

Big Data shines a light on FX hedging costs and their contribution to fund underperformance

Lumint Corporation and New Change FX (NCFX) have conducted analysis of the relative performance of hedged and unhedged share classes of funds in order to quantify the effect of the foreign exchange (FX) element of their investments.

Background

The advent of multi-national asset management groups has brought with it the ability to select both the strategy that is required, as well as the currency in which returns will be denominated. Asset managers have grown adept at selling the skills of a manager outside of their base currency, and many investors prefer to seek returns without the restriction of only looking within their home markets, but if they do not want to bear the effect of currency fluctuations, they select a hedged share class.

Share class hedging entails that the non-base currency sub-fund always maintains a pre-determined hedge ratio against the base currency of the fund. These hedges are mechanical in nature, rolling over each month and adjusting as assets rise and fall both through subscriptions and redemptions and changes in asset and currency values.

Share class hedging is often conducted by the custodian, through a back-office function or through an outsourced partner. This means that share-class hedges are not necessarily traded with the same diligence that 'front-office' deals might receive. It is also the main reason that we have conducted this research as we are concerned that a lack of detailed oversight results in significant leakage of value in any aspect of trading.

Methodology

We selected a group of 30 of the largest asset managers selling funds in Europe with a USD reference or master share class. We have focussed on share-classes hedged into Euro, Pounds Sterling and Swiss Francs, as share classes denominated in these currencies are the most commonly invested. Returns have been measured from January 1st, 2018 to September 1st 2020, and any hedged class with fewer than 12 months of track record has been excluded.

Then, using manager submitted monthly return data from Eikon, we identified the non-base currency sub-funds and mapped each sub-fund to its USD master share class, ensuring that distributing share classes, institutional share classes and so on were correctly mapped. This enabled us to identify the monthly gross performance difference between the hedged and the unhedged share classes of fund. The underlying investment strategy driving returns is identical in the two mapped funds, but the hedged share class also reflects the return of the hedge. Notionally these two-return series should closely match.

This gave us a universe of 1,965 matched funds, with 1,151 hedged share classes mapping to 814 master funds. Where we have been able to access AUM data, we have used it. Total AUM is USD 189.2 billion as of September 2020, with hedged assets representing USD 46.6 billion of the AUM.

Having established the gross performance difference between the funds, we then consider the cost of the unavoidable aspects of hedging a portfolio. We remove the performance of the interest rate differential using the regulated NCFX interest rate differential benchmark. We then account for the effect of fee differentials between hedged and unhedged classes and the effect of future value drift. Future value drift reflects the effect of hedging forward based on a present value, so the future value is unknown when the hedge is placed. This then leaves an element that is attributable to FX transaction costs.

Finally, and only where the manager has submitted monthly AUM data, we create an estimate of trading volume in order to relate the transaction costs identified through the performance metrics to a dollar cost for hedging the portfolio. This captures the movement of cashflows in and out of the sub-fund. We have then added a volume element related to a re-hedging model based on limits of 101% and 98%, so should the currency move outside of these boundaries, then re-hedging occurs, and the trading volume increases. This is a very tight re-hedging parameter, so we would expect to be over-estimating volume and therefore possibly underestimating costs. This is therefore a conservative estimate of transaction costs

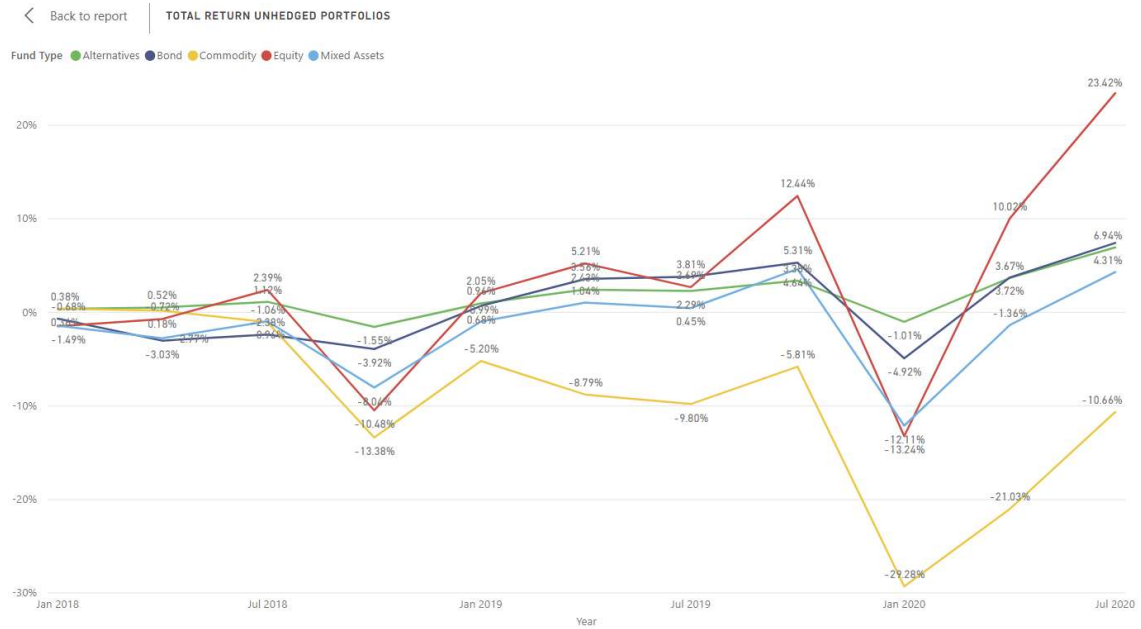
Results

The results show a substantial underperformance across the board in the hedged share classes when looking at the gross returns data. The hedged portfolio cumulative return for the period of January 1st, 2018 to August 31st, 2020 is 3.16% whereas the return for the unhedged USD reference classes is 11.84%.

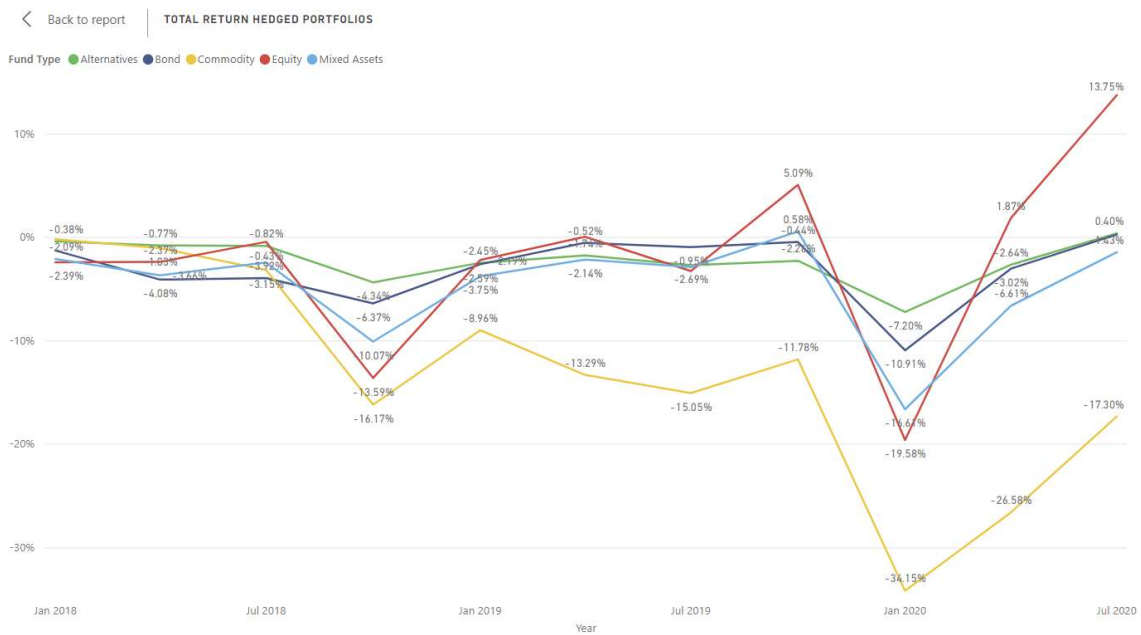


The performance pattern is clearly offset by a cumulative drag over time on the Hedged Share Classes. This indicates that the costs incurred are structural and significant over time.

Looking at the cumulative gross return of the unhedged share classes by asset type, we find these returns:



Whereas gross return by asset type from the hedged classes looks like this:



The differences in gross performance returns by asset type are:

Fund Type	Total Return Unhedged	Total Return Hedged
Alternatives	6.94%	0.40%
Bond	7.41%	0.28%
Commodity	-10.66%	-17.30%
Equity	23.42%	13.75%
Mixed Assets	4.31%	-1.43%
Total	11.84%	3.16%

It is evident that over almost 3 years, the effect on gross returns of a share class hedging policy is negative for performance. This is to be expected as hedging costs money. The question is whether the cost of the hedging of these share classes is in line with what we might expect when comparing the cost of execution to regulated FX benchmarks.

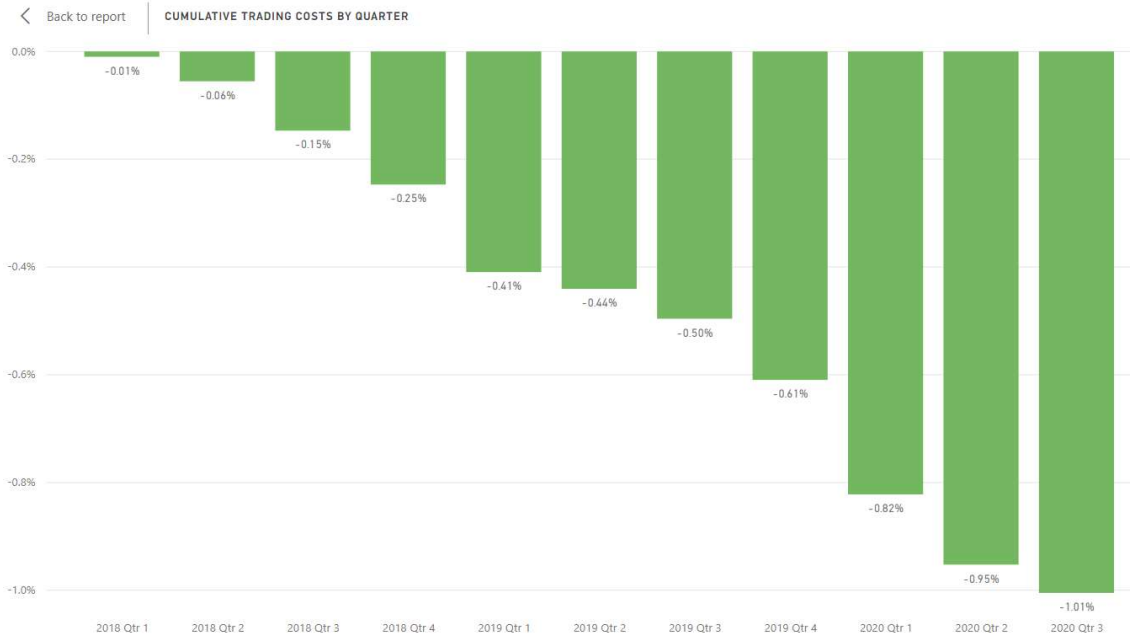
To establish this, as described more completely above, we have removed from the gross performance difference all elements that are unavoidable costs of hedging to leave a pure cost of execution. Those elements are the interest rate differential between the two currencies, the fee differential and a component for future value drift. The remaining costs might be direct transactions costs, fees for calculation or fees for use of risk-weighted assets, or a combination of all three. In any case they are fees directly affecting the performance of the sub fund.

Foreign Exchange Execution Costs

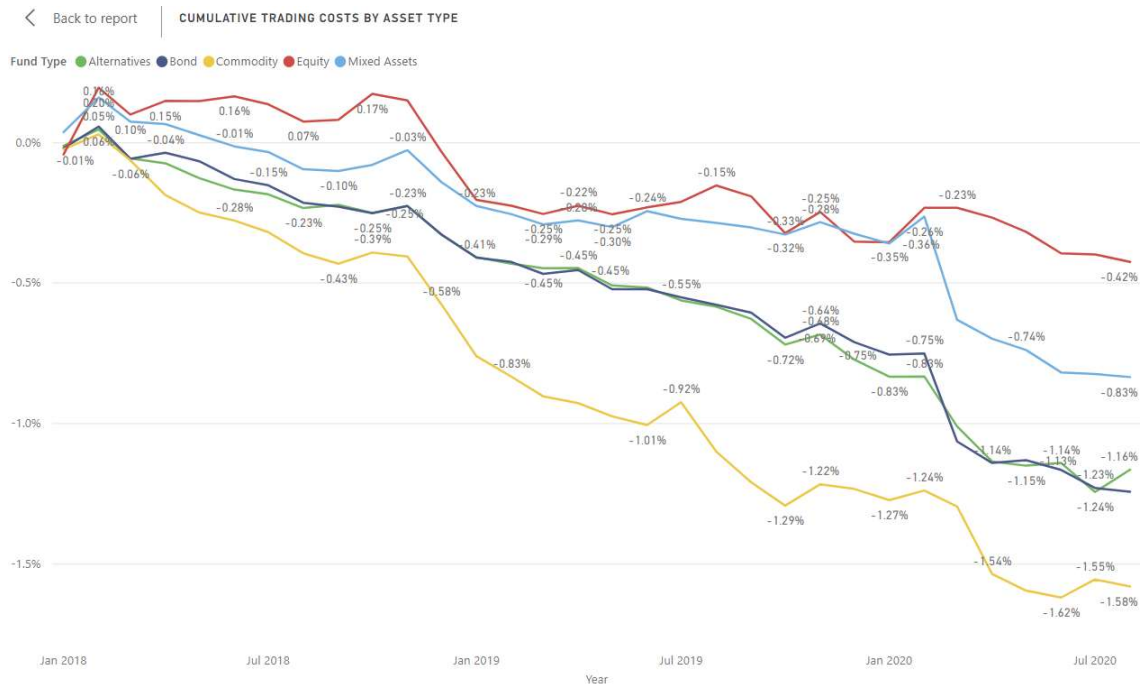
After adjusting the gross performance differential between hedged and unhedged classes, we find the following costs that are attributable to FX execution costs:

Fund Type	Annualized Gross Performance Difference	Annualized Cost of Trading
Alternatives	-2.47%	-0.44%
Bond	-2.80%	-0.44%
Commodity	-2.76%	-0.60%
Equity	-3.29%	-0.17%
Mixed Assets	-2.18%	-0.30%
Total	-3.20%	-0.37%

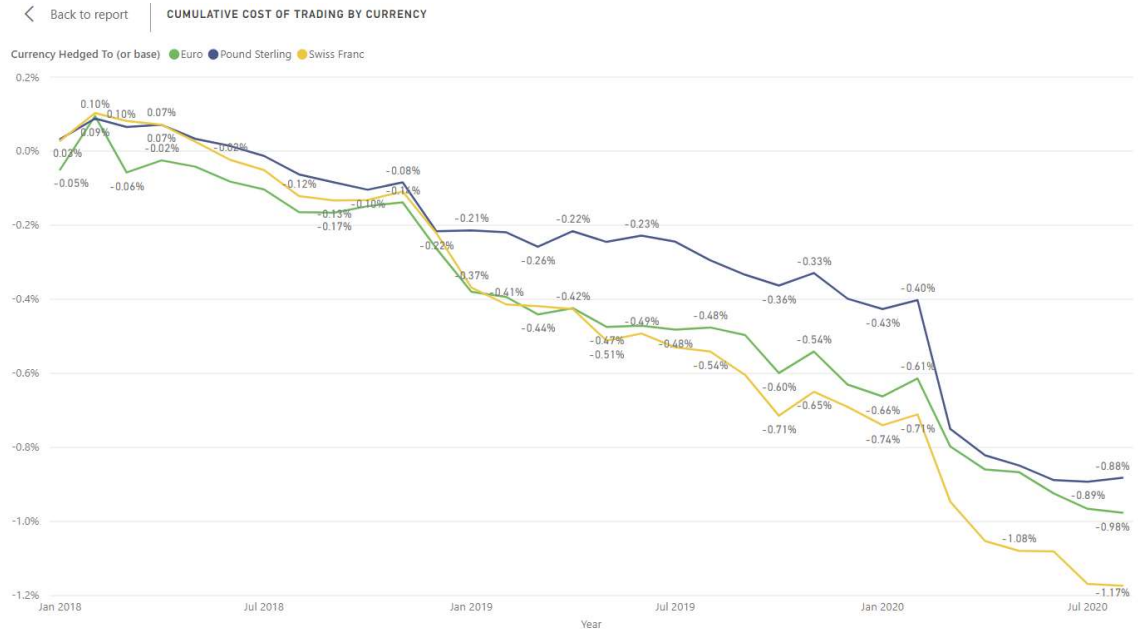
Looking at these costs over time it is possible to see the way that returns are steadily reduced over time:



By asset type:



Looking at this cost drag over time by currency hedged rather than asset type, we can see that the costs do not vary greatly depending on the currency being hedged:

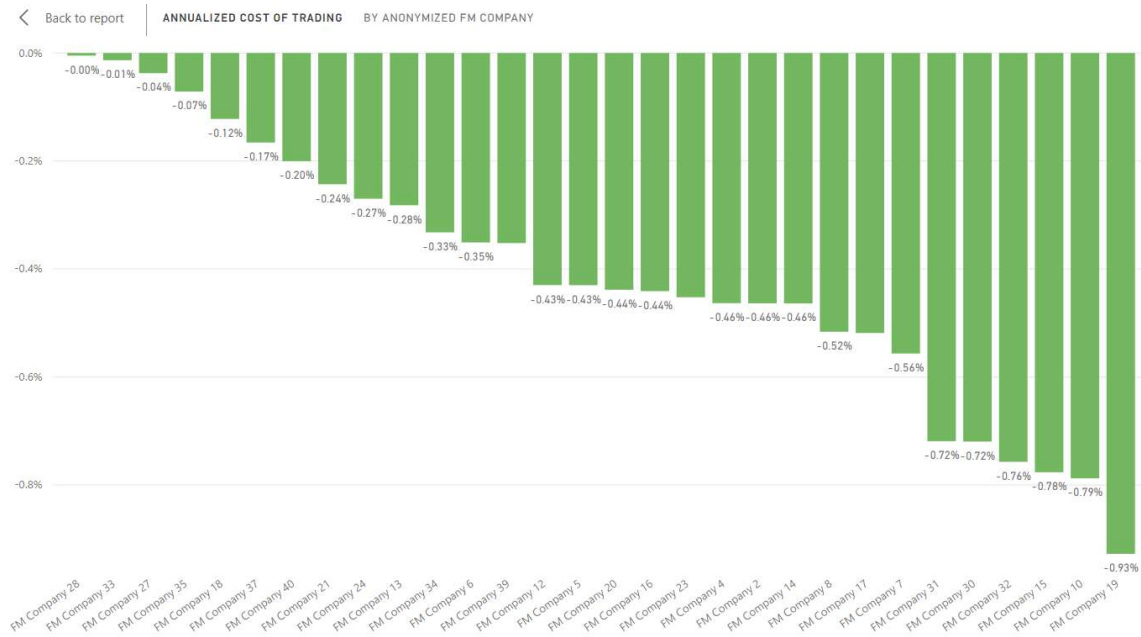


These costs can then be looked at by asset manager:

Anonymized FM Company	Annualized Return Unhedged	Annualized Return Hedged	Annualized Trading Cost
FM Company 28	3.91%	1.66%	-0.00%
FM Company 33	-0.63%	-3.06%	-0.01%
FM Company 27	11.52%	8.99%	-0.04%
FM Company 35	10.96%	5.54%	-0.07%
FM Company 18	1.64%	-0.48%	-0.12%
FM Company 37	9.56%	6.76%	-0.17%
FM Company 40	24.82%	18.74%	-0.20%
FM Company 21	4.78%	1.13%	-0.24%
FM Company 24	2.97%	-0.06%	-0.27%
FM Company 13	2.12%	-0.27%	-0.28%
FM Company 34	0.87%	-2.15%	-0.33%
FM Company 6	2.02%	-0.61%	-0.35%
FM Company 39	4.35%	0.70%	-0.35%
FM Company 12	3.91%	1.18%	-0.43%
FM Company 5	3.84%	1.34%	-0.43%
FM Company 20	6.76%	2.67%	-0.44%
FM Company 16	3.45%	0.70%	-0.44%
FM Company 23	5.61%	2.30%	-0.45%
FM Company 4	3.65%	1.00%	-0.46%
FM Company 2	4.52%	1.86%	-0.46%
FM Company 14	6.29%	5.04%	-0.46%
FM Company 8	4.30%	1.55%	-0.52%
FM Company 17	1.39%	-1.07%	-0.52%
FM Company 7	3.69%	0.70%	-0.56%
FM Company 31	-4.57%	-7.45%	-0.72%
FM Company 30	5.93%	2.09%	-0.72%
FM Company 32	8.87%	-0.15%	-0.76%
FM Company 15	-5.79%	-9.02%	-0.78%
FM Company 10	2.09%	-0.61%	-0.79%
FM Company 19	1.80%	-1.27%	-0.93%
Total	4.14%	0.94%	-0.37%

The effect of the FX transaction costs is obviously a huge burden on the portfolio. For instance, take FM Company 32, where FX transaction costs extract 76bps per annum from portfolios returning minus 15bps on average.

It is also apparent that there is a significant performance range in hedging costs amongst asset managers:



Where we have been able to identify Assets Under Management (19 out of 30 managers) we find a total trading volume of USD 1.6 trillion over almost three years at a cost of USD 432 million for the period. This equates to an average cost per million dollars traded of USD 267. The majority of the transactions undertaken will be swap transactions, simply rolling the hedges forward for a month at a time.

The average cost reported by NCFX in its TCA analysis for swap transactions is USD 35 per million. The best traders will expect to see an average cost of around USD 4 per million traded.

In the case that these transactions were conducted at the NCFX average price, then the total cost would have been USD 56 million; a saving of over USD 370 million, or an average annual improvement to return of 29bps. Reaching the best price of USD 4 per million traded would see a total trading cost of USD 6.4 million over the 32 months surveyed. The trading costs identified here are on average more than 10 times higher than they should be.

If we take the UK asset management industry's assets of USD 10 trillion¹ and assume that 24% of them are invested overseas, as per the ratio of domestic to hedged foreign investment identified here, then the annual cost from trading is in excess of USD 5 billion per annum.

Given the exceedingly low returns available, mismanagement of FX hedging is costing investors a large portion of their returns.

¹ INVESTMENT MANAGEMENT IN THE UK 2018-2019 – The Investment Association

Why is this happening?

At a very high level the issue might stem from the pressure on basis point fees that custodians charge. It is possible that those fees are being topped up through FX charges that are not as transparent as an agreed fee – but cost just as much, or more. This raises the question of whether non-base share class investors are effectively subsidising the admin costs of base class investors.

Similarly, the asset manager may prefer for fees charged for hedging services (calculation, etc.) be charged within the FX spread as these fees do not affect the fund's Total Expense Ratio (TER). A lower cost for asset servicing is more visible than increased FX costs.

The substitution of a transparent form of charging for a non-transparent charging structure flies directly in the face of Mifid2, the aim of which is to promote unbundling of costs and greater transparency to investors. Switching an explicit cost for an unknown implicit cost poses significant issues for the investor when trying to understand costs.

The problem itself is usually driven by a combination of factors which can be complicated to address, but the investor should nonetheless be taking the issues very seriously indeed and tackling them head-on. In our experience there has been a tendency amongst investors to dismiss FX costs as being insignificant, or worse, 'coming out in the wash'.

The source of costs could be from any combination of the following:

- Charges being applied to the FX price for calculation services.
 - As a charging mechanism, asset managers may find this useful, all things being equal. However, because these charges do not flow directly to a fund's TER, higher charges are likely tolerated. We argue this combination of tolerance for higher charges and
- Charges being applied to the FX price for Risk Weight Assets usage.
 - Banks are obliged to hold a minimum amount of capital against client exposures to guard against insolvency; the amount of capital depending on the riskiness of the asset. Investors pay for this use of capital.
- Simply paying too much spread.
 - Often caused by lack of a consistent transaction cost analysis process and dedicated, specialized FX execution resources.
- Hedging too often.
 - Tolerances set for hedge ratios, if too narrow, can lead to additional execution costs from higher turnover, with little to no benefit to the performance of the hedging program.
- Allowing custodians to deal solely with their affiliated businesses.
 - Without robust, independent transaction cost analysis or transparent pricing agreements in place for these situations, the incentive to apply higher spreads or prices is clear.
- Poor oversight of an outsourced share class hedging process.
 - Without effective oversight, costs can balloon from misaligned hedging programs, lax transaction cost management, and operational risk.
- Poor share class hedging processes
 - Two common examples which can lead to higher costs include: delayed trade execution and separate execution of currency swap legs instead of executing them together to net transaction costs.
- Use of inappropriate benchmarks

- For a currency hedged share class's performance to best replicate the performance of its fund counterpart different types of FX trades, like those for subscription and redemption activity or hedge adjustments due to asset price movements, should be executed with different benchmarks in mind. Executing without consideration for the appropriate benchmark, costs will rise, and hedge performance will suffer.
- Conflicted Transaction Cost Analysis
 - The conflict of interest is plain when the party executing the FX trades is also responsible for evaluating their own management of FX costs.

What needs to change to fix this?

Control

The first thing that an investor needs to assess is the control process for managing FX costs within the business responsible for managing share class hedges. This may or may not be the asset manager – it could be the custodian or a third party.

In these situations, the investor should understand the incentives driving the actions of those responsible for running the currency hedging program and managing its costs. For instance, when this is the asset manager themselves, it is clear they should be incentivized to minimize FX costs for their funds. But what if the outsource provider is the custodian bank for the fund, acting as principal and executing the deals with their own FX trading desk? Here the incentives are clearly to charge higher execution costs where possible. To address these inherent conflicts of interest, investors and asset managers should always have transparent and specific pricing arrangements in place as well as oversight procedures to review and enforce those arrangements.

As noted above, the regulatory environment has been restructured to provide investors with information so as to be able to exercise control. Excess costs stem from a lack of control so instituting controls using clearly defined roles and relationships as well as independent cost measurement and correct benchmarking is crucial to best practice.

Asset Consultants

Asset consultants must begin to fully consider FX costs in their investment recommendations, and the potential for cost shrouding between the asset manager and the custodian. There has been a tendency amongst asset consultants to focus on the Total Expense Ratio at the expense of the implicit costs paid through trading. This combined with a casual approach to conflicts of interest inherent in selecting conflicted Transaction Cost Analysis and the agency versus principal relationships within many dealing arrangements means that investors are overpaying for FX services.

Transaction Cost Analysis

Changes in regulations since the advent of Mifid2 require that those executing business on behalf of others assess their transaction costs regularly and using independent data.

Where TCA is conducted by a business that directly or indirectly benefits from executing transactions there is a clear conflict of interest. Asking participants who benefit financially from the client's business to measure costs results in compromised control information.

Obligations stemming from Mifid2 require that any valuation of a portfolio be made against a regulated benchmark, including for FX. We find that this is broadly not understood, and not generally the case. Further, it is not permitted to use a rate from a single bank or aggregated platform to value

portfolios. Simply ensuring that those responsible for execution are complying with the rules in insisting on independent TCA will assist in the measurement and understanding of costs.

Outsourcing

Clients need to understand the objectives and incentives of their provider if they have outsourced their share class hedging. Key questions to ask: does their provider act on their behalf as agent or are they acting as principal? If their provider is acting as principal, do they have a transparent and well-defined pricing agreement in place? Do they use an independent TCA provider and share the results? Do they provide reports and analytics to the client so they can confidently oversee the outsourced activities?

Benchmarks

Investors need to be aware that their use of inappropriate FX benchmarks can often mask significant costs. Achieving a benchmark in FX does not mean that costs were zero as the most commonly used benchmarks are often at a significant variance to the underlying market. This gives a false sense of security whilst bleeding the portfolio.

At the same time, investors should be using benchmarks proactively. Banks will now offer transparent pricing for FX services at a cost over the NCFX live benchmarks, ensuring that execution costs are both understood and controlled.

Improve the Outcome

Once costs and their impact are understood, asset consultants should be helping investors to manage costs lower by ensuring that TCA is both independent and using regulated benchmarks.

Above all, investors should ensure they avoid conflicts of interest where possible and closely manage them where they are impossible to avoid. To do so, investors should utilize independent, regulated TCA benchmarks to oversee all outsourced activity. Using effective TCA for oversight, regardless of whether they use an independent agent or their custodian-as-principal, to manage their hedging program, will lead them to achieve the best possible price on which to execute business.

By instituting control procedures rooted in independence and objective measurement, investors can expect lower transaction costs in FX and better returns to their portfolios.

About Us

New Change FX is a regulated Benchmark Administrator², calculating the world's only live regulated benchmarks for both FX spot and forward markets. New Change FX also provides transaction cost analysis services.

Based in Boston, Lumint is a privately held corporation founded in 2014 to provide comprehensive currency management services to institutional investors by delivering process excellence, scalability, and real time performance analytics through a highly automated, proprietary platform.

² ESMA Registered Benchmark Administrator under Regulation (EU) 2016/1011
Authorised by the FCA as a Benchmark Administrator (FRN 793983) under Part 4A of FSMA 2000