative purposes only. Sample includes 66 anonymized airline companies as of August 31, 2022.

For the companies falling into the amber quadrants, an in-depth review could be warranted. Things worth considering could include:

— **Data:** Does the underlying data used in each model represent good coverage? Are data gaps filled with peer-group averages that wash out important company-specific characteristics?

— **Assumptions:** Are a company's financial decisions used in the model going to hold, especially over very long-time horizons, or are a simpler set of assumptions needed?

— **Financial and credit risk impact:** Does the financial impact align to a user's expert judgement, or does it show clear inconsistencies that suggest the presence of a butterfly effect (i.e., the compounding impact of small changes)?

An additional step to address these issues would be to refine the structure of the matrix.

Evaluating the Medium- to Long-Term Impact of Transition and Physical Risks on Credit Quality

Given the extended time horizons needed to evaluate the implications of climate change, assessing long-term customer and supplier relationships correctly requires the use of suitable medium- and long-term scenarios. These scenarios can help capture the capital investments needed to reduce polluting emissions, any increase in carbon taxes that have been implemented, and the cost of asset depreciation or damages caused by physical events. Together, these factors can have a profound impact on customers' and suppliers' profitability and credit risk.

In this example, CCA is used to assess the impact of climate issues on a current credit risk score (i.e., upgrade, downgrade, or no change). Figure 8 shows the credit risk implications of an orderly (O) and disorderly (D) energy-transition by 2050 for two NGFS scenarios (i.e., Net Zero 2050 and Divergent Net Zero), calculated for companies operating in five major carbon-intensive sectors. As can be expected, a disorderly transition will have more severe financial implications and credit risk implications than an orderly transition, particularly for the oil and gas sector. However, the orderly transition will also pose significant challenges that need to be carefully managed to avoid increased credit risk crystallizing into actual defaults. On a positive note, an orderly transition will also offer opportunities for companies to improve their financial performance and credit risk profile, as can be inferred by the larger number of upgraded credit scores for this scenario.

Figure 8: Credit Risk Implications of the Net Zero 2050 (O) and Divergent Net Zero (D) NGFS Transition Scenarios, by 2050
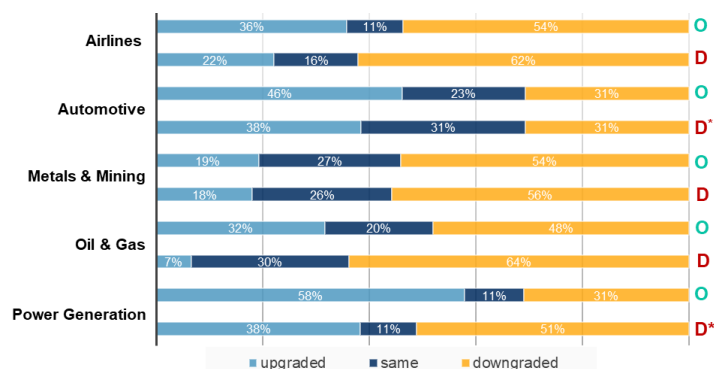
Source: S&P Global Market Intelligence. For illustrative purposes only. Sample includes 95 airline, 1,290 power generation, 3,800 oil and gas, 410 metals and mining, and 13 automobile producing companies as of October 31, 2021. Impact is calculated on 2019 financial year statements, to remove COVID 19 impact, and does not account for physical risk effects.
*Static response.

III. Automation and Digitalization: Is your intelligence evolving alongside your risk?

Digitally driven enterprises are investing in intelligent process-discovery and automation technologies to enable greater levels of collaboration and productivity, and to empower professionals with resources to work smarter together to reveal hidden opportunities for improvements and imagine new ways of conducting business.

Enterprises that engage in automation and digitalization can create new forms of competitive advantage by transforming their IT infrastructure and applications into data-gathering assets able to create a constant state of awareness for their businesses. The need to automate credit risk workflows is an ever-present issue for credit and risk management professionals, which has only intensified with the ongoing economic uncertainty. Several tools and technologies have come to market in recent years to help.

Hanging on Every Negative Word: Natural Language Processing Analysis of Credit Rating Action Reports

Credit ratings are opinions about credit risk and understanding why there is a change in a rating is very important. For an equity investor, a downgrade due to a rapid decline in a company's sales has a negative implication. However, a downgrade due to an increase in leverage arising from a share buyback program may be viewed as positive.

Net tone or sentiment in an analyst's ratings report has an impact on the ratings change. Net tone is calculated as the number of positive words minus the number of negative words divided by the total number of words. Net tone values for each company being evaluated are standardized at the sector level using a 12-month rolling window for comparison purposes.

As shown in Figure 9, the relative size of the price impact following a downgrade is dependent on the magnitude of the tone and the topics of focus in an analyst's report. Downgrades with strong negative sentiment underperform downgrades with positive sentiment by 2.7% over the following month.

Figure 9: Return Comparison of Company Downgrades by Magnitude of Credit Report Sentiment, Russell 3000, 2003 - 2021
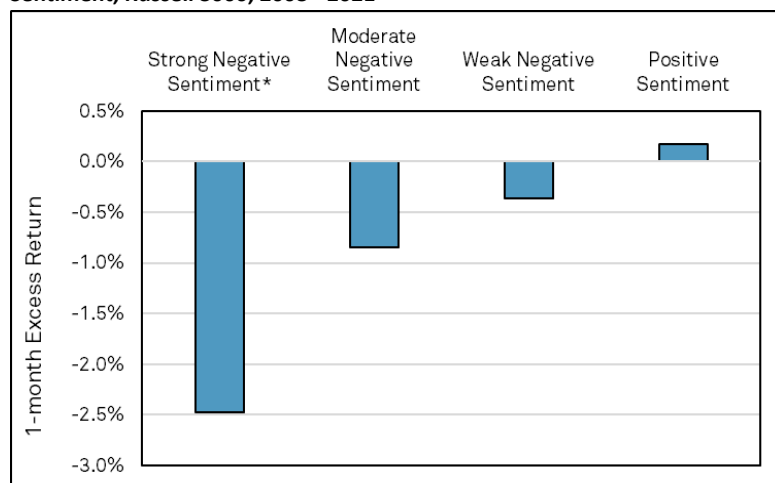
*The return of strong negative sentiment is different from the return of positive sentiment at the 1% level.

Source: S&P Global Market Intelligence Quantamental Research. For all exhibits in this article, all returns, and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index.

Past performance is not a guarantee of future results. Data as of March 31, 2022. For illustrative purposes only.

An analysis shows that a portfolio that selects companies that have been downgraded over the last three-month period with strong negative sentiment underperforms a portfolio that selects all companies downgraded over the same period by -0.49% monthly. The cost of executing both strategies is also similar. In addition, the topics that are mentioned more in reports of companies with strong negative sentiment indicate that these firms are facing challenging market conditions, experiencing a decline in sales, generating negative cash flows, and seeing margin compression. Gauging the tone or reasoning behind a credit rating downgrade can help assess the severity of the issues facing a company. This is borne out by the fact that reports with multiple notch downgrades typically have worse negative net tone readings than reports with just a single notch downgrade. The magnitude of the negative net sentiment is therefore a proxy for the challenges a company faces. Companies that are downgraded by multiple notches typically underperform those with single notch changes over the next month. Reports with multiple notch movements also usually have more negative words on average than reports with single notch movements.

This analysis included research reports published by S&P Global Ratings that are available in machine-readable format with article metadata tagging, as well as Market Intelligence's textual transcripts that are also available in a machine-readable format with metadata tagging.

Using Credit Ratings Research to Filter Important Signals from Noise in News Headlines

In the past few years, macroeconomic factors have dominated the news headlines. Credit risk research can be used to confirm the importance of individual news headlines and help capture trends in themes over time. Figure 10 shows how the number of abstracts from S&P Global Ratings' research that mention certain key themes can be counted across geographic regions. This includes:

- War (physical, trade war or other types of conflict)
- Pandemic
- Inflation
- Supply chain disruptions
- Climate change

Using a three-month moving average, the effects of analysts responding to the same theme over different periods are smoothed, while still being sensitive to flag changes (i.e., a rise or fall) in the trend lines.

Figure 10: Percentage of S&P Global Ratings' Research Commentaries with Specific Keywords in the Abstract (from January 2018 to June 2022)
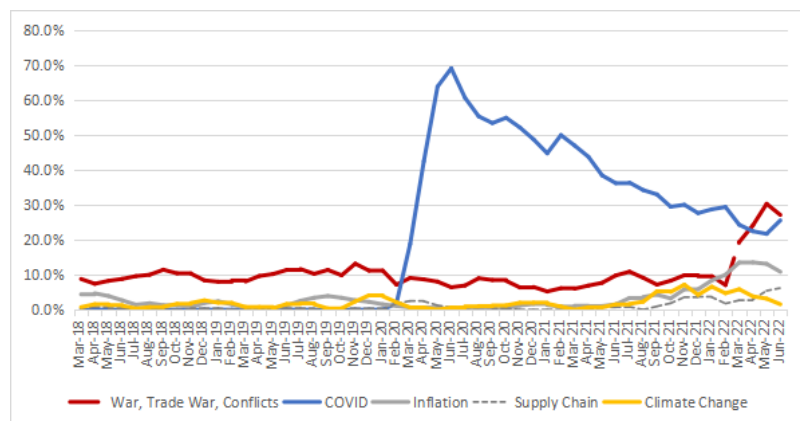
Source: RatingsXpress Research on Xpressfeed. Trends extracted from 4,505 abstracts of S&P Global Ratings articles published. For illustrative purposes only.

There are several observations:

- War, trade war, and other conflicts had been casting a shadow globally since the start of the sample period, rising in importance in the weeks leading up to Russia's invasion of the Ukraine.

- Supply chain issues existed pre-COVID, but rose in 2021 starting in August.

- COVID-19 became a dominant theme starting in early 2020 after the first outbreak in late 2019, but then dampened throughout 2020.

Regional Comparisons of Credit Themes (January to June 2022)

Looking at cross-sectional regional comparisons in Figure 11, inflation and supply chain issues were relatively more dominant in the U.S. and Canada than the pandemic and wars. Asia Pacific was the only region where COVID-19 remained the most important theme.

Figure 11: Percentage S&P Global Ratings' Research Commentaries with Specific Keywords in the Abstract by Geographic Region (from April to June 2022)
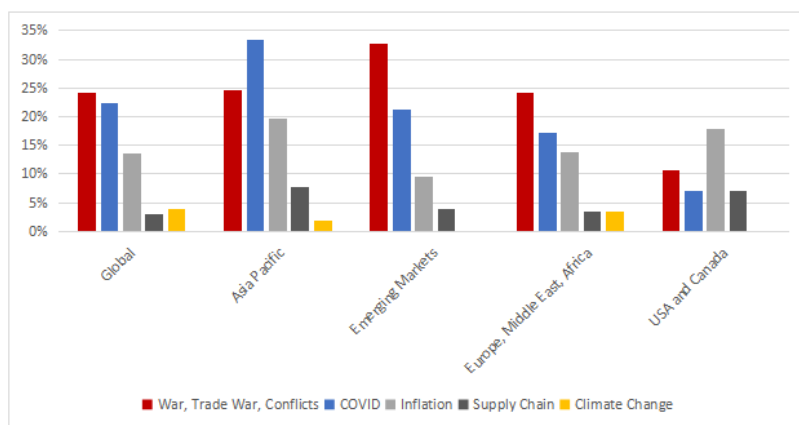
Source: RatingsXpress Research on Xpressfeed. Keywords extracted from 236 abstracts of S&P Global Ratings articles published from April to June 2022. For illustrative purposes only.

S&P Global Ratings research is interesting for this type of analysis since ratings articles address frequently asked questions by the investor community in response to news headlines, after digesting this information and considering their credit risk impact. They are also published in a structured format, enabling users to skip irrelevant sections in an article and then group comparable sections across articles and aggregate them across geographies and industries.

Portfolio Risk Solutions Need to Meet the Pace of Change in Buy-side Risk Management

The portfolio risk analytics landscape is fundamentally shifting for buy-side firms as risk management professionals strive to fulfill demanding regulatory requirements, while supporting front-office teams amid a period of tremendous technological and social change. The unprecedented momentum of cloud computing and the evolution of data science has the potential to enable risk managers to grow their capabilities, but firms will need the right technology and data to capitalize on market shifts and stay ahead of their peers.

At buy-side investment firms, traditional risk systems are being pushed beyond their capabilities as demands evolve. A next-generation cloud-native risk solution, as well Risk as a Service (RaaS), can give investment managers and risk teams access to raw computational

power, fully configurable outputs, and data that solves their ad-hoc requirements. Cloud-based RaaS, such as the Buy Side Risk Management Solution from Global Market Intelligence, can also adapt to changing business demands and volume through the ability to scale up and down with both the size of portfolios and frequency of computations. RaaS additionally provides flexibility and cost savings.

Inflexible solutions hindering the implementation of new techniques and portfolios can impair a business's competitive edge. Long delays in system updates are increasingly unacceptable. Tech stacks should be flexible enough to support new products, computations, and reports without large development costs. Instead of infrequent and resource-heavy software updates, a modern approach uses development methodologies that continuously roll out improvements to a hosted cloud environment. This agile approach enables new instruments, reports, and methods to be quickly deployed to all professionals as they become available.

Looking Ahead

Many factors are at play today creating challenges for credit and risk management professionals as they strive to clearly identify market vulnerabilities and areas of potential opportunity. Expanding datasets and fine-tuning models has become essential to effectively track and evaluate what is around the corner and how best to prepare for change.

Risk, meet opportunity

Find untapped potential where others see uncertainty. Our credit and risk insights, data, and analytics can help you anticipate the unknown.

Unlock possibilities