DEUTSCHE BÖRSE GROUP

Investment Strategy Implementation: FX Matters

The Role of FX Investment Management

Investment returns are driven primarily by asset allocations, but the impact of FX execution on these returns is being increasingly recognised by asset managers.

Modern day investors understand the value of having a diversified portfolio, which often requires them to invest internationally. Further, capital markets remain fundamentally global and investors don't want to limit themselves to only purchasing assets that are available in their local currency.

However, when investors buy assets in a different country they are really adding two things to their portfolios: the assets themselves and the foreign currency needed to purchase those assets. In some cases, investment managers have tended to focus on their core strategy, which centres around buying the asset, and given less attention to the uncorrelated operational costs and risk of management challenges associated with currency volatility. Indeed, executing the FX side of an asset purchase has traditionally been viewed by some managers as more of an administrative burden than anything else.

This is changing though as more investment managers are becoming aware of the impact that suboptimal FX execution can have on their overall returns. In general, there are two main factors driving this change. The first is simply that a wealth of literature has built up highlighting how failing to properly hedge currency exposures can negate the value of a good investment allocation[1]. But this isn't purely a theoretical or academic issue - the rise of the US dollar is thought to have wiped out about $1 trillion in US pension fund assets between mid-2014 and March 2015[2].

The second is that best execution requirements under MiFID II[3] combined with the increasing ubiquity of the FX Global Code of Conduct[4] have brought greater scrutiny regarding how firms are transacting in the FX market.

Managing currency risk has become extremely important for institutional investors as portfolios have diversified internationally.... As such, the performance of investments will depend on both the asset returns and the fluctuations of international currencies versus the investor's domestic currency. Given the volatile nature of currency movements, the impact on returns can be material.[5]

360T continues to partner with institutional investors to help them with both of these issues. By offering a transparent electronic platform for executing FX transactions, we are able to offer enhanced operational performance that will help firms to meet their best execution requirements. In addition, 360T has signed the Statement of Commitment to the FX Global Code, signaling that it adheres to FX best practices set out and agreed upon by the industry itself.

Our goal is to help improve the implementation of FX transactions and thus create better investment outcomes for institutional investors.

Facing an Opaque Market Structure

There are many elements of the FX market structure that can make it a challenging place for investors to operate in.

For example, the fact that it predominantly trades Over The Counter (OTC) bilaterally between counterparties means that pricing information is often obscured from sight. Liquidity remains fragmented across numerous different platforms and trading venues, meaning that without aggregation tools it can be difficult to get a clear view of the market and conduct Transaction Cost Analysis (TCA). Often there is a lack of documentation around execution, such as time stamps, which make it harder to conduct reliable analysis of market data and to provide an audit trail around trade execution.

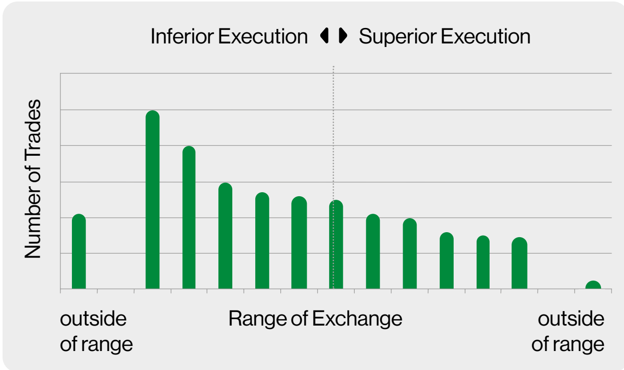
Because of this market structure, pension funds and asset managers have struggled to identify and monitor their FX execution costs. This can be especially detrimental when trading FX because of the typical magnitude of hedge sizes. Imagine an investment manager rolling €5bn in three month maturity hedges, for an annual roll volume of €20bn. If the execution price is off market by even one-tenth of a basis point, then this will lead to €200,000 in hidden execution costs per year, or approximately a tenth of a forward point[6].

Moreover, weak price competition due to reliance on single-dealer trading bears the risk of overprices spreads, and in recent years there have been over $1bn in settlements related to overcharging clients for their FX transactions[7].

> **Lack of transparency in OTC markets can have a number of undesirable effects.... This can lead to a casino image of the FX market where participation is seen as a form of gambling, leaving currency exposures under hedged. This under hedging means that end investors are exposed to unnecessary or sub-optimal risks.[8]**

Figure 1: Theoretical Execution Rate Distribution

Figure 2: Actual Execution Rate Distribution



Source: Collie, Robert. "It's Time for More Choice in FX." Russell Investment Group Viewpoint, December 2004.

Execution rate distribution should theoretically follow standard distribution (left side). However the actual results show that the majority of trades are executed on worse prices (right side).[9]

High spread ▶ **Inferior implementation** ▶ **Reduced investment outcome**

Academic research backs up this idea that institutional investors have been overpaying for their FX transactions. Looking at a large sample of transactions should reveal execution quality to be somewhat random, with no relative execution rate any more likely than any other rate. This would naturally lead to a symmetrical distribution of pricing, with a broad spread between two extremes (left side). Instead, research shows that the actual distribution of FX pricing was skewed towards the worst rates of the day (right side). The estimated average cost of this trend has been put at anywhere between 8 and 12 basis points[10].

Even taking the lower point of this estimate, this still represents a significant diminishment of returns for investors. According to the Investment Association, about 60% of the average UK pension portfolio is invested in non-GBP assets, of which 63% is hedged back to GBP. Those hedges are rolled once a month and, assuming passive execution at the 4pm Fix - which is common practice - and an 8bps cost per transaction, means that this pension portfolio loses 15% of its value in FX fees over its entire lifetime[11].

New City Initiative puts FX weighted average mispricing at 3bps, a very conservative estimate, and yet even then the costs of this per year for the pension fund industry are staggering[12]. Given that in 2016 €6.278bn was invested outside the euro area, this means that cost of FX mispricing for the fund industry could be €1.8bn per year. And this figure might in fact be higher as the AuM in Europe increased in both 2017 and 2018.

Exemplifying the impact and the cost of mispricing, the following calculations are based on data on the size of net assets in the European investment fund industry.

Example 2013 (Report 2014)

€4,996bn invested outside the Euro area
Assumption: normal annual turnover for a portfolio of asset is 100% per year; FX weighted average mispricing 3bps (0,03%)

› Costs: €1,5bn per year for fund industry

Example 2016 (Report 2017)

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Example 2013 taken from NCI report, Example 2016 calculated on basis of NCI[13] report1 & EFAMA[14] numbers

- Estimated mispricing by NCI rather conservative, the number may be much higher
- AuM in Europe has increased in 2017 and 2018[15]; assuming same mispricing, the total costs for 2017 and 2018 have also increased

A Question for Institutional Investors: Why is Efficiency and Cost Optimisation so Important?

As previously alluded to, there are a number of reasons why institutional investors need to be carefully considering how they can improve their FX implementation increase efficiency and reduce costs, including:

- Due to compounding effects, small cost savings can have a significant impact on the overall performance of a fund. It's been shown that 10 basis points cost savings can, over a period of time, increase pension returns by 3.18%.
- While past losses caused by currency moves means that end-investors are paying more attention to fund's FX hedging policies, new regulations and agreed industry best practices mean that they are also increasingly looking at the FX execution policies too.
- Not only do investment managers need to ensure that they are getting the best possible FX execution in order to maximise their returns, but they need to be able to demonstrate that this was the case. Providing an audit trail for trading decisions is becoming increasingly important.
- Improving the efficiency of FX execution benefits investment managers by allowing them to spend less time focusing on currency trading and more time on their core competency of tactical asset allocations.

Technology Challenges High Costs in FX Dealing

Fortunately, technology can actually help address many of the issues outlined in this paper. This is why 360T partnered with asset managers to create an electronic currency trading platform that is specifically designed to address the problem of excessive FX trading costs: The Execution Management System (EMS).

It is an integrated system for the end-to-end workflow that speeds up processes, adds automation, quickly identifies and helps to reduce market risk, whilst increasing control and freeing up resources for complex or large FX trades.

Amongst the key benefits of the EMS is it enables pension fund managers and their asset managers to fully customize and automate their FX execution. It also lets them:

- Create automatic selection of rules for auto execution (notional, fund, currency pair, value date, deal type or any other attributes of the order).
- Send orders via RFS for competitive bidding to a pre-configured bank panel.
- Nominate the number of banks that need to be pricing simultaneously for an execution to occur.
- Ensure that requests are executed at best price.
- Conduct pre- and post-trade analytics to give valuable insight into execution strategy.

By offering a centralised ecosystem for FX execution through its electronic platform, 360T gives asset managers increased transparency which can help them avoid unnecessary trading costs while also demonstrating to investors and regulators that they achieved best execution. Meanwhile, technology that was specifically designed for asset managers creates new workflow efficiencies and puts liquidity providers in competition to ensure the best pricing.

This is why 360T is able to make this promise: we don’t give any basis point away.

How can 360T help asset managers? One centralised platform to ensure:

- Automatisation / STP
- Operational efficiency / cost savings
- Transparency / TCA
- Fulfilment of regulatory requirements

How can 360T help institutional investors to save costs and to achieve better investment outcomes?

Topic	Asset owner's goal	360T's solution
Price competition	Quoting of reasonable spreads	> Large choice of quoting counterparties with liquidity from **more than 200 leading** international and regional **providers**. > **360T Portfolio Builder** that recognizes and optimizes netting opportunities, allowing to maximise broker competition and offsetting risk for every order.
Direct trading	Reduction of net execution costs	> **Automated workflow** for fast, efficient and fully integrated trading.
Anonymous trading	Avoidance of conflicts of interest	> **360TGTX** enables anonymous spot trading with low impact and low latency execution.
Sophistication and familiarity with market conditions	Confident price discovery and competitive price determination	> 360T offers a comprehensive set of **market data feeds** to the global financial and investment community. **360T Market Data Services** provide market participants with quality and actionable information, essential to supporting confident price discovery and competitive price determination, on disclosed and undisclosed connections. > Delivering real time and historical data via dedicated FIX connections or via a number of information venues, 360T can connect to virtually any application software, facilitating streamlined sourcing of market information.
Documentation	Transparent and retraceable executed trades	> Key analytics is the foundation of execution optimisation, including, but not limited to, Transaction Cost Analysis (**TCA**). Every trade comes with a **time stamp** and **additional information** on competitive quotes, a pricing analysis by product and counterparty and a complete deal history. The entire range of **360T's pre- and post-trade analytics** gives great insight into the execution strategy and consequently increases efficiency in the day-to-day business.
Regulatory changes	Compliance	> 360T is at the absolute forefront in assisting to meet regulatory requirements, whilst adhering to the **highest regulatory standards**, both now and in the future.
Permission based orders	Risk control	> 360T gives access to rule-based tools which facilitate **order routing** to users and groups based on permission control-based order parameters. This allows tight control of the risk around the trading process.

Since 2008 we live in an environment where fixed income is neither fixed nor income anymore and therefore every basis point counts. Best execution is not just a "nice to have", but also a regulatory requirement.

Let's work together to make FX a better place by driving implementation efficiency and thus performance, because wherever we place ourselves in the value chain - whether it be on portfolio management level, implementation and trading or assisting custodians on transparent FX execution - it all comes down to delivering positive investment outcomes and the best client experience.

Please do not hesitate to contact your local account manager for more information or contact us at info@360t.com · www.360T.com

[1] For examples of this, see: Institutional Investor, Innovative Currency Management, October 2018; Insight Investments, Currency Management Solutions, April 2019; Profit & Loss, And the Pendulum Swings Back, March 2018; Bender, J., Kouzmenko, R. and Nagy, Z. Why Currency Returns and Currency Hedging Matters, May 2012
[2] Reuters report cited by Pojarliev, M. in Some Like it Hedged, CFA Institute, 2018
[3] PWC, Stand out the right reasons, Financial Services Risk and Regulation, MiFID II Hot Topic, Best Execution, June 2017
[4] FX Global Code of Conduct, updated August 2018
[5] Insight Investments, Currency Management Solutions, April 2019
[6] Kurk, M., Achieving and Measuring Best Execution in FX, February 2017
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[8] Portfield, X. and Bilcock, J. Defining What Transparency Means in the Wholesale Foreign Exchange Market, July 2017
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[14] European Fund and Asset Management Association (2017): Asset Management in Europe Report 9th Edition. Available at: efama.org/Publications/Statistics/Asset%20Management%20Report/Asset%20Management%20Report%202017.pdf#search=asset%20management%20report
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