Quoniam
QUANTITATIVE INVESTMENT ENGINEERING

Interview: Financial Investigator, Issue 4/2015
Interview partner: Helmut Paulus, CEO & CIO Quoniam
(English translation of original text)

Selecting bond issuers in the middle of the risk spectrum

Risk considerations force institutional investors to allocate a significant part of their portfolio to bonds. The question is how to ensure that these bonds still yield positive returns in the current low interest rates environment. Financial Investigator spoke in Frankfurt to Helmut Paulus, CEO and CIO of Quoniam Asset Management, the Quantitative Investment Engineering firm.

"Many asset managers focus on the biggest issuers or stocks in the capital markets. One can do that, but we don't like this very much because the whole charm of going more international is precisely the diversification of the risks," says Helmut Paulus. "In fixed income e.g. ten percent of the issuers represent fifty percent of the market. If one focuses on these 10%, one goes with the big names, exactly these names that are priced in the most efficient way. That means one will be in one meadow with all the other sheep, and that is where the gras is the shortest. On the other hand for the eighty or ninety percent of issuers that the asset management industry is not constantly chasing, one can identify significant inefficiency in pricing. That is the required focus!"

In the past the prototype institutional fixed income investor was an investor following benchmarks. "Such an investor buys the benchmark products that are available in the market. If one looks more closely at these benchmarks, it turns out that these cannot be very efficient. While in the equity markets successful companies typically also have a larger weight in the index, in fixed income markets on the other hand it is the issuers with the highest debt obligations that also have the largest weight in the index. With today's increasing interest and investments in corporate bonds, more and more investors think that it no longer makes sense to give ten percent of the issuers half of their capital. They want to invest more evenly and invest more in issuers that have other interesting factors to show."

Mr. Paulus thinks it is very obvious that in fixed income, to a large extent, several factors are driving individual issuer spreads higher or lower, such as the size of the company, the price-to-book ratio, the dividend yield. "We say: you have to analyse a large number of factors, as in the world of stocks, and combine them. Combining to come up with a fair spread for a specific issuer. If it turns out that e.g. Proctor & Gamble has a fair spread of fifty basis points, while at the same time the market is only paying twenty basis points on the basis that everybody thinks that pampers are gonna be used always and everywhere, then we would say: the negative difference between market spread and fair spread makes the bond uninteresting to us. We want issuers that pay a higher interest rate for their corporate bond than the fair rate based on the risks they are exposed to as per our fair spread estimations. In this way we want to provide the so-called 'sleep well' investments for our fixed income investors."

Corporate Bonds
Because interest rates are low, fixed income investors are looking for higher yielding securities than treasury bonds. Paulus: "That is how you arrive at looking at corporate bonds. Now, when one invests in more risky assets, one has to check how to reduce the risk as much as possible. That means I would rather not allocate 5 – 10% to one issuer,

because if that issuer defaults on its debt, my investment would suffer important losses. So we want to construct portfolios that are rather neutral in specific sectors, i.e. take similar risks in all sectors." At this point Paulus states that he does not really like the label 'smart' as in 'smart beta' because it is too often misused for marketing purposes. "For us it is about intelligent, active investment solutions. Active because it deviates very signicantly from the market. We invest very differently from the benchmark."

In Paulus' opinion, two types of investors are actively dominating fixed income markets. "First one has the safe haven investors that always want to buy the most secure instruments, e.g. German or Dutch treasuries or corporate bonds. When many investors consider the same safe instruments, the consequence will be that these are too expensive. That is exactly what is happening with bonds issued by high grade issuers, who have the lowest spreads. It can be shown empirically that long term these bonds have lower returns than their risk profiles would require. The same is happening to investors that select issuers that pay the highest spreads for their bonds. Research shows that in European as in global markets these investors have lower, much lower returns than if they would have selected more 'boring' issuers. These are not extremely safe, nor do they pay very high spreads, they are really, one could say, average and a bit boring. Behavioral finance suggests that these 'boring' securities are mostly avoided by investors and therefore cheaper, these are actually the good ones to go for. Investors will realise the best returns with issuers that populate the middle of the risk spectrum. Identifying this 'Sweet Spot' one could call smart beta fixed income investments. Again, there are more intelligent ways to invest than following a market benchmark. One has to select the good issuers."

Fully automated models

Paulus says that Quoniam with its fully automated models is capable to identify issuers in the Sweet Spot. "At the same time too expensive issuers or too risky issuers that only appear to provide high yield are avoided as much as possible. Most decisive is the intelligent weighing of issuers and sectors, by looking at the risk contributions according to duration-times-spread. That means that active, benchmark-like concentration risks are avoided. The portfolios are clearly more balanced than a standard benchmark. As a consequence the typical risk key figures, e.g. duration, will also be reduced by about 50%." By combining a more diversified allocation and an active bottom-up selection of fixed income instruments, a better return to risk ratio is achieved. "The risk of our MinRisk portfolio is, depending on the market environment, significantly lower than the risk of a typical market index. And last but not least: surprisingly this strategy delivers through the full market cycle an return in line with the market at a much lower level of total risk."

"The investment processes of Quoniam are quant-engineered, precise, risk controlled: we think quant, make decisions that are fully accountable and communicate in an open and transparent manner. We have a centralised Data Warehouse," says Paulus. "It provides all data and information, that with common sense are relevant for successful investment decisions. For fixed income, but also for stocks and derivatives, we developed region-specific forecast models, that are used to forecast returns and risks of more than 50.000 securities. A key point is that we forecast with a horizon of four weeks.
A longer horizon would not make sense. Everybody knows that if you forecast the weather, but when it comes to capital markets, some people think that they are able to provide long term forecasts. Well, the weather and capital markets are both chaotic systems, with similar characteristics. The forecasts are then automatically fed into a portfolio optimiser program to construct the portfolio. This program keeps track of all individual securities, and has an estimation of how much can be traded at which price. The market liquidity varies strongly with time. In a crisis like 2009 - 2010 the trading costs are extremely high. Also if the costs are not that high, it is clear that the return forecast has to be higher than the trading costs. That is exactly what the optimiser program will work out: it systematically subtracts the estimated trading cost from the return forecast to determine if the remainder is positive.

The optimiser program generates the list of transactions. In a next step a portfolio manager will review this list, and validate the decisions of the program. He or she will check that everything goes well, similar to a car production line where at several points engineers will check if the motor or the steering wheel or any other part is at the right place. If the checks are fine, the portfolio manager will pass the trades to the markets team that coordinates the trade execution. This is done mainly electronically."

"Vorsprung durch Technik"

Paulus: "What we are doing here is getting ahead through technology. With the help of technology we replicate the homo economicus one finds in the academic literature. This homo economicus is always perfectly informed about everything. He knows the expected return, risk and transaction cost of every security. For fixed income securities he knows the probability of a downgrade, we implicitly forecast what the rating agencies will do in the near future." Many factors determine the price of a security. "We measure every day what price one has to pay per unit of risk or unit of factor return in the markets. As such we calculate where the prices of the securities would have to be. That process makes the capital markets more transparent and efficient. Indeed it is important that risks are priced and rewarded in an adequate way, because it would be catastrophic if taking larger risks also leads to lower returns."

Paulus notes that globally several hundred thousands of people with university degrees work in the capital markets, who all try to generate added value. "In reality of course, in total there is no extra money being generated by all market participants together, there is only a redistribution between the market participants. A good asset manager knows where the risks are and translates this knowledge into good investment decisions."

CV

Helmut Paulus is Co-Founder, CEO and CIO at Quoniam Asset Management. After graduating from the University of Karlsruhe with a Master's in Engineering Management, he started his career at Dresdner Bank Investment Group. In 1996 he worked at DG Bank and then Quoniam. Paulus has many years experience in developing and implementing a variety of investment strategies. He is a published author and a passionate speaker for quantitative portfolio management. In 1997 Paulus was awarded with the first Deutsches Aktieninstitut e.V. University Prize for his book 'Style investing in European Stock Markets' (in German).