Better than Equities: Credit 130/30
Quantitative Strategies offer new Opportunities.

Why Invest in 130/30 Credit Strategies?
The most basic rationale for the investment in a “130/30” strategy is the existence of superior, alpha-producing manager skill. In this circumstance, it surely is a good idea to emphasize the magnitude of alpha versus beta exposure. Moreover “130/30” strategies offer the opportunity to implement significant short bets against a given “long only” benchmark without mismatching the market beta. If a skilled manager can benefit from knowledge about potential “rising stars” by corresponding long bets, there is no reason why investors should forego the option of alpha from forecasting “underperformers.” In a traditional “long only” environment active negative positions are limited to the weight of index constituents. “130/30” strategies will overcome this shortcoming: up to 30% of a portfolio’s NAV can be used for shorting – irrespective of benchmark weights – while simultaneously maintaining the beta, via an additional 30% long exposure.

“130/30” Better for Fixed Income!
We all know equity returns have an almost symmetrical return distribution. It may be that a three-year long investment in equities results either in a two-digit positive return or – with a slightly lower probability – in a two-digit negative return. Credit investment is different: if investors buy a bond at issuance, there is a certain – even though low – probability of significant losses until its maturity, but the probability for an equal-sized two-digit positive return is zero. This negative fat tail in the return distribution of credit is the reason why successful “shorting” can add relatively more value in fixed income than in equity portfolios.

Alpha during the Credit Crisis
From July 2007 the spreads of issuers in the financial industry have started to widen significantly – delivering extraordinary losses in bond prices. The optimal position in a long-only mandate was not to be engaged in financial institutions at all, and, correspondingly, to overweight other sectors. Compared to a typical credit benchmark, the latter strategy delivered obvious positive alpha. The underevaluation, however, did not adequately participate in the significant negative bond returns due to their low benchmark weight – even if we assume perfect foresight about future negative returns. What is needed to benefit – at least partly – from knowledge of underperformers in a credit mandate?

Credit Default Swaps (CDS)
CDS are the missing instrument for enhanced credit management for several reasons:
1. Credit Default Swaps allow potentially profitable short positions in a credit portfolio to be implemented without physical long-shorting the bond.
2. In comparison to cash bonds, they are much more liquid in size, and are tradable, even in turbulent times.
3. Some issuers offer only a few bonds with “mismatching” maturity – credit default swaps allow standardized trading of the whole term structure of credit.
4. CDS are available for a large universe – even for issuers without outstanding bonds.
5. CDS can be bought and sold on top of a traditionally managed credit portfolio – significantly enhancing a portfolio’s risk-return characteristics.

How does a CDS work?
A credit default swap is an OTC-traded bilateral contract between a protection seller and buyer. The protection buyer pays a quarterly premium to the seller, while the latter agrees to compensate the buyer for the loss in the event of a predefined (by ISDA) credit event until the agreed maturity of the swap. A simple long credit cash bond investment can therefore easily be replicated by a long cash position and the sale of protection in the underlying credit issuer for the same nominal amount. Correspondingly, a loan and the purchase of protection replicate the total return of a short bond position. Investing simultaneously long and short in different issuers eliminates the cash positions and results in long and short CDS positions only. A CDS position can either be closed before maturity by a simple agreement for a final cash payment between the original counterparties or through an offsetting CDS position with a new counterparty. In the latter case, the new and former counterparties can arrange the trades in order to neutralize the total position. Finally, in the case of a credit event the swap contract can be settled physically (delivery of the defaulted reference obligation against nominal payment) or by cash settlement only.

Betting versus Investing – Where’s the Difference?
Understanding the tools to benefit from negative credit performance should not lead a manager to uncontrolled betting on credit issuers. A professional investor will always reflect the fundamental law of active management: the success of an investment strategy (measured by its information ratio) depends on forecasting power, implementation skills, and the number of active positions implemented.

Realistic Forecasting Power
Let us assume that an active foresight of 0 percent represents random decision making, and 100 percent characterizes a manager with perfect forecasting capabilities. A professional manager will only succeed if he or she displays persistent positive knowledge. Several empirical studies show that forecasted up to 40 percent can be achieved by the best managers. This means that ideally 70 percent (> 10 percent by chance + > 40 percent knowledge / 2 through skill) of his or her decisions are right and, conversely, 30 percent wrong. Given this “best manager” scenario, it becomes obvious that betting on a few issuers only is a risky strategy – even for the best manager. A persistently successful credit manager should therefore forecast as many independent credit returns as possible using a wide universe of issuers and implement as many of these “bets”, while simultaneously controlling the risk of each position independently of its implementation.

Arbitrage Pricing Theory (APT) for Credit
APT assumes that in a nearly efficient market, investors should ask for arbitrage-free premia for issuer-specific risk factors. These exposures are very different in nature, e.g. market capitalization, equity volatility, leverage, interest coverage, earnings expectations, liquidity, maturity and many more issuer-related or sector-specific risk factors. The price per exposure unit to a certain risk factor has to be the same for all issuers, but the market is not efficient enough to provide this price for each factor. Consequently, inefficiencies or anomalies in the market can be identified by comparing real-time APT spreads with tradable market levels for a large universe of bonds. The differences between arbitrage-free and real-time market spreads (the “residual”) distinguish “cheap” from “rich” issuers. An approach capable of analyzing such a data-rich environment in a timely manner must be quantitatively by nature.

Leading Equity Markets
Looking at the 2007/2008 credit crisis with hindsight, it becomes obvious again that equity markets are the last resort of liquidity, whereas cash bond markets were drying up. In the 1970s, Merton had defined the mandatory link between equity and credit markets. The latest crisis again revealed that equity markets were leading the credit markets most of the time. Our research shows that any successful credit approach needs a strong and broad quantitative link to the equity market in order to maintain the required high level of forecasting power and produce satisfactory skill for the cross-sectional forecasting of all credit-issuer information.

The Timing is Right!
During times of low-spreads and low volatility, investors complained about too few opportunities compared to the risk of credit investments. Today we see the reverse situation: spreads are sky-high – even higher than at the end of the latest equity crash in 2002/2003. Compared to the previous credit crunch, today’s equity markets are (still) in relatively good shape. But, most importantly, the risk of a credit investment is rewarded more than fairly (based on all theories), and simultaneously we observe a high level of cross-sectional volatility. Both facts make for an ideal environment for active credit management. We should learn from equity markets and behavioral finance that the key to successful management is to be contrarian: spreads are high in bad weather – but we know that the rain will not last forever.

Creditmanagement - Advantage of 130/30

Credit Enhanced
Credit 130/30
Credit Market Neutral
Credit Core
Credit 100/10

Credit Enhanced: The Art of Quantitative Asset Management
Union PanAgora

Credit 130/30 
quantitative management

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Quantitative Credit Strategies
As an asset manager specializing in pure quantitative strategies, Union PanAgora has successfully implemented an equity-linked arbitrage pricing model for the active management of EUR-denominated investment grade bonds. The investment process is capable of evaluating thousands of credit exposures simultaneously while taking into account liquidity and current market prices. Based on these forecasts, we offer active management of Credit Core (“long only”), Credit Enhanced (“130/30”) and Credit Market Neutral (“zero beta”) strategies. Union PanAgora manages EUR 12 billion in third-party assets, with a total staff of 57 at the end of March 2008.

Helmut Paulus
Partner, Managing Director
Fixed Income & Asset Allocation

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