Confidence must be earned

Amundi ASSET MANAGEMENT

Key Findings | CROSS ASSET Investment Strategy

Introducing alternative risk factors into traditional investment grade corporate bond investing

Research & Macro Strategy

FACTOR INVESTING IN THE INVESTMENT GRADE CREDIT MARKET: A CHANGE OF PARADIGM

While the concept of factor investing has gained significant traction since the 2000s with the consequence of altering the landscape of equity investing, the same cannot be said of the fixed income market.

Debate remains over whether alternative risk factors in the bond space - as defined in academic literature - capture genuine risk sources, or whether they are only a repackaging of traditional bond risks. So far, single factor tests were performed on proposed alternative risk factors and disregarded their interaction with traditional risk factors (duration-times-spread, liquidity and duration). As the significance of the results and model specifications were subject to discussion, factor investing in the credit space remained more of a marketing proposition than an innovative investment strategy.

By amending specifications for new alternative risk factors (value, momentum, low volatility and size) in the corporate investment grade bond market and integrating them alongside traditional risk factors into a multi-factor framework, Amundi has developed a unique approach to factor investing. Our findings show that our alternative risk factors value and momentum are relevant to explain the return of euro-denominated and U.S. dollar-denominated investment grade corporate bond returns over the period 2003-2018.

Definition of Amundi Credit Risk Factors

Type of Factor	Name	Amundi Definition
Traditional Risk Factors	Duration	Duration is a bond's price sensitivity to changes in interest rates. Exposure to this factor is a component of the return that investors earn in compensation for the risk that interest rates could rise during the holding period.
	Duration-times-spread	Duration times spread (DTS) is the product of a bond's duration and its credit spread, and is a common metric used to measure the sensitivity of a bond's price to market / spread movements.
	Liquidity	Corporate bonds can be difficult to trade and this can have a considerable impact on the value of a bond. The liquidity factor is set to capture the divergence in prices between relatively liquid and illiquid bonds.
Alternative Risk Factors	Value	The value factor seeks to identify bonds which are considered cheap relative to their intrinsic value. Amundi assesses the value potential through a cross-sectional regression of credit spreads on extensive bonds market characteristics (rating, sector, duration etc.).
	Momentum	The momentum factor relies on the expectation that recent performance trends will be carried on in the near future.
	Low volatility	Low volatility factor refers to the fact that the shorter the duration and the higher the rating, the lower the volatility of the bond.
	Size	The size factor relates to the size of a bond by the total debt value of the issuing firm. Size effect is mostly explained by liquidity.

"Our research confirms that alternative risk factors constitute a significant component of bond investing that needs to be further explored."

Pascal Blanqué, Group Chief Investment Officer

THE RISE OF ALTERNATIVE RISK FACTORS FOLLOWING THE 2008 CRISIS

The 2008 crisis significantly changed the paradigm for fixed income investing for institutional investors in Europe.

Prior to the financial crisis, institutional investors were able to rely on sovereign core and peripheral debt to fulfil their euro-denominated return expectations. However, the quantitative easing program – combining both lower interest rates and the European Central Bank's purchasing program – resulted in institutional investors' inability to meet their expected return targets on the sovereign bond market, forcing them to increasingly enter the corporate bond space, which had been characterized by tight spreads before the crisis. In turn, the widening of spreads in the corporate bond markets alongside the increased number of market participants has left room for the emergence of alternative risk factors.

Investors' behavior in the corporate bond market and the rise of alternative risk factors in the credit space are hence related. Integrating alternative risk factors into a traditional bond investing approach will be critical for investors trying to capture the entirety of bond return in the euro-denominated investment-grade corporate segment of the fixed income market.

"We have been able to both quantify the behavior of our alternative factors in credit management as well as position them into a multi-factor framework integrating traditional factors."

Jean-Marie Dumas, Head of Fixed Income Solutions

KEY FINDINGS

Methodology

The study focused on the period 2003-2018 and used Amundi's traditional risk factor model (duration-times-spread, duration and liquidity) and proprietary alternative risk factor specifications (value, momentum, low risk and size). The analysis was conducted in the euro-denominated investment grade corporate bond space; and extended to the U.S. dollar universe.

Factor Investing in the Euro-Denominated Investment Grade Credit Market	
1	**Between 2003-2009, the euro-denominated investment grade corporate bond market return is best explained by the set of traditional factors: duration-times-spread, duration and liquidity.** Between 2003-2009, the addition of new alternative risk factors increases the explanatory power of the total set of factors on the market return but comes with increased collinearity, suggesting that the additional information captured by the alternative risk factors is mostly already included into the traditional risk factors.
2	**For the period 2009-2018, adding alternative risk factors to traditional risk factors into a multi-factor framework improves the explanatory power for the market return.** Although the set of traditional risk factors remains the most prominent explanatory variable of market return for 2009-2018, adding alternative risk factors, especially value and momentum, improves the explanatory power with limited collinearity, suggesting that there is additional information captured by Amundi's alternative factors.
3	**Our study identifies two relevant alternative risk factors for this universe: value and momentum.** Our specification of value and momentum is relevant in a factor-picking framework: when selecting two factors in the euro-denominated investment grade universe after 2008, duration-times-spread and Amundi's value factors (in that order) are the most relevant; when selecting three factors in the euro-denominated investment grade universe after 2008, duration-times-spread, Amundi's value and momentum factors (in that order) are the most relevant.
4	**Investors seeking to capture market return in the euro-denominated investment grade universe should focus on combining both traditional (duration-times-spread) and alternative risk factors (value and momentum) in this order.** When looking at the most prominent risk factors across the board to explain the EUR-denominated investment grade bond market return, a combination of traditional (duration-times-spread) and alternative risk factors (value and momentum, in this order) would be appropriate.
5	**Because value and momentum display complementary pay-offs, combining them in portfolio construction can prove attractive for investors seeking a robust framework across the investment cycle.** Combining value and momentum in a portfolio can allow to reduce downside while still capturing market upsides.

KEY FINDINGS

Factor Investing in the U.S. Dollar-Denominated Investment Grade Credit Market	
6	**In the U.S. dollar universe, value was a significant factor for active managers already in the 2003-2009 period and remains significant in the 2009-2018 period, although collinearity is higher than in the euro universe.** Our alternative risk factor specifications – mostly coming from our analysis in the euro universe – achieve reasonable results for the confirmation of the existence of the value factor in the U.S. dollar universe.

Supporting Amundi's Investment Solutions	
7	**These findings constitute the backbone of Amundi's new investment solutions that actively allocate among factors that are rewarded with superior risk-adjusted performance in the European and Global credit space.** Our Euro Credit Value strategy provides a complementary solution with low correlation to a traditional credit allocation by exploiting the value factor, without duration risk. Our Multi-Factor Strategy actively allocates in euro and U.S. dollar among value and momentum which display superior risk-adjusted performance, while also including opportunistic factors wherever relevant.

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