

# **NORTHERN TRUST**

## EMEA ORDER EXECUTION POLICY

***For Professional Clients of the following Northern Trust entities:***

- Northern Trust Global Services SE, and its branches
- Northern Trust Investor Services Limited
- Northern Trust Securities LLP, and its branches
- The Northern Trust Company, London branch

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## 1. INTRODUCTION

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### A. Purpose of this policy

Northern Trust's (herein 'NT') execution and trading policies are integral to our core values and our commitment to market integrity.

NT is required to establish and implement effective arrangements for complying with its obligations to take all sufficient steps to obtain the best possible result for its clients (the 'best execution obligation') under UK, Luxembourg and EU/EEA regulations. This Policy is intended to allow NT to obtain the best possible result for the execution of client orders and provides information on the different execution venues where NT executes its client orders and describes the various factors and how these are assessed when our traders execute and manage client orders.

References to "you" and "your" are to our clients. Capitalised terms used but not defined herein shall have the meaning given to them in the Rules.

This part of the Order Execution Policy is a general order execution policy that sets out the general order execution factors and processes (the "General Order Execution Policy") that we will follow. For each business line, there are further specific order execution factors and processes (the "Specific Order Execution Schedules"). Please refer to the relevant Appendix of this Order Execution Policy for the Specific Order Execution Schedule that applies to each business line. As set out in the Appendix, the Specific Order Execution Schedule for each business line supplements and qualifies the General Order Execution Policy of this Order Execution Policy. The Specific Order Execution Schedules will be reviewed annually and/or when a material change occurs. The Specific Order Execution Schedules must be read in conjunction with the General Order Execution Policy.

The General Order Execution Policy is subject to any Specific Order Execution Schedule that applies, and in case of conflict, the Specific Order Execution Schedule prevails. The Specific Order Execution Schedules are:

1. Institutional Brokerage;
2. Global Foreign Exchange;
3. Securities Lending
4. Transition Management;
5. Fund Order Processing; and
6. Money Market Fund Investment Service & Client Driven Money Market Fund Investment Service
7. Northern Trust Liquidity Solutions Portal Schedule

This Policy in its entirety will be published and updated annually on the Northern Trust Capital Markets page on the Northern Trust website ([www.northerntrust.com](http://www.northerntrust.com)). Where a client makes reasonable and proportionate requests for information about our policies or arrangements and how they are reviewed, we shall, where appropriate, make reasonable endeavours to answer clearly and within a reasonable time.

### B. What is Best Execution?

Best execution means the requirement to take all sufficient steps to achieve the best possible result for our clients, taking into account price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant to the execution of an order, when executing client orders or using other affiliates to execute orders. These factors are known as the "Execution Factors" and will provide the basis for us to explain how we will provide best execution. The obligation to provide best execution will not always apply, and this Policy outlines when we will owe you this duty and when we will not.

Please note that, whether or not this policy applies to the relevant product you are trading, we are committed to acting honestly, fairly and professionally.

## 2. POLICY SCOPE

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### A. Northern Trust entities subject to this Policy

Only Northern Trust entities duly authorised to provide investment services can offer each of the products or services mentioned in this Policy. Therefore not all Northern Trust entities offer all (or any) of the products or services mentioned in this Policy. The NT legal entities that may be subject to a “Best Execution” obligation as described in this Policy are:

- Northern Trust Global Services SE, and its branches,
- Northern Trust Securities LLP, and its branches; and
- The Northern Trust Company, London Branch
- Northern Trust Investor Services Limited

Throughout this Policy, these entities will be collectively referred to as “Northern Trust” or “NT”, “we”, “us” or the “the Firm”.

Please note that this policy does not apply to the services provided by Northern Trust Asset Management (‘NTAM’) through Northern Trust Global Investments Limited or any of its affiliates. You should refer to the relevant NTAM Order Execution Policy for details of order execution arrangements for these services.

### B. Types of Clients

This Policy applies to per se professional clients and elective professional clients (within the meaning of UK, Luxembourg and EU/EEA regulations). Clients will have received a formal notification from us informing them of their client categorization. Unless otherwise stated, this Policy applies to clients in the same way regardless of whether they are an elective professional client (via an opt-up or opt-down mechanism) or a per se professional client. Note that this policy does not apply to eligible counterparties; accordingly, we will not owe best execution in transactions entered into with eligible counterparties, unless we agree otherwise.

Specifically:

- Professional clients: NT acknowledges that professional clients may place legitimate reliance upon us to provide them with best execution when placing an order to execute in any global market, subject to this Policy.
- Eligible counterparties: NT has no duty to provide best execution to any client that we have categorized as an eligible counterparty, either generally or for a particular transaction or type of instrument. Nevertheless, NT will still act honestly, fairly and professionally and communicate in a way that is fair, clear and not misleading, taking into account the nature of the eligible counterparty and of its business.
- Retail clients: **NT does not deal with retail clients**. Local authorities or LGPS (local government pension schemes) categorised as retail clients will need to opt up to elective professional status, if they meet the respective qualitative and quantitative criteria, in order for us to continue to contract with them.

### C. Activities

The purpose of this Policy is to provide appropriate information on our order execution policy in the context of transactions undertaken with or for clients in relation to those Financial Instruments which are defined below in sub-section D.

### D. Product Scope

This policy only applies with respect to financial instruments within the scope of UK, Luxembourg and EU/EEA regulations (herein “Financial Instruments”). Financial Instruments include but are not limited to:

- Transferable securities (such as shares and bonds);
- Money market instruments;

- Units in collective investment undertakings;
- Options, futures, swaps, forward rate agreements and any other derivative contracts relating to securities, currencies, interest rates or yields, emission allowances or other derivatives instruments, financial indices or financial measures which may be settled physically or in cash;

The UK, Luxembourg and EU/EEA definitions of Financial Instruments does not include spot foreign exchange (FX) and therefore, we generally do not have any obligations regarding Best Execution in respect of spot FX. However, in line with our commitment to maintain regulatory standards, even where Best Execution rules do not apply, we undertake to treat you fairly and to manage any conflicts of interest which may arise.

The application of this policy to particular types of financial instruments is described further in the Appendices.

## **E. Geographical/ Entity Scope**

This Order Execution Policy applies to all professional clients contracting with a Northern Trust entity that provides investment services within the meaning of UK, Luxembourg and/or EU/EEA regulations, whether or not they are resident in the UK, Luxembourg, or the EU/EEA, and irrespective of where the transaction is executed.

### **a) Clients of Northern Trust Global Services SE and its branches**

Northern Trust Global Services SE ('NTGS SE') is authorised by the Commission de Surveillance du Secteur Financier (CSSF) and the European Central Bank (ECB) and subject to the prudential supervision of the CSSF, ECB and the Central Bank of Luxembourg (BCL). Its UK Branch is authorised and regulated by the Financial Conduct Authority in the conduct of its UK depositary activities and the Dutch Branch is authorized and regulated by the Authority of Financial Market (AFM) and the Dutch Central Bank (DCB) in the conduct of its Dutch depositary activities.

NTGS SE is subject to the provisions of Article 37-5 of the Law of 5 April 1993 on the financial sector which imposes an obligation on credit institutions to take all reasonable steps to obtain, when executing orders, the best possible result for their clients. MiFID II is transposed into Luxembourg law by:

- The Law of 5th April 1993 on the financial sector;
- The Law of 30 May 2018 on markets in financial instruments;
- The Grand-ducal Regulation of 30 May 2018 and
- The CSSF circular 07/307 (as amended by Circulars CSSF 13/560, CSSF 13/568 and CSSF 14/585).

### **b) Clients of Northern Trust Securities LLP, and its branches**

Northern Trust Securities LLP ('NTS LLP') is authorised and regulated by the Financial Conduct Authority.

NTS LLP is subject to the provisions of the FCA's the Conduct of Business Sourcebook ('COBS') which require UK firms to take all sufficient steps to obtain, when executing orders, the best possible result for their clients. The FCA Handbook is the primary source of the UK provisions that implement MiFID II into the UK regulatory system.

### **c) Clients of The Northern Trust Company, London branch**

The Northern Trust Company, London branch ('TNTC LB') is authorised by the Prudential Regulation Authority and authorized and regulated by the Financial Conduct Authority. The Northern Trust Company is authorised and regulated by the Federal Reserve Board.

TNTC LB is subject to the provisions of the FCA's the Conduct of Business Sourcebook which require UK firms to take all sufficient steps to obtain, when executing orders, the best possible result for their clients. The FCA Handbook is the primary source of the UK provisions that implemented MiFID into the UK regulatory system.

**d) Clients of Northern Trust Investor Services Limited**

Northern Trust Investor Services Limited ('NTISL') is authorised and regulated by the Financial Conduct Authority.

NTISL is subject to the provisions of the FCA's the Conduct of Business Sourcebook ('COBS') which require UK firms to take all sufficient steps to obtain, when executing orders, the best possible result for their clients. The FCA Handbook is the primary source of the UK provisions that implement MiFID II into the UK regulatory system.

### 3. EXECUTION FACTORS

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NT's Best Execution obligation hereunder applies to Financial Instruments. However, given the differences in market structures or the structure of those Financial Instruments, it may be difficult to apply a uniform standard and procedure for Best Execution that would be effective for all types of Financial Instruments. Best Execution will therefore be applied in a manner that takes into account the different characteristics associated with the execution of orders related to particular types of Financial Instruments.

#### A. The Main Execution Factors

The Execution Factors are: price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant to the execution of an order. NT will take into account the following Execution Factors when under an obligation to deliver the best possible results for a particular client:

- the execution price without any costs charged to you, or our own fees and commissions;
- speed and/or likelihood of execution and settlement;
- size and nature of the order;
- the impact on market prices of displaying and/or executing an order or part of an order;
- the availability of price improvement (the opportunity for an order to be executed at a better price than what is currently quoted publicly);
- the nature of the specific Financial Instrument including whether it is executed on a Regulated Market, MTF, OTF or over the counter ("OTC"); and
- Any other consideration relevant to the efficient execution of the order.

In determining the relative importance of these factors, NT will use its own commercial experience and judgment taking into account the main Execution Factors as illustrated above, as well as the possible execution venues to which that order can be directed.

#### B. Relative Importance of the Main Execution Factors

The relative importance of Execution Factors will depend on:

- The characteristics of the client including classification (Professional) and experience;
- The characteristics of the order, including any strategies or specific instructions given by the client, the size of the order and the likely market impact;
- The characteristics of the Financial Instrument including liquidity, trading patterns, transparency associated with the particular Financial Instrument; and
- The characteristics of the execution venue, market or counterparty to which the client order may be directed.

Generally, price may be regarded as one of the most significant factors in order to achieve Best Execution for clients. However, in determining the "price" of a Financial Instrument, NT may take into account a number of other considerations including market parameters (i.e. the price at which a Financial Instrument may be trading on a regulated market, MTF or OTF, taking into account liquidity on that execution/trading venue), valuation models, the risks incurred by the Firm from entering into transactions, the capital requirements for us resulting from those transactions and the cost of hedging the Firm's risks. Nevertheless, NT's front office staff will take all sufficient steps and use their experience and commercial judgement to evaluate the available market information in order to achieve the optimal balance across a range of potentially conflicting Execution Factors.

This does not mean achieving or guaranteeing the best price for every client order, but the best possible result that can reasonably be expected given the environment and execution factors available to our front office staff at the time.

The Firm must also act in accordance with the best interests of its clients when passing client orders to other entities for execution. Aside from the explicit Best Execution rules explained in this policy, we have an overriding duty to act honestly, fairly and professionally.

#### **4. HOW WE DETERMINE WHEN BEST EXECUTION IS OWED AND HOW DO WE PROVIDE IT?**

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The rules on the application of best execution depend on whether our client is classified as a Professional Client/Elective Professional Client or not and whether or not that Professional Client/Elective Professional Client has placed legitimate reliance on us.

##### **A. Professional Clients**

This Order Execution Policy will only apply to you if we have classified you as a “Professional Client”, whether under MiFID II, FCA or CSSF Conduct of Business Rules, as may be applicable to the NT legal entity providing you with services (see section 2. above), and when we are required under the relevant regulatory provisions in question to ensure that we provide the best possible result when executing your orders. Typically, we will be required to do so where we have agreed to either:

- (a) Execute on your behalf; or
- (b) Pass on (i.e. transmit) at our discretion to another broker or dealer (“third party”) for execution on your behalf.

##### **B. Four fold test - Reliance**

This obligation for “Best Execution” will only apply to you if we have determined that you have placed legitimate reliance on us to protect your interests.

To determine whether you legitimately rely on Northern Trust to protect your interests, the following factors are relevant:

- Which party initiates the transaction - where Northern Trust approaches a client and suggests that the client should enter into a transaction, it is more likely that the client will be placing reliance on us. Where the client initiates the transaction it is less likely that the client will be placing reliance on us;
- Market practice and the existence of a convention to “shop around” - where the practice in the market in which a business area operates suggests the client may access or choose from competing quotes or compare prices from a variety of sources (i.e. there is a market convention to “shop around” for a quote), it is less likely that the client will be placing reliance on us;
- The relative levels of price transparency within a market - if Northern Trust has ready access to prices in the market in which we operate, whereas the client does not, it is more likely that the client will be placing reliance on us, whereas if our access to pricing transparency is equal or similar to the client’s, it is less likely that the client will be placing reliance on us; and
- The information provided by Northern Trust and any agreement reached between the parties - where the arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on us.

The category and characteristics of a client are important factors both in the assessment of whether the client is relying on Northern Trust to deliver Best Execution and in providing Best Execution.

## 5. ORDER TYPES AND SCENARIO ANALYSIS

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NT may receive a variety of order types where there may be differing elements of discretion afforded to us. The following section is used to determine whether or not Best Execution applies in certain scenarios and to illustrate how NT may deal with such orders. These scenarios apply in varying degrees to transactions in different asset classes. You should consult the Appendices at the back of this Policy or contact your NT Relationship Manager or sales representative if you are unsure which scenarios apply.

### A. Reception and Transmission of Orders

There will be instances when NT passes an order to another broker or third party for execution. Typically this may occur when NT is not a member of the domestic exchange, but may also occur in order to access alternative liquidity sources, which can include capital backed liquidity. In these circumstances, NT remains under an obligation to monitor the broker's performance and obtain the best possible result for our client, subject to sub-sections 5.C and 5.D.

### B. Acting as an Agent or Matched Principal

NT may be contracted to act as a client's agent and/or as a matched principal broker. In such circumstances where NT is acting on the client's behalf and the Best Execution obligation applies because NT has discretion over how to execute the transaction, the Firm will execute the transaction for the client having regard for the terms of the order in determining the Execution Factors that need to be taken into account for the purpose of providing the client with Best Execution.

### C. Execution of Orders on Behalf of Clients where NT has Discretion on the Execution or Worked Orders

Clients may place orders for execution with NT, where we may use our discretion as appropriate. This will normally include order types commonly used on execution venues. We will apply the Execution Factors to each order over which we exercise discretion. Where specific instructions for certain elements of a trade are provided, these elements do not release us from our obligation to provide Best Execution in relation to those aspects of the order where you have not provided specific instructions, such as the venue of execution or the timing of the execution, where we retain some discretion over those aspects. These types of orders include:

- Open/Close/Fixing Orders
- Price Level Orders
- At Market Orders
- At Best Orders
- Stop Orders
- Smart Order Routing
- Target Benchmark Orders
- Open/Close/Fixing Orders

Where a client sends an order for execution at a reference price defined by a market fixing (such as a "Close" auction), which NT agrees to accept, but without guaranteeing to fill that order, the Firm will endeavour to fill the order at the fixing price published by the market by participating in the fixing or auction mechanism whilst strictly respecting any limit price specified by the client. "Close"/"Fixing" orders with a guaranteed fill price are dealt with below.

#### 1) Price Level Orders

If NT accepts a "price level" order or a "limit price order", the Firm will only fill the client's order when NT perceives that the particular level has been reached (unless we agree to a different formulation for determining when the price level has been triggered). If NT decides to fill the client's order by going into the market (whether on a regulated market, MTF, OTF or OTC), the Firm will only fill the client's order once the price and quantity is available, fully or partially.

## **2) At Market Orders**

Where the client submits an order but does not specify a price level, limit price or price determination mechanism or a specific time of execution NT shall, unless otherwise agreed with the client, accept such order as an “at market” order. In such circumstances, the Firm will endeavour to fill that order as soon as reasonably practicable after the order is accepted and in accordance with Best Execution obligations.

## **3) At Best Orders**

Where the client submits an “at best” order and does not specify a price level, limit price, or price determination mechanism or a specific time of execution, the Firm shall, unless otherwise agreed with the client, endeavour to fill that order as soon as reasonably practicable after the order is accepted and in accordance with Best Execution obligations at the first price level in the market.

## **4) Stop or “Stop Loss” Orders**

When sending a “stop” order, the client must specify the price level at which the order is to be triggered and the time for which the order will remain valid. The “stop” order will be triggered when market conditions permit execution. NT does not support “stop” orders on all markets.

When a “stop” order has been triggered, and the order becomes an “at market” order, we do not, unless we otherwise agree, guarantee that the order will be filled at the “stop” level.

The Firm does disclose that we will undertake transactions in the market that we determine in our discretion are appropriate to assist in managing our risk and/or to enable us to fill the “stop” order.

The Firm will not enter into transactions designed to trigger the relevant price level and has procedures in place in order to minimize that risk.

## **5) Target Benchmark Orders**

A client may send NT an order to execute at a price benchmark determined by a reference price in the market.

A typical benchmark order may be “Volume Weighted Average Price (VWAP)” which will be defined as the weighted average price published by the market over the period of the life of the order via a generally accepted price source, and which may be constrained by other parameters selected by the client, such as “Including Open”, “Including Close” and “End Time”. To execute such an order, NT will use a number of orders, both aggressive and passive, and over the course of a specified period.

NT will endeavour to achieve an overall outcome for the order where the overall volume weighted average execution price meets the Target Benchmark whilst taking into account the Execution Factors, but does not guarantee execution at the Target Benchmark price. Other client instructions such as Limit Price will be respected for these orders.

## **D. Publication of limit orders**

NT is required to obtain prior express consent should clients not wish NT to make public any unexecuted quantity of a limit order placed with us. In order to provide NT with the ability to obtain the best possible result for its clients, NT requests such consents as part of the client on-boarding process.

Giving prior consent does not preclude clients from requesting different execution arrangements at the time of placing an order or revoking such consent during the course of the relationship. Any revocation on a permanent basis must be submitted in writing to NT’s EMEA Head of Capital Markets & Treasury Compliance.

## **E. Execution of orders on behalf of clients with specific instructions where NT does not have discretion over the order**

Where NT receives specific instructions from a client including in relation to a particular aspect of a transaction (for example, where you instruct us to execute the order on a particular venue, at a particular time or at a

particular price), NT must execute the transaction (or aspect of the transaction as appropriate) accordingly and, by doing so, will have satisfied any obligation to provide Best Execution in relation to that aspect of the order only. This is also the case where NT transmits an order to another entity for execution following a specific instruction from the client. Please note that where a client provides a specific instruction this may prevent NT from taking steps that it has designed and implemented in this policy to obtain the best possible result for the execution of those orders in respect of the elements covered by those instructions.

#### **F. Dealing on own account or acting as principal**

In certain asset classes (e.g. FX), NT 'deals on its own account' or operates on a principal basis with a client, for example where the client has accepted a quote provided by us. In those circumstances, whether we owe the client a duty of Best Execution will depend on whether they are legitimately relying on us as determined by the four-fold test (see sub-section 4.B above).

Where we are dealing as principal on own account, we reserve the right to apply the four-fold test on a case by case basis in order to assess whether Best Execution should apply to a particular trade or not.

That said some of the scenarios where Best Execution obligations are most unlikely to be due and where we may deal on own account or operate as principal are as follows. This list of scenarios should not be regarded as an exclusive list, rather should be used as a guide to facilitate a greater understanding of when "Best Execution" is most unlikely to apply:

- Request for Quote (RFQ) – firm price, rather than indicative
- Two Way Quote/ Price
- Guaranteed fill on a close or fixing order –
- Internalisation
- Call-backs,
- Reference Price Transactions

NT may choose to make markets in instruments by quoting prices at which we are prepared to deal with our clients. We are under no obligation to do so, unless otherwise agreed or required by legislation (e.g. where we are acting as a systematic internaliser). The prices quoted by us may be different to those available on a regulated market, MTF or OTF; it will be up to the client to determine whether they wish to accept such price. Our quotes will be kept open for a certain time period once provided to the client. If the client accepts a quote once that time period has lapsed (i.e. when the quote has technically expired), we have the right to accept the trade on the basis that the client wishes to trade at that level, but we also may reject it on the basis that the quote has expired.

##### **1) Request for Quote – Firm Price Offered**

Where NT acts as principal and provides the client with a risk price for the transaction (being a price which, if accepted, will form the basis of the transaction, as opposed to an indicative price that we might be able to achieve in the market), we are executing the transaction as the client's counterparty and not on the client's behalf. In this situation, Best Execution will not apply, as we are of the view that legitimate reliance will not be established under the four-fold test.

##### **2) Request for Quote – Two Way Price/Quote**

Where a counterparty asks NT for a "two way quote", which is a quote whereby we show both the bid and the offer price of a Financial Instrument, informing you of the current price at which you could buy or sell the Financial Instrument. In this situation, the four-fold test will not usually indicate legitimate reliance and Best Execution will not be owed.

##### **3) Guaranteed fill on a close or Fixing Order**

In accepting an order around the “close” (i.e. to buy certain volume at the “close” price or equivalent price set at a predetermined time by reference to published criteria), unless NT states to the contrary at the time of taking the order, we shall fill the order at the relevant published price (subject to any applicable mark-up or mark-down as agreed between the client and us). We are guaranteeing that the order will be filled at the relevant close price and we are therefore “on risk” from that time. This means that NT will be executing the order from our own book and in practice the client order may not be executed in the closing auction (or equivalent). This will be considered a specific instruction and comparable to principal trading, thus we will not have discretion in this case.

#### **4) Reference Price Transactions**

If a client places a firm Order with NT to trade at a price that is determined through an agreed reference price prior to entering into the transaction. Clients should be clear that their Order will be executed at that price and they should therefore have no expectation of any price improvement or slippage from the price specified in their Order.

### **G. Volatile Markets and Extreme Situations**

When there are circumstances beyond our control the execution of your order may be negatively impacted. We will attempt to notify any clients whose orders may be affected. However, an order may be executed at a substantially different price from the quoted best bid or offer, or the last reported trade price at the time of order entry, or an order may be only partially executed or may be executed in several shapes at different prices; and opening prices may differ significantly from the previous day’s close.

In extreme volume and volatility situations, exchange system constraints may require automated trading systems to be switched off and/or electronic order routing to be suspended in favour of manual execution. If NT receives an order that in our view is likely to be inappropriate for the market conditions, we reserve the right not to execute the order or to adjust the instructions appropriately, and the order may then become subject to Best Execution obligations. However, it should be noted that such events lead to further execution delays and increased market volatility.

## 6. CLIENT ORDER HANDLING, AGGREGATION AND ALLOCATION PROCESS

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### A. General application

Our order handling and allocation process is set out in this section and will apply when we exercise our discretion in how we execute orders in Financial Instruments on your behalf or transmit to other entities for execution.

### B. Carrying out client orders

When carrying out client orders, we will ensure that orders executed on behalf of clients are promptly and accurately recorded. Otherwise comparable orders will be carried out sequentially and promptly unless the characteristics of the order or prevailing market conditions make this impracticable or the client's instructions or interests require otherwise.

### C. Client accounts

Where we are responsible for overseeing or arranging the settlement of an executed order we will take reasonable steps to ensure that any Financial Instruments or client funds received in settlement of that executed order are promptly and correctly delivered to the account of the relevant client.

### D. Misuse of information

We will not misuse information relating to pending client orders and we take reasonable steps to prevent the misuse of such information by any of our employees.

### E. Aggregation and Allocation of Client Orders

NT may, from time-to-time, receive orders in the same financial instrument from more than one client which have comparable characteristics and instructions (e.g. same direction, similar price instructions, and similar participation instructions); NT's traders will ordinarily seek to combine such client orders into a single block order (the 'aggregated order') and route that order to market for execution instead of the individual client orders.

#### a) Aggregation of Client Orders with those of other clients

NT will only aggregate a client's order with those of other clients where it is likely that the aggregation of those orders and transactions will work overall to the advantage of each of the clients whose order is to be aggregated. This means that we will only aggregate orders when they can be executed promptly, fairly and expeditiously and in a manner that is most likely to obtain the best possible result for each and every one of the clients involved in the aggregated order.

Examples of situations which are likely to benefit from order aggregation include, but are not limited to, the aggregation of client orders to permit access to block trading opportunities that would not otherwise be possible, and the aggregation of client orders to reduce execution and/or settlement costs.

In the event that NT determines that the aggregation of a client's order with those of other clients has the potential to disadvantage a client in some way, NT will disclose this to the client as soon as reasonable practicable.

#### b) Aggregation of client orders with NT's own orders

NT does not deal on own account unless handling a trading error arising from a client order; NT will never aggregate such own account orders with client orders even if comparable in nature.

#### c) Order Allocation

Where NT executes an aggregated order we will allocate the resulting transactions to the underlying client orders in accordance with the NT Order Allocation Policy.

This internal policy requires the fair and prompt allocation of transactions from the aggregated order to the underlying client orders and generally permits the allocation of transactions to underlying client orders based on either (a) volume-based methods which include pro-rata or equal-splits; or, (b) order timing methods which include First-In, First-Out (FIFO). Regardless of which standard allocation method is used, the policy requires that the method is determined at the point of deciding to create an aggregated order and recorded in the aggregated order record. Most importantly, the policy requires that the specific characteristics and instructions of the underlying client orders and the best interests of the clients involved are considered when making this determination.

Finally, in exceptional circumstances, the policy permits the use of other methods of allocation, which may be based upon other volume, price, or order timing methods, or a combination thereof, provided that (i) the standard methods of allocation are not appropriate, (ii) the clients involved have been informed and consent to the proposed method, and (iii) senior management and compliance approval has been obtained.

## 7. EXECUTION VENUES

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### A. Venue Selection

NT will select the execution venues, with and through whom we execute client orders, which enables us to obtain on a consistent basis the best possible result for our clients. In order to meet the Firm's obligations, we will utilise our expertise and judgment to seek prices from available counterparties (including connected parties) which we consider will best serve your interest. The factors we consider relevant to determine the number and appropriate counterparties from who to seek prices in connection with the execution of your order include, but are not limited to:

- (a) Level of trading interest and depth of market;
- (b) The quality of indicative bids and offers;
- (c) Availability of dealers quoting a market;
- (d) Ticket size; and
- (e) Electronic execution capability.
- (f) Regulatory status of the venue and the instrument, in particular in respect of pre- and post-trade transparency requirements
- (g) The ability of the venue to meet any trading obligations applicable to the class of instrument to which the order relates.

We will typically execute orders through any the following venues as appropriate for each Financial Instrument:

- (a) **Organised multilateral venues:** within the UK and EU/EEA, these comprise regulated markets, multilateral trading facilities (MTFs) and organised trading facilities (OTFs). Outside of the UK and EU/EEA these include key stock exchanges and certain alternative trading systems (ATs)
- (b) **Organised bilateral venues:** within the UK and EU/EEA these are regulated as Systematic Internalisers (SIs) which execute client orders by dealing on their own account. Outside the UK and EU/EEA they can include a variety of different forms, ranging from ATs to broker crossing networks (BCN) and other order crossing networks, depending on local regulatory requirements
- (c) **Other bilateral venues:** these include market makers and other liquidity providers acting either as a principal for their own account or broker for the account of their clients. These can include Northern Trust affiliates dealing as principal in certain classes of instrument.
- (d) **Our own internal sources of liquidity:** these include ad-hoc crossing opportunities between clients which while arranged on an over-the-counter basis may, as appropriate, be brought 'On-Exchange' wherever possible through the use On Exchange Trading Reporting services.

In certain circumstances, it may be appropriate to have a single execution venue. It may also be appropriate for Northern Trust to execute trades on an over-the-counter basis (i.e. outside of a trading venue) even though the trade will not have the benefit of the rules of such venues (e.g. buy-in rights); however we typically execute these on a matched principal basis to protect your best interests.

We do not structure or charge commissions in such a way as to discriminate unfairly between execution venues, counterparties, brokers and dealers, including any connected parties or affiliated parties.

We may use the services of a connected party or a third party broker or dealer to assist in the execution of a client order which may be outside of the UK and/or EU/EEA. Using an affiliated or third party broker does not remove Northern Trust's Best Execution obligations and we will satisfy ourselves through the application of appropriate due diligence that the other entity has execution arrangements in place that enable NT to obtain on a consistent basis the best possible result for the execution of its clients' orders.

## B. Counterparty Selection

At NT's discretion, we take into account any or all of the following criteria which we believe will enable us to determine whether counterparty's performance enables us to meet on a consistent basis our Best Execution obligations with regard to those orders executed on your behalf. These factors include:

- (a) Market share, tenure and breadth of market coverage;
- (b) Ability of the counterparty to manage complex orders;
- (c) Performance on recent orders submitted to it;
- (d) Niche areas or specialities;
- (e) Speed of execution and responsiveness; and
- (f) Credit rating/worthiness of the relevant counterparty.

We do not enter into any "Payment for Order Flow" arrangements.

## C. Execution of client orders outside of trading venues

In order to provide clients with the best possible result when executing orders on a consistent basis, NT may on occasion seek to execute all or part of your order outside of a UK or EU/EEA Regulated Market, MTF or OTF. In order to provide NT with the ability to obtain the best possible result for its clients, NT requests such consents as part of the client on-boarding process. Giving prior consent does not preclude clients from requesting different execution arrangements at the time of placing an order or revoking such consent during the course of the relationship. Any revocation on a permanent basis must be submitted in writing addressed to the relevant NT entity providing the investment services in question; this can be done through your relationship manager or sales contact.

Where NT executes a client order on an over-the-counter ('OTC') basis, depending on the class of instrument to which the order relates, we will typically check the fairness of the price proposed to the client by gathering a range of quotes, or referencing other market data from sources ordinarily used in the estimation of the pricing of such instruments, and, where possible, by comparing with similar or comparable instruments.

Further, where an instrument is subject to a trading obligation which generally requires the execution of transactions on an organised trading venue (e.g. the MiFID II trading obligation for shares), NT will ensure that it only executes client orders outside of a trading venue, where permissible, in a manner consistent with the requirements of that obligation. For further details as to how this applies to each NT business please refer to the Appendices at the back of this Policy.

## D. Top five execution venues and order transmission destinations reporting

NT makes available reports on the top five execution venues and order transmission destinations on an annual basis via the Northern Trust website as follows:

- **The Northern Trust Company, London branch and Northern Trust Global Services SE:**  
<https://www.northerntrust.com/asset-servicing/europe/services/capital-markets-solutions>
- **Northern Trust Securities LLP:**  
<https://www.northerntrust.com/asset-servicing/europe/services/capital-markets-solutions/institutional-brokerage-services>

## 8. PROCEDURAL ARRANGEMENTS

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### A. Demonstration of best execution to clients

NT is required to demonstrate, at the request of a client, that it has executed the client's orders in accordance with this Policy. We employ a range of transaction cost analysis and other reports to enable us to do this which depend on the NT business to which the execution services relate and the class(es) of instrument involved.

For further details as to how we demonstrate best execution to clients please refer to the relevant "Specific Order Execution Schedule" for the service in question, or contact your NT Relationship Manager.

### B. Ongoing monitoring and review of order execution arrangements

NT's order execution arrangements are subject to a comprehensive set of monitoring, review and governance procedures which are designed to allow NT to test and challenge the effectiveness of its execution arrangements and how consistently well it performs in obtaining the best possible result for the execution of client orders.

- Ongoing performance monitoring and transaction cost analysis
- Ongoing and periodic venue and broker reviews
- Regular reporting to NT senior management and governance bodies
- Ongoing compliance oversight, monitoring and challenge

### C. Policy review and approval

This Policy will be subject to at least an annual review to ensure that (i) it remains consistent with the execution arrangements deployed by the various NT businesses, and (ii) consistent with the relevant regulatory requirements applicable to best execution. All changes must be reviewed by NT's EMEA Capital Markets Risk Council, and reviewed and approved by each NT legal entity's management body.

### D. Notification and publication of changes

During the on-boarding process you will have been required to consent to this Policy and you will have agreed that we may update this Policy from time to time and publish such updates to the Policy or a summary thereof on the Northern Trust website, and that such publication shall constitute notification to you of our updated Policy.

The current version of the Policy is made available on the Northern Trust website at the following location:

- <https://www.northerntrust.com/documents/legal/mifid/nt-order-execution-policy.pdf>

### E. Client consent

This Policy replaces any prior Order Execution Policy in its entirety with effect from the date of publication on our website, or as the case may be delivery to the client.

Please note that all clients must consent to this Policy in order for us to provide execution services to them, and that such consent will typically be provided when you agree or consent to the relevant NT terms of business or similar client agreement applicable to the execution service in question.

### F. Fiduciary responsibility

For the avoidance of doubt, NT's commitment to provide our clients with "Best Execution" does not mean that the NT owes any fiduciary responsibilities over and above the specific regulatory obligations placed upon it or as may be expressly agreed between individual clients and NT in writing. Clients remain responsible for their own investment decisions and NT will not be responsible for any market or trading loss suffered as a result of those client decisions.

## APPENDIX 1: INSTITUTIONAL BROKERAGE SCHEDULE

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This Specific Order Execution Schedule is part of the NT Order Execution Policy to which it is annexed, and it should be read together with the General Order Execution Policy. If there is any inconsistency between the General Order Execution Policy and this Specific Order Execution Schedule with respect to the businesses covered, the more specific requirements set forth in this Specific Order Execution Schedule apply. Any defined terms used but not defined herein shall have the meaning given in the General Order Execution Policy.

In accordance with applicable UK, Luxembourg and EU regulations, the obligation of Best Execution applies where the NT entity providing the service, acting in its capacity as a broker, accepts an order to buy or sell a Financial Instrument from a client and acts as an agent or matched principal, on behalf of the client in the execution of that order, either directly on the relevant markets or indirectly via another broker.

### A. General order handling and execution arrangements

#### a) Relevant NT legal entities

Northern Trust Capital Market's brokerage services are provided by the following NT legal entities depending on your jurisdiction, and the specific order handling and arrangements in place for the execution of your orders will be relevant as follows:

- **Clients in the UK and the rest of EMEA, and certain Asian jurisdictions:**

Northern Trust Securities LLP ('NTS LLP') always acts in an agency or agency-like capacity when arranging or executing orders on behalf of clients, and it will therefore always follow any instructions that the client provides at the time of placing an order when transmitting, or executing, that order or series of orders to, or with, the third-party and affiliated brokers that NTS LLP relies upon to execute transactions in the market. NTS LLP will then apply the principles of this Policy to determine any other strategies, conditions or instructions that are likely to be beneficial to achieving the best possible result for that order, or series of orders.

In the majority of markets NTS LLP is able to transmit and execute client orders in its own name without disclosing the identity of the underlying client or clients to the executing broker. In such cases NTS LLP acts as a 'matched principal' for the purposes of settlement, and it will therefore be the settlement counterparty to the client, and the executing broker. In certain markets however, NTS LLP is either unable to settle trades via its usual settlement agent, or the market requires the disclosure of the identity of the investor at the time of placing an order with an executing broker due to local requirements; NTS LLP must therefore "step-out" of the execution and settlement, so that the executing broker becomes the counterparty to the client instead of NTS LLP. In these markets NTS LLP acts solely as 'agent' by arranging the transaction on behalf of the client. They are identified in Appendix 1 with a "++" after the execution venue name.

In all cases, and subject to client instructions regarding the choice of executing broker, NTS LLP will select one or more third party and affiliated brokers to execute the client order, and NTS LLP's traders will either actively manage or monitor and oversight the execution of the client's order in accordance with the principles described in this Policy. All such brokers will have been determined as being capable of assisting NTS LLP in achieving the best possible result on a consistent basis for the execution its client's orders, and any instructions and conditions imposed by NTS LLP will have been determined to be likely to achieve the best possible result for that order.

- **Clients in EU and EEA:**

Northern Trust Global Services SE ('NTGS SE') acts as your agent and will transmit the orders that you may from time-to-time give it to its UK investment firm affiliate, Northern Trust Securities LLP, who will then apply this Policy and its own execution arrangements to bring about all necessary transactions on your behalf. NTGS SE does not settle transactions in own name, and the identity of the client is transmitted to NTS LLP who will ensure settlement of any resulting transactions as described in this Policy.

NTGS SE has selected NTS LLP as its sole broker on the basis of the level of technical integration with NTGS SE's order management systems, the breadth and depth of the pre-existing market access that it offers to its clients and the wider Northern Trust group, and the extensive experience it has in supporting the trading and execution needs of institutional investors, in particular on an outsourced basis.

**b) Demonstrating execution of orders in accordance with this Policy**

NTS LLP and NTGS SE are both required to be able to demonstrate to you, as its client, that they have executed your orders in accordance with this Policy. As part of our ongoing monitoring arrangements we produce transaction cost analysis (TCA) reports that test the execution of client orders using a range of industry standard execution performance metrics, such as the measurement of the average execution price for orders using implementation shortfall against Arrival, VWAP and Close; and, the analysis of the distribution and performance of the brokers and venues used to execute the order. Client-specific reports presenting these findings in relation to your orders can be made available upon request. For further details please contact your sales contact or relationship manager.

**B. Specific arrangements applicable to equities and equity-like instruments**

**a) Cash trades**

When executing orders in cash equities, the General Order Execution Policy will apply.

**b) Program trades**

When executing a program trade in equities, NTS LLP and NTGS SE will endeavour to provide the best overall result in relation to the aggregate program or portfolio rather than in relation to individual transactions within the program or portfolio.

**c) Order handling and transmission**

NTS LLP and NTGS SE support clients who wish to direct them as to the executing broker they would prefer their order to be executed by, we refer to these orders as "directed orders". It is the client's responsibility to inform NTS LLP and NTGS SE at the point of providing an order that they have a specific requirement for the executing broker. NTS LLP will then transmit the client's order to that broker for execution, and as applicable, settlement, in the normal manner but clients should be aware that this direction severely limits the ability of NTS LLP to seek or take steps to ensure the best possible result for the order and we are entirely reliant on the arrangements of the executing broker selected by the client and do not accept responsibility for the outcome achieved by that broker.

Additionally, in certain markets NTS LLP is required to "step-out" or transmit the client order for execution and/or settlement purposes in a full, and in disclosed manner to a local broker who will then execute the trade in market and become the client's counterparty. Such markets are typically referred to as "ID Markets" and require certain verification and registration procedures to be followed that can only be performed by members of the local exchange and clearing house.

**d) Share Trading Obligations**

UK and EU regulations both impose a general obligation on investment firms, such as NTS LLP and NTGS SE, to ensure that the trades they undertake take place on organised trading venues, unless there is a legitimate reason not to, as provided for by the relevant UK and EU regulations..

The vast majority of client orders handled by NTS LLP and NTGS SE will be executed via by NTS LLP's traders using its network of executing brokers on one or more organised trading venues, which comprise UK and EU/EEA regulated markets, MTFs and systemic internalisers, and equivalent third country trading venues. In doing so we will apply the following principles:

- Orders for clients of NTS LLP in the UK, the rest of EMEA and certain Asian jurisdictions will ordinarily be executed in accordance with the FCA's approach to the share trading obligation<sup>1</sup>. This means that in the absence of a specific instruction from the client in respect of the execution venue(s) that NTS LLP should use, NTS LLP will select those executing brokers, trading strategies and execution venues that it believes are most capable of providing the best possible result for the client's order.

Where a client wishes to specify the use of particular venues, or specific types of venue (e.g. EU/EEA only), NTS LLP requires a specific instruction from the client, either by means of a relevant FIX tag for FIX orders, a clear written instruction for email and instant message orders, or a clear verbal instruction for telephone orders. In the absence of such a specific instruction we will apply the general principles described above.

- Orders for clients of NTGS SE in the EU and EEA will always be executed in a manner consistent with the EU share trading obligation laid down in Article 23 of MiFIR, as clarified by ESMA in its final position on the EU share trading obligation<sup>2</sup>. This means that NTGS SE will provide NTS LLP with an explicit instruction to only execute its client orders in relevant EU/EEA shares on EU/EEA regulated markets, MTFs and systematic internalisers, or a suitable third-country equivalent where available, and therefore NTS LLP will instruct its executing brokers to do the same when placing orders or parts of orders with them for execution in the market.

#### **e) Post-trade transparency for shares**

As the vast majority of client orders handled by NTS LLP and NTGS SE are executed on one or more organised trading venues it follows that the vast majority of trades are reported by the trading venue in question. NTS LLP and NTGS SE will typically report this venue to clients when confirming fills and clients can verify the trade report using the normal methods for the trading venue in question.

Where NTS LLP executes an "agency cross", it will where possible and subject to the EU share trading obligation not preventing it, seek to leverage its "off-book" membership of the London Stock Exchange and report the trades in eligible instructions as "off-book, on-exchange" trade reports and thereby bring the trade under the rules of the exchange. This includes eligible EU/EEA shares for clients in the UK, rest of EMEA and certain Asian jurisdictions that contract directly with NTS LLP.

Where an instrument is not eligible for reporting to the London Stock Exchange and is not subject to a specific instruction on the use of venues due to the EU share trading obligation, NTS LLP will report the trade via its UK, or if applicable, EU, Approved Reporting Arrangement ('APA') as an off-exchange 'over-the-counter' transaction. Such transactions will comply with the general requirements of the UK and EU share trading obligations in respect of requirements to ad-hoc, non-systematic and infrequent.

### **C. Specific arrangements applicable to debt instruments**

#### **a) Credit and Rate Instruments**

When executing fixed income transactions, NTS LLP will be acting in a matched principal or agency capacity, on behalf of clients.

In the majority of trades, the executing counterparty will be acting in a principal capacity and will provide NTS LLP with a competing price, spread or yield quotation. In this scenario the executing counterparty would be the execution venue and, in their principal capacity, would not owe NTS LLP a general duty of best execution, unless agreed contractually, and therefore NTS LLP's trader will take appropriate steps in accordance with this policy and our execution arrangements to ensure that the transaction is effected on terms most favourable to the client.

<sup>1</sup> See: <https://www.fca.org.uk/news/press-releases/fca-sets-out-its-approach-share-trading-obligation>

<sup>2</sup> See: [https://www.esma.europa.eu/sites/default/files/library/esma70-155-7782\\_statement\\_brexit\\_share\\_trading\\_obligation\\_q42020.pdf](https://www.esma.europa.eu/sites/default/files/library/esma70-155-7782_statement_brexit_share_trading_obligation_q42020.pdf)

## **b) Convertibles**

When executing a “working delta” trade NTS LLP considers that Best Execution is owed in respect of working delta trades where the price of the convertible bond is derived from the delta hedge. The duty of Best Execution will be measured and monitored by reference to the execution of the delta hedge.

Best execution will also be owed where NTS LLP has agreed to source bonds for the client. This applies to a small proportion of convertibles business, particularly relating to illiquid convertibles, where NTS LLP agrees to source liquidity for clients from third parties. Clients will often provide us with a limit price in relation to the bonds. These are generally considered to be firm orders, for which you are relying upon NTS LLP in relation to the execution.

## **c) Execution venue and counterparty selection process**

NTS LLP will execute on trading platforms and venues, such as MTFs, OTFs or Systematic Internalisers (SIs), seeking, where available, multiple competing quotations. The size, liquidity and complexity of the individual FI instrument will dictate the trading platform, venue and strategy selected. NTS uses a number of trading platforms (e.g. Bloomberg MTF, Tradeweb and/or MarketAxess), to request quotations from competing liquidity providers, although this list may change as market structures develop.

MTFs such as Liquidnet, Bloomberg MTF and MarketAxess open trading platforms are also used to bring together multiple third party buying and selling interests to enable NTS to electronically execute orders. Alternatively, the trading desk will request competing quotes by telephone or Instant Bloomberg.

During the selection process, the trader will assess a number of Execution Factors including, but not limited to, indicative market prices, spreads or yield size of trade, market liquidity, indications from brokers’ inventory and market makers’ execution hit and miss ratios in the relevant sector or instrument. Additionally, individual trading platform protocols may dictate the number of requests for quotes (RFQs) available by trade type, e.g. Government rate trades are typically restricted to between four or five, whereas Credit trades are typically up to six in Euro/GBP Credit and up to 25 in US Credit.

## **D. Specific arrangements applicable to derivative instruments**

### **a) Reception and transmission services**

When handling client orders in supported classes of derivatives NTS LLP and NTGS SE will act as agent on behalf of the client by receiving and transmitting orders received from the client to a specific executing broker with whom the client has a pre-existing and independent credit and counterparty relationship, and which has been selected by the client to become its counterparty to any resulting transaction, either explicitly or by on the basis of specific instructions from the client.

NTS LLP supports the following methods of arranging transactions in derivative instruments with the client’s chosen counterparty:

- Upon receipt of an order in a supported derivative contract, NTS LLP will arrange the transaction by seeking quotes (i.e. “request-for-quote” or “RFQ”) on behalf of the client from one or more of the client’s existing panel of executing brokers. NTS LLP requires an explicit instruction as to the constituents of the panel which clients can provide on a per-order or general basis. Once quotes have been obtained from the panel, NTS LLP will then either relay the quotes to the client so that they can select the counterparty to which the order should be transmitted, or NTS LLP can apply the client’s express instructions as to which counterparty to select, which can be based on any factor or combination of factors, such as an instruction to transmit to the order to a specific counterparty if they provide a quote, or to transmit the order to the counterparty that provides the best quote.
- As an alternative, NTS LLP can be asked to seek pricing information from one or more members of the client’s panel of executing brokers without the client having to specify which executing broker(s) to seek quotes from. Upon receipt of quotes from the selected brokers, NTS LLP can, at the client’s discretion, either relay the details of the prices quoted by the selected executing brokers to the client so that they can select their preferred counterparty, to which NTS LLP can then transmit the client’s

order for execution; or NTS LLP can apply the client's specific instructions and select the counterparty to which the client's order should be transmitted for execution by reference to the detailed parameters provided by the client. Such parameters must include the price or price tolerance for selecting a quote, absolute quantity tolerances, and a general expression on preferred counterparties.

Client's should be aware that NTS LLP will not exercise discretion when selecting the counterparty to which the client's order should be transmitted and in the event of any uncertainty or ambiguity as to the client's initial instructions we will always seek further instructions from the client in order to ensure that we are acting in the client's best interests at all times.

**b) Order Execution Services**

NTS LLP does not currently support the execution of orders on behalf of clients in derivative instruments which result in NTS LLP becoming a counterparty to a transaction in a derivative contract.

## APPENDIX 1 - PART A: EXECUTION VENUES FOR EQUITY AND EQUITY-LIKE INSTRUMENTS

The execution venues listed below are not exhaustive and are subject to change. These lists were accurate as of 30 November 2020. Clients should refer to their sales contact or relationship manager for details of venues which NTS LLP can access.

### A. UK EXECUTION VENUES

#### LIT ORDER BOOKS AND PERIODIC AUCTION VENUES

##### a.) Regulated Markets

- Aquis Stock Exchange +
- Cboe Europe Equities Regulated Market +
- Euronext – Euronext London +
- London Stock Exchange +
- SIX Swiss Exchange (ROIE) (Switzerland) +

##### b.) Multilateral trading facilities

- Aquis MTF +
- Cboe Europe Equities MTF +
  - BXE Lit order books

- CXE Lit order books
- BXE Periodic Auctions
- Instinet Blockmatch – RFQ
- Virtu ITG POSIT - Periodic Auction (Ireland) +
- London Stock Exchange +
  - AIM MTF
  - Non-AIM MTF
- Sigma X MTF - Auction book +
- Turquoise +
  - Lit order book
  - Lit Auctions

#### DARK ORDER BOOKS AND LARGE IN SCALE VENUES

##### a.) Regulated Markets

- London Stock Exchange
- SIX SwissAtMid (Switzerland) +

##### b.) Multilateral Trading Facilities

- Cboe Europe Equities MTF +
  - BXE Dark order books
  - CXE Dark order books
  - CXE Large in Scale
- Euronext Block MTF +

- Instinet BlockMatch - Dark +
- Virtu ITG POSIT - Dark (Ireland) +
- Liquidnet Europe MTF +
- Sigma X MTF - Reference price waiver book +
- Turquoise +
  - Large in Scale
  - Plato
- UBS MTF – Dark order book +

#### SYSTEMATIC INTERNALISERS AND OTHER VENUES

##### a.) Systematic Internalisers

- Credit Suisse Securities (Europe) Ltd
- Exane SA, London branch
- Goldman Sachs International
- HSBC Bank plc
- Jane Street Financial Ltd
- J.P. Morgan Securities plc

- Macquarie Capital (Europe) Limited
- Morgan Stanley & Co. International plc

##### b.) Other venues (Exchange Traded Products)

- Bloomberg MTF
- Tradeweb MTF

#### Legend

+ Execution venue accessed via third-party broker by executed by NTS LLP  
++ “Step Out” market where trades are executed by a local broker

## B. EU and EEA EXECUTION VENUES

### LIT ORDER BOOKS AND PERIODIC AUCTION VENUES

#### a.) Regulated Markets

- Athens Exchange (Greece) +
- Bolsa de Madrid (Spain) +
- Borsa Italiana (Italy) +
- Börse Berlin - Equiduct (Germany) +
- Bourse de Luxembourg (Luxembourg) +
- Bucharest Stock Exchange (Romania) +
- Budapest Stock Exchange (Hungary) +
- Bulgarian Stock Exchange-Sofia (Bulgaria) ++
- Cboe Europe Regulated Market (Netherlands) +
- Euronext Amsterdam (Netherlands) +
- Euronext Brussels (Belgium) +
- Euronext Dublin (Ireland) ++
- Euronext Lisbon (Portugal) +
- Euronext Paris (France) +
- Frankfurt Stock Exchange (Germany) +
- Frankfurt Stock Exchange - Xetra (Germany) +
- Ljubljana Stock Exchange (Slovenia) +
- NASDAQ Copenhagen (Denmark) +
- NASDAQ Helsinki (Finland) +

- NASDAQ Riga (Latvia) +
- NASDAQ Stockholm (Sweden) +
- NASDAQ Tallinn (Estonia) +
- NASDAQ Vilnius (Lithuania) +
- Oslo Børs (Norway) +
- Prague Stock Exchange (Czech Republic) +
- Warsaw Stock Exchange (Poland) +
- Wiener Börse (Austria) +
- Zagreb Stock Exchange (Croatia) ++

#### b.) Multilateral trading facilities

- Aquis Exchange Europe (France) +
- Cboe Europe MTF (Netherlands) +
  - DXE Lit order books
  - DXE Periodic Auctions
- Euronext Paris - Growth (France) +
- Virtu ITG POSIT - Periodic Auction (Ireland) +
- NASDAQ First North (Denmark, Finland, Latvia, Norway, Sweden) +
- NASDAQ Nordic - Auction on Demand (Denmark, Finland, Sweden) +

### DARK ORDER BOOKS AND LARGE IN SCALE VENUES

#### a.) EU Regulated Markets

- NASDAQ Copenhagen – Nordic@Mid (Denmark) +
- NASDAQ Helsinki – Nordic@Mid (Finland) +
- NASDAQ Stockholm – Nordic@Mid (Sweden) +
- Oslo Børs – North Sea Dark Pool (Norway) +

#### b.) EU Multilateral Trading Facilities

- Cboe Europe MTF (Netherlands) +
  - DXE Dark order books
  - DXE Large in Scale

- Euronext Blocki MTF (Belgium) +
- ITG POSIT - Dark (Ireland) +
- Liquidnet EU Equities MTF (Ireland) +
- NASDAQ First North – Nordic@Mid (Denmark, Finland, Latvia, Norway, Sweden) +

### SYSTEMATIC INTERNALISERS AND OTHER VENUES

#### a.) EU Systematic Internalisers

- Credit Suisse Securities Sociedad de Valores SA (Spain)
- Exane SA (France)
- Goldman Sachs Europe SE (Germany)
- HSBC France (France)
- J.P. Morgan AG (Germany)

- Macquarie Bank Europe DAC (Ireland)
- Morgan Stanley Europe SE (Germany)

#### b.) Other venues (Exchange Traded Products)

- Bloomberg Trading Facility (Netherlands)
- Tradeweb EU MTF (Netherlands)

#### Legend

+ Execution venue accessed via third-party broker by executed by NTS LLP  
++ "Step Out" market where trades are executed by a local broker

## C. NON-MiFID EXECUTION VENUES – REST OF EMEA AND ASIA MARKETS

### Rest of EMEA Trading Venues

#### a.) Stock Exchanges

- Abu Dhabi Securities Exchange (UAE) ++
- Amman Stock Exchange (Jordan) ++
- Bahrain Bourse (Bahrain) ++
- Beirut Stock Exchange (Lebanon) ++
- Borsa Istanbul (Turkey) +
- Botswana Stock Exchange ++
- BRVM - Bourse Régionale des Valeurs Mobilières (Benin, Burkina Faso, Guinea Bissau, Côte d'Ivoire, Mali, Niger, Senegal, Togo) ++
- Boursa Kuwait (Kuwait) ++
- Bourse de Tunis (Tunisia) ++
- Casablanca Stock Exchange (Morocco) +
- Dar es Salaam Stock Exchange (Tanzania) ++
- Dubai Financial Market (UAE) ++
- Egyptian Exchange (Egypt) ++
- Ghana Stock Exchange (Ghana) ++
- Johannesburg Stock Exchange (South Africa) +
- Lusaka Stock Exchange (Zambia) ++
- Malawi Stock Exchange (Malawi) ++
- Moscow Exchange (Russia) ++
- Muscat Securities Market (Oman) ++
- Nairobi Securities Exchange (Kenya) ++
- Namibian Stock Exchange (Namibia) ++
- NASDAQ Dubai (UAE) ++
- Nigerian Stock Exchange (Nigeria) ++
- Palestine Exchange ++
- Qatar Exchange (Qatar) ++
- Rwanda Stock Exchange (Rwanda) ++
- SIX Swiss Exchange (Switzerland) +
- SIX SwissAtMid (Switzerland) +
- Stock Exchange of Mauritius (Mauritius) ++
- Saudi Stock Exchange (Tadawul) (Saudi Arabia) ++
- Tel-Aviv Stock Exchange (Israel) +
- Uganda Securities Exchange (Uganda) ++
- Zimbabwe Stock Exchange (Zimbabwe) ++

### Asia Trading Venues

#### a.) Stock Exchanges

- ASX (Australia) +
- ASX - Centre Point (Australia) +
- Bursa Malaysia (Malaysia) +
- Colombo Stock Exchange (Sri Lanka) ++
- Dhaka Stock Exchange (Bangladesh) ++
- Ho Chi Minh Stock Exchange (Viet Nam) ++
- Indonesia Stock Exchange ++
- Korea Exchange (South Korea) ++
- Nagoya Stock Exchange (Japan) +
- National Stock Exchange of India ++
- NZX (New Zealand) +
- Pakistan Stock Exchange ++
- Philippine Stock Exchange +
- Shanghai Stock Exchange (China) ++
- Shanghai-Hong Kong Stock Connect (China/Hong Kong) ++
- Shenzhen Stock Exchange (China) ++
- Singapore Exchange +
- Stock Exchange of Hong Kong +
- Stock Exchange of Thailand +
- Taipei Exchange (Taiwan) ++
- Taiwan Stock Exchange (Taiwan) ++
- Tokyo Stock Exchange (Japan) +

#### b.) Alternative Trading Systems

- Chi-X Australia +
- Chi-X Japan +
- Goldman Sachs - Sigma X Hong Kong +
- Goldman Sachs - Sigma X Japan +
- ITG Hong Kong - POSIT +
- Macquarie Capital Securities - Crossing System (MAQJ) (Japan) +
- Macquarie Securities - Crossing System (MAQX) (Australia) +
- SBI Japannext - Japannext PTS (Japan) +

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#### Legend

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+ Execution venue accessed via third-party broker by executed by NTS LLP  
++ "Step Out" market where trades are executed by a local broker

## D. NON-MiFID EXECUTION VENUES – AMERICAS MARKETS

### U.S Lit Trading Venues

#### a.) Stock Exchanges

- Cboe BYX U.S. Equities Exchange \*\*
- Cboe BZX U.S. Exchange \*\*
- Cboe EDGA Exchange \*\*
- Cboe EDGX Exchange \*\*
- Chicago Stock Exchange \*\*
- NASDAQ Stock Market \*\*
- NASDAQ BX \*\*

- NASDAQ PSX \*\*
- New York Stock Exchange \*\*
- NYSE American \*\*
- NYSE Arca \*\*
- NYSE National \*\*

#### b.) Alternative trading systems

- Global OTC ATS \*\*
- OTC Link ATS \*\*

### U.S. Dark Trading Venues

#### a.) Stock Exchanges

- Cboe BYX U.S. Equities Exchange Dark \*\*
- Cboe BZX U.S. Equities Exchange Dark \*\*
- Cboe EDGA Exchange Dark \*\*
- Cboe EDGX Exchange Dark \*\*
- NASDAQ - NSDQ Dark \*\*
- NASDAQ BX Dark \*\*
- NYSE Dark \*\*
- NYSE Arca Dark \*\*

#### b.) Alternative trading systems

- Aqua Securities ATS \*\*
- Bank of America Merrill Lynch Instinct X ATS \*\*
- Barclays LX ATS \*\*
- BIDS ATS \*\*
- CitiBloc ATS \*\*
- CitiCross ATS \*\*

- CODA Markets ATS \*\*
- Credit Suisse Securities - CrossFinder ATS \*\*
- Deutsche Bank - SuperX ATS \*\*
- Fidelity Capital Markets - CrossStream ATS \*\*
- Goldman Sachs - Sigma X2 ATS \*\*
- Instinet - Blockcross ATS \*\*
- Instinet - CBX US ATS \*\*
- IEX ATS \*\*
- ITG POSIT ATS \*\*
- JPM-X ATS \*\*
- Level ATS \*\*
- Liquidnet ATS \*\*
- Morgan Stanley - MS Pool ATS \*\*
- UBS ATS \*\*
- Virtu MatchIt ATS \*\*

### Other trading venues

#### a.) Canadian venues

- Aequitas Neo Exchange \*\*
- Canadian Securities Exchange \*\*
- Lynx ATS \*\*
- Instinet Canada Cross - CBX +
- Instinet Canada Cross - VWAPX +
- MATCHNow \*\*
- NASDAQ Canada - CX2 \*\*
- NASDAQ Canada - CXC \*\*
- NASDAQ Canada - CXD \*\*
- Omega ATS \*\*

- Pure Trading \*\*
- Toronto Stock Exchange \*\*
- TSX Alpha Exchange \*\*
- TSX Venture Exchange \*\*

#### b.) Central and South American venues

- BM&F BOVESPA (Brazil) ++
- Bolsa de Valores de Caracas (Venezuela) \*\*
- Bolsa de Valores de Columbia ++
- Bolsa de Valores de Lima (Peru) ++
- Bolsa Mexicana de Valores (Mexico) ++
- Santiago Exchange (Chile) ++

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#### Legend

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+ Execution venue accessed via third-party broker by executed by NTS LLP  
++ "Step Out" market where trades are executed by a local broker  
\*\* Execution venue accessed via Northern Trust Securities, Inc.

## APPENDIX 1 - PART B: DEBT INSTRUMENTS

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The execution venues listed below are not exhaustive and are subject to change. These lists were accurate as of 30 November 2020. Clients should refer to their sales contact or relationship manager for details of venues which NTS LLP can access.

### A. EXECUTION VENUES

#### UK Trading Venues

##### a.) Regulated Markets

- London Stock Exchange
- Bloomberg Multilateral Trading Facility
- Liquidnet Fixed Income MTF
- MarketAxess Europe MTF
- Tradeweb Europe MTF

##### b.) Multilateral Trading Facilities

#### EU Trading Venues

##### a.) Multilateral Trading Facilities

- Bloomberg Trading Facility (Netherlands)
- Liquidnet EU Fixed Income MTF (Ireland)
- MarketAxess N: MTF (Netherlands)
- Tradeweb EU MTF (Netherlands)

#### Systematic Internalisers, Market Makers and Other Liquidity Providers

- Barclays Capital
- BBVA
- Bank of America Merrill Lynch
- Citigroup Global Markets\*\*
- Commerzbank
- Jeffries International
- Deutsche Bank\*\*
- J.P. Morgan Securities
- Goldman Sachs International
- Lloyds Bank
- Mizuho International\*\*
- Morgan Stanley & Co. International
- MUFG Securities
- RBC Capital Markets\*\*
- Société Générale
- TD Securities
- UBS\*\*
- UniCredit Bank

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#### Legend

+ Execution venue accessed via third-party broker by executed by NTS LLP

++ "Step Out" market where trades are executed by a local broker

\*\* Execution venue accessed via Northern Trust Securities, Inc.

## APPENDIX 2: GLOBAL FOREIGN EXCHANGE SCHEDULE

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This Specific Order Execution Schedule is part of the NT Order Execution Policy to which it is annexed, and it should be read together with the General Order Execution Policy. If there is any inconsistency between the General Order Execution Policy and this Specific Order Execution Schedule with respect to the businesses covered, the more specific requirements set forth in this Specific Order Execution Schedule apply. Any defined terms used but not defined herein shall have the meaning given in the General Order Execution Policy.

In accordance with applicable UK, Luxembourg and EU/EEA regulations, the obligation of Best Execution applies where the NT entity providing the service, acting in its capacity as a broker, accepts an order to buy or sell a Financial Instrument from a client and acts as an agent or matched principal, on behalf of the client in the execution of that order, either directly on the relevant markets or indirectly via another broker.

### A. General order handling and execution arrangements

Northern Trust Capital Market's foreign exchange services are provided by the following NT legal entities, depending on your jurisdiction, and the specific order handling and arrangements in place for the execution of your orders will be relevant as follows:

- **Clients in the UK, EU/EEA and the rest of EMEA:**

The Northern Trust Company, London branch ('TNTC LB') deals as a principal in foreign exchange derivatives and does not act as an agent or similar on behalf of clients.

For clients and prospective clients within the EU and EEA please note that TNTC LB is only able to provide services on a cross-border basis where your home state regulations provide from an exemption from regulation, or otherwise on the basis of a reverse solicitation request.

#### a) Scope of FX transactions subject to the Policy

Only FX transactions that are derivatives are financial instruments, this includes FX swaps, FX Forwards, NDFs and NDSs). Spot FX is not a Financial Instrument and so will not be covered by the Best Execution rules. We consider that Best Execution may apply to transactions in FX derivatives save where we understand that you are not placing reliance on us.

#### b) FX conversion relating to transactions in other Financial Instruments

We will generally execute a currency conversion related to a securities transaction for a custody client with TNTC LB unless and until the client specifies otherwise. We will treat the cost of the FX conversion as being part of the overall cost of the securities transaction. An FX conversion is generally considered spot and no separate obligation of Best Execution is owed on the FX conversion.

#### c) Sales Commissions and Mark-Ups

TNTC LB will provide you with clear pricing. Given the nature of the services and our capacity as principal (and therefore counterparty) in the resulting transactions, we do not expect best execution rules to apply to the majority of transactions we enter into with you. Normally, and subject to Applicable Law, we will quote an "all in price", which is a price that includes any spread or margin above the price at which we may be able to deal in the market (and therefore our anticipated profit). We may take into account a number of factors when determining an all-in price, including the risk that we will assume under the transaction, operational and funding costs, the level of service provided to you, factors specific to you or the order itself and any pre-agreed fees/spread. It is your responsibility in these circumstances to determine whether or not to accept any quoted all in price. No dealing commission or brokerage fee will be charged in addition to the all-in price.

Any sales margin charged by NT is to be determined by taking into consideration a variety of factors, including:

- the service level provided;
- the credit risk that NT will take on when transacting with the client;

- the cost of capital NT incurs as a result of the transaction;
- volumes transacted by the client;
- costs by client sector and type, including costs both directly incurred and indirect cost allocation;
- whether the transaction may need to be novated into a clearing transaction at a later date under regulatory rules (e.g. EMIR, Dodd Frank);
- competitiveness of the marketplace; and
- any other factor relevant to the transaction.
- Service specific arrangements

#### **d) Last Look**

Last Look is a term that is widely used across the electronic trading industry but lacks a consistent definition. At NT, Last Look is an agnostic form of economic check logic that is used to identify whether trade requests are made at prices that are within NT's price tolerance for execution. This control may be applied immediately upon receipt of a submitted trade request or after a brief, prescribed time delay. In each case, the refreshed price is compared to the trade request price. If the refreshed price has not moved in either direction from the trade request price by more than a defined price tolerance, NT will accept the trade request. If the refreshed price differs from the trade request price by more than the relevant price tolerance, NT will reject the trade request.

### **B. Service-specific arrangements**

#### **a) Custody**

These are FX-related services provided to certain clients for whom NT acts as custodian pursuant to the terms of our agreement with the client. FX orders within Custody services are typically filled at a benchmark price.

#### **b) Currency Management**

Our Currency Management service provides portfolio overlay, share class hedging, look-through hedging and un-hedged share class conversion services to clients. These services are subject to a separate legal agreement which sets out the terms and conditions of the service. Clients enter into a standing transaction request, which is subject to strictly defined terms including, where applicable, which benchmark may be used in relation to Currency Management trades. A transparent fee structure for the Currency Management service is agreed in advance with each client using the service. Clients can receive currency hedge reports based on their data and frequency preferences. In this instance, NT is following specific and defined steps and specific instructions from the client; therefore no obligation for best execution exists.

Nevertheless, as mentioned previously, when NT executes transactions under a Currency Management agreement it is acting as principal and may retain any profit derived therefrom in addition to the fee specified for the Currency Management service in the Currency Management agreement. There will not be any other additional fees in respect of the Currency Management transactions beyond the rate agreed between the parties in the Currency Management agreement.

#### **c) Algo**

Whilst deliverable spot foreign exchange (spot FX) is not a financial instrument or similar investment instrument, foreign exchange derivatives (FX Derivatives) do meet the definition of a financial instrument, are potentially subject to best execution obligations. FX Derivatives include FX forwards, FX swaps, and non-deliverable forwards (NDFs).

NT's FX Algo Suite is designed to offer an efficient, transparent operational process to facilitate speedy communication and trade execution through NT's automated algorithmic trading platform, with execution based on clients' predefined parameters. Therefore, Algorithmic orders (Algo Orders) are client orders for the sale or purchase of currencies using a NT algorithm. Clients may place Algo Orders in furtherance of one or more strategies. In the case of Algo Orders, the scope for application of the overarching principle of 'best execution' is reduced to the extent that the client instructs or enters specific parameters for execution (such as the timing or size of child orders).

Trades will be entered into with NT as principal, but pricing will be determined using a liquidity panel curated by NT. A pre-agreed fee or spread will be applied to the price achieved by the liquidity panel and will be payable to NT. In addition, NT may participate on the liquidity panel and if so, NT may retain any profit derived therefrom in addition to the fee specified for the Algo service. The strategies currently deployed in the NT Algo suite of products, include, but are not limited to:

- TWAP
- Iceberg
- COIL
- PEG
- TWAP R
- Composite Trap

### **C. Execution Venues**

Generally in FX derivatives we will trade with you on a principal basis and the execution venue will be TNTC LB. In this principal capacity, we may both execute orders directly with you on one of the following venues, as well as accessing liquidity on them. This list is not exhaustive.

- 360T
- Barclays BARX FX
- Bloomberg MTF
- Fastmatch
- FXAll
- FX Connect MTF
- Goldman Sachs REDI
- Reuters
- Thompson Reuters Matching
- Tullett ICAP

## APPENDIX 3: SECURITIES LENDING SCHEDULE

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This Specific Order Execution Schedule is part of the NT Order Execution Policy to which it is annexed, and it should be read together with the General Order Execution Policy. If there is any inconsistency between the General Order Execution Policy and this Specific Order Execution Schedule with respect to the businesses covered, the more specific requirements set forth in this Specific Order Execution Schedule apply. Any defined terms used but not defined herein shall have the meaning given in the General Order Execution Policy.

This Securities Lending Specific Order Execution Schedule (“SL OES”) applies to transactions executed on your behalf by Northern Trust securities lending in accordance with the agreement between us. The SL OEP is designed to provide you with information on how NT acts in lending your securities.

### A. Order Handling and execution arrangements

#### a) Relevant NT legal entities

Northern Trust Capital Market’s Securities Lending services are provided by the following NT legal entities, depending on your jurisdiction, and the specific order handling and arrangements in place for the execution of your orders will be relevant as follows:

- **Clients in the UK, EU/EEA and rest of EMEA:**

The Northern Trust Company, London branch (‘TNTC LB’) and Northern Trust Global Services SE (‘NTGS SE’) and its branches act as agent when executing securities lending transactions on behalf of their respective clients.

#### b) Authorisation and lending parameters

You have entered into a Securities Lending Authorisation Agreement (SLAA) with us, in which you have authorised us to enter into transactions with approved counterparties on your behalf and have set out the parameters under which you have instructed us to do so. These parameters shape the structure of your lending program and are a significant factor in determining the performance we are able to achieve on your behalf.

#### c) Demand factors

Securities Lending is largely a demand driven market with lenders reacting to requests from Borrowers to initiate a transaction. In order to attract demand, Northern Trust actively publishes certain available inventory to borrowers on an undisclosed basis (i.e. no client names are disclosed).

Borrower demand is driven by a number of factors such as hedge fund activity, corporate events such as mergers and acquisitions, trade settlement performance and a number of other market events that present opportunity to the borrower or their underlying clients. Additionally, Borrowers are constrained by a number of complex regulatory factors including balance sheet capacity and various leverage and liquidity ratios, which influence how much exposure they are able to take to Securities Lending activity and to particular counterparties. All these factors drive borrower demand and whether or not they look to borrow securities from NT clients.

#### d) Order Execution factors

Where a borrower shows demand for a particular security (or basket of securities), there are a significant number of factors that influence whether a loan is possible (or maintainable), and the rate of return we are able to achieve on any given transaction. These include:

- 1) Client lending parameters - acceptable borrowers, borrower limits
- 2) Collateral criteria – both non-cash and cash collateral reinvestment guidelines
- 3) Value of loan
- 4) Term of the transaction

- 5) Manufactured dividend rate
- 6) Jurisdiction and netting of borrower
- 7) Jurisdiction and netting status of client lender
- 8) Credit risk criteria and limits (determined by Lender, borrower, or agent lender)
- 9) Transaction charges
- 10) Portfolio stability (recall of lender sales)
- 11) Client minimum spread requirements

The factors listed above will largely determine whether or not loans are feasible and some will influence the rate a borrower is willing to pay to borrow the securities. We will not enter into any loan that would breach either lender imposed restrictions or our own risk parameters.

Where loans are agreed against non-cash collateral the borrower will pay a fee, whereas for loans against cash we will agree a rebate rate payable to them in relation to cash collateral they provide. Both the fee and rebate rates agreed are set taking into account some of the criteria listed above, such as collateral criteria or value of loan. As a result it is possible that two loans of the same security agreed simultaneously could justifiably be agreed at different fee/ rebate rates.

#### **e) Cash Collateral Reinvestment Execution**

Please note that Cash Collateral Reinvestment execution is provided to Securities Lending clients by Northern Trust Asset Management ('NTAM') through Northern Trust Global Investments Limited, or one of its affiliates. You should refer to the relevant NTAM Order Execution Policy for details of order execution arrangements for cash collateral reinvestment execution activities.

#### **f) Fair Allocation System**

The Northern Trust lending program works on the basis that trading teams should not make arbitrary decisions on whom to allocate loans to at point of trade. We maintain an automated loan allocation process to impartially determine which lending client's assets will be loaned in response to a borrower request when there are multiple lenders eligible to participate.

The allocation system takes into consideration factors such as security availability, unrealized opportunities, and existing loan allocations. Northern Trust implemented this allocation system in an effort to provide an objective methodology that requires minimal, if any, discretionary involvement in the allocation of lending opportunities, which is intended to support the fair and impartial allocation of lending opportunities among our clients.

On occasions it is necessary for trading teams to override the automatic allocation process to allow a loan to be transacted. This occurs only in a very limited number of circumstances and overrides are monitored and reviewed regularly to ensure appropriate action has been taken.

For certain types of lending arrangements (such as exclusives) the loan allocation system is not relevant to the execution of loans. These arrangements are explained in more detail in the Securities Lending "Confidence through transparency" document available on Passport or upon request.

## **B. Execution Venues**

Trades in the securities lending market are primarily agreed bilaterally between parties, and not traded or executed on a recognized exchange. For securities lending we will execute transactions in one of the following ways:

- Equilend: Equilend is a joint venture of various securities lending agents and securities borrowers. The purpose of Equilend is to provide a common electronic "platform" for the negotiation and processing of securities lending and borrowing transactions. Northern Trust is a dedicated user of Equilend, which is a regulated multilateral trading facility (MTF), and as a result a large percentage of your transactions will be matched on this platform.

- **OTC:** Orders will be negotiated via telephone or electronic system and placed with a counterparty with whom we have entered into an agreement for processing orders on an agency basis.

This policy appendix will be updated whenever a material change occurs and will be made available to you thereafter. Should you have any questions on this policy, please contact your Securities Lending Relationship Manager.

## APPENDIX 4: TRANSITION MANAGEMENT SCHEDULE

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This Specific Order Execution Schedule is part of the NT Order Execution Policy to which it is annexed, and it should be read together with the General Order Execution Policy. If there is any inconsistency between the General Order Execution Policy and this Specific Order Execution Schedule with respect to the businesses covered, the more specific requirements set forth in this Specific Order Execution Schedule apply. Any defined terms used but not defined herein shall have the meaning given in the General Order Execution Policy.

In accordance with applicable UK, Luxembourg and EU regulations, the obligation of Best Execution applies where the NT entity providing the service, acting in its capacity as a broker, accepts an order to buy or sell a Financial Instrument from a client and acts as an agent or matched principal, on behalf of the client in the execution of that order, either directly on the relevant markets or indirectly via another broker.

### A. General order handling and execution arrangements

#### a) Relevant NT legal entities

Northern Trust Capital Market's Transition Management services are provided by the following NT legal entities, depending on your jurisdiction, and the specific order handling and arrangements in place for the execution of your orders will be relevant as follows:

- **Clients in the UK and the rest of EMEA**

The Northern Trust Company, London branch ('TNTC LB') or Northern Trust Investor Services Limited ('NTISL') acts as your agent when receiving and transmitting orders on behalf of its clients. Typically for equity and debt instruments, TNTC LB / NTISL and the TM team will stage and transmit client orders to its broker-dealer affiliates, Northern Trust Securities LLP ('NTS LLP') and Northern Trust Securities, Inc. ('NTSI') for execution in the market. For other asset classes, such as equity and FX derivatives, TNTC LB / NTISL may also transmit orders to a third-party executing broker selected by the client.

Please refer to the schedule in Appendix 1: Institutional Brokerage above for further details in respect of how NTS LLP executes client orders.

- **Clients in the EU/EEA:**

Northern Trust Global Services SE ('NTGS SE') acts as your agent when receiving and transmitting orders on behalf of its clients. Typically NTGS SE and the TM team will stage and transmit client orders to its broker-dealer affiliates, Northern Trust Securities LLP ('NTS LLP') and Northern Trust Securities, Inc. ('NTSI') for execution in the market. For other asset classes, such as equity and FX derivatives, NTGS SE may also transmit orders to a third-party executing broker selected by the client.

Please refer to the schedule in Appendix 1: Institutional Brokerage for further details in respect of how NTS LLP executes client orders.

#### b) General execution arrangements for all NT clients

In most circumstances NTGS SE, TNTC LB and NTISL act in an agency capacity on behalf of their clients and will therefore be required to provide Best Execution when:

- Carrying out portfolio trades by arranging how these trades are executed, including timing and strategy.
- Appointed to assist with a particular project which includes trade execution and you are no longer shopping around for quotes; and when you could benefit from costs savings that can be achieved in comparison to the costs that are estimated for you.

Orders transmitted to NTS LLP and NTSI for execution are monitored by the transition management desk in real time around the clock with all the NT trade desks which have our orders. Once the trade is sent, the NTS

LLP and NTSI trading desks use their own execution arrangements, which are global and allow for pass the book order management regardless of trade desk location, to execute TM client orders.

## **B. Execution Venues**

TM relies upon its trading affiliates and third-parties designated by the client for the execution of client orders.

Please refer to the schedule in Appendix 1: Institutional Brokerage for further details in respect of how NTS LLP executes client orders and their execution venues.

## APPENDIX 5: FUND ORDER PROCESSING SCHEDULE

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This Specific Order Execution Schedule is part of the NT Order Execution Policy to which it is annexed, and it should be read together with the General Order Execution Policy. If there is any inconsistency between the General Order Execution Policy and this Specific Order.

Execution Schedule with respect to the businesses covered, the more specific requirements set forth in this Specific Order Execution Schedule apply. Any defined terms used but not defined herein shall have the meaning given in the General Order Execution Policy.

### A. General order handling and execution arrangements

#### a) Relevant NT legal entities

The Northern Trust Company, London branch ('TNTC') and Northern Trust Global Services SE ("NTGS SE") and its branches act in an agency capacity when receiving and transmitting orders for the Fund Order Processing service.

#### b) Order handling

This appendix sets out our approach to order handling when processing transactions in respect of the following services:

- Fund Order Connect ("FOC")
- Fund of Hedge Funds ("FoHF")
- Smart Allocation ("SA")

The services require us to transmit orders on your behalf to a specific party, for example the manager, administrator, transfer agent or general partner of the fund. While we are not ultimately responsible for executing your orders, we will take all sufficient steps necessary when handling your orders to obtain the best possible result for you, consistent with our obligations under the CSSF requirements and FCA's COBS rules and Principles. Our obligations concerning receipt and transmission of orders are further set out in the General Policy.

For the avoidance of doubt, where we process your transactions in accordance with your instructions, we will consider our obligations to you to have been appropriately discharged.

### B. Execution Factors

We do not have any discretion when processing your instructions; however, in order to ensure we act in your best interests we will consider the following criteria where applicable:

- **Price** – this concerns the resulting price of a transaction. As noted in section 3 of the General Policy, this is typically considered the most important criteria. However we do not have any discretion over transaction price regarding the services above; for the avoidance of doubt, the price is determined independently by the fund manager and stipulated in the contract note provided to you. The price is calculated in accordance with the rules within the fund prospectus (also referred to as the "valuation point").
- **Speed** – we define this as the rate at which your order can be processed, namely the time between receiving your order and transmitting it to the relevant party. We do not have any discretion regarding when your instructions will be transmitted; instead, we will adhere to pre-agreed deadlines which determine when an order can be processed for the next valuation point.
- **Likelihood of execution / settlement** – subject to your successful on-boarding and the destination fund remaining fully open to subscriptions for purchase or redemption, all orders will be transmitted in accordance with your instructions, so that the likelihood of execution and settlement is not a relevant factor for this product.

- **Costs** – any transaction costs including any fees charged, are notified to you. Such notification is communicated before transactions are executed – typically at the outset of our relationship.
- **Other factors** – there will commonly only be one method of purchasing or redeeming units, for example via the manager, administrator, transfer agent or general partner of the fund, and this limits the applicability of the other factors. For example, order size is not relevant provided no subscription or redemption caps are in place.

## APPENDIX 6: MONEY MARKET FUND INVESTMENT SERVICE & CLIENT DRIVEN MONEY MARKET FUND INVESTING SCHEDULE

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This Specific Order Execution Schedule is part of the NT Order Execution Policy to which it is annexed, and it should be read together with the General Order Execution Policy. If there is any inconsistency between the General Order Execution Policy and this Specific Order.

Execution Schedule with respect to the businesses covered, the more specific requirements set forth in this Specific Order Execution Schedule apply. Any defined terms used but not defined herein shall have the meaning given in the General Order Execution Policy.

### A. General order handling and execution arrangements

#### a) Relevant NT legal entities

The Northern Trust Company, London branch ('TNTC') and Northern Trust Global Services SE ("NTGS SE") and its branches act in an agency capacity when processing money market fund orders.

#### b) Order handling

This appendix sets out NT's approach to order handling when processing transactions in respect of the following services:

- Client Driven Money Market Fund Investing ("CDMMFI")
- Money Market Fund Investment Service ("MMFIS")

The provision of these services requires NT to execute orders to subscribe or redeem units in a money market fund (MMF) by sending an order to the Fund or the Transfer Agent of the Fund. NT will execute client orders in accordance with this policy and our obligations under the CSSF requirements and FCA's COBS Rules and Principles.

NT will receive client instructions for executing orders for the subscription or redemption of units via the Money Market Fund Investment Service addendum or Client Driven MMF Investing Agreement. The agreements provide instructions on every aspect of the transaction. Therefore, NT has no discretion over how orders are executed. The execution of all transactions, in strict adherence with the instructions, will constitute NT's discharge of our best execution obligations. This is in accordance with the provisions set out in the General Policy.

### B. Execution Factors

NT will not exercise any discretion in the execution of client orders, undertaken pursuant to the addendum/agreement. The Best Execution factors will be undertaken in accordance with the following, where applicable:

- **Price** – due to the nature of the instruments, being units in a fund, there is typically only one daily valuation point. Therefore, price is not a relevant factor for these transactions.
- **Speed** – All subscription or redemption orders are processed automatically at the same time each day, shortly before the respective currency dealing deadline of the destination MMF. Therefore, speed is not a relevant execution factor in terms of the timing of orders placed. NT will always try to execute client orders in a timely fashion.
- **Likelihood of execution and settlement** – Subject to a successful onboarding and approval considerations, and on the basis that the target MMF is fully open / not closed to subscriptions or in a situation where a redemption gate has been imposed, the subscription and redemption orders, which NT places on behalf of clients, will be executed and settle.

Therefore, the likelihood of execution and settlement failure is not a relevant execution factor for this product.

- **Costs** – NT will take into account costs associated with execution (including costs to NT). These may include but are not limited to transaction fees and service operating fees.
- **Size** – The size of orders is determined by the automated daily investable balance, which is calculated in accordance with the client-agreed terms set out within the client addendum/ agreement. Therefore, the size of the order is not a relevant execution factor for this product.
- **Nature or any other consideration relevant to the execution of an order** – The nature of the order is always either a full subscription or redemption instruction for the full amount specified in accordance with the terms set out within the client agreement. Therefore, the nature of the order is not a relevant execution factor for this product.

## APPENDIX 7: NORTHERN TRUST LIQUIDITY SOLUTIONS PORTAL SCHEDULE

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This Specific Order Execution Schedule is part of the NT Order Execution Policy to which it is annexed, and it should be read together with the General Order Execution Policy. If there is any inconsistency between the General Order Execution Policy and this Specific Order Execution Schedule with respect to the businesses covered, the more specific requirements set forth in this Specific Order Execution Schedule apply. Any defined terms used but not defined herein shall have the meaning given in the General Order Execution Policy.

### A. General order handling and execution arrangements

#### a) Relevant NT legal entities

The Northern Trust Company, London branch ('TNTC') and Northern Trust Global Services SE ("NTGS SE") provide the investment service of receiving and transmitting orders to subscribe or redeem units in funds, received from their clients through the Northern Trust Liquidity Solutions Portal.

#### b) Order handling

This appendix sets out NT's approach to order handling when processing transactions in respect of the following services:

- Northern Trust Liquidity Solutions Portal ('NTLSP')

The provision of these services requires NT to receive client orders to subscribe or redeem units in supported funds through the Northern Trust Liquidity Solutions Portal, and then to transmit the client order in full to the relevant Fund or Transfer Agent of the Fund, who will then execute the order in accordance with the subscription and redemption rules and procedures of the fund.

The Northern Trust Liquidity Solutions Portal allows clients to provide instructions on every aspect of the desired fund transaction, which will be executed by the relevant Fund Transfer Agent; NT therefore has no discretion over how orders are executed. The execution of all transactions, in strict adherence with the instructions, will constitute NT's discharge of our best execution obligations. This is in accordance with the provisions set out in the General Policy and our obligations concerning receipt and transmission of orders under the CSSF requirements and FCA's COBS Rules and Principles.

### B. Execution Factors

NT will not have any discretion when processing your instructions; however, in order to ensure we act in your best interests we will consider the following criteria where applicable:

- **Price** – This concerns the resulting price of a transaction. As noted in section 3.2 of the General Policy, this is typically considered the most important criteria. However we do not have any discretion over transaction price regarding the services above; for the avoidance of doubt, the price is determined independently by the fund manager. The price is calculated in accordance with the rules within the fund prospectus (also referred to as the "valuation point"). Due to the nature of the instruments, being units in a fund, there is typically only one daily valuation point. Therefore, price is not a relevant factor for these transactions.
- **Speed** – We define this as the rate at which your order can be processed, namely the time between receiving your order and transmitting it to the relevant party. We will adhere to disclosed portal deadlines which determine when an order can be processed for the next valuation point. NT will always try to transmit client orders in a timely fashion.
- **Likelihood of execution / settlement** – Subject to your successful on-boarding and the destination fund remaining fully open to subscriptions for purchase or redemption, and not closed to subscriptions or in a situation where a redemption gate has been imposed, all orders will be transmitted in accordance with your instructions. Therefore, the likelihood of execution and settlement is not a relevant factor for this product.

- **Costs** – any transaction costs including any fees charged are notified to you. Such notification is communicated before transactions are executed - typically at the outset of our relationship.
- **Other factors** – There will commonly only be one method of purchasing or redeeming units, for example via the transfer agent of the fund, and this limits the applicability of the other factors. For example, order size is not relevant provided no subscription or redemption caps are in place.

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