Quoniam

|insights|

ISSUE #29

FACING THE CHALLENGES OF FIXED INCOME FACTOR INVESTING

Several challenges make fully systematic fixed income investing different than equity. Below we share what the common challenges* are and how we address them at Quoniam.

1) Issues selections versus issuer selection

The challenge of modelling single issues is that their risk declines over time. Breaking down factor and risk exposures at the single security level becomes difficult and the resulting factor portfolio would in turn show time-varying risk properties.

The challenge of modelling issuers is that you start with a company forecast. You then need to transform company forecasts into individual bonds forecasts. This approach creates more complexity in the model.

We use an adapted approach of modelling investment grade issuers and construct a synthetic, equal-maturity bond for each company. This synthetic bond has a certain similarity to a CDS contract. By doing this we take out differences in maturity between firms and we can compare the companies more easily. We then translate this cleaner signal back to the individual bonds by scaling them with the bond's duration.

2) Private companies and conglomerates

We employ a separate value model for private financial companies which covers the majority of non-listed company IG bonds. We use balance sheet data from rating agencies as input variables in the process. We then create a fair value assessment of the company and forecast the mispricing, or value, of the company.

As balance sheet data is only updated quarterly, we also use a more timely source of company-specific information. As a proxy for the (missing) equity data we use two data points: a) equity volatility of a listed peer group to capture sector effects; and b) to capture idiosyncratic effects we use spread volatility as a proxy for equity volatility.

With respect to the equity momentum factor, we score equity momentum with zero. For conglomerates, we use the listed equity of the highest ranked company in the company structure.

3) Subordinated bonds

We have separate value factor models for senior and subordinated bonds. We determine the value component of a subordinated bond by modelling its spread over the senior bond. The variables in the subordinated value model are similar to the senior bonds value model.

> ‘Factor Investing in fixed income securities needs careful craftsmanship and skills. Quoniam's strategies offer a cost-efficient source of alpha in the sweet spot between active and passive investments.’

As the properties of subordinated bonds have changed over time, partly due to changes in regulation, we incorporate rating differentials between the most senior bond of a bank and its subordinated bonds as an explanatory variable. Under Basel III, countries have implemented TLAC rules in different ways. While in some countries like Germany, senior bonds can be bailed in and bondholders can receive a haircut to their nominal holdings, other countries have introduced new categories like Tier III bonds and left the senior bonds untouched. To capture such differences, we turn to rating differences between these bonds as rating agencies have best captured the differences in risk between the different bond categories in their rating systematic.

4) Financials

Our value model determines the fair spread by estimating the risk premia of well-known risk factors of a company. One assumption is that one unit of risk is equally priced across the respective universe. This assumption does not hold for a universe that combines financials and non-financials. One unit of leverage has a different meaning (and is therefore associated with a different risk premium) for a bank compared with an industrial company. We split our universe into various homogeneous sub-samples. We estimate the value factor separately for each sub-sample. Among others, we distinguish between investment grade and high yield, different currencies within investment grade, senior and subordinated bonds and financials and non-financials.

5) Top-down value-add

Our model does not have a top-down component. Our approach is to limit the risk of potential active positions resulting from the bottom-up approach. The dimensions we set constraints for include: active sector exposures, active country exposures, overall duration, key rate duration (curve positioning), DTS and spread.

6) Transaction costs

Our process is automated from data collection, forecast calculation and optimised with a trade list as output. Liquidity and transaction cost estimates are automatically calculated and fed into the optimisation process where they are considered as one input component among others (alpha forecasts, risk etc.) leading to the creation of the final portfolio. //

* Source: bfinance, The Rise of Fixed Income Factor Investing, August 2020

About Quoniam Fixed Income Factor Investing

We have 15 years' experience in applying a systematic factor-based approach to corporate bond investing. In all mandates we are able to accommodate client-specific constraints such as non-financial portfolios, specific duration and rating requirements and ESG restrictions.

The highlights of our experience include managing:

- EUR investment grade corporates since 2005
- Global investment grade corporate bonds unhedged since 2009
- USD investment grade since 2015
- High yield global since 2016

Most quantitative fixed income asset managers have less than three years' track record*. Our models and processes reflect our cumulative learning through various market cycles including the global financial crisis of 2007/2008 up to the Corona crisis of 2020.

Dr Harald Henke, *Executive Director*, has been with Quoniam Asset Management since November 2006. As Head of Fixed Income Portfolio Management, he is responsible for the performance and public image of Quoniam's Fixed Income products. Prior to this, he was Head of Fixed Income Research, where he was responsible for the development of quantitative models for corporate bonds and interest rate forecasts. Harald studied economics at the Goethe University in Frankfurt/Main. He completed his doctorate at the European University Viadrina in Frankfurt/Oder in the field of empirical market microstructure analysis with a focus on capital markets of emerging markets.