

Was the Corporate Bonds' High Yield a Free Lunch?

In 2008, the sub-prime crisis was at its peak and world markets were all on a down trend which seemed endless. Investors having faced huge losses on almost all parts of their portfolio were searching for opportunities to stop this never ending, it seemed, hemorrhage. Maybe painful memories will not.

It's been quite usual to witness that markets, when subjected to fear, operate a rush to gold, platinum, Swiss franc, Japanese yen or sovereign debt. For the last decade, gold has proven to be a very good bet. Whether it will continue on the same trend is an open question. On the other side, while being safe, currencies and sovereign debt do not provide attractive returns.

A new phenomenon generated by the sub-prime crisis has been the high yield (up to 20%) offered by some blue chip corporate bonds. It was repeatedly reported to be "the good deal" by the end of 2008 and beginning of 2009. The yield paid by the blue chips seemed indeed attractive and looked like a good way to quickly compensate for the substantial losses realized on other investments. However, we always argued that the high yield alone is not enough to take a sound investment decision. We think that one should always try to understand where the value comes from. In the case of corporate bonds, the investors should clearly ascertain and weigh the risk of not being repaid in full.

The answer we always got when exposing our doubts was that blue chips are too important for local economies – would it be for employment or future growth reasons. Thus, governments will never let them default. This is one part of the equation but this only shifts the default risk analysis to a mere political speculation.

Corporations did agree to pay higher yield because of the latest crisis' main consequence: sustained liquidity tightness. When liquidity becomes rare, debt investors tend to proceed to a flight to quality. They seek the most secure debt contracts, those with the best parameters such as latest issue or best rated counterpart. Corporations which are usually, in terms of ratio, scoring behind their respective governments must then pay higher yields to compensate and attract investors. Not mentioning other factors which negatively impact a company's financial standing, this higher financing cost forces the corporation to be more careful with its cash flow and increases the risk of default. When one has some cash availabilities, there is certainly a liquidity arbitrage to profit from. To capture it, one must discover how to extract and evaluate the real potential risk free gain. Among other risks, one would need to get rid of the political speculative argumentation.

To evaluate the default risk of a bond issued by a listed company, there are two well known paths: statistics and option theory.

The first one estimates the default risk based on past default occurrences for companies with similar balance sheets. The problem with this approach is the lack of data with similar parameters. The liquidity universe as it is since the crisis has never been seen before. Thus, this is hard to believe that estimation of default probabilities and recovery rates based on the statistical approach is accurate.

Option theory says that the value of a company which issued obligations is the value of a European call. At expiry it is worth zero if the management decides to default and the value of the assets minus the debt repayment otherwise. In this case, the default probability is the famous $N(-d_2)$ (see for example Hull for more details). The problems with this approach are the relevance of models such as the Brownian motion for the value of the stock (this is the same problem than for the statistical approach: the post-crisis environment has never been seen before) or the complexity of the method. Indeed, a listed company usually issues more than one obligation (which in addition pays coupons) and the follow-up to enter and exit at best prices requires an activist approach. So, it is reserved to expert shops.

At the simplest level, if we want to take profit from the liquidity arbitrage, the best thing to do is to purchase the bond and the corresponding CDS. The residual risk is the risk of a simultaneous default of both the bond issuer and the CDS issuer. The graphs in **Figure 1** show both the unprotected (black) yields and CDS covered (red) yields for selected sovereign obligations (Germany, France, US and Greece). We see in these graphs that at the beginning of 2008, the governments themselves appeared more risky, with a peak of the market fear during early 2009. Moreover, the best yield one could have expected was hardly above 4%. The level is now rather 2%.

The exception is Greece. Indeed, its risk free level is now 3%. This is mostly due to the high probability of default which prevents investors from purchasing the bond due to the administrative work and complications which are involved in the case of a default.

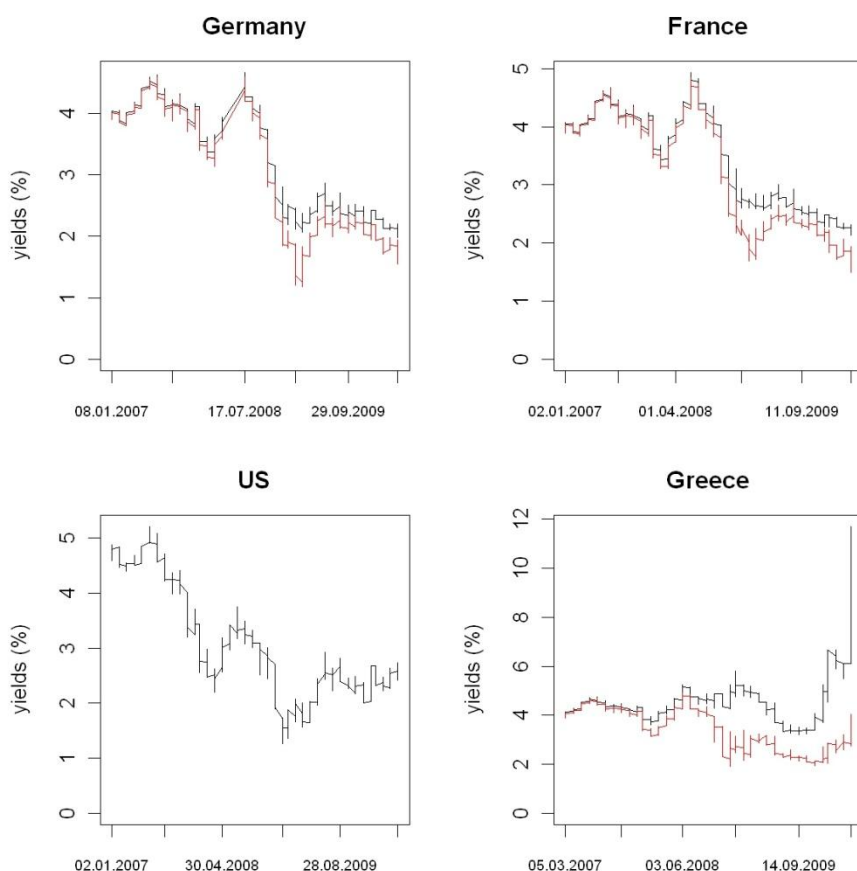


Figure 1: sovereign (Germany, France, US and Greece) 5 years yield. The unprotected yield is in black and the CDS covered yield is in red.

The graphs in **Figure 2** show both the unprotected (black) yields and the CDS covered (red) yields for selected corporations (Goldman Sachs, Fiat Renault and Ford). Even if we saw yields of 10% on Renault or even 20% on Fiat, the best achievable CDS covered yield was never above 6%, down at 4% when this article has been written. This is hardly 2% better than sovereign debt. A sound question remains: are these 2% worth more than the risk on the CDS issuer?

This is an open debate. The most striking case is certainly Ford, where investors agreed to pay more than the CDS value to get rid of the bond, thus realizing a loss on an obligation which had not defaulted and when the question of a government bailout was open.

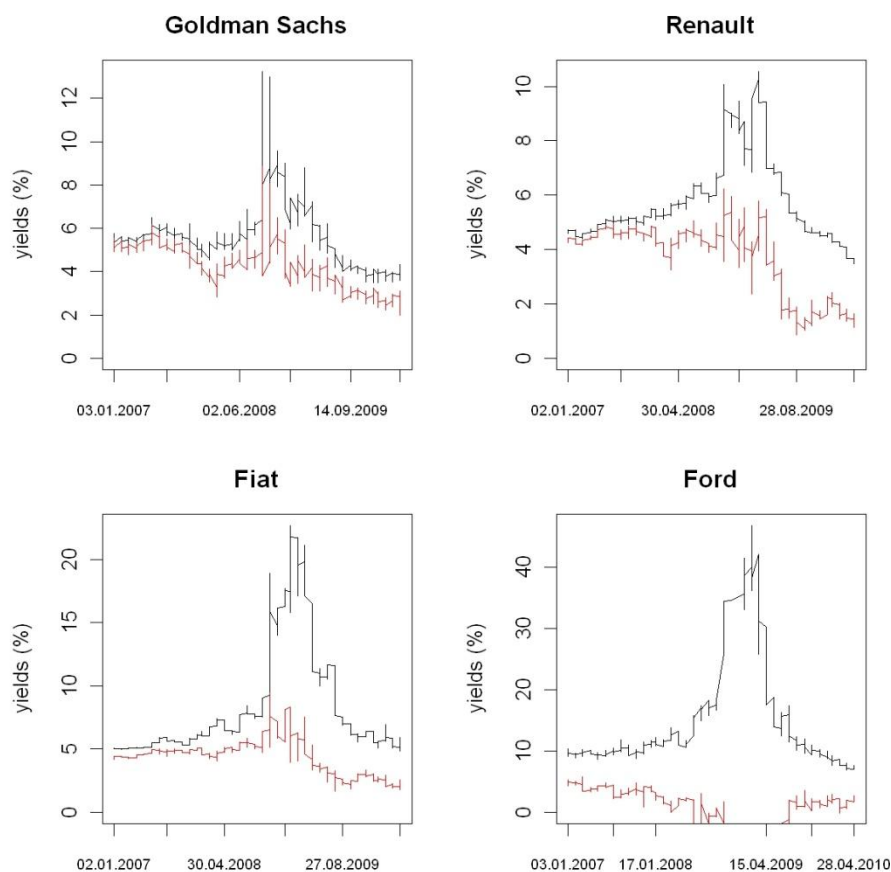


Figure 2: corporate (Goldman Sachs, Fiat, Renault and Ford) yield. The unprotected yield is in black and the CDS covered yield is in red. Obligations were selected such that maturities were about 5 year.

Finally, **Figure 3** shows the underwater curve for the Renault and Fiat obligations. The underwater is the marked to market loss relative to the maximum value of an investment. The deepest value corresponds to the maximal drawdown. It gives a good idea of the marked to market loss; loss on which an educated investor should trigger a stop.

Depending on the entry point, would you have kept the position up to a positive exit? Suppose that you wanted to enter the Fiat obligation when investors who bought it at the beginning of 2007 have already lost 10%. What would have you done when marked to market the position was down 20% more?

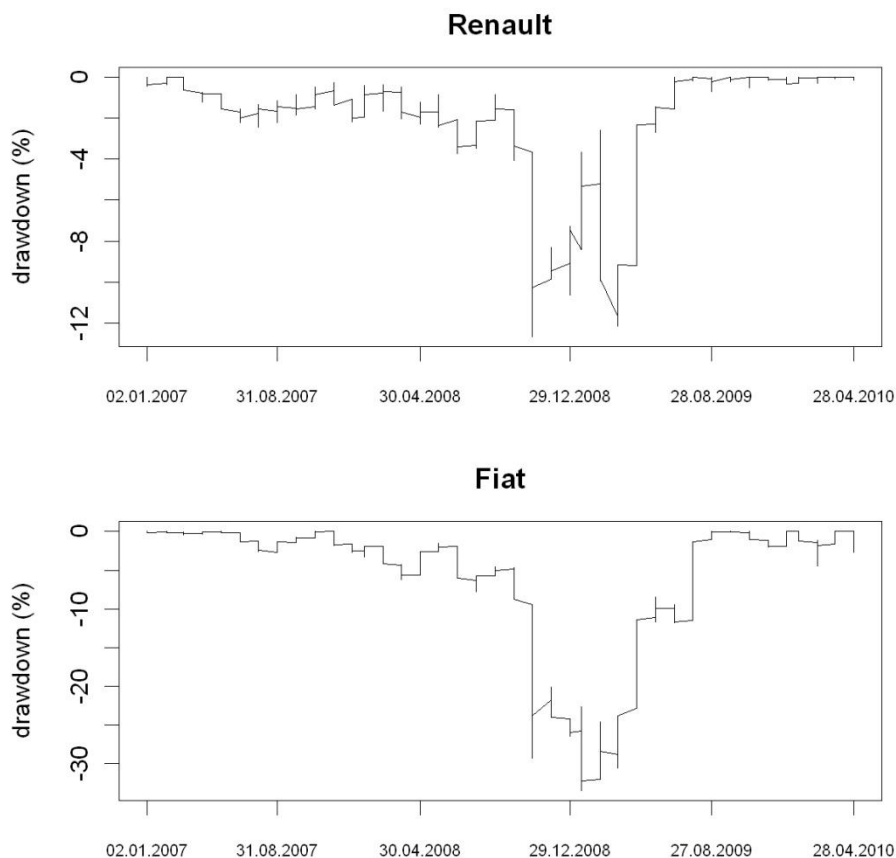


Figure 3: under water curve of the Fiat position since January 2007.

The answers to the above questions are not trivial. The corporate bonds are an asset class among others. Speculation, profits and losses are all possible. As for other asset classes, arbitrages exist and require special skills to capture them. Sometimes people have the right intuition, but markets rarely offer free lunches. A deep analysis should always be performed.