

# Institutional Investor



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## What Renaissance Technologies Has That You Don't...

...besides billions of dollars, is nearly-perfect bond pricing information. Good news: that playing field may soon be leveled.

BY JULIE SEGAL

**Q**uantitative hedge fund firm Renaissance Technologies, founded by mathematician James Simons, has had near real-time prices on corporate bonds and other debt for years. Although that doesn't sound particularly edgy at a time when autonomous driving cars are being tested on roads, the ability to call up bond values on even a small slice of the credit universe before placing a trade — a bond ticker tape, essentially — is innovative.

That's because Renaissance has that ability, and most other investors don't.

When it comes to the markets, those with the best information win. Investors have historically traded credit in an over-the-counter market; they call a couple of dealers, get prices, and choose the one with the best deal. Unlike stocks that trade on exchanges that continuously broadcast prices, there hasn't been a central place to find bond values. For good reason: There are tens of thousands of outstanding bonds and complex securities, with many not trading for months or longer.

"Pricing is at the heart of any market," says David Krein, head of research at MarketAxess, which launched in 2000 and offers electronic trading for global credit. "Dealers take phone calls

and give out prices. That's the widget they produce," he adds. Dealers in an over-the-counter market benefit from a limited flow of information that allows them to have the upper hand in trading.


That has started to change. With banks stepping back from their central role as fixed-income market makers since 2008, start-ups and others have eagerly filled the vacuum with electronic trading platforms and other services. Now new venues are sucking up bond trading data and getting closer to spitting out accurate prices. In bond speak, that means pre-trade transparency is getting better.

There have been false starts. Launched in 2009 with backing from private equity firm Warburg Pincus, Benchmark Solutions hoped to provide constantly updated intra-day bond prices using advanced computing techniques. Benchmark, which closed down in 2013, may have been too early: Machine learning, data science, and the sheer volume of data have advanced significantly since then. Clients themselves were also still happy to call dealers for prices at the time.

MarketAxess recently started calculating pre-trade prices. Its edge comes from the execution data that flows

through its electronic platform directly informing prices. With an 18 percent market share in high-grade credit, for instance, MarketAxess sees a big cut of total trades. Pre-trade predictions, or reference prices, are updated every 15 seconds.

"Reference prices incorporate everything we know about the market up to the second," says Krein. Importantly, he emphasizes that pre-trade predictions are simply that — predictions — and not the price that the buyer or seller will get. However, MarketAxess is measuring the gap between its predictions and reality. The company analyzes trades between institutional clients and dealers that are worth \$150,000 or more and reported to regulators through the TRACE system as well as trades on MarketAxess. According to Krein, the difference between its predictions and the actual execution price is, on average, zero. Of course, that doesn't mean MarketAxess is predicting the price point for individual trades with perfect accuracy — not even Renaissance can do that.

Start-ups are also trying their hand at pricing. Trumid Financial, launched in June 2014 and backed by venture capitalist Peter Thiel and 



George Soros, has been quickly gaining volume, which will give it access to more data and in turn more accurate pricing. On top of its May acquisition this year of competitor Electronifie, Trumid also got an investment from Deutsche Boerse. The two are planning a joint venture in Europe.

Jason Quinn, head of product development, says Trumid is offering a continuous pricing service for corporate bonds based on quantitative algorithms on 22,000 issues. The start-up is posting the models and the three most recent months of back tests on its web site in a bid for transparency. “We’re giving people the scorecard to build confidence. I’m hoping others

will do something similar so we can see how good these products ultimately are,” he says.

Interactive Data Corp., which provides financial market and other information, built a very profitable business out of the lack of transparency in the bond market. Acquired by Intercontinental Exchange in 2015, IDC was for a long time one of the only providers of estimates of bond prices at the end of every day that mutual funds and others needed to value the securities they held in their portfolios.

With demand for more than just end-of-day data, IDC pushed into the business of offering intra-day bond pricing, but still uses its army of analysts

to check on the computers’ algorithms. IDC believes models can’t do the job on their own.

Mark Heckert, head of pricing and analytics at Intercontinental Exchange, says its history in the business gives it a big advantage over new competitors. Specifically, it has a vast amount of data with which to train computers designed to look for patterns or deal with “regime shifts” — large and abrupt changes, like 2008.

With all the bullishness about electronic trading, Hechert stresses that a significant amount is still done the old-fashioned way: via the human voice. “We think our analysts add value, at least for now.” ■