PIMCO

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Quantifying Risk: PIMCO's Approach to Credit Research
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Following the onset of the credit crunch in autumn 2008, corporate bond spreads shot up to historically wide levels. While they have narrowed in 2009 from those record levels, the spreads may still make corporate bonds look like an attractive opportunity for improving a portfolio's returns. Especially in the current economic environment, though, a sound investment must be based on a thorough analysis of the risks involved and careful security selection. PIMCO's credit research team plays a key role in this process.

Macro View Combined with Bottom-up Analysis
Investment decisions for PIMCO's corporate bond mandates are based on a combination of top-down macroeconomic analysis and bottom-up credit analysis. The top-down process starts with our secular and cyclical outlooks as defined in quarterly Forums that include PIMCO's investment professionals from around the globe. These views are refined and translated into investment strategies by the investment committee and then implemented by the generalist portfolio managers and specialist teams.

Top-down analysis serves primarily to determine general risk themes such as duration or average portfolio quality, but it also defines the most and least preferred industry sectors. Our top-down approach is enriched by the views of our 31 credit analysts, who provide "on the ground" bottom-up insights on fundamental credit trends. Direct access to company management is crucial in that effort, and each year the analysts hold more than a thousand meetings and calls with issuers' management teams. For example, in 2008 PIMCO's analysts had more than 50 meetings with the CEOs and CFOs of the major financial institutions, and the information they gained has been critical in formulating PIMCO's view on the state of the financial system during the credit crunch.

PIMCO's credit research analysts are sector specialists with long-ranging experience in analyzing credits across the spectrum from investment grade to high yield and leveraged loans. Through a detailed fundamental review process, the analyst assigns an internal rating as well as a risk rating using a "traffic light" system – green, yellow or red. Analysts work closely with portfolio management to determine an investment's relative value

based on a comparison of the expected risk and return. Without undergoing the thorough analysis of the credit research team, no corporate bond makes its way into a portfolio at PIMCO.

Four Building Blocks of Credit Research

Every investment decision should ultimately be based on one question: "Do you get paid enough for the risk?" Four essential building blocks of fundamental credit research help PIMCO answer this question confidently.

1. Business fundamentals: First, the analyst acquires a deep understanding of the issuing company's business fundamentals, including the competitive position and operational performance as well as wider industry trends.

2. Issuer analysis: The next step, a central concern of the analysis, is to assess the credit quality of a specific issuer: What is the probability and severity of default? To this avail, the credit analyst will thoroughly analyze the financial performance of an issuer, including profit/loss, balance sheet and cash flow statements, and also review the liquidity situation and potential off–balance sheet liabilities (pension liabilities, etc.)

3. Security analysis: Thirdly, one has to analyze the specific security and understand how different positions in the capital structure and documentation details affect a particular bond issue.

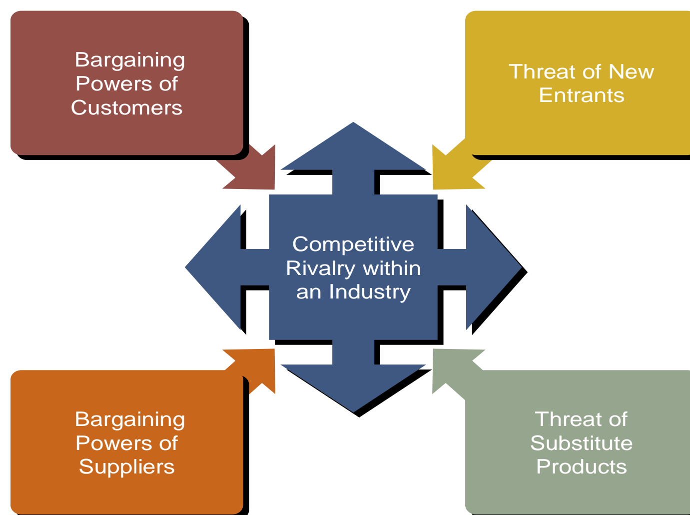
4. Recommendation: Finally, the best analysis is pointless if not accompanied by a specific recommendation, which takes into account the analysis from the first three building blocks and combines it with credit metrics and price information from comparable issuers and securities.

Credit Research Process in Practice

The European telecom industry provides a practical example of the four-step analytical process.

Step 1 – Business fundamentals: One way to look at the business fundamentals is to use Porter's Five Forces framework. The importance of any of the five forces varies for every sector and company, and the analyst's task is to weigh those factors and their ultimate impact on the outcome of an investment (see Chart 1).

Chart 1: Porter's Five Forces



Source: PIMCO

Within the telecom sector, if we apply the Five Forces framework to an operator solely focused on providing fixed-line telecom services (for example), we find the operator is mainly exposed to the threat of substitute products – i.e., mobile telecom services. A migration of customers to mobile operators and a growing number of "mobile only" users directly threatens the fixed-line-only operator's subscriber and revenue base. New telecom market entrants such as cable companies may also increase the pressure on the subscriber base. Higher competition in saturated markets typically results in price pressure and, ultimately, decreased industry profitability. A rise in competition may also improve the end customers' pricing power. Finally, because telecom operators exert a certain level of bargaining power versus their suppliers, this component of the framework may be less a threat than an opportunity.

These Five Forces are dynamic and the analysts must constantly monitor and assess the impact of changes in this complex network of relationships. In the telecom industry, technological change is a key driver of developments, and failure to react and adapt to new technologies can be detrimental.

Step 2 – Issuer analysis: The next step, financial performance analysis, is built on thoroughly reviewing an issuer's balance sheet – tracking revenue, margin and investment trends – as well as understanding all the factors that drive the company's ability to generate sufficient funds to meet both its debt service requirements and also the demands of other stakeholders (equity investors, pension trustees, etc.).

Analysts adjust financial reviews to ensure comparability and to capture "one-off" and extraordinary items. An assessment of a company's financial flexibility and liquidity becomes particularly important in a challenging capital market environment, when an insufficient liquidity cushion could threaten a company's very existence. To assess an issuer's liquidity position, the analyst examines cash balances, bank lines and readily saleable assets and compares these to the issuer's short-term liabilities, operating cash needs and potential contingent liabilities.

When drilling down into a specific sector, it is critical to differentiate between issuers. For this, the analyst uses credit metrics including leverage and interest coverage as well as other industry-related metrics. Credit metrics provide a convenient way to compare issuers. They list key factors for each individual issuer, including:

- Rating
- Net Debt
- Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA), last 12 months
- EBITDA Interest Coverage
- Net Debt/EBITDA
- Funds From Operations (FFO) /Net Debt
- Debt/Cap
- Five-Year Credit Default Swaps (CDS)

In the telecom sector, when compared to operators solely focused on saturated markets in the developed world, operators with emerging market exposure have generally generated stronger sales growth in recent years, even though cash flow generation has been held back by the greater investment needed to support this growth. Here, the analyst's judgment is required to weigh the benefits of growth versus cash generation on the issuer's current and future credit profile. It is critical to understand the strategy of the issuer and to be in close contact with management, as today's decisions will likely shape the credit profile of the company in the future and markets will likely reflect any changes well in advance.

Financial performance is very much dependent on the exogenous impact of the prevailing market environment, especially in a recession and crisis of the financial system. Cyclically exposed sectors including retailers, autos and media generally show a strong correlation to the underlying economic environment. Cyclical exposure directly translates into cash flow volatility, and a move into negative free cash flow generation in

combination with a weak balance sheet and insufficient liquidity could put an issuer's credit quality, ratings and bond pricing at risk.

In contrast to those cyclically exposed sectors, the European telecom sector performed well during the heightened market volatility of the credit crunch, due in part to the defensive qualities of the sector, including a relatively recession-resilient business model. In addition, the operators' ability to cut back costs and investments helped provide a buffer for free cash flow generation. Companies with solid balance sheets, prudent financial policies and strong liquidity positions as well as the ability to access markets fared especially well. Access to capital markets was clearly a strong point for the sector: Since the beginning of 2009, telecom operators have made frequent successful issues.

Step 3 – Security analysis: Understanding the business and fundamental trends of an issuer is important but not sufficient, so the analyst next formulates a view on the specific issue, be it a bond or loan, by examining the nuances of the capital structure and the documentation. The position in the capital structure is critical for assessing resilience to shocks and ultimately the recovery prospects. In a typical capital structure that contains both bonds and secured bank loans, bank loans have historically seen recovery rates of about 60%–70% vs. 30%–40% for unsecured bonds according to Moody's. However, the level of bank debt in relation to unsecured debt has increased for many highly levered companies in the past years. In combination with a deep recession we would, therefore, expect lower recovery rates in this downturn.

Subordinated bonds and bonds with equity characteristics, including PIK (payment in kind) notes and hybrids, have suffered over-proportionally in the current downturn. Falling asset values have eroded the "equity cushion" and have thus depressed the assumptions for potential recovery values of these subordinated securities. Understanding this effect is critical, as falling market values of assets can quickly erode the higher coupons offered by these "equity-like" instruments.

In addition to the capital structure, it is important to understand nuances in the bond documentation. Guarantees and so-called covenants are critical to help protect bondholders against unwanted actions by an issuer: outsized dividend payments, the transfer of valuable assets or subordination behind other claims. The subtle details in the bond documentation can have serious consequences for corporate bond investors.

Step 4 – Recommendation: Any credit research effort is ultimately measured as the ability to add value in several ways: sector and security selection, avoidance of "black holes" and defaults, and value-generating relative value calls. The fourth and conclusive step in PIMCO's credit research process is to offer recommendations using a two-part system to rate credit and risk.

PIMCO does not wholly rely on the rating agencies when assessing the quality of a bond; agency ratings tend to be backward looking and the market is typically much faster than the agencies in responding to new information. PIMCO's credit analysts determine their

own ratings based on all the components of the research process, and they may differ from agency ratings. The assessment includes an outlook on how the ratings might develop over the next 12 months. For example, a downgrade from investment grade to high yield often has wide implications because of potential guideline violations in investment portfolios: Certain market participants are forced to sell their positions in such a "fallen angel" issue.

In addition to the in-house rating system, PIMCO's credit research team uses a traffic light system to classify fundamental issuer risk. The traffic light system takes into account the current ratings, and only reflects the analysts' fundamental risk assessment of each issuer – in other words, it does not signal buy or sell recommendations or relative value opportunities. The analyst gives a green light to issuers whose operational risks are considered relatively stable and unlikely to have too strong an impact on the credit profile. The analyst assigns a yellow light to an issuer where there is risk of a significantly deteriorating credit profile in light of certain operational or external risks. A color change from green to yellow serves as a warning for the portfolio managers. A red light is assigned to issuers where the analyst questions the company's viability. The portfolio managers may not buy additional positions in red-light issuers, and any existing holdings will be subject to a comprehensive recovery analysis to assess whether disinvestment proceeds after any issuer restructuring will likely be higher than the current market price.

Qualitative Judgments Complement the Quantitative Analysis

An active investment manager's success depends on the proactive assessment of risks and the ability to anticipate changes in risk exposures to help mitigate the impact upon investors from potential negative developments in individual securities or issuers. It is similarly essential that the credit research follows a clearly formulated process without an overly strict and standardized procedure that would block qualitative judgment calls. Credit analysts at PIMCO are more than "number crunchers", they are sector experts with the ability to judge industry and business trends beyond reported numbers. Detailed sector knowledge, a clear understanding of economic drivers, an accountant's understanding of balance sheets and direct contact with management teams are all part of a credit analyst's essential armory.

From Risk Analysis to Investment Decision

PIMCO's credit research team consists of 31 analysts in five cities around the world, and the team is organized along regional as well as sector lines. This combination of regional expertise and sector focus fosters optimal coverage. The credit analysts across all locations constantly exchange knowledge and discuss the results of their analyses, and rapidly respond to developing global trends.

Regardless of where they are based, the credit research and portfolio management teams work closely together in their effort to find the securities offering the most attractive value and return opportunities in relation to the risk incurred. Intensive and transparent interaction between the teams is key when making decisions to buy or sell. Analysts and portfolio managers discuss investment ideas at a number of established weekly

conference calls, and analysts present their respective sectors in depth to the portfolio managers on a quarterly basis. Ultimately, it is the portfolio manager's decision which bonds are added to a portfolio. When deciding on an investment, the portfolio manager can confidently rely on the careful risk and quality assessments made by PIMCO's credit analysts.

Past performance is not a guarantee or a reliable indicator of future results. Investing in the bond market is subject to certain risks including market, interest-rate, issuer, credit, and inflation risk; investments may be worth more or less than the original cost when redeemed. Investing in foreign denominated and/or domiciled securities may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in emerging markets. High-yield, lower-rated, securities involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. The credit quality of a particular security or group of securities does not ensure the stability or safety of the overall portfolio.

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