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Dark-Pool Aggregator Aims to Ratchet Up Matching Rates

Platform boasts simultaneous access, increased transparency

By Katherine Heires

Frustrated by the inefficiencies, high costs and low matching rates of dark pools and alternative trading systems, agency brokerage Weeden & Co. and its technology partner, Pragma Financial Services, decided to take matters into their own hands and build a solution.

The resulting platform, OnePipe, can simultaneously connect to, and assess liquidity in, 25 dark pools and alternative trading systems. Greenwich, Conn.-based Weeden plans to add seven more by the scheduled launch in January.

OnePipe utilizes proprietary algorithmic and order-routing technology that assists in the liquidity aggregation process and, accord-

TRADING

Dark-Pool Aggregator

ing to Weeden, speeds up the matching process and achieves significantly higher matching rates. The product will commence beta tests this month.

"We are hoping to achieve crossing rates in the 20 percent range or higher," says Weeden managing director Doug Rivelli, who claims that the platform "will be the most comprehensive liquidity management system out there."

Rivelli points to a study released in September by research firm Aite Group that says average crossing rates for individual dark pools and ATSs are between 4 percent and 11 percent. For some orders, dark pools are said to supply liquidity for 40 percent of shares before trading hits the public market.

"Combining the market share of independent block-trading platforms and the broker-owned crossing engines, dark pools of liquidity represent 15 percent of the total U.S. equities market as of" the third quarter, says Sang Lee, co-founder and managing director of Boston-based Aite. "Market share of dark pools is expected to grow steadily, reaching over 20 percent by the end of 2011."

Programming Partner

OnePipe is the result of an ongoing, several-year partnership between Weeden and Pragma, a New York-based, 15-person developer of custom algorithms that was founded five years ago by Lee Maclin, a professor at the Courant Institute of Mathematical Sciences at New York University—an institution known as a training ground for Wall Street quants—and David Mechner, a former hedge fund trader and doctoral fellow at NYU's Center for Neural Science. They have since been joined by a third principal, director of quantitative services Peter Fraenkel, who was previously managing director of global equity derivatives risk and pricing at Morgan Stanley.

"Pragma has done all of the financial engineering and the programming while the actual product was the brainchild of Weeden," says Rivelli, who notes that the platform is one of a host of products on which the firm has collaborated, including advanced algorithms built on top of the Pragma TradeEngine that combines portfolio analytics, risk management, and optimization tools for algo trading.

Doug Rivelli

Rivelli explains that many Weeden clients who trade less liquid stocks had complained about the state of fragmentation in the dark pools. That fragmentation has been created by the assortment of new trading venues such as Liquidnet, Pipeline Trading Systems, Investment Technology Group's Posit, Goldman Sachs' Sigma X and Credit Suisse's CrossFinder, he says, which "are all good sources of liquidity but our customers were finding that they were not able to access them in an efficient and intelligent manner."

He says that clients were getting 80 percent of their dark liquidity from five pools and were not achieving the percentage of matches they wanted. If Weeden could help clients access the other pools more intelligently, posited Rivelli, the combined execution rates of all the secondary pools could have a significant impact on the overall crossing rate.

Working with a team of four or five developers over six months, Pragma developed an algorithm-based platform that not only connects to multiple crossing networks, but provides optimal execution.

"When a trader submits 1 million shares to one of the dark pools they will cross 4 percent of that order on average," says Pragma director of research Maclin. "But 96 percent of that order will not get crossed and that means that by the end of the day, the trader will have to trade in the open market and this will have a huge market impact on price."

OnePipe provides a form of dark-pool optimization that, Maclin says, "brings true mathematics to simple trading functions."

Adds Maclin: "We expose an order to all these networks and slowly pull back the shares and trading to mitigate the risk that they are not going to cross, so that by the time 4 p.m. comes along, there is not a large order that has not been executed. Essentially, we are mitigating the risk of not crossing."

That functionality is optional, stresses Mechner. "People can use OnePipe solely for crossing network exposure without trade-out. Trade-out is not the primary focus."

Accessing Everyone

Rivelli believes OnePipe has a leg up over liquidity-seeking algorithms offered by a host of sell-side firms, and aggregation tools from agency brokerages EdgeTrade and Instinet, among others. "A lot of other systems want to focus on venues with the highest fill rates—Liquidnet, Posit and Pipeline are the top three, while SigmaX and CrossFinder have high cross rates," he says. "But what they don't understand is the utility of having access to additional, passive-liquidity sources that may have lower cross rates, but when aggregated can add significantly to overall crossing rates."

According to Rivelli, other systems tend to focus on internal flow before going outside to find liquidity. The problem with that approach is that the time delay can put liquidity-seeking customers at a disadvantage. "We access all these pools simultaneously, looking at the best crossing rates for certain types of securities, using real-time and historical liquidity analysis to determine where subsequent queries will go," he says. "In this instance, we are not considering our costs."

He claims that some competitors start with freely accessible liquidity sources before working their way up to the more expensive venues, so they can improve their own internal margins. "I think that a lot of firms have a vested interest in maximizing their internalization rates because that's where they make the most money," Rivelli says.

He adds that OnePipe users will receive detailed, end-of-day reports that show where orders were routed and filled. Transparency is a key component of the product, according to Rivelli. "Some of our clients have expressed concern that other dark-pool access products are claiming to go to certain destinations when they are not," he explains. "We need to demonstrate to our clients that we are actually routing to all those destinations we cite."

Lee Maclin

Brad Bailey, a senior analyst with Boston-based Aite Group, sees demand for a product that offers broad access to dark liquidity. Buy-side traders "tell me they want a single point of access to the growing number of dark pools" and alternative trading systems, said Bailey. "Only a few of them have the time to build connectivity to all these outlets," he added, and many "are looking for products that can effectively manage this task for them."

The platform will have two-tier pricing: a flat fee of 1.5 cents a share, or a pass-through pricing model that includes a premium based on the average rate for the dark pools a client crosses, plus an additional charge for clearing and service.

OnePipe will be available as a standalone offering or as an adjunct to the TradeEngine platform. It can be accessed via any order management or execution management system or using Weeden's proprietary graphical user interface. ■