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Dodging the Industry Potholes Across EM High Yield Corporates

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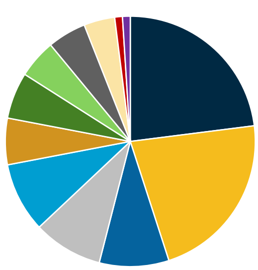
- The rally in risk markets emphasizes the importance of identifying relative-value opportunities across global asset classes. Emerging market high yield bonds may increasingly draw investors' interest given a spread pickup of about 100 bps relative to their U.S. and European counterparts.[1]
- Yet, the ability to capitalize on attractive spread opportunities depends on the ability to dodge value-trap potholes that may be lying in wait. We've previously examined how nuances across individual issuers can affect alpha generation within the emerging market corporate sector. This paper complements our prior work by extending that analysis to three industries—oil & gas, telecommunications, and metals & mining—that were responsible for more than half of the EM corporate defaults since 2010.
- We start with a brief look at how industry performance can impact portfolio returns and follow with an analysis of the myriad factors that can affect credit risk—such as commodity price volatility, obsolete technology, currency mismatches, and ESG failures[2]—within our sample industries. We conclude each section with characteristics that we seek to identify before investing within the respective industries.

Figure 1: Share of All Index Defaults Based on Total Defaulted Bond Value (2010-2020)



Oil & Gas	**23%**	Industrial	6%
Telecom*	**22%**	Consumer	5%
Financial	9%	Transport	5%
Metals & Mining	**9%**	Utilities	4%
Infrastructure	9%	Pulp & Paper	1%
Real Estate	6%	Diversified	1%

Source: JP Morgan. Includes all Events of Default in the CEMBI Broad from 2010-2020. *The sector includes media and technology as well.

[1] Based on the J.P Morgan CEMBI Diversified, ICE BofA U.S. High Yield, and ICE BofA European High Yield Indices.
[2] For more on ESG and high yield, see "A Five-Part Framework for ESG Disclosures in Global Leveraged Finance."

EM corporate industries have experienced some impressive returns and some notable bouts of volatility over the past decade. The risk-adjusted returns observed in Figure 2 underscore that, in an environment of tight credit spreads, investors reaching for incremental spread in more volatile industries could increase their exposure to asymmetric returns during a downcycle.

This dynamic may be best exemplified by the performance in our three representative EM industries. We find that the return volatility in the metals & mining industry is among the highest in the sector with a relatively low information ratio. While volatility in the oil & gas sector is elevated as well—also resulting in a moderate information ratio—this reflects the heavy government presence within the industry, whereas metals & mining firms are generally privately owned and hence more vulnerable during periods of declining commodity prices. However, the government involvement in the oil & gas sector doesn't shield it from the industry vagaries that frequently emerge with the potential to affect investment returns.[3]

The relatively high information ratio in the telecom industry reflects a more bifurcated group of credits—it's a mixed bag with solid, market dominant companies combined with those with a more precarious existence amid the several industry-wide nuances.

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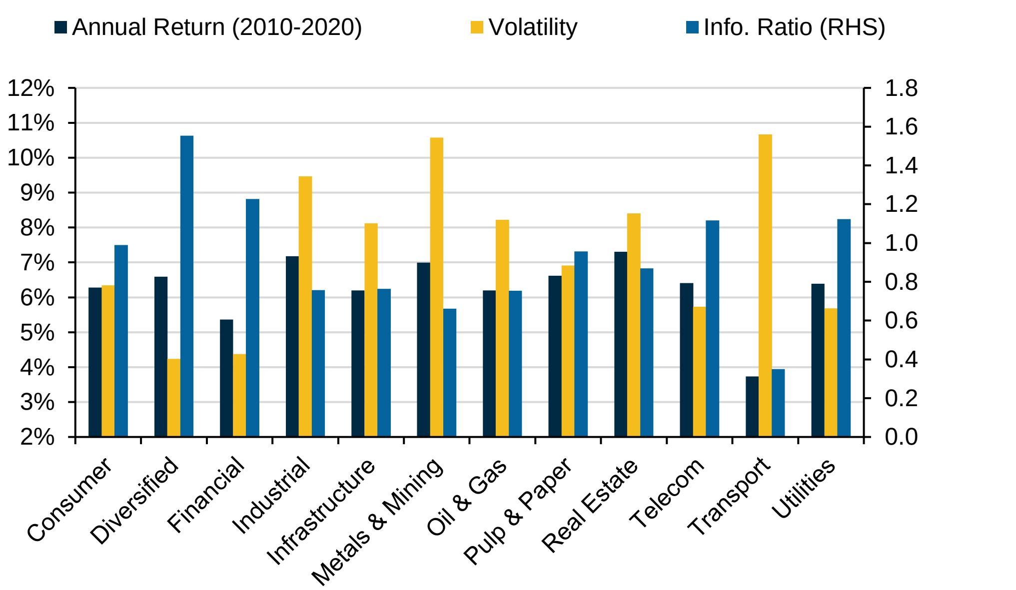
Figure 2: The Oil & Gas and Metals & Mining Industries Show Elevated Volatility Levels, while the Telecom Industry Represents More of a Mixed Bag of Credits



Source: PGIM Fixed Income and Bloomberg. Based on annualized daily price volatility and annualized daily returns. As of March 2021.

Our sample industries present some distinct characteristics that contribute to their volatility as we demonstrate in the following sections. Yet, these are significant industries within the EM corporate universe as the oil & gas and the telecom sectors are two of the three largest in the benchmark index and the combination of the three comprise nearly 40% of the index.[4] Therefore, even investors underweighting the industries still must dodge their idiosyncratic potholes as they conduct careful credit selection across the sectors.

[3] We recognize that there may be some survivorship bias within the data. However, we believe the comparability of the volatility data across industries presents a useful exercise in terms of evaluating industry risk.
[4] Based on the J.P. Morgan CEMBI Diversified Index as of January 2021.

Oil & Gas

The oil & gas industry shares common characteristics across most commodity industries—volatile prices, a depleting asset base, and high capital expenditures. These characteristics can be mitigated by diversification across products, asset types, and geography. The higher default rates of oil & gas companies occur unevenly across its subsectors. Exploration and production (E&P) companies are more vulnerable to defaults than integrated oil and gas companies. Oil service providers are highly dependent on clients' capital expenditures and, more indirectly, to the volatility in oil prices.

Given the variability in industry conditions, leadership in cost efficiencies, low cash breakeven prices for hydrocarbons, and strong balance sheets are paramount. Yet, the traditional leverage metrics measured as debt/EBITDA could misgauge the strength of an oil company's balance sheet because EBITDA is as volatile as hydrocarbon prices. Thus, low leverage metrics during high oil prices could mask underlying balance sheet vulnerabilities. Per barrel leverage—either produced and/or reserve barrel—is a more appropriate debt metric. Flexibility in capital expenditures is also an important factor when assessing a company's resilience to oil price shocks because oil and gas companies frequently commit to contractual investment plans that restrict their ability to preserve cash when hydrocarbon prices drop. Capital expenditure commitments and other liabilities, such as take-or-pay transportation contracts or decommissioning costs, are not usually included on balance sheets.

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Given these industry characteristics, default rates amongst oil and gas companies are highly correlated, especially during episodes of rapid oil price declines that leave little room to adjust to the latest hydrocarbon paradigm, as the following case studies demonstrate.

1. **Adding Debt Amid High Crude Prices:** Hydrocarbon extraction is a risky endeavor. From a financial perspective, one of the foremost challenges is extracting enough oil and/or gas to carry the debt burden associated with increased expenditures. When oil prices hovered between $100-120/barrel for close to three years in a row early in the prior decade, demand for EM corporate bonds was at its cyclical peak and speculative exploration & production companies entered the bond market to raise relatively inexpensive capital. When several issuers, such as OGX and HRT, failed to extract the amount of oil needed to service their debt, they defaulted. And this was even before the coming collapse in oil prices.

2. **The Cascading Effects from the 2014-2015 Collapse in Crude:** The collapse in crude oil prices that pushed WTI under $30 a barrel amid oversupply concerns was simply too much for several E&P credits, including Afren, Pacific Rubiales, and Seven Energy, amongst others, and they defaulted relatively quickly. With reduced capital expenditures from their E&P clients, the oil service industry was close behind with defaults from firms, such as Odebrecht Oil and Gas, Schahin, and Queiroz Galvao e Gas, S.A.

3. **Pandemic Demand Coupled with a Market-Share Scuffle:** While the COVID-19 pandemic created the demand shock for the E&P industry, the market-share dispute between Saudi Arabia and Russia provided the supply shock. The combined shocks placed many E&P companies into financial distress. However, the steps taken by the OPEC+ oil producing countries quickly stabilized the supply side of the dynamic.

How we select oil & gas investments: We tend to avoid smaller E&P companies as they are the most sensitive to oil price volatility. To meet our criteria for investment, an E&P company must have a conservative balance sheet that can withstand large oil price swings. As with any commodity company, we also screen for credits with low unit costs and low cash breakeven prices. The quality of proved reserves as well as the flexibility and intensity of capital expenditures needed to start producing and generating cash also plays a role in our investment decision.

In cases where we might consider a smaller E&P company, they generally need a long track record through periods of volatile oil prices with experienced, well-respected management teams. We generally prefer integrated oil and gas companies with refining operations that can partially benefit from lower crude prices. Moreover, a balanced oil and gas portfolio also allows for diversification as the two commodities are not perfectly correlated. State-owned oil and gas companies with strategic importance and proven government support may also be attractive.

The secular demand pressures on the oil & gas industry amid the transition to a carbon-neutral world present another factor for investors to consider, and the longer-term health of these companies will depend on their ability to execute a strategic transition plan and to adjust along the way (click here for additional perspectives on ESG).

The essential nature of telecom services has invited close regulatory scrutiny, and they have become inadvertently intertwined in geopolitics given their strategic and national importance.

Telecommunications

The telecom sector is often considered "stable" or "safe" given that it is less exposed to commodity prices and is less sensitive to an economic contraction relative to more cyclical industrial sectors. After all, telecoms are considered essential services and even quasi-utilities. However, at the index-level, the EM telecom industry exhibits the second highest default rate after the highly cyclical oil & gas industry. Why?

The main, interlinked drivers of EM telecom defaults include rapid technological changes, high capital expenditures, intense competition, hostile regulations, and, last but not least, FX mismatches between revenue sources and debt obligations.

For example, rapid changes in technologies, consumer tastes, and competitive landscapes—including those in adjacent industries, such as media and technology—increases capital expenditures that subsequently strain free cash flow. The essential nature of telecom services has invited close regulatory scrutiny, and they have become intertwined in geopolitics given their strategic importance. Furthermore, many EM telecoms issue debt and conduct capital spending in hard currencies, which contributes to their currency mismatch.

These case studies illustrate instances of credit distress from the factors mentioned above.

1. **Spending to Replace Obsolete Technology:** NII Holdings (Nextel) filed for bankruptcy in 2014 amid an obsolete technology (push-to-talk (PTT) phones), a flawed business model, and an untenable capital structure. The company operated a 2G network for its PTT technology. In 2009, competitors started deploying 3G handsets with faster data speeds and other smartphone features, rendering PTT technology obsolete. As a result, the company embarked on \$3.5 billion in debt-financed capital expenditures to acquire 3G spectrum and build out its network. In 2014, the company generated operating losses in Brazil and Mexico, and the company's failed efforts to cut costs and capital expenditures resulted in a bankruptcy filing later that year.

2. **Flawed Business Model, Regulatory Interference, Weak Management, and FX Mismatch:** Oi SA was the result of various state-sponsored mergers and acquisitions, and as Brazil's one-time fixed-line incumbent, it was the only telecom owned by domestic capital. Oi's weakest points were in mobile and data, and as competition in these businesses mounted, the government mandated a fixed-line expansion that saddled the company with debt. With 75% of Oi's debt denominated in hard currency, a 16% depreciation in the Brazilian real against the U.S. dollar over the course of two years exacerbated the situation, and Oi's default in 2016 became the largest court restructuring in Brazilian history.

3. **Competitive Risks and Industry Disruptions:** Once India's second-largest wireless operator, Reliance Communications experienced major revenue pressure through 2014-2016 as mounting competition prompted a decline in voice tariffs—which at the time accounted for 75% of revenues—and offset an increased contribution from data.[5] Furthermore, Reliance accumulated a large debt load, leaving its capital structure vulnerable. The gamechanger arrived in 2016 with the emergence of a new and aggressive loss-leading player that triggered a renewed downward spiral that halved its tariffs over three years and ultimately reduced the industry to a three-player market after Reliance defaulted in 2017.

The most obvious key risk for the mining sector is commodity price volatility, and all mining companies experience lower EBITDA and cash flows when prices fall.

How we select telecom investments: We focus on industry leaders based on technology and market share in secularly rising sector segments (e.g. cable companies), a well-regarded brand that distinguishes itself from competitors (e.g. technology, marketing niche, or dominance in a population segment), newcomers with rapidly rising market share that disrupt incumbents' status quo, and strong management teams. We seek companies that operate in several countries in order to diversify currency exposure and country-specific macro conditions. Alternatively, we seek domestic telecom operators in countries with less volatile currencies as mismatching FX presents a significant risk for telecoms without international operations. Strong cash flow generation from established players or the potential for strong cash flow generation from rapidly expanding operators are also desirable. We monitor for the potential effects that cybersecurity and privacy breaches may have on customer service and retention, network quality, and brand perception. Policies pertaining to the disposal of electronic waste also warrants disclosure and monitoring.

Metals & Mining

Like oil & gas, mining is an extractive industry where miners and metal processors (mostly in steel manufacturing, but also in aluminum and zinc processing) often control their own raw materials. The sector's most obvious risk is commodity price volatility, and all mining companies experience lower EBITDA and cash flows when prices fall. Sales volume uncertainty is another risk: when the market contracts, metal prices not only fall, but volume demand also tends to decline, further impacting cash flow generation. The sector is capital intensive, and the best companies continually invest irrespective of economic conditions. When companies cut capital expenditures below a required maintenance level, it affects their ability to remain competitive and can reduce future production levels. Over time, insufficient capex leads to higher cash costs, production stoppages, and increased safety risks.

The industry's regulatory changes regarding employee safety and environmental standards help improve its sustainability profile, but often result in higher costs that can be difficult for

[5] The mobile industry in India tends to rely on a pay-as-you go format rather than monthly subscriptions.

smaller, weaker producers to absorb. These issuers could ignore regulations, but such behavior usually catches up with them and can lead to significant fines and expensive lawsuits (not to mention environmental damage, safety problems, and reputational risks). Another ESG related risk is long-term structural changes in demand for products being phased out of an increasingly green economy. Structural demand declines have led to significant problems for coal producers, such as Bumi Resources and Berau Coal, both of which defaulted on U.S. dollar denominated bonds.

These case studies illustrate some of the distress factors mentioned above:

1. **Environmental, Operational, and Financial Risks:** Vale SA, a Brazilian iron ore producer, experienced two major dam failures at tailings ponds in recent years. And the ownership structure of the mine's operator largely determined the effect on bondholders. The first accident was in 2015 at a joint venture that Vale owned with BHP—Samarco Mineracao (Samarco). The production decline after the Samarco accident and the lack of operational diversification left the credit unable to service its debt, and it defaulted in 2016. Although Samarco's bonds were not guaranteed by the parent companies and the bonds were never recourse to BHP or Vale, the companies were financially strong enough to backstop the settlement between Samarco and the Brazilian authorities, compensate victims, and remediate the environmental damage. Given that Vale and BHP ultimately cooperated with authorities, bondholders expect to receive a more favorable outcome once production at Samarco resumes at capacity.

2. **Absorbing the Cost of Disaster:** While Samarco's small relative size was a key factor in its default, Vale's size, balance sheet strength, and asset site diversification (with operations in 30 countries including 124 iron ore tailings dams and 56 base metals tailings dams) determined the outcome for bondholders after the second disaster at its own mine in 2019. As one of the world's largest iron ore producers with significant cash flows, low levels of debt, and low cash costs, Vale withstood the production stoppage at a few of its mines as it addressed the structural design concerns of its tailings dams and assessed the environmental damage. Vale could also absorb the monetary fines and penalties associated with lawsuits more easily than a smaller miner with less diversified operations.

3. **An Unsupportable Capital Structure:** Berau Coal was once Indonesia's fifth-largest coal producer, but it defaulted in 2015 due to the ongoing downturn in coal prices, which squeezed gross profit per ton into the single digits and rendered its capital structure unviable. While Berau presented an efficient cost structure due to favorable mine locations that minimized transportation costs, the company failed to disclose coal quality information at the mine level, which made it difficult to fully assess its asset quality. A messy shareholder-level dispute also contributed to governance concerns. These two factors likely worsened the severity of bondholders' losses.

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How we select metals & mining investments: We consider several key factors when investing in metals & mining companies: balance sheet strength, profit margins, cash costs, cash flow, capital expenditure plans, operational diversity and size, product diversity and market share, access to raw materials, management quality, governance, as well as environmental and safety track records. Metals and mining companies face particularly intense ESG scrutiny (as Vale's accidents can attest), and we have long evaluated these factors as potential sources of credit risk within the sector.

Within the mining sector, the most important considerations are asset quality and cash production costs. In terms of asset quality, we consider the value and size of reserves, whereas with cash production costs, we consider the efficiency with which the reserves can be extracted, their required transportation distance, and the company's control and ownership over the transportation infrastructure to the point of sale.

The higher the asset quality and lower the production costs (an integrated structure, ideally), the greater flexibility the company has in navigating industry pricing cycles. Diversification is also important in terms of geography—single site mining companies are considerably higher risk than mining companies with multiple mines in various locations—and products. Companies that produce several minerals can benefit from by-product credits, which partially offset cash costs, and companies with diversified mineral production can also benefit if one mineral's price increases while another declines.

Nimble companies that can delay projects to conserve cash during periods of stress, or that at least maintain access to the capital markets during such periods, have a much higher chance of survival. Companies that control their own raw materials also maintain a competitive advantage: when raw material prices increase, the consolidated results of the company will reflect the mining unit's high profit margins. Contrarily, when raw material prices plummet, the metals side of integrated producers show stronger margins, providing overall margin stability for the consolidated entity. Cash flow is also critical—operating cash flows must be high enough to offset the need for continual operational investments and shareholder demands for dividend payments.

The temptation to unwittingly reach for incremental spread heightens the risk of asymmetric performance in a downturn and underscores the need for comprehensive research at the individual credit *and* industry levels.

Conclusion

Investors' search for yield is a global phenomenon, yet it affects asset class performance differently. EM high yield corporates generally offer notably wider spreads than their developed market counterparts and often for good reason. Individual issuers can feature several nuances, such as organizational complexity, disparate accounting standards, and questionable governance practices.

However, the assessment cannot stop there considering the significant differences in default rates across EM industries as well as the sizable presence of the oil & gas, telecom, and metals & mining industries. Our analysis of the sample industries reveals material nuances—including risks of technological obsolescence, regulatory and government pressures, and currency mismatches—that create the potential for return volatility that can affect portfolio performance. Furthermore, ESG issues will only gain in importance when conducting credit analysis, particularly given the demonstrated risks that they can pose in commodity-related industries.

Certain characteristics may guide security selection within our sample industries. Whether it's the quality of proven oil & gas reserves, the rapidly rising market share for a new telecom entrant, or product diversity for a metals & mining company, it's imperative to identify industry trends and adjust exposure ahead of the broader market. A comprehensive research process is particularly important in an environment of relatively tight credit spreads. The temptation to unwittingly reach for incremental spread heightens the risk of asymmetric performance in a downturn, further underscoring the need for comprehensive research at the individual credit *and* industry levels.

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Source(s) of data (unless otherwise noted): PGIM Fixed Income as of March 2021.

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