

Systems for CDO management: building a deal machine

Becoming a CDO manager used to involve nothing more complicated than setting up a few spreadsheets to track the portfolio. But the complexity of CDO compliance tests and reporting requirements – along with the demands of investors and ratings agencies – are forcing managers to put serious systems in place for this business. We look at how three managers are tackling the challenges and at what third-party products are currently available

“Do you spend valuable time setting up your deal models and compliance tests?” “Are you confident that you are accurately tracking your trades?” “Are you able to efficiently reconcile with your trustee?” “Will your CDO management system require time consuming, manual updates to asset level data in order to conduct hypothetical trades?” These are questions directed at CDO managers taken from the web pages of securitisation software vendor **Lewtan Technologies**.

For many a CDO collateral manager wrestling with a stack of multiplying spreadsheets, the answers to these questions are an emphatic yes, no, no and yes. But the fact that software vendors exist to ask the questions is a sign that things are starting to change.

Historically, one of the biggest weaknesses has been the link with the trustee. “Five years ago the technology was not there,” says a US-based CDO manager. “For example, you would go to the trustee for a scenario analysis and ask ‘Can I replace the bond and how does that affect all the compliance tests?’ By the time the trustee got back the trade was no longer there.”

Since then, competition for CDO business has forced the trustees to raise their game. “Trustees have had to invest in operational infrastructure,” says a North American CDO manager. “A host of CDO trustees entered the market. That competition was good, because it forced trustees to differentiate from an operational perspective.”

Meanwhile, for CDO managers, a relatively basic spreadsheet environment remains the simplest solution for portfolio management and the associated administration. These systems are cheap and easy to set up, but easily become manually intensive. They are also less secure than more high-tech solutions, which allow for audit trails and controlled access to different parts of the system.

Notes **Sunay Shah**, CEO of CDO management software provider **CDO Software**: “There are two aspects of operational risk to consider. First, managing multiple spreadsheets gives rise to inconsistencies in the integration of data. If information is having to be updated multiple times – for example, when updating a price or changing a data range – errors can naturally arise. Secondly, there is the question of how you go about auditing your activity.”

Like other solutions, CDO Software allows users to define varying levels of access to the system. “The client can define who gets access to do what,” he says. “When a user is logged in they are assigned a role that determines what access they get. That can vary depending on whether you are a front office user, a middle office user and so on.”

Lewtan Technologies and CDO Software are among a handful of vendors that offer specialist CDO administration and portfolio management software. Other vendors in the space include **Wall Street Analytics**, **Wall Street Of-**

ice (owned by JP Morgan and unrelated to Wall Street Analytics), **Atlantic Information Services** and **Deloitte & Touche CDO Suite**. Deal model and data provider **Intex** is a special case – offering pricing, modelling and analytics rather than tools for administration. Wall Street Office also occupies a special niche, having effectively cornered the market as a bank loan database provider.

A typical platform offers anything from modelling the structure of each new deal on behalf of the manager and setting up the compliance tests so they can be monitored through the life of the deal, analysing risk and concentration across multiple portfolios, running cash-flow projections, generating front office to back office reporting, and providing other services such as cash management and trustee notification and reconciliation.

Besides asset managers, the software providers target their services at sell-side structurers and investors.

“On the asset management side usually we get involved pre-closing at the warehousing stage,” notes **Luis Amador**, managing director at Wall Street Analytics in New York. “We provide the system to load the assets during the ramp-up, and work with the managers on the modelling of any term sheets from the underwriter. We model the capital structure of the CDO, and tie out the returns and performance numbers to the underwriter before the deal closes. Once the deal closes, we deliver a finalised version of the structure.”

Growing business
Aladdin Capital Management, **CypressTree Investment Management** and **Deerfield Capital** provide examples of larger CDO managers that have turned to third-party vendors as their businesses have grown.

“It has been a continuous evolution,” says **Jason Morris**, a director in structured credit at Stamford-based Aladdin Capital. “As we have grown, we have focused on building



CDO Software provides cutting-edge management tools for the structured credit market.

Tools for effective decisions

Single controlled environment

Mitigate operational risks

Fully audited

Exposure management

Use internal/3rd party analytics

Eliminate proliferation of spreadsheets

Interface with internal/3rd party data feeds

Transparency to make better informed decisions

Integrated solution from trade capture to reporting

Cross-asset environment including life settlements

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Focus on synthetics

Systems for synthetic CDO managers are emerging as a growth area for CDO software vendors. "Whoever can offer a system that hits the concerns of the synthetic CDO manager will grab market share," says **Jason Morris**, a director in structured credit at cash and synthetic CDO manager **Aladdin Capital**. "The ability to integrate with the rating agency models will be a key to success."

He says the manager is in "exploratory mode" with vendors about software provision for its growing synthetics business. One of the firms Aladdin is talking to is recently established software vendor CDO Software. "They have features built with this asset class in mind," says Morris. "They are the first that seem to be specifically targeting this niche."

CDO Software was co-founded by **Sunay Shah** and **Brett Paton** in 2005. Independent consultant **Geoff Chaplin** started working with the firm later that year.

Shah says that strong features of the CDO Software platform include the ability to look at the exposures in the lower level of a CDO squared. "You can drill down to the lowest level and look at the effect of any specific underlying," he says. "For a CDO-squared you can look not just at the reference CDO but also its underlying reference assets."

He adds: "Breaking down your risk and concentrations within an individual reference pool is done easily using a 'drag and drop' function. Similarly, when aggregating across all deals, you can do so seamlessly at the touch of a button."

Adds Paton, who is CDO Software's chief technology officer: "Sometimes with vendors it is not easy to get data in and out of the system and to move it around. With CDO Software you can simply copy and paste data into any of the applications and automate the import and export of data very easily. Features include a 'play pen' area, for looking at substitutions. To perform a substitution you simply drop it into the 'play pen'."

Links to external data sources include **Markit's** bond and credit default swap prices and reference entity database, along with **Standard & Poor's** and **Moody's** rating feeds. The platform is also integrated with CDO modelling providers. Clients can choose their own preferred vendors and feeds.

The platform currently works using a predefined view for rating agency CDO models. "You can cut and paste from the application to the rating agency model," says Shah. "However, we are working on a solution that will involve running the model within the application and storing it down in a central database."

It is early days for the platform, which launched in March this year. However, Shah says that discussions are advanced on both the issuer and investor sides.

He adds that CDO Software is not limiting itself to the synthetic market. "We set up initially on a synthetic basis, but we are near to completion on integrating cashflow CDO products."

out the appropriate infrastructure from a compliance and portfolio management perspective at a business unit level. Each system has been developed with a particular asset class in mind."

Aladdin uses third-party software for its CLO business, which includes eight deals. The firm also manages cashflow CDOs of ABS

and synthetic investment-grade corporate transactions which rely on proprietary in-house systems.

For the CLO business, Aladdin initially used Lewtan Technologies as its third party vendor. **Deutsche Bank**, which partnered with Lewtan in developing its web-based CDO portfolio management system, iCDO, is the trustee for several

of Aladdin's CDOs.

"At that point we were three deals deep on the CLO side and also had a cash flow investment-grade bond CDO," says Morris. "The system got us away from a spreadsheet environment and worked very well for what we needed at the time."

Subsequently, Aladdin has looked to a combination of suppliers for its CLO business. It uses Wall Street Analytics for its compliance engine. It also has access to Wall Street Office's portfolio management engine through an outsourcing arrangement with a bank and trustee company.

"On the portfolio management side, loans require a lot of work – they are always amortising or restructuring," notes Morris. "Wall Street Office's portfolio management system is best of breed for loans, but you have to spend. It is an expensive product."

Competitors concede that Wall Street Office has a strong market position as a result of its bank loan database. "They got in first," says another vendor. "We have a full bank loan administration capability, but we are not in the business yet of collecting all the agent notices [notices of loan issues] and creating a database."

Meanwhile, WSA's compliance engine scores strongly, according to Aladdin Capital's Morris. "WSA is among the better players," he says. "Their compliance module is particularly strong. It allows us to perform a whole host of tasks in addition to the basic calculations, such as projecting waterfalls."

Morris adds that as the firm's CLO count has grown, cross-deal analysis has become a key requirement. "It is vital to be able to slice and dice the investment portfolio," he says. "You can have the same loans and issuer across multiple portfolios, so when news breaks on a name it is very important to be able to quickly determine which deals have been impacted."

CypressTree is also using a combination of WSO and WSA for its CDO business. The Boston-

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based firm manages a clutch of cashflow CLOs, including a market value CLO, together with a synthetic CDO of mostly high yield names. "WSA sits on top of the WSO database," says **Burke Malek**, fund accountant at CypressTree Investment Management. "We use WSA to produce daily monitoring. It produces the key 'stats' that the portfolio managers want to look at through extensive macros, replacing the need to crunch the numbers by hand."

He adds: "It allows for easy manipulation of the data, for example when looking at hypothetical trading. It is a great compliance engine."

Handling hybrids

Meanwhile, Deerfield Capital has turned to Atlantic Information Services (AIS) for third-party software. The Rosemont, Illinois-based firm manages 24 CDOs, including five mainly investment-grade corporate CDOs, nine CLOs and 10 CDOs of ABS.

AIS provides CDO management software called CDO Sentry. The platform grew out of the portfolio management software that was developed internally by CDO collateral manager, **Atlantic Asset Management**. AIS is run as a separate company, and has roughly 25 clients, including US as well as European CDO asset managers.

"Our CDO management platform has evolved progressively as the business has grown," notes **Pat Maley**, director of ABS at Deerfield Capital. "We use CDO Sentry for checking compliance, looking at cashflow projections and for 'what-if' scenarios. One of the things we like about the system is that it was developed by someone in the CDO management trade. AIS's support is excellent and the platform has been extremely responsive to the development of our business."

Adds **Lonnie Merta**, associate analyst at Deerfield Capital: "Initially we were a fully distributed cashflow CDO business, but have gone on to do hybrid cash synthetic and single tranche non-distributed

deals. The software package has handled those different types of deals extremely well."

Maley says that investment in systems in the synthetic ABS CDO area is a way of gaining competitive advantage. "A lot of people are doing a lot of synthetic deals, but there have been no major trigger events yet. However, those managers that can efficiently and effectively track those types of deal will outperform."

The cashflow market continues to account for the majority of the business done by CDO management vendors. However, investment in operational technology for synthetic businesses is showing increasingly on the radar at CDO issuers. "Synthetics are in some ways easier than cashflow deals," says Morris at Aladdin Capital. "You don't have to worry about things like amortisation, weighted average coupon and weighted average spread. Moreover, you are managed to model, so the synthetic CDO models at the rating agencies are in a sense your compliance engine."

"Synthetics are more simple to track internally," agrees Malek at CypressTree. "It is easier to do versus cashflow structured credit." However, synthetic deals bring their own complexities. "It is the nature of the synthetic business that a deal tends almost to split into multiple deals because synthetics are so flexible," says Morris at Aladdin. "You need a system that handles that."

Volume growth

Meanwhile, ballooning structured credit outstandings suggest there is good business to be done by vendors. "We are seeing about 50% [client] growth from the same time last year," says Amador at Wall Street Analytics. "The most recent growth has been greatest in CLOs. CDOs of ABS has been the second most active area."

Wall Street Analytics' desktop asset management application is called CDOnet. A web-based product called CDOcalc caters specifically for investors. A global CDO library, which currently contains

over 800 CDO models, is also part of the service.

Asset types supported by the CDO platform range from high yield and emerging market debt to banks loans, structured finance and CDOs, foreign exchange, credit default swaps, trust preferred securities and interest rate swaps.

Vendor solutions don't tend to come cheap. For example, WSO's portfolio management system is described by one CDO manager as "not something a one or two [deal] CLO manager can afford". Another manager says that the cost of a vendor platform is enough to wipe out a large chunk of the fees from an individual deal.

Different vendors take different approaches to pricing. WSA, for example, charges an upfront set-up fee along with an initial licensing and support fee that includes training, support and upgrades, according to Amador. Fees then increase on a per-deal basis.

But if CDO managers are tempted to scrimp on infrastructure investment, they have the rating agencies to contend with. "The rating agencies want to see that you are adding personnel as the business grows and that you have the necessary systems," notes a CDO manager. "If a manager is running half-a-dozen deals and is still running its system off spreadsheets, the rating agencies will bring that up as a concern."

He adds: "Whether a rating agency would not rate a CDO based on operational concerns is another question. It would be unlikely that they would not rate a deal."

Nonetheless, the rating agencies play a valuable role as providers of quality control. Partly for that reason, operational deficiencies tend to be far less of an issue in the CDO management business than is the case for many hedge fund managers, or even large sell-side dealers.

For vendors that is good news. Even with the most budget-conscious CDO manager, they may find themselves knocking on a half-open door.

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