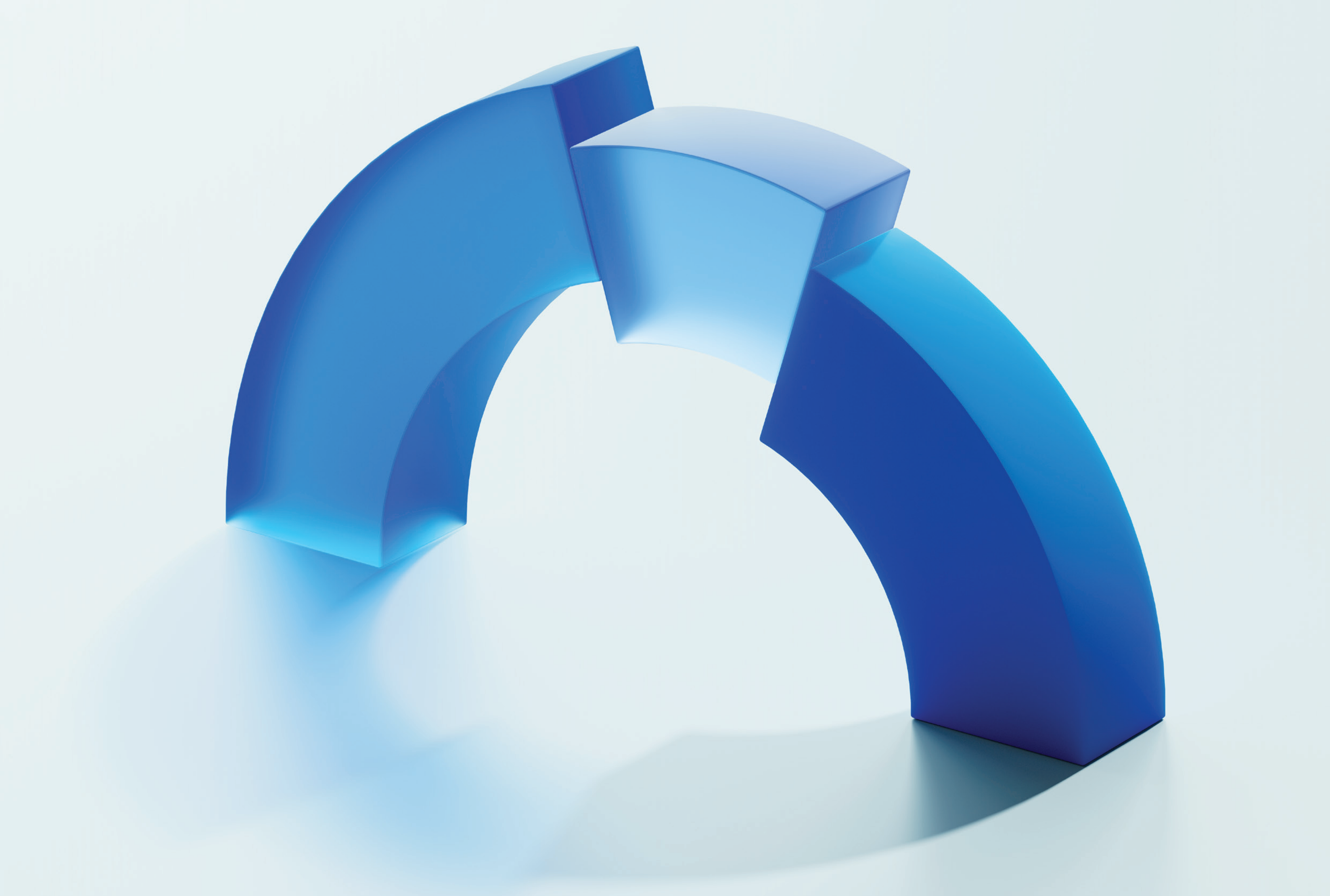


Transaction costs explained

Getting to grips with charging disclosure
under MiFID II and PRIIPs

December 2023

J.P.Morgan
ASSET MANAGEMENT

Myth 1

Transaction costs are a new cost

The transaction costs disclosed under MiFID II and PRIIPs are NOT a new additional cost. They have always been involved in managing a fund and are already fully reflected in net returns. However, this is the first time they have had to be fully disclosed and expressed in percentage and monetary terms.

Myth 2

Low transaction costs indicate a better investor outcome

Assessing the outcome from investing in a fund requires looking at its performance net of charges. A fund that trades infrequently may have low transaction costs but its strategy may be focused on achieving only modest returns. However, another fund with a more active trading strategy may incur higher transaction costs in order to generate higher long-term returns. Transaction costs (and other charges) must always be considered in the context of a fund's strategy and the return being achieved.

Myth 3

Disclosing transaction costs makes competitor comparisons easier

Disclosing transaction costs may encourage fund managers to see how they can reduce the cost of trading, which is to be welcomed. But the very different basis on which costs can currently be calculated may be misleading and confusing for investors – and may actually serve to make fund comparisons harder.

Transaction costs explained

Two pieces of EU legislation that came into force at the start of 2018 – the second Market in Financial Instruments Directive (MiFID II) and the Packaged Retail and Insurance-based Investment Products (PRIIPs) regulation – seek, among other aims, to make the cost of investing in products such as investment funds completely transparent and comparable.

Two pieces of EU legislation came into force at the start of 2018 – the second Market in Financial Instruments Directive (**MiFID II**) and the Packaged Retail and Insurance-based Investment Products (**PRIIPs**) regulation. Additional changes to the PRIIPs regulation came into force in January 2023 and as a result of legislative evolution post-Brexit, there is now a divergence between the EU and UK PRIIP regulations. These pieces of legislation seek, among other aims, to make the cost of investing in products such as investment funds completely transparent and comparable.

Together, they require the disclosure of all costs and charges involved in investing in an investment fund. Notably, this means that – for the first time – the transaction costs involved in buying and selling the underlying securities inside a fund must be disclosed.

In this guide, we want to explain what that means in practice – and both the challenges and potential benefits that disclosure of transaction costs presents.

MiFID II

MiFID II stands for the second Market in Financial Instruments Directive. It is an EU and UK piece of financial regulation designed to offer greater protection for investors and introduce more transparency across financial markets, improve orderly trading behaviour within markets and make the costs of trading and investing more explicit. MiFID II utilises PRIIPs methodologies for the calculation of costs.

PRIIPs

EU and UK rules governing information disclosure for all Packaged Retail and Insurance-based Investment Products (PRIIPs). For PRIIPs distributed in the UK, there is an exemption for Undertakings for the Collective Investment in Transferable Securities (UCITS) from the rules until 31st December 2026.

What costs does a fund need to disclose?

There are four types of cost that must now be disclosed separately on an investment fund, both before a fund is sold to an investor and on an ongoing annual basis:

One-off charges

Paid when entering or exiting an investment

- Initial charges
- Front-loaded management fees
- Distribution fees
- Exit fees on redemption

Ongoing charges

Taken annually for managing the fund

- Annual management charge (AMC)
- Operating and administration (O&A) costs – e.g. custody and reporting costs
- Stock lending costs
- In a fund of funds, the Ongoing costs of the underlying funds

Swing Pricing

A mechanism used to protect existing investors in a fund from having the value of their investment eroded by the costs involved in managing fund inflows and outflows.

Note that not all might apply a swing pricing mechanism.

Please see relevant Prospectus for more information on Swing Pricing, also referred to as Dilution Adjustment.

Transaction costs

Incurred when trading underlying investments

- Explicit costs of trading underlying investments in a fund
- Implicit costs of trading underlying investments in a fund
- Transaction costs of underlying funds (e.g. fund of funds)
- (see below)

Incidental costs

Ad-hoc charges

- Performance fees

Transaction costs must take into account three types of cost

Explicit transaction costs

- **Broker commission -** to buy and sell securities.
- **Research commission -** where the asset manager passes these on to the investor*.
- **Taxes and levies -** such as stamp duty, regulatory and exchange levies.
- **Transaction Costs of Underlying Funds -** The transaction cost indicators for funds invested into are pro-rated according to the net asset value of the fund/mandate in which they are held.

Implicit transaction costs

- **Arrival Cost –** for instruments traded on an exchange such as equities and Exchange Traded Derivatives (ETDs). The difference between the mid-price at which an asset is valued immediately before an order (the arrival price) and the price at which it is actually traded (the execution price).
- **Spread-based Costs –** for Over-the-Counter (OTC) instruments such as bonds. The half-spread from bid/offer quotes obtained, applied to the units transacted.

...minus any dilution adjustments obtained from the swing pricing mechanism, where applicable, that may occur

*J.P. Morgan Asset Management does not pass these costs on to the investor for all accounts considered in scope of the MiFID II Directive.

What costs does a fund need to disclose?

Costs must be disclosed before a sale and then reported to the investor annually, based on the investor's own level of investment.

Pre-sales document

'Indicative' cost figures must

- Be based on an example amount to be invested by the investor
- Show the four types of cost separately (see pages 4 and 5)
- Provide costs both in monetary terms and as a percentage

Annual reporting

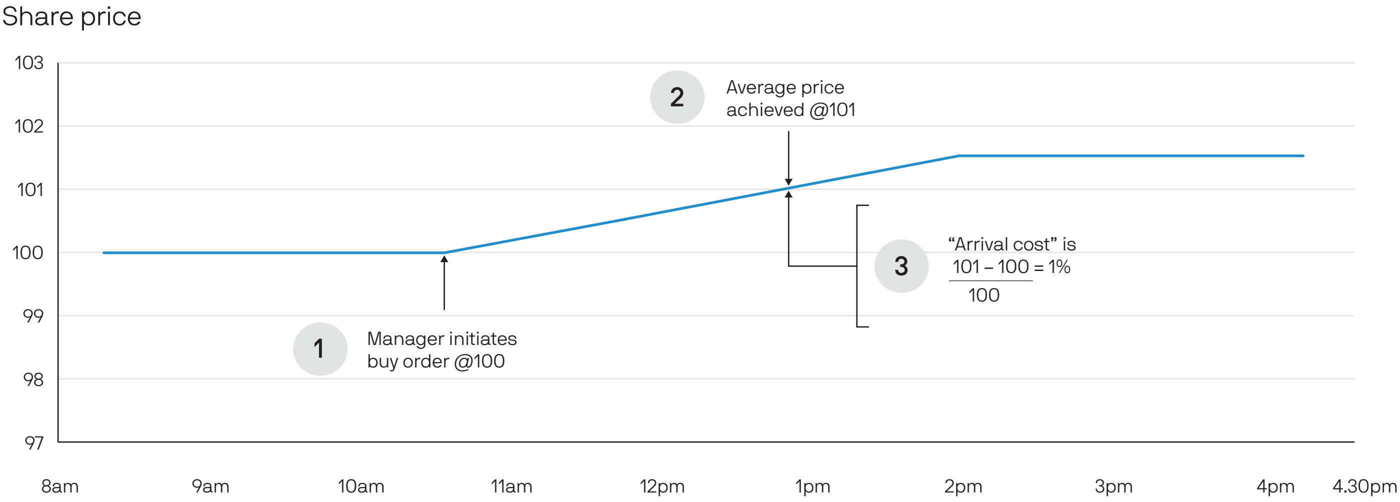
'Actual' cost figures must

- Be based on the client's average AUM over the previous 12-month period
- Show the four types of cost separately (see pages 4 and 5)
- Provide costs both in monetary terms and as a percentage

How is the 'arrival cost' calculated?

There are a number of ways of calculating implicit transaction costs. The method used by J.P. Morgan Asset Management and others to determine implicit transaction for exchange-traded instruments costs is the full PRIIPs method, also known as the arrival price methodology.

The Arrival Price Methodology (For illustration purposes only)



1. The **arrival price** is the mid-price of the security at the exact time the trade is sent to the broker.
2. The **execution price** is the price achieved for the whole trade (or the average price achieved where the trade has been broken down into multiple parts).
3. The **arrival cost** is the difference between the average execution price and the arrival price, expressed as a percentage.

In the buy example shown above, the execution price is 101p and the arrival price is 100p, so the arrival cost is 1%.

What can create the differential between the arrival price and execution price?

A difference between the price at which an order to trade is given and the price at which it is executed can result for a number of reasons:

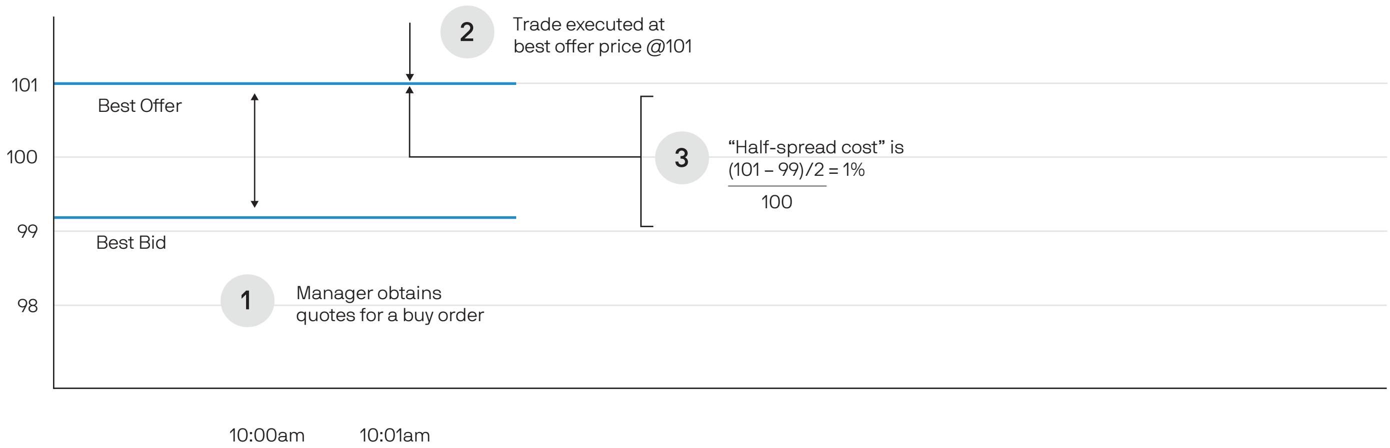
- **Opportunity cost -** Sometimes it is not possible to execute a large trade in one go. Executing a trade in stages can create gains or losses depending on how the market price of the security moves.
- **Trade impact -** Instructing a large trade can have the effect of moving the security's price up (if buying) or down (if selling). Managing this impact is a key skill for asset managers and their trading desks.
- **Delay impact -** If a transaction is delayed, for whatever reason – even by a minute or so – market movements in the meantime can contribute to the arrival cost. Powerful trading systems that minimise latency (the delay between a trading request and response) are vital.

How is the ‘half-spread cost’ calculated?

The method laid out by the regulations, and which is used by J.P. Morgan Asset Management and others to determine implicit transaction costs for OTC instruments is the half-spread methodology.

Half-Spread Based Methodology (For illustration purposes only)

Share price



1. **Bid and offer quotes** (also known as 2-way prices) are obtained from brokers prior to execution.
2. The trade is executed almost immediately. The **execution price** is represented by the best offer price in the example above.
3. The **half-spread cost** is the difference between the best offer price and the best bid price, divided by 2, expressed as a percentage.

In the buy example shown above, the bid price is 99p, and the offer price is 101p, so the half-spread cost is 1%.

Do low transaction costs indicate the best investor outcome?

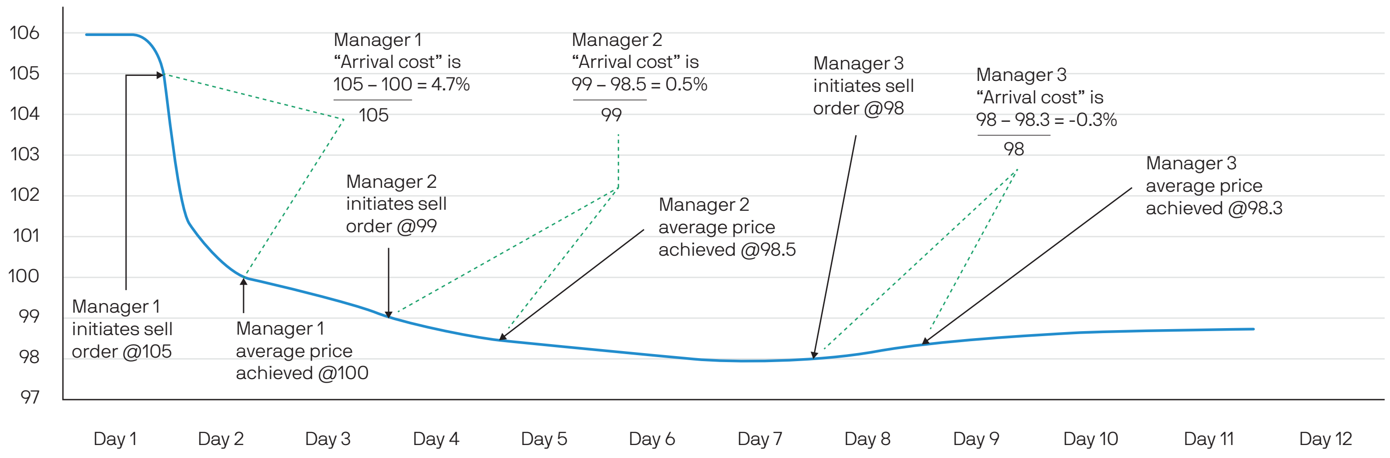
It can be easy to assume that the most attractive funds are those with the lowest transaction costs. But an example of three different managers reacting to news on the same stock shows that's not necessarily the case.

Arrival cost case study: Putting transaction costs in context

Three managers react to some negative news in a stock price:

- **Manager 1** sells on the day of the bad news, achieving an execution price of 100, but accumulating an arrival cost of 4.7%.
- Three days after the newsflow, **Manager 2** decides to follow suit and sells. They start their order with the price at 99, and ends up with an execution price of 98.5.
- Lastly, **Manager 3** takes the longest time to decide, enters the sell order on Day 8 once the price has fallen to 98, and achieves an execution price of 98.3.

Share price



Despite all three managers coming to the same conclusion to sell, and each taking one day to execute their order, the manager who achieved the highest selling price, Manager 1, is considered to have the highest transaction costs. Indeed, under the above scenario, Manager 3 would show negative transaction costs, but would have achieved the worst outcome for clients, based on the PRIIPs calculation methods.

	Manager 1	Manager 2	Manager 3	
Order start date	Day 1	Day 4	Day 8	
Arrival price	105	99	98	
Days to execute	1	1	1	
Execution price	100	98.5	**98.3**	◀ **Worst outcome**
Arrival cost	4.7%	0.5%	**-0.3%**	◀ **Lowest transaction cost**

Why do some funds show a negative or zero transaction cost?

A negative transaction cost indicates that transacting has resulted in a net revenue rather than a net cost for the fund. This can happen for two main reasons:

- The amount of dilution adjustment a fund obtains from its Swing Pricing mechanism offsets most or all of the transaction costs that the fund incurs.
- If a stock is taking a number of hours to sell/buy, the price can rise/fall in the time between placing the order and execution, so it exceeds/falls below the original arrival price and therefore offsets other transaction costs. If this happens to enough trades, an overall negative transaction cost can accrue.

A zero transaction cost can also result from:

- Firms inputting a zero cost where the actual cost is unknown or data quality is not good enough to give an accurate cost – this is only allowed as a short-term measure.
- Funds of funds including the transaction costs of the underlying funds in the ongoing charges of the main fund.
- Cash and liquidity funds where transaction activity is very low.

However it is important not to take negative or zero transaction costs at face value. They are often circumstantial and the basis for their calculation needs to be understood to ensure that costs do not look artificially low.

EU vs UK Divergence

Following amendments to the PRIIPs regulation by the European Supervisory Authorities, revised EU transaction cost methodologies apply to all UCITs and Non-UCITs funds held by EU investors from 1st January 2023.

Following amendments to the PRIIPs regulation by the Financial Conduct Authority (possible post Brexit), new UK transaction cost methodologies apply to all Non-UCITS funds held by UK investors from 25th March 2022 with a transitional period to 31st December 2022 (His Majesty's Treasury extended the UCITS exemption from PRIIPs to the 31st December 2026).

EU vs UK Transaction Cost Floors

EU Cost methodology sets the transaction cost floor as the level of explicit costs. UK Cost methodology limits the extent to which dilution adjustment can be applied, to the extent that it doesn't take the transaction cost below zero or make an already negative transaction cost more negative (due to negative implicit costs). This can lead to significant differences between the costs calculated under the EU or UK methods for the same fund, illustrated in the examples below.

Explicit costs	0.20%	0.20%	0.20%
Implicit costs	0.30%	0.30%	0.30%
Dilution adjustment	-0.10%	-0.40%	-0.52%
Old PRIIPs	**0.40%**	**0.10%**	**-0.02%**
New UK PRIIPs	**0.40%**	**0.10%**	**0.00%**
New EU PRIIPs	**0.40%**	**0.20%**	**0.20%**
	Costs unaffected by transaction cost floors	Illustrates the impact of the EU explicit cost floor	Illustrates the impact of the UK dilution adjustment limit

What are the implications of the rules?

Costs have a major impact on investor returns. The regulatory intent of MiFID II and PRIIPs to enable investors to see and understand fully all the costs involved in investing in a fund is to be welcomed and supported.

Minimising trading costs by trading as efficiently and cheaply as possible has always been a priority for asset managers in order to show better net returns. Shining a light on transaction costs may encourage asset managers to work even harder to bring these costs down.

But there are three important factors to bear in mind:

1. **Hard to compare costs on a like-for-like basis:** The flexibility given to fund managers to use different calculation methods and swing pricing mechanisms to measure transaction costs makes it very difficult to make a meaningful comparison of transaction charges, even on funds with a similar mandate.
2. **Transaction costs need to be put into context:** Different funds can have very different cost profiles depending on their investment strategy and how frequently they trade. Transaction costs therefore need to be assessed against the aims, strategy and risk profile of the fund – never in isolation.
3. **Regulatory disclosure is not consistent:** Performance figures in a Key Investor Information Document (KIID), which is governed by UCITS legislation, may be based on a different time period and include different costs from those shown in MiFID and PRIIPs disclosures (for example, KIIDs do not have to show any type of transaction costs). Investors may therefore be presented with different costs for the same fund, depending on what documentation they are looking at.

Managing transaction costs at J.P. Morgan Asset Management

- **Investing in best execution:** J.P. Morgan Asset Management is committed to achieving best execution for all transactions we conduct. We invest extensively both in proprietary trading technology and teams of trading specialists to drive down execution costs and achieve the best trading outcome for the benefit of our clients.

  Our Global Equities team consists of traders around the world, and is augmented by experts within our dedicated Systematic Trading and Analytics team, that focuses solely on improving trading efficiency. Using data-driven machine-learning processes, we identify the optimal trading style in various trading situations. Through this agile, quantifiable approach, we strive to keep our transaction costs low.

- **Clear and accurate disclosure:** We calculate transaction costs using the full PRIIPs methodology, using three-year historic data which is refreshed monthly.

- **Not passing on research costs:** We were also one of the first asset managers to pay explicitly for third-party research, clearly separating the provision of research from the cost of transacting. Today, we have a policy not to pass on the costs of third-party research to investors for investments covered by MiFID II.

  We continue to invest in research and technology to achieve optimal trading outcomes without ever compromising security or reliability.

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