*Exploring spread drivers: When intuition fails us.*

The Z-Spread of a corporate bond issuance corresponds to the risk premium required by investors to purchase a corporate bond instead of Treasury. Indeed, it represents a highly useful metric of risk and return for the investor.

Nevertheless, there exists a notable divergence between theory and practice. In this report, we endeavor to scrutinize the Z-Spread of 300 corporate bonds issued by companies with varying sectors and credit ratings, to identify such inefficiencies.

1. The Bank Effect.

One would expect entities with the same credit rating to possess similar spreads (same credit risk premium required by investors). However, this is not always the case. Presented below is a graph depicting the average spread for banking versus non-banking issuers with same credit rating.

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| Figure 1  Banks vs. Non-Banks Z-Spread |  |
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For same credit rating, banks have a higher spread that non-banking firms. Indeed, banks bonds may trade differently from non-banks ones for several reasons, including differences in credit risk, regulatory requirements, and market liquidity.

There are several factors that contribute to why banks are considered riskier than non-banks. One of the primary reasons is credit risk which arises from lending and investment activities. As a result of this increased risk, banks' bonds may trade at a higher yield compared to non-bank ones with similar credit ratings.

Another factor impacting financial industry is stricter regulatory requirements. These regulations can impact the ability of banks to pay back their bondholders, which in turn can affect the demand and supply of bank bonds, ultimately impacting their prices.

In addition, market liquidity can also play a role in the pricing of bank bonds. Banks' bonds may have lower trading volumes and less market liquidity compared to non-bank ones. This can lead to wider bid-ask spreads and higher transaction costs, also impactign the overall pricing.

Overall, it is important to consider all of these factors when evaluating the risks and potential returns associated with investing in bank bonds. While banks may offer higher yields compared to non-banking ones, investors must weigh this against the increased credit risk, regulatory requirements, and potential market liquidity issues that may impact their investment.

1. Maturity matters.

In addition to the issuer's sector, it is also convenient to study the maturity effect for spreads of non-banking sector bonds with the same credit rating.

Common sense suggests that for two issues with same characteristics, the risk premium demanded by investors should increase with maturity. However, this is not always the case. Below is the average spread for non-banking companies with a BAA2 credit rating.

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| Figure 2  Z-Spread for BAA2 Issues with different maturities |  |
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It is readily apparent that the function under consideration does not exhibit monotonicity, but instead presents with a trend line that remains constant. Furthermore, it is noteworthy that the observed volatility is particularly pronounced for maturities of five and six and a half years.

One possible interpretation is that credit market may be influenced by exogenous factors other than maturity and credit rating, such as supply and demand, inflation expectations, economic and political conditions, among others. These factors can affect the perceived risk of bonds and thus influence the Z-spread.

Regarding the spikes that can be observed in the Z-spread, they can be caused by various factors. For example, peaks may reflect changes in the perceived risk of issuers, changes in market conditions, or industry-specific factors that affect a subset of issuers.

We also must keep in mind that this is a weighted average for completely different issuers (even if they have the same credit rating) with different perspectives on the company's credit profile, governance , etc.

In fact, the evolution of the spread with respect to maturity can be counterintuitive. Let us examine whether this is the case when the changing factor is the credit rating

1. From BAA2 to BAA3 case: Negative Pick-up.

An interesting example is the pick-up spread from BAA2 to BAA3 with 5Yr maturity. Not only is it not positive, but it has a negative value of -46% (average spread of 153bps for BAA2 vs. 83bps for BAA3). Different reasons can lead to this result. First of all, it is more than possible that there is a sample bias. For example, the market may be more optimistic about the sectors of BAA3 rated issuers in our sample.

Subsequently, it is imperative to take cognizance of the prevailing market conditions. The spread pick-up can potentially exhibit a negative value in the event of market conditions, characterized by low interest rates, heightened demand for corporate bonds, or favorable economic prospects. These market dynamics tend to compress credit spreads.

Beyond the macroeconomic landscape, endogenous factors, including the supply and demand dynamics of the specific securities in question, also play a significant role. Events or news that disrupt the equilibrium between the supply and demand of BAA2 or BAA3 bonds can have an impact on the pick-up spread, thereby contributing to its negative value.