

REUTERS NEWSSCOPE

We look at Reuters' recently launched NewsScope product and examine how it can be used to incorporate news and fundamental data into an automated trading system.

Automated trading systems usually rely, to a large degree, on technical analysis based tools incorporating such things as indicators, momentum studies and moving averages into their models. The mathematical nature of these studies means they are easy to programme and have the advantage of generating unambiguous buy and sell signals. Incorporating fundamental information, including both news and statistics, into such models is more complicated as such information usually has to be interpreted by a trader first because newswire releases are not typically machine readable. Furthermore, the nature of market news releases means many are non-mathematical and so not easily programmable, even if a model based on news has been developed.

With NewsScope, Reuters has effectively managed to leverage their huge back catalogue of news releases into a data source product. NewsScope allows machine readable Reuters news to be incorporated into event and fundamental news driven automated trading systems. It comprises two products: "Reuters NewsScope" and "Reuters NewsScope Archive".

Reuters NewsScope Archive

Reuters NewsScope Archive is a data source that provides historic Reuters news for analysis and back-testing when building an automated trading model. Used with Reuters DataScope Tick History - an archive of tick-by-tick

price data - traders can track previous news releases and price data to search for correlations, patterns and relationships between news events and market movements. These can then be used to form the basis of an automated trading model by generating buy and sell signals when these relationships re-occur in the future. The product gives the trader the option to filter the Archive for different markets, news stories and events and discover which stories, and types of story, have typically affected the markets being traded. The trader can then quantify this impact into a programmable model.

Reuters NewsScope

Once the trader has developed their automated trading model and is now ready to trade, the product then produces live news content that can generate buy and sell signals based on the trader's programmed model. Reuters has emphasised that a major advantage of using NewsScope when trading comes down to speed. Because news releases are "meta tagged" to be easily identifiable and machine readable, a trade can be executed within milliseconds of the release of a news story. Therefore, by anticipating how the market will respond to a given news release, the trader can execute a trade ahead of the market.

Automated trading

The problems associated with using news stories and fundamentals in an

automated trading model are its ambiguity and basis risk, in short, the possibility of false buy and sell signals being generated. According to Richard Brown, NewsScope business manager at Reuters in New York, these are valid factors; "ultimately, the user needs to establish confidence in the patterns he or she has found in historic news stories." These are issues that are not typically associated with technical based models; either the price has gone above the 200-day moving average or it hasn't.

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But news stories relating to corporate earnings, economic data and political news can be ambiguous and interpreted in more than one way.

Brown adds, "By analysing the net effect of a new announcement and establishing the percentage of the time the market reacts in a particular way, you have the basis of a trading system, or the addition to an existing system". A rise in interest rates by the US Fed can be either positive or negative for the dollar, depending on, among other things, the prevailing economic situa-

tion in the US and market sentiment. The answer to this, says Brown, lies in the balance of probabilities. "For example, if a Fed rate hike has historically led to a dollar rally 70% of the time, then 7 out of 10 trades done of the back of a Fed rate rise could make money." This is not just because the

corrections.

All the data in the archive is time stamped and tagged with an array of metadata fields for easy machine reading to the nearest millisecond to allow traders to track the story as it unfolded and understand the immediate effect of each news event as word reached the

economic data releases, political news, legislation to corporate earnings and geopolitical events. These can be compared against the full range of markets and asset classes.

Content from Reuters NewsScope Archive is supplied in CSV data files

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-RICHARD BROWN, REUTERS

direction of the dollar's moves is right more often than not; it is also because the trade can be executed very quickly, before the major dollar move in the market has happened. It's also a matter of timing because an automated system will react much more quickly than a human being and execute a trade within milliseconds of a news story.

Reuters say the ability to use news stories as part of an automated trading strategy has two uses; one is for speculators looking for alpha and the other for investors who are looking to manage event driven risk. However, as far as automated trading goes, the hedge fund and bank proprietary desks would seem to be the obvious end-users of the product.

How it works

Reuters NewsScope Archive lets you see every stage in a story's development tick by tick through the day, not just the final article. It allows the user to replay market behaviour, from the initial alert that hits the wire and notifies the markets of a new development, through to the publication of the full story and subsequent updates, clarifications and

market. Each story is also tagged with metadata that describes the story and allows it to be pieced together over time. As such, Reuters say, NewsScope



Richard Brown

enables the automated system to process much more news, far more quickly and consistently than human operators. The kind of news that can be analysed and identified ranges from

using Unicode UTF-8. The archive can also be loaded easily into Oracle 9i, Oracle 10g and Microsoft SQL Server 2000 and 2005 databases.

Quantifying sentiment

According to Reuters, the volume of news stories alone for a particular market or company can be used as a guide to market volatility. But by examining the stories within the Archive, users may analyse what Reuters calls, "key word tonality and sentiment scoring". For example, the words "misses" and "exceeds" that appear in corporate earnings news releases can be tested as to the impact they have on the company's share price. By identifying and quantifying "positive" and "negative" news for a particular security, an indicator can be developed that can be used to trigger buy and sell signals. For example, "buy" when the ratio of positive to negative news exceeds a predetermined ratio or moving average or "sell" when the ratio of positive to negative news falls below a certain level.

More information can be found at: reuters.com/newsscopearchive