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## **Credit funds seek flexibility and sustainability from IT solutions**

**Innovative software solutions for credit strategies are a challenge. IT companies offer a plethora of solutions for an environment that lacks standardisation and needs a high degree of automation.**

CMA is an independent credit information technology service with a selection of products that help customers manage front office, trading activities, middle office and risk.

For credit funds there are a range of services that especially need to be provided such as reverse management platforms, order management systems, pricing services and research. CMA's employees are mainly professionals in price discovering and risk management tools.

There is currently a great deal of innovation in the industry, specifically focused on risk management. IT companies hope to provide better capability for clients to cope with increasingly complex portfolios and to have as much transparency of information as possible, says Laurent Paulhac, CEO at CMA.

There have been hedge funds and major market participants, including banks, which have been struggling with credit. Over time the value of portfolios substantially diminished and "some of the methodology they were using in risk management and pricing was not accurate, so the entire industry is focusing on the methodology," adds Paulhac.

What CMA discovered post-subprime crisis is that for a lot of complex products, managers have been marking their position to model. These models were not accurate. So rather than marking positions to model prices, the new trend is to mark positions to real observable prices.

CMA has had feedback from its customers about application service provider (ASP) solutions "where effectively you can outsource the IT infrastructure required to run those solutions," according to Paulhac. CMA has launched its ASP version of real-time price discovery, Quote Vision, and has had good feedback on this from customers.

### *Outsourcing trend*

"It has become a substantial trend, where some of the largest investment banks and hedge funds much prefer to outsource their IT management solutions rather than managing it internally. This is mainly because the costs incurred in-house are much higher than those from specialists like CMA," he explains.

Credit funds are looking for faster, more integrated solutions. There are few standards to make the sharing and management of information consistent and streamlined.

Funds are looking at outsourcing things like internal network engineering staff, disaster recovery, business continuity planning and other professional services including custom software programming or package software integration.

For the more complex credit instruments there is a greater focus on transparency of information, pricing and, more importantly, models. Many vendors have presented analytical tools and pricing services that Paulhac calls "black box" services. This is technology that computes values and evaluations that cannot be questioned or

analysed by the end users. "Customers are telling us this is not what they are looking for. What they are looking for is what I call 'white box' models, where they can truly understand and truly assess the data and get their risk managers and auditors comfortable with it. So there will be a push on all levels to get this kind of transparency," he adds.

If a credit fund wants to diversify its current strategy and wants to get into distressed debt or to open a credit arm, Mark Coriaty, director of Eze Castle's professional services group, will sit down and evaluate the various technology options based on what the fund actually uses. He will see if existing technology can support specific vehicles. For example if a manager is looking into credit, the key thing for them is to be able to understand where the liquidity is. "We also need to know who their prime broker is to see if they have the ability to look into the credit space," he adds.

"Furthermore what we are seeing is a lot of existing technologies that are being used either on the equity side or the fixed-income side. Funds are trying to add different modules to their existing software platforms. So the software manager is spending a significant amount of time trying to build different components to support credit strategies," says Coriaty.

Hedge funds are often impatient and this impatience leads them to build something internally. So there is some bespoke and proprietary development by hedge funds. What is also happening is that many third party providers like Eze Castle and CMA are being asked to build different proprietary solutions.

The credit industry works in cycles. When economic slumps arise hedge fund managers want to jump in immediately. They look at how they can leverage, and where credit strategies or distressed debt could add value to their bottom line. So they look for software tools or in-house solutions to support this.

#### *Liquidity key*

Key for credit funds is to find the liquidity wherever it is in the market. There are some bigger banks that offer a way into that liquidity. "However, when a manager is looking for some kind of strange outside debt that cannot be found they will still use the phone and call five or six different brokers to see if they can get spot looks into different liquidity pools around the world. So people are still using the phone as much as they did five years ago," says Coriaty.

Distressed debt is back on the table and managers want a tool that works right away. Unfortunately there are not many tools that will support the needs of everyone. Funds also want custom-built functionality that can serve their purpose immediately.

For example some experts say the subprime opportunity for the hedge fund industry is going to last from now until summer 2009. "There isn't a great deal of time to go out there and implement the software package in the next six months. Credit funds need something today. A lot of times if someone can't have liquidity, they are going to start banging on the phones just to find it," says Coriaty.

When looking at future innovations in the credit fund industry, understanding the work flow is important. Data comes in from brokers and different rating agencies, like Moody's, as well as other sources, like Bloomberg. This data is analysed and stored. An investment decision is made and then the type of system the fund is going to use to trade that instrument is chosen. Yet another system is used to track the trade. Many funds use Excel to track information, or some type of file server for all the data, or a research management tool.

"What credit funds crave is some kind of tool that supports the entire business work flow and encompasses all those components," comments Coriaty. "There is nothing really out there that solves all of these needs. So credit funds and IT companies alike will be looking to build something that is proprietary in-house which will fill all the holes between the systems that the funds have currently."

## *Adapting to changes*

Over the last couple of years, technology has played a substantial part in how people are engaging with the markets. As regulation and audit requirements change, technology needs to adapt and change with it. From a technical standpoint, hedge funds need flexible software packages that are able to support new instruments, whether they are credit, equity, debt or derivatives.

"The modules that one can add to the current available systems need to be scalable over time because hedge funds don't want to be replacing their software every couple of years. What they want to do is take modules and attach them to software they currently have," Coriaty concludes.

"People are coming to us to provide credit and risk analysis for credit hedge funds," says Mark Ferguson, senior quantitative analyst at Quantifi, which specialises in providing software for credit strategies.

"We're an independent source of pricing so they don't have to depend on dealers and our models are updated to cover all the new products that are being traded," says Ferguson.

Most credit derivative hedge funds need third party help, according to Ferguson "because they want to make sure that quotes are reasonable," since most credit derivative products are traded over the counter and prices come from the broker-dealers.

"They use our model here to find what a reasonable price would be and then they check them against prices of the broker-dealers," Ferguson says.

The historical model for obtaining credit securities prices began to have problems in 2005. It needed innovation and changes. Quantifi updated the models to account for the pricing change in products.

With the volatility in the markets now, there are prices no one has ever seen before. The model created in 2005 now needs significant updating.

Quantifi offers a middle office product for traders to help them keep track of what is going on with products in the market. "The market has put pressure on the model, but by and large the risk managers are satisfied," says Ferguson.

## *Sophisticated modelling*

Credit modelling products are very sophisticated from a modelling standpoint, according to Ferguson. He said the product measures VAR (value at risk) for credit products, which is referred to as CVAR.

CVAR is not understood as well as other products, says Ferguson. There is more than one way to look at CVAR. It can be historical or it can use current information.

As the securities in the credit market get more complex, more effort is needed to model them. "There are a number of whiz-bang products that are too complex to be modelled easily. The volatility has put a monkey wrench in things," says Ferguson.

The problem with coming up with a model that works across all credit markets is that there are so many players in the market and there is no consensus among them as to what they want.

"We need something more major than what has happened so far in the credit markets to force people to look at new models," says Ferguson.

Skyroad, formed in late 2005, provides credit modelling using the Calypso software product. "We configure the system and connect clients - either the portfolio manager or administrator - to it," says John Boris, Skyroad CEO.

The Calypso product can give the pricing of risk management for operations and look at the profit and loss measures.

"Skyroad is a reseller of the Calypso software. We implement the software on behalf of the client; we're a partner with them," says Boris. "We bring the technology to the hedge fund industry through the ability to have it up and running very quickly and they don't need to hire someone in-house with the expertise to run it. We can connect to all parts of the world."

Calypso is derivative processing software that represents the trade and guarantees "trade capture". This allows the user to value the trade and run risk management on the same system simultaneously. Clients connect to the software over the internet through a private connection. "The fund can be run remotely and if the main data centre is down users can connect to it through our development centre," according to Boris.

Another product needed when trading credit derivatives is T-Zero, which is a means by which a trade can make sure it has been correctly matched to the other side of the trade.

"It allows you to bring in an electronic representation of a trade and make sure the details of the trade match," says Boris. It is a much more complex product.

According to Boris the Operations Management Group thinks it is better for the industry if large portions of trades are done using T-Zero.

The Operations Management Group is a senior industry leadership group with the sole purpose of heading fundamental change in front-to-back processes across OTC derivative products. The group is composed of buy and sell-side representatives including major dealers, the Managed Fund Association (representing the global alternative investment industry), the Securities Industry and Financial Markets Association and the International Swaps and Derivatives Association.

The goal is to create a marketplace that confines the vast majority of trades in the date the trade is executed. As a step towards this, the majority of dealers and buy-side members of the group have agreed in a letter to the US regulator (May 2008) to meet by June a series of operating expectations for electronically eligible confirmable trade events with all counterparties.

Skyroad allows a company with none of this technology internally to access it online. "We emphasise this trading is complex and requires sophisticated software," says Boris. Skyroad now has 10 clients, most of whom trade credit derivatives. It is also working with clients modelling trades in asset-backed and mortgage-backed securities.

Calypso has a product that supports asset-backed securities trading. It appears to be the most advanced product for credit derivatives, according to Boris.

"They are constantly providing new improvements and major releases of new technology every year. Hedge funds are very demanding in terms of their appetite for technology. We see that our clients get as much out of this technology as they can," he concludes.