



Northern Trust Global Investments Limited - Order Execution Policy

Policy Summary

A. Authority

This Policy sets out the Execution Policy for Northern Trust Global Investments Limited ("NTGIL"), as required by the Financial Conduct Authority's ('FCA') Conduct of Business Sourcebook ('COBS'). In addition, this Policy has been written in accordance with the requirements of the European Union's second Markets in Financial Instruments Directive ("MiFID II").

B. Statement of Purpose

This Policy sets out the key steps it deems sufficient to comply with the best execution requirements as set out in the COBS Sourcebook and how these steps enable the best possible results for our clients consistently over time.

C. Scope and Applicability

This Policy applies to NTGIL. The term NTGIL shall mean any other affiliated company performing a regulated activity on behalf of clients contracting with NTGIL, whether authorised by the Financial Conduct Authority (FCA) or any successor hereto or not.

D. Effective Date

June 2024





1. Introduction & Application

Introduction

- **1.1** The Order Execution Policy applies to:
 - 1. Northern Trust Global Investments Limited ("NTGIL");
 - 2. Any affiliated company performing portfolio management or execution of client orders on behalf of clients contracting with NTGIL, whether authorised by the Financial Conduct Authority (FCA). or not.
- 1.2 Throughout this document the term "client order" refers to a decision to deal or an order received from an affiliated entity of NTGIL.
- 1.3 This document sets out the strategy of NTGIL for obtaining the best possible result for the execution of its client orders. The policy sets out all steps deemed sufficient to comply with the best execution requirements as set out in the rules of the FCA and how these steps enable the best possible execution results on a consistent, on-going basis.
- **1.4** The NTGIL Order Execution Policy ("the Policy") covers:
 - how NTGIL manages the execution process;
 - how NTGIL handles client order execution from the point of order origination to the completion of the execution;
 - the execution venues that NTGIL has selected to achieve the best possible client order execution and the selection process associated with such execution venues;
 - the critical factors affecting client order execution and the methods of such factor selection, and:
 - an explanation of why NTGIL believes that this order execution policy will deliver the best possible result for the execution of client orders.

The best execution rules

- 1.5 As an Investment firm authorised and subject to FCA rules, NTGIL must take all sufficient steps to obtain, when executing client orders, the best possible result for its clients taking into account the execution factors. These factors are listed in section 2.
- **1.6** The scope of FCA rules is limited to certain instrument types and dealing activities.
- 1.7 Client instructions: impact on best execution





In cases where a client gives a specific instruction with respect to the conditions for executing an order, this policy will not be applied for those aspects of the execution relating to the specific instructions of the client. For example a client may give an instruction to only execute transactions with a list of brokers they have provided, we would not in such an instance trade with a broker who is not on that list even if they offered a better price or execution quality.

1.8 The policies that are described in this Order Execution Policy document are applied through a series of procedures. These are maintained by business professionals within the relevant business area. These procedures are aligned with this execution policy and are monitored to ensure that this policy is implemented as specified in this document.

Relevant codes and policies

- **1.10** The Policy is aligned to and supported by the following codes and policies:
 - (a) Asset Management's Code of Ethics; and
 - (b) Client Conflicts of Interest and Inducements Policy EMEA
 - (c) Such voluntary industry codes that NTGIL, either as a legal entity or as part of the NT Corporation, has adopted, including the UK Money Markets Code.

Responsibilities

- 1.11 Accountability for the implementation, maintenance and communication of this policy lies with the Chair of the NTGIL Commissions and Trading Committee ("C&TC").
- 1.12 Accountability for monitoring and oversight of compliance with this policy lies with Head of Compliance for NTGIL. Any questions relating to how the NTGIL Order Execution Policy should be interpreted or applied should in the first instance be addressed to the Head of Compliance.
- 1.13 The NTGIL Order Execution Policy will be periodically reviewed (no less than annually) to reflect regulatory changes, material technology changes or changes in the processes for managing the way client orders are executed, in order to ensure its content continues to be appropriate to the firms' activities.
- 1.14 The senior management of NTGIL are responsible for maintaining a conflicts of interest policy and identifying, managing or preventing and disclosing any relevant conflicts related to client order handling, undertaking on-going reviews on the effectiveness and appropriateness of the policy, the areas of potential conflict within NTGIL and the procedure for management of conflicts that arise.
- 1.15 Periodic reviews on execution performance are undertaken by NTAM's compliance team.This is covered in greater detail in section 7.



NTAC:3NS-20



2. Execution factors

- When executing client orders NTGIL will take account of a range of execution factors. These factors are considered in the initial selection of execution venues and the ongoing review of performance of those execution venues. These factors and their relative importance will be determined using the experience of the investment professional within NTGIL, depending on the asset class being traded and the product the client order relates to. These factors include:
 - price
 - costs
 - speed of execution
 - likelihood of execution
 - speed of settlement
 - likelihood of settlement
 - size of the order
 - nature of the order.
- Ordinarily, price will merit a high relative importance in achieving the best possible result; however, there may be circumstances for certain clients, order types, execution strategies, financial instruments or markets when other factors are weighted with greater importance than price.
- When determining the relative importance of each of the above execution factors the following will be taken into consideration:
 - The client's characteristics, including its client classification;
 - The characteristics and nature of the order placed on the client's behalf;
 - The characteristics of the financial instruments; and
 - The execution venues to which the order can be directed.
- In order to achieve the best possible execution result we, or the counterparties to whom we hand the order, may adopt one or more trading methods or execution venues to satisfy the order. As a consequence, there may be occasions where client orders will be executed outside of a regulated market, Multilateral Trading Facility (MTF) or Organised Trading Facility (OTF). This includes submitting orders to a Systematic Internaliser (SI), to a non- EEA affiliate or to execute orders over the counter (OTC).





Order Creation

- Orders are created by Portfolio managers in most circumstances, making investment decisions, which are then sent to the relevant trading desk to be executed (where applicable). Where appropriate, orders may be transmitted to trading desks of affiliated entities in Chicago and Hong Kong, to take advantage of local expertise and timing considerations.
- The size and nature of an order is often particularly important. For example, when executing orders for index tracking portfolios, NTGIL will trade with reference to an execution benchmark set by the portfolio manager, for example an order seeking execution based upon the end of day closing price would differ from an execution for an active portfolio manager or an order traded intraday.
- 2.7 Multiple orders for one client or multiple clients could be transmitted to a broker for execution in a single block in order to mitigate execution costs on behalf of the client.
- 2.8 When necessary, the relevant trading desk discloses a limited amount of high-level aggregate information in order to select suitable execution venues. This information would include certain aggregated statistics such as overall volume or number of orders.

Directed Cash Dealing

For the purpose of the creation or redemption of ETF shares, NTGIL may accept Directed Trades for an Authorised Participant ("AP") to instruct for NTGIL to trade an order with a certain broker and specify a particular trading strategy. For these trades, the full costs of using a specific broker are passed back to the AP who has chosen the broker. NTGIL will consider best execution to have been achieved by acting in accordance with the instructions given by the AP.

Over the counter transactions

- Financial instruments may in certain circumstances be bought or sold "over-the-counter" ("OTC"), directly with the counterparty and not subject to the rules or clearing arrangements of an exchange or Trading Venue (which includes Regulated Markets ("RM"s", Multilateral Trading Facilities ("MTFs") and Organised Trading Facilities ("OTF"s). Such orders will only take place where we believe this will result in best execution being achieved and subject to regulatory requirements regarding trading on Trading Venues, unless the instruments being traded are not listed on a Trading Venue.
- 2.12 As the trade does not take place on a venue there is greater potential settlement risk in respect of these OTC transactions as the transaction will not be covered by the settlement rules of the Trading Venue. Settlement risk is the risk that the counterparty to a transaction





does not deliver the payment or security in accordance with the agreed terms after the other counterparty has already fulfilled its part of the agreement. There also may be differing exposure to counterparty risk. In order to mitigate this risk NTGIL only enters into transactions with counterparties who meet our criteria and have either been approved through our credit risk approval process (FX and Derivatives only) or reviewed and approved by the C&TC). See section 6 for further details.

- In addition, in certain cases (primarily for some fixed interest securities such as commercial paper) financial instruments may not be listed, quoted or admitted to trading on any stock exchange or quotation system at the time of purchase or sale, as a result pricing information for instruments may be more difficult to obtain and the liquidity of the Instruments may be adversely affected. In such instances liquidity is considered as the primary execution factor rather than price.
- By consenting to this policy clients authorise us to be able to execute transactions on an MTF/OTF, and outside of an MTF/OTF or a Regulated Market, this includes submitting orders to a Systematic Internaliser (SI), to a non- EEA affiliate or executing orders over the counter (OTC).





3. Execution Arrangements: Asset Class Specific

- 3.1 NTGIL manages client assets across multiple asset classes, in both pooled investment vehicles and separately managed accounts (SMAs). Accordingly, NTGIL manages its execution arrangements with due regard to the product categories and asset classes being dealt. The execution policy is therefore aligned with the requirements of the underlying mandates and agreements.
- 3.2 NTGIL may execute client orders for the following classes of financial instruments including but not limited to:
 - Shares, Exchange Traded Funds (ETFs) and depository receipts
 - Bonds & securitised assets e.g. asset backed securities (ABS) and residential mortgage back securities (RMBS)
 - Money market instruments e.g. commercial paper (CPs), certificates of deposit (CDs), floating rate notes (FRNs)
 - Interest rate futures and options (exchange traded)
 - Currency swaps, forwards and other currency derivatives
 - Equity futures (exchange traded)
 - Warrants
 - Securitised derivatives
 - · Units in collective investment schemes

Equities (Shares, ETFs and depository receipts)

trading desk (based in London), along with the trading desks of two affiliates- Northern Trust Inc. (based in Chicago) and The Northern Trust Company Hong Kong (TNTCHK) Limited (based in Hong Kong). Orders are passed from the portfolio manager to the trading desk in their region via an order management system. The desk has responsibility for managing the execution of the order and conduct them in accordance with this policy. Where appropriate NTGIL's GTD may receive and transmit orders to affiliates for execution on behalf of the client. Orders for portfolios managed in other jurisdictions may, from time to time, be sent to NTGIL's GTD through this centralized model.

NTGIL (or our affiliated trading desks) transmit orders to external (non-affiliated) brokers for execution and do not execute orders directly on trading venues.

3.4 Passive management products, such as index portfolios, have specific dealing benchmarks. Timeliness and likelihood of execution are generally the most important





execution factors in so far as, generally, a successful outcome for an index fund is to achieve a specific market on close price to match the valuation of the security within the benchmark index. Trades are therefore submitted in a manner which will result in the greatest likelihood of achieving such a benchmark.

In deciding which execution strategy to follow, seeking to achieve the benchmark chosen by a Portfolio manager, the relevant trading desk will consider the importance of certainty of execution at a price close to the benchmark index price, compared to the likely dispersion of execution away from the benchmark price given the size, timing and nature of the trade.

- 3.5 The order execution arrangements for passive portfolios seek to minimise market impact and maximise liquidity in the execution of client orders, seeking to minimise transaction costs whilst matching the index risk and return characteristics and minimising operational risk throughout the process. Where it is deemed appropriate to trade away from the index implementation point, portfolio managers are expected to use sound judgement and rationale, including consulting the relevant trading desk where appropriate, to devise appropriate trading strategies, to minimise risk and ensure that mandates are managed within client expectations and guidelines.
- 3.6 Other equity portfolios may have varying investment objectives, and the portfolios are managed with the aim of meeting these through the use of dealing models and approaches which are seeking to exploit particular market price conditions. Often a successful execution result for the equity portfolios is to prioritise speed and achieve a rapid execution. This is reflected in the fact that an implementation shortfall benchmark is frequently the correct transaction cost analysis benchmark for the equity portfolios.
- 3.7 An implementation shortfall calculation will consider the actual cost of a trade and compare it against the predicted cost of a trade using a transaction cost estimation model which considers markets movement, cost of market impact and speed of execution.

Fixed Income

Fixed income trading, excluding money market instruments and foreign exchange, is managed by a Global Fixed Income Trading Desk ("GFITD") made up of NTGIL's own trading desk (based in London), along with the trading desk of an affiliate - Northern Trust Inc. (based in Chicago). Orders are passed from the portfolio manager to the GFITD in their region via an order management system. The desk has responsibility for managing the execution of the order and conducts them in accordance with this policy. Where appropriate, NTGIL's GFITD may receive and transmit orders to affiliates for execution on behalf of the client. Orders for portfolios managed in other jurisdictions may, from time





to time, be sent to NTGIL's GFITD.

NTGIL (or our relevant affiliated trading desk) transmit orders to external (non-affiliated) brokers for execution and do not execute orders directly on trading venues.

Achieving best execution for fixed income and related securities will depend on the transaction strategy type.

For fixed income transactions, liquidity and price are the main determining factors given the nature of the securities, as well as speed of market and size of transaction. Since commissions are not charged on fixed income securities, such costs do not need to be considered in obtaining best execution. Where applicable, quotations are recorded from competing venues and trades will be concluded through the venues that provide the best price. However, there may be circumstances where retrieving quotes from execution venues may alert the market to NTGIL's trading strategy which could be detrimental to its clients. In such circumstances, NTGIL will take into consideration market levels by utilizing a variety of analytical tools (e.g. Trade Web, MarketAxess, Bloomberg, etc.) and will execute the transaction with a venue based upon information from such alternative sources, and the counterparty's ability to provide competitive spreads as well as liquidity.

Fixed income portfolio managers and traders engage in trading of a wide variety of instruments through two distinct strategies:

Active strategies can be a mixture of bonds, asset backed securities and money market securities. We distinguish between those securities with unique identifiers known pre trade (typically bonds) and those that are newly issued on request for which an identifier may or may not be issued post trade (typically money market instruments; time deposits, asset backed commercial paper, certificates of deposit, commercial paper and reverse repurchase agreements)

Passive strategies are primarily concerned with securities that have a unique identifier (ISIN) known to portfolio managers pre-trade. Securities are selected (sampled) with the objective of matching the risk and return of a target benchmark. Typically benchmark indices contain securities with more than one year to maturity.

Both strategies seek to acquire instruments via primary and secondary markets. For both active <u>and</u> passive portfolios NTGIL will look to participate in purchases through primary issuance whenever possible (i.e. where the security fits within the accounts' guidelines, credit and duration profile).

Government and Corporate bonds and other Fixed Income securities

3.9 NTGIL use a combination of electronic dealing systems and a conventional voice contact with / telephone calls to brokers.





- 3.10 NTGIL use an aggregated electronic price service for the majority of its executions in fixed income instruments. This service enables NTGIL to achieve the best possible execution result, as multiple prices can be discovered at a single point in time. The trader then selects the best available price from those presented. This electronic price service provides a full audit trail for the execution process. For passive fixed income, trading may also be conducted via telephone and trade files. Executions are monitored against the relevant benchmark, and are also referenced against pre-trade trader quotes.
- 3.11 The execution factors as set out in section 2 are taken into account when dealing government and corporate bonds. In the event the portfolio manager has identified a price target for a specified security, while placing more importance on the price sought than the speed in executing the order, it remains incumbent on the trader to obtain the best possible price available at the time of trade.
- When trading certain instruments, particularly illiquid securities, or when dealing in a large volume, greater importance may be placed on sourcing liquidity and likelihood of execution, in which case the order may be executed as a limit trade placed with an individual broker at a specified price. NTGIL conducts post trade analysis to monitor the results of such trading to confirm that best execution is achieved on a continuous basis.
- **3.13** Internal electronic accounting systems are used to ensure that client mandate limits are monitored and observed.

Money Market Instruments

- 3.14 Money Market Instruments are primarily traded for cash funds and cash collateral reinvestment (securities lending), managed by NTGIL's fixed income portfolio managers. The instruments are typically bespoke and a large percentage of money market instruments are purchased through primary issuance, either directly from the issuer or through a broker.
- 3.15 Due to the nature of OTC short duration fixed income markets, liquidity and price will ordinarily merit a high relative importance in achieving the best possible execution result.
- Time deposits and reverse repurchase transactions are typically overnight in nature, heavily supply constrained (on both an absolute basis and as a result of the organisation's stated credit and Credit Capital Risk Group's ("CCAR") preferences). As they are not MiFID instruments they are not subject to NTGIL's Order Execution Policy, but are subject to internal policies. Counterparties we enter into transactions with for such instruments must be approved under our credit risk assessment process.

Securities Finance - Cash Collateral Reinvestment





3.17 When cash is provided as collateral, the majority of cash received is then invested into various short term fixed income instruments and money market funds. Cash received as collateral is managed by fixed income portfolio managers who are experts in dealing in such instruments. Due to the nature of the OTC short duration fixed income markets, liquidity and price will ordinarily merit a high relative importance in achieving the best possible execution result.

Foreign Exchange

- Foreign exchange transactions are usually a consequence of other execution activity. If a trade is envisaged which is known to require conversion to a different currency, a foreign exchange transaction is created. The GTD typically executeS foreign exchange transactions via an independent electronic platform or directly with authorized foreign exchange counterparties.
- 3.19 The GTD also engages in spot FX trading, which is not covered under this policy as these are not financial instruments as defined under FCA/MiFID rules, however our counterparty approval processes are still applied.

Currency Forwards and Non-deliverable forwards (NDFs)

- Forward currency contracts may be used to hedge against currency risk that has resulted from assets held by a portfolio that are not in the Base Currency. NTGIL, may, for example, trade forward currency contracts by selling forward a foreign currency against the Base Currency to protect the portfolio from foreign exchange rate risk that has risen from holding assets in that currency. NTGIL may also appoint a currency manager to provide currency hedging services. The trades under such an agreement will be subject to this policy.
- Transactions in currency derivatives may be executed through electronic communication networks, but executions occur bilaterally with banks acting as NTGIL's counterparties, either offering the best price achieved through requesting competing quotes or transmitted for execution at the relevant market's 4PM Fix rate.
- 3.22 Executed trades are recorded at the point of execution. Most trades will be executed at the target WM/Reuters 4pm closing rate. For these trades the business verifies that the actual 4pm rate is given by the counterparty with which we execute. In limited circumstances we will not actively seek rates from brokers, but will take the rates given by the client's custodian (which may be a Northern Trust affiliate). Circumstances which may give rise to such instances include, but are not limited to, where a transaction involves a restricted currency, or a trade is so small in size that it would cost more to execute through a broker.
- 3.23 Transactions to trade at market price are mostly executed by NTGIL's trading desk, while





transactions for the same instruments to be traded to obtain that day's relevant benchmark price are aggregated and transmitted between NTGIL and its affiliates, Northern Trust Investments Inc. (NTI) and The Northern Trust Company Hong Kong (TNTCHK) Limited, for a trader in one of the firms to manage executions with banks that act as counterparty.

- NTGIL maintains a list of which banks are offering the most competitive terms and will look to arrange transactions for all accounts where clients permit the counterparty to be traded with. On a periodic basis this list will be updated if the terms offered by banks become more or less competitive for particular instruments.
- Where a client restricts NTGIL from trading with certain counterparties, the trades will be arranged with the bank offering the most competitive terms with which NTGIL is permitted to enter into transactions, in accordance with the client's instructions. While clients may restrict NTGIL from using some banks, NTGIL retain discretion over which banks to enter into transactions with subject to these restrictions and such orders are not therefore considered client directed.

Derivatives - Exchange Traded Futures

- **3.26** Exchange traded futures are used primarily for efficient portfolio management purposes.
- 3.27 Exchange traded futures positions can also be unwound simultaneously with the purchase or sale of the underlying position. NTGIL policy on the execution of derivatives trades is similar to that outlined above for single stock or bond executions.
- 3.28 The GTD monitors executed trades to ensure executions are in line with the order's benchmark and query any outliers/ issues with the relevant broker.

Collective Investment Schemes

- 3.29 For certain portfolios/funds managed which invest solely into the units a relevant UCITS fund, the portfolio manager will invest in accordance with the relevant Investment Management Agreement ("IMA") e.g. Securities Lending Cash Collateral Reinvestment, or the investment objective and policy per prospectus e.g. Feeder Funds.
- 3.30 We generally conclude transactions in such funds with the fund provider at the official price since we do not consider that sufficient liquidity is available elsewhere to enable us to obtain the best possible result on a consistent basis.

IPOs, primary and secondary issues.





3.31 NTGIL manages primary issues such as IPO's and secondary offerings fairly between clients. These forms of execution differ from secondary markets dealing. Usually information around such dealing situations is known in advance. Information around this type of dealing is collected centrally and distributed to all interested parties. Where there is an expression of dealing interest this will be collected and aggregated. The client orders are submitted as a single instruction to the executing venue by client type.

Secondary Offerings

3.32 Occasionally NTGIL may participate in secondary offerings, client orders are aggregated and submitted in the manner as for initial offerings, the precise approach to trading will be determined by the traders, having regard to the nature and terms of the offer.

4 Execution management arrangements

- NTGIL maintains an effective dealing structure and process appropriate to contributing to competitive performance and achieving the best possible result for client executions on a consistent basis. The execution management process adopts a structured approach from decision to settlement and clear information is captured at all stages of the execution process.
- **4.2** NTGIL maintains all necessary records and audit trails relating to the execution process.

NTGIL operational structure for execution management

4.3 Where NTGIL transmits client orders to its affiliates, procedures are in place to ensure that the execution of these orders is managed in accordance with this execution policy.

Client Order Handling and Aggregation

- It is NTGIL policy to handle client orders promptly, fairly and in due turn. Prior to execution, where appropriate, client orders are aggregated together to achieve a better overall execution. Although NTGIL will not enter into aggregated orders that it believes will materially disadvantage a client, there is the possibility that the effect of aggregation may work to the disadvantage of a client order. Order aggregation does not occur when the execution objectives of the client orders are different.
- Client orders are transmitted electronically, using facilities provided to us by third party, non-affiliated entities (i.e. Bloomberg, Tradeweb, Triton) or the brokers themselves, but these are merely conduits to the end counterparties. Orders may also be transmitted directly to a MTF or OTF.





The execution venues available will vary according to product and asset class. Particularly in equities where there are often numerous competing exchanges and venues, it should be noted that the brokers NTGIL instructs would not typically be directed to prefer one particular venue over another, but to adhere to their commitment to comply with best execution.

Client Order Allocation

- NTGIL manages client order allocations appropriately. Once executed, market executions are allocated to clients fairly and proportionately on a pro-rata basis. However, in situations where particular allocations for a single portfolio would result in the holding being too small to be tradeable would be regarded as uneconomic to the client; NTGIL will adopt an alternative allocation process.
- The alternative process involves traders or portfolio managers (for certain fixed income instruments) having the discretion to assign a small allocation entirely to one of or a number of accounts, or to exclude one or more accounts from receiving the allocation. However every time this occurs, the Compliance team must be made aware so that they can monitor and provide independent oversight of fair allocation, conducting investigations and applying changes to processes where necessary.

Residual / uncompleted client orders

4.9 Residual client orders will be managed appropriately. Where a trade cannot be completed over a single dealing session, the residual order will be retained in the form of an electronic record. This series of electronic records is maintained on the NTGIL order management systems and both the traders and portfolio managers will monitor such trades on an ongoing basis until completion, amendment or cancellation of the order.

Limit orders

Where NTGIL places an order for shares admitted to trading on a regulated market or traded on a regulated market, MTF or OTF, the broker executing the order may be instructed that if the order is not immediately executed under prevailing market conditions, a limit order should be placed and the order may not be made immediately public so as to be accessible to other market participants.

Management of conflicts of interest

4.11 NTGIL has policies and controls in place to identify, prevent, manage and where necessary disclose conflicts of interest. Where a staff member identifies a possible conflict of interest in the course of order execution or handling, this will be managed in accordance with the Northern Trust EMEA Conflict of Interest and Inducements Policy.





Methods of Order management

- 4.12 NTGIL will use electronic systems that support and enhance the execution process.

 NTGIL uses electronic order management systems for the purposes of client order execution management.
- 4.13 All systems associated with the post-trade execution management process maintain appropriate record-keeping and fully auditable information flows.

Methods of order placement

- When placing client orders, electronic communication mechanisms, such as FiX protocol links, and Bloomberg messaging are used wherever possible. When manual processes are necessary then the trader or portfolio manager is required to confirm the manual instruction with an electronic communication.
- 4.15 Verbal orders are confirmed in an electronic format. For example, in the case of money-market instruments an electronic messaging system is employed to confirm the order.

Use of electronic dealing or order management systems

- 4.16 For fixed income and FX trading, NTGIL employs a range of electronic trading venues, such as Multi-Lateral Trading Facilities ("MTF") or Organised Trading Facilities ("OTF") to add value to the client order execution process. The use of the systems is determined on a case-by-case basis in terms of the ability to achieve the best overall result for the client order.
- 4.17 NTGIL has the ability to use electronic dealing tools provided by certain brokers and execution venues, accessing these through approved counterparties. This includes the ability to execute trades using algorithmic strategies as well as using direct market access technology. The use of these tools entirely depends upon whether they could assist in achieving the best possible result for the client order.

Trade matching

In a limited number of circumstances, NTGIL may identify a security in which we are transacting a client order where we also are also handling a client order engaging in the opposite side of a transaction in the same security with the same trading characteristics. In such instances we will only seek to match a trade where both clients will benefit, from improved price/ lower market impact, lower commission or both. No internal crossing takes place; trades are always matched and executed through an external counterparty. This enables us to independently verify the market prices and furthermore allow for normal matching and settlement. For fixed income securities multiple quotes are received and the quote that is most competitive for each client is selected.





Best possible result monitoring

- 4.19 NTGIL monitors execution quality and the extent to which the best possible execution result for client orders has been achieved. NTGIL employs analytical techniques to contribute to monitoring execution results when executing transactions on behalf of the client. This includes technologies such as transaction cost analysis systems for equities, FX and fixed income.
- 4.20 These analytical tools are used at all stages of the execution process and give the ability to assess expected costs, analyse the cost of execution during the performance of a trade, and then to assess an execution after the event.

Record keeping

- 4.21 NTGIL maintains records of the execution management process in accordance with regulatory requirements. These include records of client orders and all aspects of execution of a client's order, including execution prices, times, original intentions and postevent allocations.
- The records are maintained electronically. All systems are backed up and disaster recovery processes are in place.

5. Managing execution commission rates & Research

5.1 NTGIL traders actively manage the payment and level of execution commission rates (where relevant). This management is formally monitored on a quarterly basis by the NTAM Commissions and Trading Committee (See section 7). The monitoring of execution commission rates is considered in relation to an execution venue's ability to deliver the best overall execution result for client orders.

Separation of commission payments - Commission Unbundling

The majority of execution commission is related to dealing equity instruments. Under FCA rules it is necessary to separate commission payments made for execution and other services received. This is referred to as commission unbundling.

The following paragraphs describe the policy for managing the purchase of research and services with client dealing commissions.

Purchase of research & soft commissions

5.3 Where NTGIL or any of its affiliates who execute orders on clients' behalf, clients will pay an execution-only rate and will not use dealing commissions to pay for research or other





"softed" items. Where NTGIL values data or information, it will pay for this from its own resources.

Use of external research

- Under FCA rules NTGIL will not accept unsolicited "free" third party research e.g. from brokers or specialist research firms. Where NTGIL values research or it is deemed necessary to use research in order to carry out its portfolio management activities, NTGIL will pay for research from its own resources. It is the policy of NTGIL to use external research that covers economic, sector and company specific issues. The use of research is purely to assist NTGIL investment teams with identifying investment opportunities.
- 5.5 The content of this research includes, but is not limited to, the analysis of economies, countries, industries and individual companies. It may also deal with specific issues of topical interest and / or portfolio construction issues such as benchmark or risk analysis.

Commission sharing agreements

5.6 NTGIL has no active commission sharing agreements as NTGIL does not use commissions to pay for research.

6. Selection of execution venues

- In this document we use the generic term "execution venue" to describe execution counterparties, systems and marketplaces including:
 - Executing brokers/ counterparties;
 - Systematic internalisers (Principal traders and market makers);
 - Multilateral Trading Facilities (MTFs), e.g. Tradeweb, Liquidnet;
 - Organised Trading Facilities (OTFs);
 - Regulated Markets;
 - Non-EEA entities performing a similar function to any of the above;
 - Direct Market Access Systems (including use of trading algorithms);
 - Electronic communication networks, e.g. FX All; and
 - Crossing networks.
- 6.2 For each financial instrument in which NTGIL either decides to deal or executes orders on behalf of clients, execution venues have been selected in accordance with





this policy and applicable underlying procedures.

- In Appendix I we limit the use of 'execution venue' to counterparties to whom we transmit client orders (in respect of equities), as transactions are executed via these counterparties, directly or via their trading facilities. In other asset classes we have included MTFs and other types of execution venues which bring market participants together, as this is the route through which we execute transactions with respect to those asset classes for certain transactions.
- 6.4 NTGIL may select new execution venues (subject to broker approval processes) where it will serve in the best interest of clients.
- All execution venues are subject to a review process prior to inclusion on the approved execution venue list. NTGIL maintains a list of execution venues, which traders and portfolio managers may choose for each individual trade. A two stage process exists for oversight:
 - The first is a review process to select brokers that have the financial and operational capabilities to execute orders in accordance with this policy without incurring unacceptable counterparty risk on any particular transaction.
 - The second is an ongoing monitoring of execution venues in terms of their overall execution performance and their ability to deliver best execution. This analysis is undertaken both via statistical measurement techniques, and subjective assessments based upon the knowledge and expertise of NTGIL traders and/or portfolio managers. A review must be undertaken no less than annually.

6.6 Fixed Income

The appropriate trading venue will largely be a function of the venues which the portfolio manager believes display the better liquidity characteristics for the securities in question.

Broadly speaking transactions for fixed income instruments are executed through TradeWeb for government issued securities/rates markets, MarketAxess for corporate bonds/credit with Bloomberg as a back-up venue or to enable access to quotes from brokers who do not provide coverage through the other platforms.

Beyond the use of MTFs to route client orders, other execution venues may include direct 'Over-the-counter' bilateral negotiation, voice trading and transmission of orders to brokers to be executed off venue on market close.

6.7 Currency Derivatives



6.8



Electronic communication networks are generally used to route orders for execution with counterparties either for competitive quote transactions at the current market price, or with the objective of achieving a price as close as possible to the relevant benchmark price e.g. WM Company/ Reuters 4PM benchmark rates '4PM fix'². Due to purposes for which forwards are utilized and the passive management strategy of the majority of portfolios, significantly more volume is executed as aggregated trades using the latter method and benchmark.

These venues offer the ability to trade by both means, the factors for choosing a venue are based on the efficiency and ease of use for the different trading strategies, as well the availability of a competing quotes facility, which is utilized for at market price transactions-experience and analysis of executions does not demonstrate material differences in the competitiveness of execution terms such as price.

Ongoing controls and monitoring

In general, NTGIL will typically endeavor to transact on delivery versus payment (d.v.p.) terms and on the very limited occasions this is not possible will not:

- deliver securities in a sale transaction until payment has been received into custody for such securities, or;
- make payments for securities purchased until the custodian has received such securities.

7. Supervision, monitoring and oversight

- 7.1 Supervision and monitoring occurs at multiple stages of the execution process. NTGIL's internal order management system facilitates numerous checks and reviews with the aim that all trades are valid and can be executed.
- 7.2 As trade executions are received back electronically, the internal order management system will validate such executions and highlight any discrepancies which might require investigation, for example large deviations in price that differ from the expected price.
- **7.3** Quarterly reviews are undertaken by Compliance to monitor execution performance.

NTAM's Compliance team conduct a quarterly review of foreign exchange counterparties performance for competitive trades. The review includes, but is not limited to key performance criteria like a counterparty's response rate to request-for-quotes, their propensity to win RFQs and provide competitive rates, and the number of quotes received for each trade. The NTGIL Commissions and Trading Committee may then decide on any number of actions considering Compliance recommendations, including putting a counterparty on watch, restricting or terminating order flow and removing or

Northern Trust Global Investments Limited | Order Execution Policy
Page 19 of 26





adding counterparties.

7.4 Periodically, NTGIL's Risk and Compliance team shall compare the approved broker list maintained by the NTGIL Commissions and Trading Committee to the list of brokers set up in the various trading systems to determine that transactions can only be executed through approved brokers. Any exceptions on systems and or actual transactions are investigated.

8. Oversight and reporting

- 8.1 Oversight of trading to confirm client orders are being handled and executed in accordance with this policy is the responsibility of the NTGIL Commissions and Trading Committee (NTGIL C&TC), which meets on a quarterly basis.
- 8.2 NTGIL C&TC membership includes the Heads of the trading desk, equity and fixed income portfolio management teams and NTGIL's Chief Executive Officer (CEO). The committee is chaired by NTGIL's Chief Operating Officer (COO).
- 8.3 The NTGIL C&TC will undertake an assessment at least annually of this policy and NTGIL's execution arrangements to assess the quality of executions obtained and assess whether all sufficient steps have been taken to obtain the best possible result for execution of client orders, or to identify any improvements or changes required to arrangements. This may include, without limitation, requiring the addition or removal of a broker or execution venue to/from the approved counterparty list.
- 8.4 Additionally, the committee will undertake a review of NTGIL's order execution arrangements in the event of a material change occurring that may affect the firm's ability to continue to operate in accordance with the policy.
- 8.5 Reports shall be presented to each meeting of the NTGIL C&TC summarising the results of monitoring of execution quality, with findings and if relevant any necessary recommendations.
- **8.6** This Policy will be subject to at least an annual review by the NTGIL C&TC to ensure that:
 - (i) it remains consistent with the execution arrangements deployed by NTGIL, and
 - (ii) consistent with the relevant regulatory requirements applicable to best execution.

All changes proposed must be reviewed by NTGIL C&TC and thereafter recommended to the NTGIL Board for approval.





APPENDIX 1 - List of Counterparties and Execution Venues

In this Appendix we limit the use of 'execution venue' to execution counterparties with whom we may deal orders with.

In respect of equities orders are transmitted to and executed via these counterparties, directly or via their trading facilities. In other asset classes we have included MTFs, OTFs and other types of execution venues which bring market participants together, as this is the route through which we execute transactions with respect to those asset classes for certain transactions.

When dealing client orders NTGIL will only use execution counterparties that form part of the "approved execution venue list" and where NTGIL believes they have the ability to deliver the best possible execution result. An up to date comprehensive list of approved entities is available to clients on request. Orders for NTGIL clients may be transmitted to affiliated entities Northern Trust Investments Inc. or the Northern Trust Company Hong Kong Limited, who also act as agent and adhere to the approved execution venue list.

The following section lists the approved execution venues where client orders will be executed. Please note that this list is subject to change without prior notification.

For FX, in limited circumstance, e.g. restricted currencies where we are unable to obtain a price, or a trade is small in size and would cost more to execute via a broker; we will execute using a client's custodian.

Note also that access to certain regulated markets is achieved through Direct Electronic Access facilities provided by counterparties or via brokers/counterparties that determine whether or not a transaction is conducted under the rules of a regulated market.





Equities/Fixed Income (including cash collateral management)

ACADEMY SECURITIES INC	ABBEY NATIONAL TREASURY SERVICES PLC	ALLIANCEBERNSTEIN INVESTMENTS INC
AMERIVET SECURITIES INC	AMERIPRISE FINANCIAL SERVICES LLC	ANZ SECURITIES INC.
ARBOR RESEARCH & TRADING LLC	APEX CLEARING CORP	ARDENT FINANCIAL LIMITED
B C ZIEGLER AND CO	AUERBACH GRAYSON & COMPANY LLC	B RILEY SECURITIES INC
BANCO SANTANDER SA	BANCO BILBAO VIZCAYA ARGENTARIA SA	BANCO SANTANDER SA (NEW YORK BRANCH)
BANK OF AMERICA NA	BANK OF AMERICA EUROPE DAC	BANK OF MONTREAL
BANK OF NOVA SCOTIA (LONDON BRANCH)	BANK OF NOVA SCOTIA	BANQUE FEDERATIVE DU CREDIT MUTUEL SA
BARCLAYS CAPITAL INC	BARCLAYS BANK PLC	BARCLAYS CAPITAL SECURITIES LTD
BBVA SECURITIES INC	BARCLAYS SECURITIES JAPAN LTD	BCP SECURITIES LLC
BELFIUS BANQUE SA	BCS PRIME BROKERAGE LTD	BGC BROKERS LP
BLACKROCK INVESTMENTS LLC	BGC FINANCIAL LP	BLAYLOCK VAN LLC
BMO CAPITAL MARKETS CORP	BLOOMBERG TRADEBOOK LLC	BNP PARIBAS (LONDON BRANCH)
BNP PARIBAS SA	BNP PARIBAS FINANCIAL MARKETS SNC	BNP PARIBAS SA (PARIS BRANCH)
BNP PARIBAS SECURITIES CORP	BNP PARIBAS SECURITIES (ASIA) LIMITED	BNY MELLON CAPITAL MARKETS LLC
BOFA SECURITIES INC	BOFA SECURITIES EUROPE SA	BOK FINANCIAL SECURITIES INC
BRED BANQUE POPULAIRE	BREAN CAPITAL LLC	BROWNSTONE INVESTMENT GROUP LLC
CABRERA CAPITAL MARKETS LLC	BTIG LIMITED	CANACCORD GENUITY LLC
CANADIAN IMPERIAL BANK OF COMMERCE (LONDON BRANCH)	CANADIAN IMPERIAL BANK OF COMMERCE	CANTOR FITZGERALD & CO
CF SECURED LLC	CASTLEOAK SECURITIES LP	CHARLES SCHWAB & CO INC
CIBC WORLD MARKETS PLC	CIBC WORLD MARKETS CORP.	CITADEL SECURITIES LLC
CITIBANK NA	CITIBANK INTERNATIONAL LTD	CITIBANK NA (LONDON BRANCH)
CITIGROUP GLOBAL MARKETS INC	CITIC SECURITIES CO LTD	CITIGROUP GLOBAL MARKETS LIMITED
CL KING & ASSOCIATES INC	CITIZENS CAPITAL MARKETS INC	CLARKSONS SECURITIES INC
CLSA GLOBAL MARKETS PTE LTD	CLSA (UK)	CLSA LTD
COMERICA SECURITIES INC	COLLIERS SECURITIES LLC	COMMERZBANK AG
COMMONWEALTH BANK OF AUSTRALIA	COMMONWEALTH AUSTRALIA SECURITIES LLC	COOPERATIEVE RABOBANK UA
COWEN AND CO LLC	COOPERATIEVE RABOBANK UA (LONDON BRANCH)	CREDIT AGRICOLE CIB (GRAND CAYMAN)





CREDIT AGRICOLE CORPORATE	CREDIT AGRICOLE CORPORATE	CREDIT AGRICOLE SA (LONDON BRANCH)
AND INVESTMENT BANK SA	AND INVESTMENT BANK (LONDON BRANCH)	ONEDIT AGNIGOLE GA (LONDON BILANGII)
CREWS & ASSOCIATES INC	CREDIT AGRICOLE SECURITIES (USA) INC	CROSS POINT CAPITAL LLC
DAIWA CAPITAL MARKETS AMERICA INC	DA DAVIDSON & CO	DAIWA CAPITAL MARKETS EUROPE LTD
DANSKE BANK A/S (LONDON BRANCH)	DANSKE BANK A/S	DAVENPORT & COMPANY LLC
DEUTSCHE BANK AG	DBS BANK LTD	DEUTSCHE BANK SECURITIES INC
DNB MARKETS	DIRECT	DREXEL HAMILTON LLC
DZ BANK AG DEUTSCHE ZENTRAL GENOSSENSCHAFTSBANK FRANKFURT AM MAIN	DRW EUROPE B.V.	E TRADE SECURITIES LLC
EXANE BNP PARIBAS	ERSTE GROUP BANK AG	FEDERAL FARM CREDIT BANKS FUNDING CORP
FHN FINANCIAL SECURITIES CORP	FEDERAL HOME LOAN MORTGAGE CORPORATION	FIFTH THIRD SECURITIES INC
FIS BROKERAGE & SECURITIES SERVICES LLC	FIRST TRYON SECURITIES LLC	FLOW TRADERS BV
FLOW TRADERS U.S. INSTITUTIONAL TRADING LLC	FLOW TRADERS NV	FLOW TRADERS US LLC
FOR PROCREATE - DO NOT USE	FMSBONDS INC	GENESIS GLOBAL TRADING INC
GOLDMAN SACHS INTERNATIONAL	GOLDMAN SACHS & CO LLC	GUGGENHEIM SECURITIES LLC
HAITONG INTERNATIONAL (UK) LTD	GUZMAN & COMPANY	HERBERT J SIMS & CO INC
HM TREASURY UK SOVEREIGN SUKUK PLC	HILLTOP SECURITIES INC	HSBC BANK PLC
HUNTINGTON NATIONAL BANK (THE)	HSBC SECURITIES (USA) INC	ICAP SECURITIES USA LLC
IMPERIAL CAPITAL LLC	ICE BONDS SECURITIES	INDUSTRIAL AND COMMERCIAL BANK OF
INC DANK NV (AMCTEDDAM	CORPORATION	CHINA LTD ING FINANCIAL MARKETS LLC
ING BANK NV (AMSTERDAM BRANCH)	ING BANK NV	ING FINANCIAL MARKETS LLC
INSTINET EUROPE LIMITED	INSPEREX LLC	INSTINET LLC
ITAU COLOMBIA SA	INTERACTIVE BROKERS LLC	JANE STREET CAPITAL LLC
JANE STREET FINANCIAL LTD	JANE STREET EXECUTION SERVICES LLC	JANNEY MONTGOMERY SCOTT LLC
JEFFERIES LLC	JEFFERIES INTERNATIONAL LTD	JP MORGAN CAZENOVE LIMITED
JP MORGAN SECURITIES PLC	JP MORGAN SECURITIES LLC	JPMORGAN CHASE BANK NA
KBC BANK (LONDON BRANCH)	JVB FINANCIAL GROUP LLC	KBC BANK NV
KEYBANC CAPITAL MARKETS INC	KEEFE BRUYETTE & WOODS INC	LA BANQUE POSTALE
LIQUIDNET EUROPE LIMITED	LA BANQUE POSTALE(PARIS BRANCH)	LIQUIDNET INC
LLOYDS SECURITIES INC	LLOYDS BANK PLC	LOOP CAPITAL MARKETS LLC





LUMENT OF CURITIES LLS	LIBI EINIANIOIAL LLO	MAT OF OUR DITIES IN IS
LUMENT SECURITIES LLC	LPL FINANCIAL LLC	M&T SECURITIES INC
MACQUARIE CAPITAL (EUROPE) LIMITED	MACQUARIE BANK LTD	MACQUARIE CAPITAL (USA) INC
MACQUARIE CAPITAL SECURITIES LIMITED - HONG KONG	MACQUARIE CAPITAL SECURITIES (SINGAPORE) PTE LTD	MACQUARIE SECURITIES (AUSTRALIA) LIMITED
MARKETAXESS CORPORATION	MARKETAXESS CAPITAL LTD	MARKETAXESS EUROPE LTD
MERRILL LYNCH INTERNATIONAL	MAXIM GROUP LLC	MERRILL LYNCH PIERCE FENNER & SMITH INC
MILLENNIUM ADVISORS LLC	MESIROW FINANCIAL INC	MIRAE ASSET SECURITIES CO LTD
MIZUHO BANK LTD	MISCHLER FINANCIAL GROUP INC	MIZUHO INTERNATIONAL PLC
MORGAN STANLEY & CO INTERNATIONAL PLC	MIZUHO SECURITIES USA LLC	MORGAN STANLEY & CO LLC
MUFG BANK LTD (LONDON BRANCH)	MORGAN STANLEY SECURITIES LTD	MUFG SECURITIES AMERICAS INC
MURIEL SIEBERT & CO INC	MUFG SECURITIES EMEA PLC	MUTUAL FUND TRADE
NATIONAL AUSTRALIA BANK LIMITED (SYDNEY BRANCH)	NATIONAL ALLIANCE SECURITIES CORPORATION	NATIONAL AUSTRALIA BANK LTD
NATIONAL BANK FINANCIAL INC (UK BRANCH)	NATIONAL AUSTRALIA BANK LTD (NEW YORK BRANCH)	NATIONAL BANK OF CANADA FINANCIAL INC
NATIXIS (PARIS BRANCH)	NATIONAL FINANCIAL SERVICES LLC	NATIXIS SECURITIES AMERICAS LLC
NATWEST MARKETS PLC	NATWEST MARKETS NV	NATWEST MARKETS SECURITIES INC
NOMURA SECURITIES INTERNATIONAL INC	NOMURA INTERNATIONAL PLC	NOMURA SINGAPORE LTD
NORTH SOUTH CAPITAL LLC	NORDEA BANK ABP	NORTHERN TRUST SECURITIES INC
ODEON CAPITAL GROUP LLC	NUVEEN SECURITIES LLC	OLD MISSION MARKETS LLC
OPS BROKER - TENDER AGENT	OPPENHEIMER & CO INC	PEEL HUNT LLP
PERFORMANCE TRUST CAPITAL PARTNERS LLC	PENSERRA SECURITIES LLC	PERSHING LLC
PNC CAPITAL MARKETS LLC	PIPER SANDLER & CO	PRUDENTIAL FUNDING LLC
RABO SECURITIES USA INC	R SEELAUS AND CO LLC	RAYMOND JAMES & ASSOCIATES INC
RBC CAPITAL MARKETS LLC	RAYMOND JAMES FINANCIAL INC.	RBC DOMINION SECURITIES INC
RICE SECURITIES LLC	RBC EUROPE LTD	ROBERT W BAIRD & CO INCORPORATED
ROOSEVELT & CROSS INCORPORATED	ROBERTS AND RYAN INVESTMENTS INC	ROYAL BANK OF CANADA (LONDON BRANCH)
ROYAL BANK OF CANADA (TORONTO BRANCH)	ROYAL BANK OF CANADA (NEW YORK BRANCH)	RUSSELL IMPLEMENTATION SERVICES INC
SAMUEL A RAMIREZ & COMPANY INC	RW PRESSPRICH & CO	SANFORD C BERNSTEIN & CO LLC
SCOTIA CAPITAL USA INC	SANTANDER US CAPITAL MARKETS LLC	SEAPORT GLOBAL SECURITIES LLC
SG SECURITIES (HK) LIMITED	SG AMERICAS SECURITIES LLC	SIEBERT WILLIAMS SHANK & CO LLC





SKANDINAVISKA ENSKILDA BANKEN AB (PUBL) (LONDON BRANCH)	SKANDINAVISKA ENSKILDA BANKEN AB	SMBC NIKKO CAPITAL MARKETS LIMITED
SOCIETE GENERALE (NEW YORK BRANCH)	SMBC NIKKO SECURITIES AMERICA INC	SOCIETE GENERALE SA
SOCIETE GENERALE SA (PARIS BRANCH)	SOCIETE GENERALE SA (LONDON)	STANDARD CHARTERED BANK (SINGAPORE) LTD
STATE STREET GLOBAL MARKETS LLC	STANDARD CHARTERED PLC	STEPHENS INC.
STIFEL NICOLAUS & CO INC	STERN BROTHERS & CO	STONEX FINANCIAL INC
SUMRIDGE PARTNERS LLC	SUMITOMO MITSUI BANKING CORPORATION	SUSQUEHANNA FINANCIAL GROUP LLLP
SVENSKA HANDELSBANKEN AB	SUSQUEHANNA INTERNATIONAL SECURITIES LIMITED	TD AMERITRADE INC
TD SECURITIES AUTOMATED TRADING LLC	TD SECURITIES (USA) LLC	THORNTON FARISH INC
TOKYO TANSHI CO LTD	TIGRESS FINANCIAL PARTNERS LLC	TORONTO-DOMINION BANK (LONDON BRANCH)
TP ICAP BROKING LIMITED	TOYOTA MOTOR CREDIT CORP	TP ICAP GLOBAL MARKETS AMERICAS LLC
TRADEWEB DIRECT LLC	TP ICAP MARKETS LIMITED	TRADEWEB EXECUTION SERVICES LTD
TRADITION SECURITIES AND DERIVATIVES INC	TRADITION LONDON CLEARING LIMITED	TRIBAL CAPITAL MARKETS LLC
TRUMID FINANCIAL LLC	TRUIST SECURITIES INC	TULLETT PREBON EUROPE LTD
UBS AG	TULLETT PREBON FINANCIAL SERVICES LLC	UBS AG (LONDON BRANCH)
UBS FINANCIAL SERVICES INC	UBS EUROPE SE	UBS SECURITIES CO LTD
UEDA YAGI TANSHI CO LTD	UBS SECURITIES LLC	UMB BANK NA
UNICREDIT BANK GMBH	UMB FINANCIAL CORPORATION	UNITED OVERSEAS BANK LTD (LONDON BRANCH)
US BANCORP INVESTMENTS INC	US BANCORP	US BANK MUNICIPAL SECURITIES GROUP
VIRTU AMERICAS LLC	VINING-SPARKS IBG LP	VIRTU EUROPE TRADING LTD
WEDBUSH SECURITIES INC	WALL STREET ACCESS LLC	WELLS FARGO CLEARING SERVICES LLC
WELLS FARGO SECURITIES LLC	WELLS FARGO SECURITIES INTERNATIONAL LTD	WESTPAC CAPITAL MARKETS LLC
ZIONS BANCORPORATION NATIONAL ASSOCIATION	WILLIAM BLAIR & COMPANY LLC	





Foreign-exchange counterparties

	T	
BARCLAYS CAPITAL INC	JPMORGAN CHASE BANK NA	FXALL
BARCLAYS BANK PLC	STATE STREET CUSTODY	FX CONNECT
BMO CAPITAL MARKETS CORP	GOLDMAN SACHS & CO	NORTHERN TRUST CORPORATION
BMO CAPITAL MARKETS CORP	GOLDMAN SACHS INTERNATIONAL	NORTHERN TRUST COMPANY (THE)
BNP PARIBAS SECURITIES CORP.	JP MORGAN SECURITIES LLC	SOCIETE GENERALE
BNP PARIBAS SA (LONDON BRANCH)	JP MORGAN CLEARING CORP	SOCIETE GENERALE SA
BNP PARIBAS PRIME BROKERAGE INC	JP MORGAN SECURITIES LTD	SOCIETE GENERALE SA LDN
BNY MELLON CAPITAL MARKETS LLC	MUFG SECURITIES AMERICAS INC	TD SECURITIES (USA) LLC
BNY MELLON CAPITAL MARKETS INTL LLC	MIUFJ - MITSUBISHI UFJ TRUST BANK	TORONTO DOMINION SECURITIES
CITIGROUP GLOBAL MARKETS INC.	MORGAN STANLEY & CO LLC	UBS SECURITIES LLC
CITIGROUP GLOBAL MARKETS LIMITED	MORGAN STANLEY & CO INTL PLC	UBS EUROPE SE

Multilateral Trading Facilities for Foreign-exchange (including FX forwards)

FX All

FX Connect

Multilateral Trading Facilities for Fixed Income

Tradeweb MarketAxess Bloomberg MTF Trumid