Joseph Hoffman

Talking FX algos with a global industry leader

Mesirow Financial Currency Management is a thought-leading currency specialist delivering innovative, customized solutions ranging from active and passive risk management to currency alpha, as well as execution services to institutions globally for 25 years. The firm manages more than $85 billion in currency risk assets for institutional clients in North America, UK, Europe and Australia and to add even more capabilities to its offering it recently purchased the assets of The Cambridge Strategy Limited (TCS), a UK-based currency alpha investment firm. We spoke to Joseph Hoffman, CFA who is Chief Executive Officer and Senior Managing Director of the business to learn more about its growing use of algorithmic FX trading.

Photographs by Michael Weston, Mesirow Financial

Joe, please tell us a little about your day to day responsibilities and tasks within Mesirow?

My primary responsibility is leading the development and implementation of our vision of becoming the leading global currency solution provider. Our plan to achieve this goal is to listen to the currency issues and challenges faced by our clients and prospective clients. Currency affects management investors in different ways and Mesirow continues to be in the vanguard of creating new solutions to help investors. Other areas of focus include our infrastructure and integrating new technology across portfolio management, trading, and operations. Finally, I spend a considerable amount of time with my team reviewing changing regulations and their implications on our clients.

What range of best practice currency risk programs are you able to implement for clients?

Mesirow offers a full spectrum of currency solutions that includes passive risk management, active risk management, Fiduciary FX, and currency alpha.

We are well known for our passive and active risk management solutions which we have offered to clients for over two decades. Over the last 18 months, we have added a new solution called Fiduciary FX. Fiduciary FX is an execution service for asset managers and asset owners who are seeking to reduce their transaction costs and improve the transparency of their currency transactions. In October 2018, Mesirow acquired certain assets of an unaffiliated investment manager, The Cambridge Strategy, which has allowed us to further expand our product offerings to include four currency alpha solutions (Emerging Markets, Asian Markets, Extended Markets and Systematic Macro). Currency Alpha is an important offering for investors who are searching for quality, alternative return sources that have low correlation to mainstream asset classes.

Why has Mesirow managed to develop such a strong currency management offering?

Mesirow's currency management program is a result of our unique combination of experience, ownership structure, and customized solutions. Mesirow has over two decades of experience in currency management with an experienced team of over thirty associates. We're an independent, employee-owned investment manager. Our independent ownership structure coupled with our role as agent in currency transactions help to align our interests with our clients. Finally, we have a history of providing customized solutions. Because Mesirow is nimble and experienced, we can adjust to clients' currency management needs.

What type of clients are your team providing services and solutions for?

Mesirow has a diversified client base across the globe, almost evenly split between Europe, Australasia, and North America. Our clients are institutional investors, primarily private and public pension plans, endowments, insurance companies and asset managers.

What steps have you recently been taking to expand the services your team provides and also to seek out additional sources of return unique to currency markets?

We've expanded our services to meet the objectives and requirements of a global client base as described in the response to question #2, but we have made many operational changes designed to increase efficiency, reduce trading costs and contribute positively to portfolio performance.

Operationally, we've enhanced our services by adding an FX prime broker, installing a high-tech trading system to transact more electronically (at a lower cost), upgrading our collateral-management capabilities and implementing the TradeMatch application from Continuous Linked Settlement, the FX industry's premier settlement system. Currently, we're improving our electronic messaging system and augmenting a portion of our settlement instruction process. These changes are designed to create improved service, reduced operational risk, and lower costs that we can pass onto our clients.

How important has your technology and trading infrastructure become in helping Mesirow emerge as one of the industry leading currency management service providers?

Technology and trading infrastructure are key components to meeting client requirements efficiently and economically. We're aggressively acting in a continuous cycle of technological evaluation and enhancement; each step of the cycle is designed to improve efficiency or lower service costs.

Recently we had a client who requested to trade a large order and analyze the resulting algorithmic transactions for best execution. Finding the best solution was a collaborative effort among our execution management system partner, prime broker, and transaction cost analysis vendor. It was a significant modification from the typical process of executing and providing a periodic transaction report. Investors want to trade and almost immediately know the outcome of the trader's efforts. As a result, we're compressing the entire sequence of order, trade, and analysis.

We're anticipating similar industry demands and we are diligently preparing to meet similar requests.

The FX Global Code and new market regulations are driving increased demand for FX algos and TCA amongst many buyside firms. What impact have they had on your own operations particularly with respect to your need for TCA solutions in order to better measure and evaluate the quality of your trade execution?
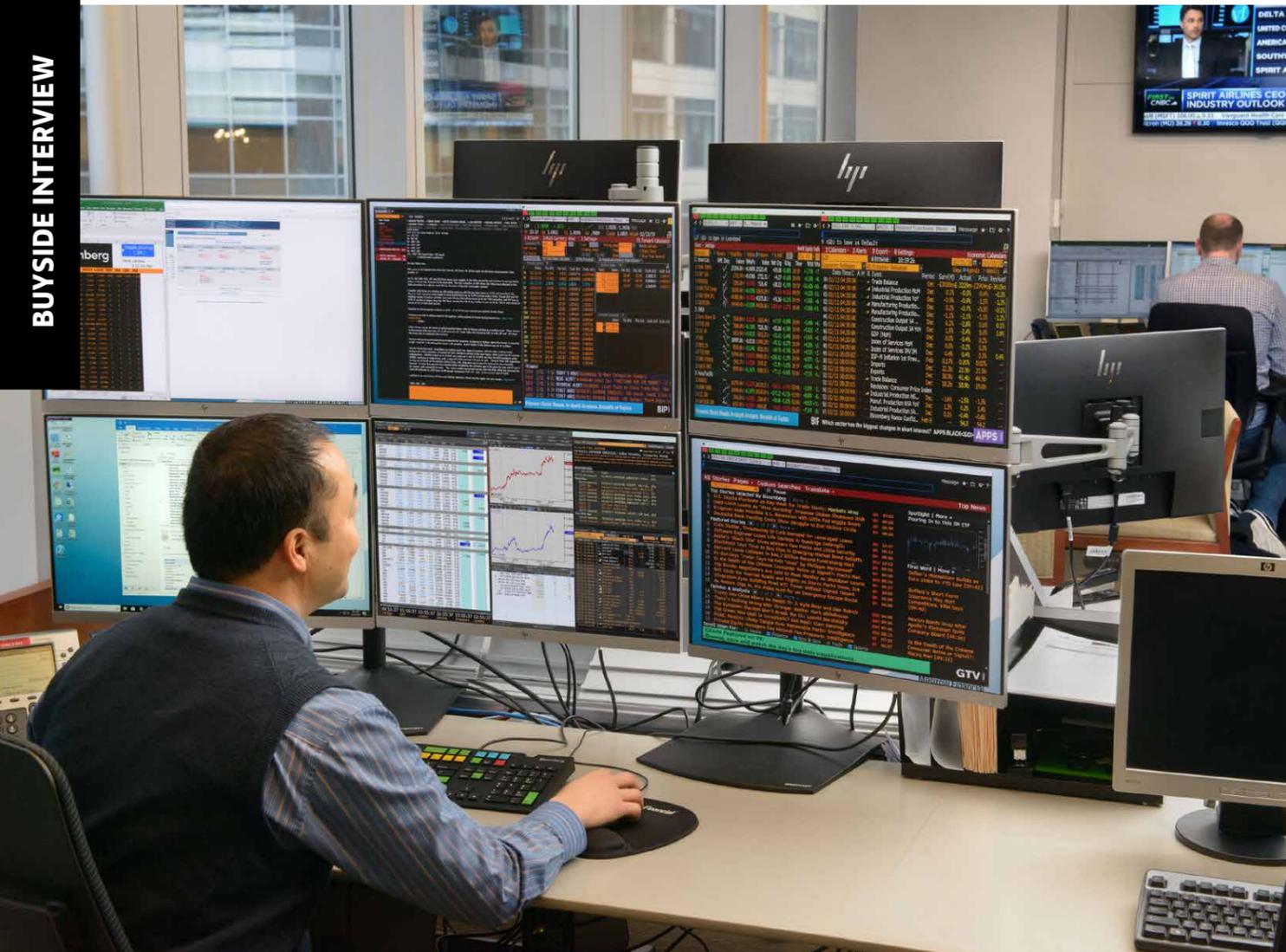
Algos offer us another outlet to provide efficient, low-cost trading to our clients.

We're a signatory to the FX Global Code and are enthusiastic proponents of its principles. However, we have long practiced what the Code advocates: doing the right thing for your clients and for your firm.

That's why our roles as an agent and a fiduciary in our trading practice are so important; these roles mean that we act in the best interests of our clients. We demonstrate this behavior to our clients through third-party analysis of our transactions, an analysis that we provide at no additional cost. Clients can see how well we have performed and verify that the fee to which we contractually agreed is the only compensation that we received.

We see the enhancements in Transaction Cost Analysis services

important for being able to analyze each of the transactions within an algorithmic trading session. That provides the capability to analyze not only the average rate of all the sub-trades, but each individual transaction.

Let's talk about FX Algorithms. How have your dealing teams approached their use and in what ways are these toolsets becoming a more important part of your day to day trading activities within both your traditional risk management business and also your return solutions unit delivered via your team in the UK?

Our trading teams evaluate any tool that is designed to achieve low cost trading with minimal market impact. Selecting an algo execution strategy depends

on the nature of the order and whether algos are suited for the strategy. For example, algos can play an important role in low cost trading especially for larger orders without a need for immediate execution.

What types of FX algorithms are your trading teams currently employing and what issues generally influence this?

TWAP, VWAP, customized aggressive, hybrid, passive strategy, are options we evaluate. Our usage of algos are generally dependent on client requirements and the benchmark result we are trying to achieve for a trade. Our general goal in using an algo strategy is to find the right balance between market impact versus opportunity cost.

Many large currency managers choose to utilise algos provided by banks especially if they have very close relationships with a few very big liquidity providers. What about Mesirow? How do you go about sourcing your algos and what factors are at play here?

It's a combination of the efficiency of the algo and the algo provider's liquidity source. Single bank algos, access to liquidity sources is a critical factor. Flexibility of the algo offerings are important as well. Some banks tend to have certain strengths or weaknesses down to the currency pair and we factor this in deciding how to keep trading costs low and where to send orders.

We tend to prefer banks with more customized algo offerings, broader sources of liquidity and low latency, but we certainly don't discriminate against a smaller provider if its algo solutions are strong. Using a few large liquidity providers can make sense but we find that algos through multibank platforms can be very efficient and assist us with managing concentration limits.

What typically are the main differentiators for you in choosing one bank algo over another?

Efficiency, flexibility and sources of liquidity. Do they source ECN's? Do they source futures? Do they source the bank's internal pool, external pool, and principal pool? Is the algo customizable during mid-stream? Does the bank offer multiple algo parameters or a suite of different algos to meet different benchmarks? Is the flow truly segregated? Is the TCA provided internally by the bank or an external source? Are there fees for using the algo? If the order requires us to meet a specific benchmark, can the algo provider achieve this goal?

How involved do your teams get in the testing and fine-tuning of algos in the deployment process and in what ways do you try and benchmark their performance to see what value they are adding?

Michael DuCharme, CFA is Director of Currency Solutions

We test extensively and depend heavily on TCA results. Mesirow uses internal and external TCA outcomes to benchmark the algo performance, as well as real-time metrics during the trade. We measure all these factors as well as performance against pre-trade analytics.

At the end of the day what are the key benefits that you get from the use of FX algos?

Algos offer us another outlet to provide efficient, low-cost trading to our clients. Our algo trading program diversifies our access to liquidity providers and allows our traders to measure performance during the algorithmic trading

in real time. Although FX algo technology and usage may lag equity markets, it has improved rapidly and has its merits. The existence of algos helps foster overall market awareness regarding the importance of FX execution efficiency and transparency. With increased recent regulatory scrutiny in the FX space and MiFID II, asset managers and currency specialist providers should always be assessing their FX trading costs and efficiency.

Some firms prefer to adopt a hybrid human approach when using FX algos which involves laying down tight limits for their use. How willing are your traders to let algos do their job without micro-managing many aspects of the execution process? ▶

William Chapman is a Senior Vice President and Head of Trading for Currency Management.

per trade and the algos must prove their worth before we implement them.

Do you see any risks in using algos or conflicts of interest that might arise between provider and user that particularly concern you?

Information slippage and signaling risk are genuine concerns. Most banks have a segregated algo team and liquidity sources but the risks remain. It would be naive to think when trading large orders over an algo that the information is perfectly protected.

What steps do you think FX algo developers and providers can take to increase the appeal of algorithmic execution for firms like yours? For example by offering more granular data relating to the inner workings of algos.

Yes, more granular data would be helpful, as well as detail on some of the algo's sources of liquidity. Of course we would like to see performance on the individual sources of liquidity but understand that bank algos can be protective of that information. Flexibility of algo offerings and external TCA are also a preferred benefit.

Is Mesirow likely to expand its use of FX algos in the future?

We are always looking for any technology that helps us obtain our ultimate goal of low-cost trading with minimal market impact. Algos help us to achieve this and we will continue to evaluate new algo offerings to see if they match the needs of our clients.

This question creates a lot of debate. Our traders let the algos do their job for most orders. However, there are times when human interaction is required, such as holiday trading. Event risk is another example. 'Flash crashes' seem to be more prevalent than in years past. Certain currency pairs can be dramatically affected, especially considering Brexit, current political issues such as trade and tariffs, and central bank actions such as the SNB peg removal. Any algo executing over a time horizon has a risk of adverse price movement versus more immediate execution or a risk transfer price; those issues

must be taken into consideration. Algos can produce suboptimal results in these times regardless of their efficiency.

We have mentioned before that as algorithms continue to be developed for the FX space, some are starting to appear very similar. How do you tease out and select the ones that are most suitable for your own requirements?

That's correct – many algos are similar so we depend on extensive testing to evaluate features and benefits. We have certain internal marks that we are trying to achieve

What role do you think algorithmic FX trading is likely to play over the next few years in helping market leading currency managers like Mesirow to optimize their trading operations even further?

If banks continue to source different liquidity and increase their algo efficiency, it seems logical that algo usage will increase.

Python For Finance: Algorithmic Trading

This Python for Finance tutorial introduces you to algorithmic trading, and much more. Among the hottest programming languages for finance, you'll find R and Python, alongside languages such as C++, C#, and Java.

In this tutorial, you'll learn how to get started with Python for finance. The tutorial will cover the following:

- The basics that you need to get started: for those who are new to finance, you'll first learn more about trading strategies, what time series data is and what you need to set up your workspace.

- An introduction to time series data and some of the most common financial analyses, such as moving windows, volatility calculation, … with the Python package Pandas.

- The development of a simple momentum strategy: you'll first go through the development process step-by-step and start by formulating and coding up a simple algorithmic trading strategy.

- Next, you'll backtest the formulated trading strategy with Pandas, zipline and Quantopian.

- Afterward, you'll see how you can do optimizations to your strategy to make it perform better, and you'll eventually evaluate your strategy's performance and robustness.

MANIPULATE DATA   VISUALIZE DATA   PROBABILITY & STATISTICS

PROGRAMMING   APPLIED FINANCE   MACHINE LEARNING

Note: In every DataCamp exercise, you are writing and running real R, Python, or SQL code. You won't just learn the theory, you'll get hands-on experience exploring real data sets in courses covering the entire data science workflow.

https://www.datacamp.com/community/tutorials?posts_selected_tab=must_read

Commerzbank's algorithmic strategies

Whether the primary goal is to capture price improvement, minimise market impact or achieve optimal execution by reducing overall transactions costs; Commerzbank's strategies employ logic to execute orders efficiently, whilst maintaining anonymity in the market. Commerzbank's algorithmic strategies have been designed to provide users with access to bespoke risk management solutions via Commander, Bloomberg and 360T.

TWAP ADVANCED:
Enhanced user-definable order parameters that utilise both making and taking in internal and external liquidity sources against the time-weighted average price for a fixed time horizon. TWAP Advanced provides users with detailed control over the aggressiveness, notional splits, max spread, real-time strategy amends, and "I Would Price" to immediately execute outstanding notional. The unique functionality offered in TWAP Advanced is the "I Would Price" feature which allows the user to aggressively take liquidity at an optimal level and Commerzbank's proprietary activity signal, "IntelliVOL", which dynamically increases or decreases the rate of execution based on the underlying market activity.

#1

TRACER:
Tracer passively keeps the order in the market at a constant pegged distance. Users can define the distance from the market, visible quantity, and "discretion pips" when within the pegged distance.

#2

HUNTER:
Hunter is a combination of a sweep and a smart resting iceberg that will sweep available liquidity up to the limit price with any residual notional worked as resting iceberg. Additionally Hunter limits the amount of the order that is resting on external liquidity sources to reduce information leakage and market impact. It will take from internal and external liquidity sources if the price is within the "discretion pips" of the limit price.

#3