EUROMONEY

The changing face of FX quants

Paul Golden
Friday, November 30, 2018

The role of quantitative traders in the FX market is becoming ever more significant, as the amount of business executed via algorithms continues to increase.

Sell-side firms offer innovative FX algos to attract clients to use their platforms, usually on an agency basis, where they are paid by commission.

From a bank's perspective, this is a low-risk activity driven by investment in low-latency technology as well as quantitative excellence, with quants driven to improve the sophistication of execution algorithms to reduce market impact and achieve benchmark goals.

While demand for quants has risen, the range of skills required to be an algo quant has also expanded. As well as understanding the algo methodology, they need to be aware of the microstructure of trading on different venues and understand the associated risks of market impact.

The amount of FX data available has increased massively in recent years, leading to a greater use of data mining and machine learning to extract more useful analysis, observes Jamie Walton, former head of quantitative analysis at Morgan Stanley and co-founder of Raidne, a provider of independent quantitative surveillance.

Next-generation algos

These techniques are required to create next-generation algos that can respond to microstructure signals dynamically, he says.

"As the arms race to reduce market impact and improve benchmarks grows, we are seeing the sophistication of algorithmic techniques grow proportionally – justifying the investment in quants to undertake the analysis and build new algos," says Walton.
There are obvious reasons why a client would appreciate the opportunity to choose a set of rules that best matches their investment style and objectives.

Unique algorithmic approaches rarely stay unique for long, so having a breadth of options to choose from allows the client to incorporate a variety of strategies that focus on a subset most suitable for the current market climate.

This is where firms such as QuantConnect, Quantopian and Quantiacs have identified an opportunity for marketplaces where engineers and data scientists can back-test and build quantitative trading strategies, which – if accepted onto the platform – they can license to interested parties.

Most of the trading strategies on these platforms are not used for foreign-exchange trading – neither Quantiacs nor Quantopian run FX.

> Maths, science, engineering and computer-programming professionals with a passion for the markets design algorithms for fun in their spare time
>
> - Jared Broad, QuantConnect

However, Jared Broad, founder & CEO of QuantConnect, says FX trading accounts for around 20% of his community's algorithms and describes the deep liquidity and macro focus of the market as an interesting subject for research.

He explains that his firm's Alpha Streams project allows millions of algorithms to be searched and filtered programmatically, enabling financial institutions to access a much wider pool of quantitative traders.

FX platforms such as Oanda and FXCM have sponsored free algorithmic trading on QuantConnect.

Jared Broad, QuantConnect

"Maths, science, engineering and computer-programming professionals with a passion for the markets design algorithms for fun in their spare time," says Broad.

"This is an opportunity to access crowd-sourced, community ideas, including those from former professionals exploring new asset classes and ideas."

Financial institutions place great importance on their quant selection process, the implication being that anyone can call themselves a quant, but that relatively few have the right mix of skills and qualifications.

Broad acknowledges that they go through a long process to find the right talent, but adds that this often involves engaging expensive recruitment firms and racking up search and on-boarding expenses before the quant delivers any value.

"We allow prospective quants to be judged by their out-of-sample performance, independently vetted and scored," he says. "They are hosted on institutional grade, co-located infrastructure constantly recording the predictions created, which gives institutions access to reliable, production quality data.

"The API-driven approach allows institutions to systemize their search, filtering by performance characteristics as well as education, employment and even the research process."

Beneficial development

Vittorio Nuti, Deutsche Bank's head of segregated execution, suggests that increased demand for quants is a beneficial development for its clients since their contribution to the development of algos will improve execution costs.

However, not everyone is convinced.

Alex Krishtop, trading systems architect and managing consultant at algo trading and quantitative market research firm Edgesense, observes that competing algos have radically changed the volatility profile of the FX market.

He says that to benefit from an algorithm, price-takers have to not only know all the details of the algo but also have the skills to assess its quality.

"The concept of performance-based compensation for algo traders does not provide any particular benefit to institutions since in the long run the institution absorbs any associated risk from its choice of algo," says Krishtop.

Vittorio Nuti, Deutsche Bank