GOLDMAN SACHS ASSET MANAGEMENT EMEA POLICY ON BEST EXECUTION

Applicability: All GOLDMAN SACHS ASSET MANAGEMENT INTERNATIONAL, GOLDMAN SACHS ASSET MANAGEMENT BV, GOLDMAN SACHS ASSET MANAGEMENT TOWARZYSTWO FUNDUSZY INWESTYCYJNYCH, GOLDMAN SACHS ASSET MANAGEMENT BELGIUM S.A.

I. OVERVIEW

A. Purpose

This document explains Goldman Sachs Asset Management EMEA's ("AM EMEA") execution and order handling policy and is drafted in accordance with the regulatory requirements set out in the Markets in Financial Instruments Directive 2014/65/EU and related secondary and implementing legislation, including without limitation the MiFID II Delegated Regulation 2017/565 ("MiFID II"), as implemented in the relevant National Competent Authority¹ (NCA) handbooks, regulations and the relevant statutory law.

B. Introduction

This policy summarizes how AM EMEA seeks to achieve best execution for its clients, and includes the following information:

- AM EMEA's approach to client order execution;
- the execution venues on which AM EMEA places significant reliance in meeting its obligation to take all sufficient steps to seek to achieve on a consistent basis the best possible result for the execution of client orders;
- the critical factors affecting the approach to client order execution and the relative importance that AM EMEA gives to these critical execution factors; and
- AM EMEA's approach to monitoring its execution arrangements and this execution policy.

C. Scope

1. Activities

AM EMEA will owe a duty to obtain the best possible execution result for its client ("best execution"), and therefore this policy will apply, in the following scenarios:

- when AM EMEA is providing the service of portfolio management and either executes or places orders with third parties for execution, that result from decisions by AM EMEA to deal in financial instruments on behalf of its clients; or
- when AM EMEA receives an order and transmits it to another entity for execution or

¹ E.g. Financial Conduct Authority and Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin), Autoriteit Financiële Markten (AFM), Financial Services and Market Authority (FSMA)

executes it itself.

Where a duty of best execution is owed, in accordance with MiFID II and COBS, AM EMEA will take all sufficient steps to obtain the best possible result for its clients (both when executing or placing/transmitting orders for execution), taking into account the execution factors set out in Section III.

2. Clients

As of the date of this policy, all of AM EMEA's clients are categorised as Professional Clients and the policy addresses AM EMEA's obligations in respect of this category of clients only.

3. Instruments

AM EMEA directly manages client assets across multiple asset classes and the following of these (and specific desks, where relevant) are, at the date of this policy, covered by this policy²:

- Equity instruments
- Debt instruments (bonds and money market instruments);
- Interest rate derivatives (futures and options admitted to trading on a trading venue)
- Credit derivatives (futures and options admitted to trading on a trading venue and other credit derivatives)
- Currency derivatives (futures and options admitted to trading on a trading venue, swaps, forwards and other currency derivatives)
- Structured finance instruments
- Securitised derivatives (warrants and certificate derivatives and other securitised derivatives)
- Exchange traded products (exchange traded funds, exchange traded notes and exchange traded commodities)
- Commodities derivatives [and emission allowances derivatives] (futures and options admitted to trading on a trading venue, other commodities derivatives [and emission allowances derivatives])
- Other instruments (including hybrid instruments such as preferred shares)

D. Delegation Arrangements

AM EMEA may delegate all or part of the discretionary management of a client portfolio (including delegation to GSAM affiliates).

Where AM EMEA delegates discretionary management of a client portfolio to an affiliate or a non-affiliate, it will ensure that such delegation is permitted in its contractual arrangements with the client and is in accordance with all legal and regulatory requirements. Any such delegate may be subject to the rules of a regulator in the jurisdiction of the delegate (including a jurisdiction outside the European Economic Area ("EEA")) and not be subject to the relevant NCA rules or MiFID II and may not be required to maintain an order execution policy. For the avoidance of doubt, in cases where AM EMEA is the relevant delegate of GSBE, AM EMEA will observe all rules and regulations stipulated by MiFID II.

² This policy applies to all groups within AM EMEA, including Alternative Investment Strategies.

In such circumstances, AM EMEA takes all sufficient steps³ to obtain substantively equivalent outcomes to the MiFID II best execution standards and to ensure that the service provided to its client is performed in accordance with the best interests of the client. AM EMEA also takes all sufficient steps to ensure that its selection of the delegate and the overall management of the portfolio continue to meet these standards.

Further, AM EMEA ensures that any such delegation shall be governed by the terms of a service provider agreement between AM EMEA and the delegate, by virtue of which the delegate will be responsible to AM EMEA for the performance of its obligations.

II. ORDER MANAGEMENT AND HANDLING

1. General Considerations

The execution process encompasses steps from the order decision or, if applicable, order receipt to the final settlement to facilitate competitive performance and represents a strategy designed to obtain the best possible result for the client.

AM EMEA places or executes orders with a wide variety of execution venues and brokers, both affiliates (where permitted by regulation and client mandates) and non-affiliates, and whether domiciled in the EEA or not.

Liquidity Assessment

In addition to this policy, AM EMEA, as part of its portfolio management function, shall give due consideration to:

- requirements in relation to liquidity assessments under Article 47 of AIFMD (where the client's portfolio is in scope of AIFMD); and
- the quantitative and qualitative risks of existing positions and the impact of the intended investments on the liquidity profile of the accounts.

2. Order Handling

Where AM EMEA handles client's orders either on a client's behalf or as part of its portfolio management activities, it must ensure that orders are:

- executed promptly;
- accurately recorded and allocated; and
- executed sequentially unless the characteristics of the order or prevailing market conditions make this impracticable, or the interests of the client require otherwise.

³ Sufficient Steps include but are not limited to, the execution of written agreements outlining the respective rights and obligations including rights of information, the protection of confidential information, inspection, admittance and access and monitoring rights in order to ensure effective supervision of the delegates' activities. For GSBE the Minimum Requirements for Risk Management (*MaRisk*) AT 9 and Section 25b German Banking Act applying addition to Art. 30, 31 Delegated Regulation 2017/565. AM also establishes methods and procedures for reviewing on an on-going basis the services provided by the delegate.

3. Aggregation and Allocation

AM EMEA's order handling may involve the aggregation of orders of different clients. Where orders are aggregated this will occur in accordance with the relevant NCA rules and records will be maintained as required by those Rules. The executed orders are allocated to clients fairly and proportionately in accordance with the respective AM EMEA's Trade Aggregation and Allocation policies.

III. EXECUTION FACTORS AND EXECUTION VENUES

When taking all sufficient steps to obtain the best possible execution results for its clients, AM EMEA applies different execution methodologies depending on the relevant asset class.

This section describes the policies and factors considered generally and for each asset class specifically.

The overall driver for AM EMEA in the individual asset class execution is to obtain the best possible result for the client on a consistent basis.

1. Execution Factors

AM EMEA takes into account a range of factors in deciding how and where to execute client orders, including, but not limited to:

- price;
- costs;
- timing and speed of execution;
- likelihood of execution, clearance and settlement;
- capabilities in execution, clearance and settlement;
- size;
- liquidity in or with a broker;
- nature of the order;
- nature of the instrument (e.g. bespoke or standardized); or
- other appropriate factors, such as a broker's willingness to commit capital and the availability of external venues for the order or a particular product.

In determining the relative importance of factors considered, AM EMEA takes into account:

- the nature of client orders, including where the order involves a Securities Financing Transaction;
- the characteristics of the financial instruments to which the order relates; and
- the characteristics of the available execution venues which can be used or to which can be directed.

In addition, although different execution strategies are used on a trade-by-trade basis (dependent on factors such as market conditions, liquidity, investment strategy and client

guidelines), the ranking of the execution factors will often be determined by investment objectives for the strategy, the type of product to be traded, the rationale for the trade (e.g. cash flow or change in analyst view) and other appropriate considerations.

When executing OTC products, including bespoke products, AM EMEA checks the fairness of the price proposed, by gathering market data used in the estimation of the price of such product and, where possible, by comparing with similar or comparable products.

2. Client specific instructions

In the case where a client gives a specific instruction to AM EMEA, this policy will not be applied for those aspects of the execution relating to the specific instructions, and AM EMEA will be deemed to have satisfied the obligation to provide the client with best execution in relation to the relevant part of the transaction to which the specific instruction relates. The remaining portion of that order not covered by such instructions may still be applicable for best execution in accordance with the criteria and steps set out in this policy.

Specific instructions from a client may prevent AM EMEA from taking the steps 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 specific instructions.

3. Selection of execution venues and brokers

Under MiFID II, the term "execution venue" is used to describe:

- Systematic Internalisers (SIs);
- Multilateral Trading Facilities (MTFs);
- Organised Trading Facilities (OTFs);
- Regulated Markets;
- Counterparties acting as liquidity providers or market makers (including affiliates dealing as principal) e.g., a counterparty willing to purchase a security held on behalf of a AM Public EMEA client; or
- an entity that performs a similar function in a non-EEA country to functions performed by any of the foregoing.

AM EMEA may also from time to time place orders with brokers (that may or may not be execution venues) which will interact with execution venues to execute the relevant orders.

AM EMEA will not unfairly discriminate between execution venues (when executing orders itself) or brokers (when it transmits or places orders with third parties for execution), but will make a decision based on a consideration of the execution factors and where relevant other qualitative factors, relating to a broker or an execution venue's characteristics (such as any clearing schemes, circuit breakers or scheduled auctions on the execution venue) and other considerations relevant to the trade or the venue/broker.

A current list of execution venues on which AM Public EMEA places significant reliance in meeting its obligation to take all sufficient steps to obtain, on a consistent basis, the best possible result for execution of client orders can be found in Annex A and Annex B.

4. Trading obligations in shares and derivatives

Where AM EMEA or a MiFID broker it places orders with, "undertake" trades in shares admitted to trading on a Regulated Market or traded on a Trading Venue, MiFID II obliges them to execute these trades on a Regulated Market, MTF, SI or equivalent third-country trading venue only, unless those trades are out of scope for such obligation pursuant to Article 23 MiFIR.

Additionally, AM EMEA's clients may be subject to the obligation in Article 28 MiFIR to trade certain derivatives on a Regulated Market, MTF, OTF or equivalent third-country trading venue only.

Where these mandatory trading obligations (or other similar obligations in the jurisdiction where the client's trade is executed or the broker is located) apply to trades AM EMEA executes or places with third-parties for execution, the best possible execution result for the client shall be achieved in compliance with these obligations (and any venues that don't meet these obligations would have to be excluded from the best execution assessment to ensure compliance with applicable laws).

5. Execution of trades outside of a Regulated Market, MTF or OTF

AM EMEA, or third-party brokers it places client orders with, may execute all or part of client orders outside of a Regulated Market, MTF or OTF where permitted under the agreement with its client and where the client has consented to the trading being done outside of these venues. Such trades may be undertaken on similar non-EEA exchanges / trading platforms or over-the-counter (OTC) with brokers and other liquidity providers.

Although AM EMEA will take all sufficient steps to obtain the best possible execution results for its clients when executing trades OTC, please note that there are certain risks associated with OTC trading. Transactions that are executed OTC will not be subject to the rules of Trading Venues, which are designed to provide for the fair and orderly treatment of orders and facilitate price transparency (although trades with certain OTC counterparties such as SIs may be subject to similar requirements). Additionally, OTC transactions may be subject to increased counterparty risk and settlement risk, as these trades will not be covered by the clearing and settlement rules of the relevant Trading Venue and Central Counterparty (CCP).

In the absence of a specific alternative arrangements AM EMEA will trade for all clients on RM, MTF and OTF where it is in line best interest of the clients to do so.

IV. EXECUTION BY ASSET CLASS

1. Fixed Income

Fixed income transactions are either executed directly by AM Public EMEA with or on an execution venue or passed to brokers for execution.

Execution on Trading Venues and other platforms enabling price discovery

Within the EEA, Regulated Markets, MTFs, OTFs and Systematic Internalisers will generally provide transparency on bids/offers placed through their systems and outside of Europe, similar

trading platforms or online, auction-type venues (*e.g.*, MarketAxess, Tradeweb, "BWIC"/"OWIC"⁴ functions) will provide market transparency and/or provide the opportunity for simultaneous, competitive bids/offers which enable price discovery. These venues typically are the preferred venues in which to effect fixed income transactions.

In general, use of these venues essentially performs the price discovery function⁵ and enables firms to seek the best price, by initiating competition among multiple independent third parties.

However, online, auction-type venues are generally believed not to be appropriate for transactions above a certain size because the exposure of trade data may adversely affect the relevant market and inadvertently compromise the ability to obtain the best result available in the transaction.

Fixed income transactions also may be executed by AM Public EMEA on directly accessed execution venues, including MTFs and OTFs or with brokers that are SIs.

Price discovery/evaluation

For transactions that are not executed using the aforementioned platforms or with SIs obliged to give price transparency, AM Public EMEA will use reasonably available and relevant sources of price discovery, including, but not limited to, market transaction prices (*e.g.*, TRACE data) on historical or comparable financial instruments; quotes for, or yields on, historical or a comparable financial instrument; third party pricing vendor prices (viewed with current day market color) and external or internal pricing models, to establish the best price.

Quotes generally should be obtained from more than one counterparty as part of the price discovery process; however, that is not always possible or desirable to do so. When there are multiple potential counterparties for a transaction that can be contacted without adversely affecting the relevant market and inadvertently compromising the ability of AM Public EMEA to obtain the best price available, quotes will be obtained from multiple counterparties.

However, that is not always possible or desirable, for example in certain less liquid markets, attempting to obtain multiple quotes could have a negative impact on obtaining best execution. Additionally, for certain transactions, there may be only one potential counterparty and therefore obtaining multiple quotes is not possible.

AM Public EMEA will consider whether multiple quotes can or should be obtained depending on the instrument type, the specific instrument to be traded, the availability of execution venues, the size of the transaction and the prevailing market conditions.

2. Liquidity Management

⁴ "Bids wanted in competition"/"Offers wanted in competition"

⁵ "Price discovery" as used herein generally refers to the process of determining the appropriate price of an asset in the marketplace through the interactions of buyers and sellers or other data relevant to determining the appropriate price at which AM Public should seek to buy or sell a particular security or financial instrument.

Liquidity management trading is similar to fixed income trading, described above.

Due to the volumes in which AM Public EMEA typically executes liquidity management transactions, a single broker or counterparty may be approached for a trade on the basis of the broker's or counterparty's suitability for that transaction, depending on a particular execution strategy according to factors prevailing at the time of the trade.

Money market instruments

Transactions in money market instruments typically are executed as described above for other fixed income securities.

Key criteria in selecting a broker or execution venue for money market transactions will generally include, as applicable:

- ability to source money market instruments for purchase;
- ability to provide liquidity for sales of money market instruments;
- speed of execution;
- creditworthiness; and
- ability to deal in very large volumes.

Securities Financing Transactions

Transactions under repurchase agreements and reverse repurchase agreements are executed with funding counterparties and brokers. Generally, yield/interest rate will be one of the most important execution factors.

Key criteria in selecting a counterparty or broker for funding transactions will generally include, as applicable:

- ability to agree to transaction terms, including yield/interest rate and applicable margin/haircuts;
- ability to provide stability in financing;
- creditworthiness;
- ability to deal in very large volumes; and
- counterparty exposure limits.

3. Currency

Currency trading is similar, to fixed income trading, described above. Spot foreign currency exchange transactions and OTC derivatives generally are executed directly with brokers, however exchange traded derivatives are executed through brokers. Due to volumes in which AM EMEA typically executes currency transactions, a single broker or counterparty may be approached for a trade on the basis of the broker's or counterparty's suitability for that transaction, depending on a particular execution strategy according to factors prevailing at the time of the trade.

4. Equity

AM EMEA and its affiliates have put in place systems and controls to ensure the independence and quality of execution on equity trades. In accordance with GSAM Best Execution Policy, its affiliates shall aim to obtain the best possible execution result for its clients, when executing their orders or transmitting them to third parties for execution. The best possible execution results shall be determined by reference to a number of execution factors e.g. price, costs, speed, likelihood of execution etc.

5. Asset Classes Traded by AM Private EMEA

AM Private EMEA and its affiliates shall aim to obtain the best possible execution result for its clients, when executing their orders or transmitting them to third parties for execution. The best possible execution results shall be determined by reference to a number of execution factors e.g., price, costs, speed, likelihood of execution etc.

There may be situations where obtaining multiple quotes may not be possible due to:

- the liquidity of the market for a given security/position; and
- willingness for counterparties to trade with GS employee funds (e.g. credit risk analysis)

V. APPROVAL AND MONITORING

AM EMEA monitors the effectiveness of this policy in various ways. Multiple parties including the Best Execution Committee, IMD Risk Management, AM EMEA Compliance and the trading desks all participate in a process designed to monitor execution quality. A range of data is used to monitor execution quality on a quantitative basis, including tick, trade and market data. Qualitative monitoring is also undertaken for example, with regard to promptness of response and overall levels of service.

A. Execution venue approval process

AM Public EMEA has a process for the selection of (i) execution venues (including brokers), with whom or where it executes client orders, and (ii) brokers, with whom it places or transmits client orders for execution and AM Public EMEA maintains a list of approved execution venues and brokers (the "Approved List").

The specific qualitative criteria to add an execution venue or broker to the Approved List varies based on the asset class to be traded, but the overall approval process is applied in the same manner across all asset classes. AM Public EMEA does not conduct any activity with a new execution venue or broker until the screening and approval process has been completed.

The criteria to add an execution venue or broker to the Approved List is generally based on evaluation of a number of quantitative and qualitative factors that may include (as applicable), but are not limited to, AM Public EMEA's analysis of the broker or execution venue's:

- competitiveness of commission rates or spreads;
- promptness of execution;
- clearance and settlement capabilities;
- quality of service;
- willingness to commit capital;
- creditworthiness;
- reputation; and
- financial stability

B. Approved List

AM Public EMEA mitigates counterparty credit risk by only transacting with counterparties included on the Approved List.

For example, for certain transactions, AM Public EMEA will only transact with counterparties on the Approved list where ISDA Master Agreements or similar agreements are in place.

C. Monitoring of approved execution venues and brokers

All brokers and other execution venues undergo ongoing negative media and sanctions screening (which may include disciplinary actions, criminal proceedings or reputational issues), conducted by the AML Suspicious Activities Group. The AML Suspicious Activities Group, in conjunction with IMD Risk Management and/or AM Public EMEA Compliance, will determine appropriate steps to manage any potential risk, including possible removal from the Approved List and termination of the trading relationship. Some brokers and execution venues will require a Credit, Risk, Management, Advisory (CRMA) review and approval (specifically <u>non-DVP</u> <u>brokers)</u> in order to be added to the Approved List. They will be subject to periodic ongoing credit analysis by CRMA.

D. Monitoring quality of execution

AM EMEA's Best Execution Committee (BEC), Risk Management Team and the AM EMEA Compliance Function all participate in a process designed to regularly monitor directly and indirectly execution quality in order to correct any deficiencies and to review execution venues and brokers used in trading.

The process varies by asset type and instrument type (within each asset class) based on, among other considerations, reasonably available relevant information used to monitor execution and competing brokers.

The BEC has oversight and supervision of the brokerage allocation process. It meets quarterly and reviews best execution reports, commission activity, counterparties, internal trading issues and industry best practice. The BEC is comprised of senior management from several areas of AM EMEA including: Risk, Trading, Portfolio Management, Legal and Compliance.⁶

E. Prohibited practices

With respect to the selection of brokers, the following practices are prohibited:

- trades may not be directed in return for error corrections by a broker;
- trades may not be directed in return for suggested preferential treatment in security offerings or placements;
- trades may not be directed in return for gifts and/or entertainment;
- receipt of third-party payments or benefits save to the extent that they comply with Article 24(8) and 24(9), as applicable, of MiFID II and other applicable NCA rules and AM EMEA provides clients with appropriate information about the benefits that AM EMEA may receive from such third parties; and

⁶ GSAM BV's Best Execution Committee reports into the AM EMEA's Best Execution Committee

 trades may not be directed in return or recognition for client referrals (separate accounts or sale of fund shares) or for "shelf space" in accordance with Rule 12b-1(h) under the U.S. Investment Company Act of 1940; cash payments in recognition of referrals are governed by Rule 206(4)-3 under the U.S. Investment Advisers Act.

In addition, the following policies apply to minimize or eliminate conflicts.

 The use of a broker or an execution venue the operator of which is an affiliate of AM EMEA or, in the case of sub-advised funds, an affiliate of the sub-adviser to such funds, may be subject to client and legal restrictions. Such restrictions may arise under applicable securities or other laws, or may be imposed directly by clients. Based on the jurisdiction, type of account and security traded on a desk-by-desk and account-byaccount basis, the decision to place trades with Goldman Sachs International or any applicable affiliate on an agency or principal basis may require approval in advance by AM EMEA Legal and Compliance.

F. Record keeping

AM EMEA stores the records of telephone conversations and electronic communications for at least five years from their creation in accordance with current NCA rules, or where the relevant NCA has requested for them to be kept for a longer period, for a period of seven years from their creation. A copy of such records will be available to clients on request.

VI. REVIEW OF AM EMEA'S EXECUTION POLICY

AM EMEA reviews this execution policy and its order execution arrangements at least annually, as well as whenever a material change occurs that affects its ability to continue to obtain the best possible result for the execution of orders on a consistent basis.

If there is a material change in AM EMEA's execution arrangements, AM EMEA will notify clients to make them aware of the change and make the updated policy available at http://www.goldmansachs.com/mifid/

GLOSSARY OF TERMS

1. MiFID II

The European Parliament and Council Directive on markets in financial instruments (No. 2014/65/EU) and related secondary and implementing legislation, including without limitation the MiFID II Delegated Regulation 2017/565.

2. MiFIR

Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and all secondary and implementing legislation.

3. Multilateral Trading Facility, or "MTF"

A multilateral system, operated by an investment firm or a market operator, which brings together multiple third party buying and selling interests in financial instruments - in the system and in accordance with non-discretionary rules - in a way that results in a contract in accordance with Title II of MiFID II.

4. Organised Trading Facility, or "OTF"

A multilateral system which is not a Regulated Market or an MTF and in which multiple third party buying and selling interests in bonds, structured finance products, emission allowances or derivatives are able to interact in the system in a way that results in a contract in accordance with Title II of MiFID II.

5. Professional Client

Professional Clients are considered to possess the experience, knowledge and expertise to make their own investment decisions and assess the risks inherent in their decisions. A client meeting the criteria laid down in Annex II of MiFID II (broadly speaking this means regulated entities, large undertakings, national or regional governments, public bodies that manage public debt at national or regional level, central banks, international and supranational institutions and other institutional investors whose main activity is to invest in financial instruments) is considered to be a Professional Client. Certain regional Governments will not be de facto Professional and there will be an additional opt up process that will need to be undertaken in order to be eligible for the provision in discretionary investment management services.

6. Regulated Market

A multilateral system operated and/or managed by a market operator, which brings together or facilitates the bringing together of multiple third party buying and selling interests in financial instruments - in the system and in accordance with its non-discretionary rules - in a way that results in a contract, in respect of the financial instruments admitted to trading under its rules and/or systems, and which is authorized and functions regularly and in accordance with Title III of MiFID II.

7. Systematic Internaliser, or "SI"

An investment firm which, on an organised, frequent and systematic basis, deals on its own account when executing client orders outside a Regulated Market, an MTF or an OTF without operating a multilateral system.

8. Securities Financing Transaction (includes repurchase agreements, stock loan, margin, borrow)

Securities financing transactions (SFTs) are transactions where securities are used to borrow cash (or other higher investment-grade securities), or vice versa – this includes repurchase transactions, securities lending and sell/buy-back transactions.

AM Public EMEA may use the following execution venues when seeking best execution as defined by MiFID II. This list may be subject to changes and may be revised from time to time. In exceptional circumstances, AM Public EMEA may use execution venues not on the Approved List (for example, using a broker on a provisional basis or where the instrument to which the order relates is particularly unusual) and remove any brokers from the Approved List. In addition, AM Public EMEA will add and remove brokers to and from the Approved List in accordance with its regular practices as described in the execution policy. This Annex A may not reflect such additions and removals until the next update of the execution policy, which may be in connection with the annual review described in the execution policy. Brokers are listed at their entity level; however, AM Public EMEA may contract with subsidiaries of these group firms.

Fixed Income
A.G.P. / ALLIANCE GLOBAL PARTNERS CORP.
ABSA GROUP LIMITED
ACADEMY SECURITIES, INC.
ADVISORS ASSET MANAGEMENT, INC.
ALAMO CAPITAL
AMERICAN VETERANS GROUP PBC
AMHERST HOLDINGS, LLC
ANZ GROUP HOLDINGS LTD
ARGENTIS HOLDINGS LLC/DE
B. RILEY FINANCIAL, INC.
BAIRD FINANCIAL GROUP INC/WISCONSIN
BALANZ CAPITAL INTERNATIONAL INC
BANCO BILBAO VIZCAYA ARGENTARIA SOCIEDAD
ANONIMA
BANCO BRADESCO S.A.
BANCO SANTANDER DE NEGOCIOS COLOMBIA
S.A.
BANCO SANTANDER, S.A.
BANCROFT CAPITAL, LLC
BANCTRUST INVESTMENT BANK LIMITED
BANK OF AMERICA CORPORATION
BANK OF COMMUNICATIONS CO., LTD.
BANK OF MONTREAL
BANK OF NEW YORK MELLON CORPORATION
(THE)
BANK OF NOVA SCOTIA (THE)
BARCLAYS PLC
BCP SECURITIES, LLC
BELLE HAVEN INVESTMENTS LP
BENCHMARK SECURITIES, LLC
BGC PARTNERS, INC.
BNP PARIBAS
BOFA SECURITIES EUROPE SA
BOK FINANCIAL CORPORATION
BREAN CAPITAL, LLC

BROWN BROTHERS HARRIMAN & CO.
BROWNSTONE INVESTMENT OPPORTUNITIES LLC
BTG PACTUAL GROUP
BTIG SINGAPORE PTE. LTD.
C.L. KING & ASSOCIATES, INC.
CABRERA CAPITAL MARKETS LLC
CAIXABANK, S.A.
CAMBRIDGE INTERNATIONAL SECURITIES, LLC
CANACCORD GENUITY GROUP INC.
CANADIAN IMPERIAL BANK OF COMMERCE
CANTOR FITZGERALD, L.P.
CARTY & COMPANY, INC.
CHARLES SCHWAB CORPORATION (THE)
CHINA INTERNATIONAL CAPITAL CORPORATION
LIMITED
CHINA MERCHANTS BANK CO., LTD.
CITADEL SECURITIES INSTITUTIONAL LLC
CITADEL SECURITIES LP
CITIC SECURITIES COMPANY LIMITED
CITIGROUP INC.
CITIZENS CAPITAL MARKETS INC
CITIZENS FINANCIAL GROUP, INC.
CMB INTERNATIONAL GLOBAL MARKETS LIMITED
COHEN & COMPANY INC.
COMMERZBANK AKTIENGESELLSCHAFT
COMMONWEALTH BANK OF AUSTRALIA
CONDOR TRADING LP
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A.
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD.
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC.
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC. CSHC EUROPE LLC
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC. CSHC EUROPE LLC CULLEN/FROST BANKERS, INC.
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC. CSHC EUROPE LLC CULLEN/FROST BANKERS, INC. D.A. DAVIDSON COMPANIES
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC. CSHC EUROPE LLC CULLEN/FROST BANKERS, INC. D.A. DAVIDSON COMPANIES DAIWA SECURITIES GROUP INC.
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC. CSHC EUROPE LLC CULLEN/FROST BANKERS, INC. D.A. DAVIDSON COMPANIES DAIWA SECURITIES GROUP INC. DANSKE BANK A/S
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC. CSHC EUROPE LLC CULLEN/FROST BANKERS, INC. D.A. DAVIDSON COMPANIES DAIWA SECURITIES GROUP INC. DANSKE BANK A/S DAVENPORT & COMPANY LLC
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC. CSHC EUROPE LLC CULLEN/FROST BANKERS, INC. D.A. DAVIDSON COMPANIES DAIWA SECURITIES GROUP INC. DANSKE BANK A/S DAVENPORT & COMPANY LLC DBS GROUP HOLDINGS LTD
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC. CSHC EUROPE LLC CULLEN/FROST BANKERS, INC. D.A. DAVIDSON COMPANIES DAIWA SECURITIES GROUP INC. DANSKE BANK A/S DAVENPORT & COMPANY LLC DBS GROUP HOLDINGS LTD DEUTSCHE BANK AKTIENGESELLSCHAFT
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CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC. CSHC EUROPE LLC CULLEN/FROST BANKERS, INC. D.A. DAVIDSON COMPANIES DAIWA SECURITIES GROUP INC. DANSKE BANK A/S DAVENPORT & COMPANY LLC DBS GROUP HOLDINGS LTD DEUTSCHE BANK AKTIENGESELLSCHAFT DNB BANK ASA DOMINICAN REPUBLIC DOUGHERTY FINANCIAL GROUP LLC DREXEL HAMILTON FINANCIAL INC DZ BANK AG DEUTSCHE ZENTRAL- GENOSSENSCHAFTSBANK EMMET & CO., INC. EQUITABLE HOLDINGS, INC. ERSTE GROUP BANK AG ESTRADA HINOJOSA & COMPANY, INC
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC. CSHC EUROPE LLC CULLEN/FROST BANKERS, INC. D.A. DAVIDSON COMPANIES DAIWA SECURITIES GROUP INC. DANSKE BANK A/S DAVENPORT & COMPANY LLC DBS GROUP HOLDINGS LTD DEUTSCHE BANK AKTIENGESELLSCHAFT DNB BANK ASA DOMINICAN REPUBLIC DOUGHERTY FINANCIAL GROUP LLC DREXEL HAMILTON FINANCIAL INC DZ BANK AG DEUTSCHE ZENTRAL- GENOSSENSCHAFTSBANK EMMET & CO., INC. EQUITABLE HOLDINGS, INC. ERSTE GROUP BANK AG ESTRADA HINOJOSA & COMPANY, INC EVERCORE INC.
CONDOR TRADING LP CONFEDERATION NATIONALE DU CREDIT MUTUEL COOEPERATIEVE RABOBANK U.A. CREDICORP LTD. CREWS & ASSOCIATES, INC. CSHC EUROPE LLC CULLEN/FROST BANKERS, INC. D.A. DAVIDSON COMPANIES DAIWA SECURITIES GROUP INC. DANSKE BANK A/S DAVENPORT & COMPANY LLC DBS GROUP HOLDINGS LTD DEUTSCHE BANK AKTIENGESELLSCHAFT DNB BANK ASA DOMINICAN REPUBLIC DOUGHERTY FINANCIAL GROUP LLC DREXEL HAMILTON FINANCIAL INC DZ BANK AG DEUTSCHE ZENTRAL- GENOSSENSCHAFTSBANK EMMET & CO., INC. EQUITABLE HOLDINGS, INC. ERSTE GROUP BANK AG ESTRADA HINOJOSA & COMPANY, INC

FIRST BALLANTYNE, LLC
FIRST HORIZON CORPORATION
FIRST SOUTHERN SECURITIES, LLC
FIRST TRYON SECURITIES, LLC
FIRSTRAND
FLOW TRADERS N.V.
FMR LLC
FMSBONDS, INC.
FOLGER NOLAN FLEMING DOUGLAS
INCORPORATED
GMS GROUP HOLDINGS CORP
GOLDMAN SACHS GROUP, INC.
GOVERNMENT OF CANADA
GREAT PACIFIC SECURITIES
GROUPE BPCE SA
GUGGENHEIM CAPITAL LLC
GUOTAI JUNAN SECURITIES CO. LTD
HERBERT J SIMS & CO. INC.
HILLTOP HOLDINGS INC
HSBC HOLDINGS PLC
HUNTINGTON SECURITIES INC
IMPERIAL CAPITAL GROUP HOLDINGS, LLC
INDUSTRIAL AND COMMERCIAL BANK OF CHINA
LIMITED
ING GROEP N.V.
INSPEREX HOLDINGS LLC
INSTITUTIONAL BOND NETWORK, LLC
INTERCOASTAL CAPITAL MARKETS INC.
INTERCONTINENTAL EXCHANGE, INC.
INTESA SANPAOLO S.P.A.
ITAU UNIBANCO HOLDING S.A.
JANE STREET EXECUTION SERVICES, LLC
JANE STREET GROUP, LLC
JANE STREET NETHERLANDS B.V.
JB HONORE S.A.R.L.
JEFFERIES FINANCIAL GROUP INC.
JEFFERIES GMBH
JPMORGAN CHASE & CO.
JPMORGAN CORPORACION FINANCIERA S.A.
KEYCORP
KNG SECURITIES LLP
KOTAK MAHINDRA BANK LIMITED
KYTE BROKING GROUP LTD
LANDESBANK BADEN-WUERTTEMBERG
LARRAIN VIAL S.P.A.
LIQUIDNET HOLDINGS, INC.
LLOYDS BANK CORPORATE MARKETS
WERTPAPIERHANDELSBANK GMBH
LLOYDS BANKING GROUP PLC
LONDON STOCK EXCHANGE GROUP PLC
LOOP CAPITAL HOLDINGS LLC
MACQUARIE GROUP LIMITED

MARIVA CAPITAL MARKETS, LLC
MARKETAXESS CAPITAL LIMITED
MARKETAXESS CORPORATION
MAX CAPITAL S.A. AGENTE DE VALORES
MBS CAPITAL MARKETS, LLC
MESIROW FINANCIAL HOLDINGS, INC.
MIDDLEGATE SECURITIES LTD.
MILLENNIUM ADVISORS, LLC
MILLENNIUM CONSOLIDATED HOLDINGS LLC
MISCHLER FINANCIAL GROUP, INC.
MITSUBISHI UFJ FINANCIAL GROUP, INC.
MIZUHO FINANCIAL GROUP, INC.
MIZUHO SECURITIES EUROPE GMBH
MORGAN STANLEY
MOUNTAINSIDE SECURITIES LLC
MOUVEMENT DES CAISSES DESJARDINS
MULTI-BANK SERVICES LTD
NAMASTE CAPITAL INVESTMENTS SL
NATIONAL ALLIANCE SECURITIES, LLC
NATIONAL AUSTRALIA BANK LIMITED
NATIONAL BANK OF CANADA
NATWEST GROUP PLC
NEDBANK GROUP LIMITED
NOMURA HOLDINGS, INC.
NORDEA BANK ABP
NORTHERN TRUST CORPORATION
NORTHLAND CAPITAL HOLDINGS, INC.
NW CAPITAL MARKETS INC
OBERWEIS SECURITIES, INC.
ODDO BHF SCA
ODEON CAPITAL GROUP LLC
OLD MISSION HOLDINGS LLC
OPPENHEIMER HOLDINGS INC.
OFFENTEMENTOEDINGS INC.
PARETO AS
PEOPLE'S REPUBLIC OF CHINA
PHILADELPHIA TRADING, INC.
PIPER SANDLER & CO.
PNC FINANCIAL SERVICES GROUP, INC., THE
PT FINANCIAL LLC
PUENTE CORREDOR DE BOLSA S.A.
R. SEELAUS & CO. LLC
R.W. SMITH & ASSOCIATES, LLC
R.W.PRESSPRICH & CO.
RAFFERTY HOLDINGS, LLC
RAIFFEISEN BANK INTERNATIONAL AG
RAYMOND JAMES FINANCIAL, INC.
ROBERT VAN SECURITIES, INC.
ROOSEVELT & CROSS, INCORPORATED
ROYAL BANK OF CANADA
SAMCO HOLDINGS INC
SAR HOLDINGS INC

SAS RUE LA BOETIE SC LOWY HOLDINGS LTD
SEAPORT GLOBAL HOLDINGS LLC
SEMINARIO Y CIA S.A.B. S.A.
SI HOLDINGS INC.
SIEBERT WILLIAMS SHANK & CO., LLC
SIERRA PACIFIC SECURITIES, LLC
SKANDINAVISKA ENSKILDA BANKEN AB
SOCIETE GENERALE
SOUTHSTATE DUNCANWILLIAMS SECURITIES
CORP.
SOUTHWEST BUSINESS CORPORATION
STANDARD CHARTERED PLC
STATE STREET CORPORATION
STERN BROTHERS & CO.
STICHTING ADMINISTRATIEKANTOOR
CONTINUITEIT ABN AMRO BANK
STIFEL FINANCIAL CORP.
STONEX FINANCIAL PTE LTD
STONEX GROUP INC.
SUMITOMO MITSUI FINANCIAL GROUP, INC.
SUMITOMO MITSUI TRUST HOLDINGS, INC.
SUMRIDGE PARTNERS HOLDINGS LLC
SWBC INVESTMENT SERVICES, LLC
TD SECURITIES AUTOMATED TRADING LLC
THE PENN MUTUAL LIFE INSURANCE COMPANY
TORONTO-DOMINION BANK (THE)
TP ICAP GROUP PLC
TPCG FINANCIAL SERVICES AGENTE DE VALORES
S.A.
S.A. TRUIST FINANCIAL CORPORATION
TRUIST FINANCIAL CORPORATION
TRUIST FINANCIAL CORPORATION U.S. BANCORP
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION UNICREDIT CAPITAL MARKETS LLC UNICREDIT, SOCIETA PER AZIONI
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION UNICREDIT CAPITAL MARKETS LLC UNICREDIT, SOCIETA PER AZIONI VIRTU FINANCIAL, INC.
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TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION UNICREDIT CAPITAL MARKETS LLC UNICREDIT, SOCIETA PER AZIONI VIRTU FINANCIAL, INC. VIRTUS CAPITAL MARKETS LLC WALL STREET ACCESS WEDBUSH, INC.
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION UNICREDIT CAPITAL MARKETS LLC UNICREDIT, SOCIETA PER AZIONI VIRTU FINANCIAL, INC. VIRTUS CAPITAL MARKETS LLC WALL STREET ACCESS WEDBUSH, INC. WELLS FARGO & COMPANY
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION UNICREDIT CAPITAL MARKETS LLC UNICREDIT, SOCIETA PER AZIONI VIRTU FINANCIAL, INC. VIRTUS CAPITAL MARKETS LLC WALL STREET ACCESS WEDBUSH, INC. WELLS FARGO & COMPANY WESTPAC BANKING CORPORATION
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION UNICREDIT CAPITAL MARKETS LLC UNICREDIT, SOCIETA PER AZIONI VIRTU FINANCIAL, INC. VIRTUS CAPITAL MARKETS LLC WALL STREET ACCESS WEDBUSH, INC. WELLS FARGO & COMPANY WESTPAC BANKING CORPORATION WILEY BROS AINTREE CAPITAL, LLC
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION UNICREDIT CAPITAL MARKETS LLC UNICREDIT, SOCIETA PER AZIONI VIRTU FINANCIAL, INC. VIRTUS CAPITAL MARKETS LLC WALL STREET ACCESS WEDBUSH, INC. WELLS FARGO & COMPANY WESTPAC BANKING CORPORATION WILEY BROS AINTREE CAPITAL, LLC XP INC
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION UNICREDIT CAPITAL MARKETS LLC UNICREDIT, SOCIETA PER AZIONI VIRTU FINANCIAL, INC. VIRTUS CAPITAL MARKETS LLC WALL STREET ACCESS WEDBUSH, INC. WELLS FARGO & COMPANY WESTPAC BANKING CORPORATION WILEY BROS AINTREE CAPITAL, LLC XP INC ZEUS FINANCIAL LLC
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION UNICREDIT CAPITAL MARKETS LLC UNICREDIT, SOCIETA PER AZIONI VIRTU FINANCIAL, INC. VIRTUS CAPITAL MARKETS LLC WALL STREET ACCESS WEDBUSH, INC. WELLS FARGO & COMPANY WESTPAC BANKING CORPORATION WILEY BROS AINTREE CAPITAL, LLC XP INC ZEUS FINANCIAL LLC ZIEGLER COMPANIES, INC. (THE)
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION UNICREDIT CAPITAL MARKETS LLC UNICREDIT, SOCIETA PER AZIONI VIRTU FINANCIAL, INC. VIRTUS CAPITAL MARKETS LLC WALL STREET ACCESS WEDBUSH, INC. WELLS FARGO & COMPANY WESTPAC BANKING CORPORATION WILEY BROS AINTREE CAPITAL, LLC XP INC ZEUS FINANCIAL LLC ZIEGLER COMPANIES, INC. (THE) ZIONS BANCORPORATION, NATIONAL
TRUIST FINANCIAL CORPORATION U.S. BANCORP UBS GROUP AG UC-UNITED CAPITAL PUESTO DE BOLSA, S.A UMB FINANCIAL CORPORATION UNICREDIT CAPITAL MARKETS LLC UNICREDIT, SOCIETA PER AZIONI VIRTU FINANCIAL, INC. VIRTUS CAPITAL MARKETS LLC WALL STREET ACCESS WEDBUSH, INC. WELLS FARGO & COMPANY WESTPAC BANKING CORPORATION WILEY BROS AINTREE CAPITAL, LLC XP INC ZEUS FINANCIAL LLC ZIEGLER COMPANIES, INC. (THE)

Money Market
ACADEMY SECURITIES, INC.
BANCO SANTANDER, S.A.
BANK OF AMERICA CORPORATION
BANK OF MONTREAL
BANK OF NEW YORK MELLON CORPORATION
(THE)
BANK OF NOVA SCOTIA (THE)
BARCLAYS PLC
BGC PARTNERS, INC.
CANTOR FITZGERALD, L.P.
CASTLEOAK MANAGEMENT, LLC
CF SECURED, LLC
CITIGROUP INC.
COMMERZBANK AKTIENGESELLSCHAFT
COMMONWEALTH BANK OF AUSTRALIA
CONFEDERATION NATIONALE DU CREDIT MUTUEL
COOEPERATIEVE RABOBANK U.A.
DEUTSCHE BANK AKTIENGESELLSCHAFT
DZ BANK AG DEUTSCHE ZENTRAL-
GENOSSENSCHAFTSBANK
ERSTE GROUP BANK AG
FRENCH REPUBLIC
GROUPE BPCE SA
HSBC HOLDINGS PLC
ING GROEP N.V.
JEFFERIES FINANCIAL GROUP INC.
JPMORGAN CHASE & CO.
KBC GROUP
KINGDOM OF BELGIUM
LLOYDS BANKING GROUP PLC
LOOP CAPITAL HOLDINGS LLC
MITSUBISHI UFJ FINANCIAL GROUP, INC.
MIZUHO FINANCIAL GROUP, INC.
MORGAN STANLEY
NATIONAL BANK OF CANADA
NATWEST GROUP PLC
NOMURA HOLDINGS, INC.
R. SEELAUS & CO. LLC
RABO SECURITIES USA, INC.
ROYAL BANK OF CANADA
SAR HOLDINGS INC
SAS RUE LA BOETIE
SIEBERT WILLIAMS SHANK & CO., LLC
SOCIETE GENERALE
STICHTING ADMINISTRATIEKANTOOR
CONTINUITEIT ABN AMRO BANK
SUMITOMO MITSUI FINANCIAL GROUP, INC.
THE DEPOSITORY TRUST & CLEARING
CORPORATION

TIMBO HOLDING BV
TORONTO-DOMINION BANK (THE)
TOYOTA MOTOR CORPORATION
TP ICAP GROUP PLC
U.S. BANCORP
UBS GROUP AG
VIEL ET COMPAGNIE-FINANCE
WELLS FARGO & COMPANY
WILLIAMS CAPITAL GROUP, L.P. (THE)

FX
ANZ GROUP HOLDINGS LTD
BANK OF AMERICA CORPORATION
BANK OF NEW YORK MELLON CORPORATION
(THE)
BARCLAYS PLC
BNP PARIBAS
BOFA SECURITIES EUROPE SA
BROWN BROTHERS HARRIMAN & CO.
CITIGROUP INC.
DANSKE BANK A/S
DEUTSCHE BANK AKTIENGESELLSCHAFT
HSBC HOLDINGS PLC
JPMORGAN CHASE & CO.
JPMORGAN CORPORACION FINANCIERA S.A.
MITSUBISHI UFJ FINANCIAL GROUP, INC.
MORGAN STANLEY
NATWEST GROUP PLC
NOMURA HOLDINGS, INC.
NORDEA BANK ABP
NORTHERN TRUST CORPORATION
ROYAL BANK OF CANADA
SKANDINAVISKA ENSKILDA BANKEN AB
STANDARD CHARTERED PLC
STATE STREET CORPORATION
UBS GROUP AG
WESTPAC BANKING CORPORATION

ANNEX B: GSAM BV and GSAM TFI Execution venues

Approved list of Brokers and Execution Venues as per 04-01-2024⁷

Listed Securities
ABG Sundal Collier Norge ASA
ABN AMRO Bank NV
Advanced Capital Securities Uruguay Agente de Valores
AFS Group B.V.
Ak Yatirim Menkul Degerler A.S.
Alpha Bank Romania SA
Arqaam Capital Limited
Aurel BGC SAS
Australia and New Zealand Banking Group Ltd
Australia and New Zealand Banking Group Ltd, Singapore branch
Autonomous Research Ltd
Baader Bank AG
Banca Comerciala Romana SA
Banca de Export-Import a României EximBank - S.A
Banco Bilbao Vizcaya Argentaria SA
Banco Bilbao Vizcaya Argentaria SA, New York branch
Banco Santander SA
Banco Santander SA, Frankfurt branch
Banco Santander SA, London branch
Banco Santander SA, New York branch
Bank Gospodarstwa Krajowego
Bank Handlowy w Warszawie SA
Bank of America Merrill Lynch International Bank Designated Activity Compan
Bank of America NA
Bank of America NA, London branch
Bank of America NA, Taipei branch
Bank of China International Securities Ltd (BOCI Securities Ltd)
BANK OF CHINA LIMITED
Bank Pekao SA

⁷ Listed Financial Instruments can include Equities (shares and depositary receipts), Debt Instruments, Interest rates derivatives, Equity derivatives, Commodities Derivatives, Currency derivatives, Warrants and Certificate derivatives. Bilateral OTC Derivatives include Interest Rate derivatives, Credit derivatives, Total return derivatives, Commodities derivatives, Equity derivatives, Currency derivatives, Warrants and Certificate derivatives. UK branches are still on the list, but NNIP momentarily does not select them for execution.

Banque et Caisse d'Epargne de L'Etat Barclays Bank Ireland Public Limited Company Barclays Bank PLC Barclays Capital Inc, NY Barclays Capital Inc. Barclays Securities Japan Limited Bayerische Landesbank BBVA Securities inc Belfius Bank SA/NV BFCM (Banque Federative du Credit Mutuel) BFCM (Banque Federative du Credit Mutuel) BFCM, Frankfurt am Main branch BlackRock Advisors (UK) Limited Bloomberg Tradebook Europe Ltd BMO Capital Markets Corp BMO Nesbitt Burns Ltd BNG Bank N.V. BNP Paribas (China) Limited BNP Paribas Bank Polska S.A. BNP Paribas Colombia Corporacion Financiera BNP Paribas SA
Barclays Bank PLC Barclays Capital Inc, NY Barclays Capital Inc. Barclays Securities Japan Limited Bayerische Landesbank BBVA Securities inc Belfius Bank SA/NV BFCM (Banque Federative du Credit Mutuel) BFCM (Banque Federative du Credit Mutuel) BFCM, Frankfurt am Main branch BlackRock Advisors (UK) Limited Bloomberg Tradebook Europe Ltd BMO Capital Markets Corp BMO Nesbitt Burns Ltd BNG Bank N.V. BNP Paribas (China) Limited BNP Paribas Bank Polska S.A. BNP Paribas Colombia Corporacion Financiera
Barclays Capital Inc, NY Barclays Capital Inc. Barclays Securities Japan Limited Bayerische Landesbank BBVA Securities inc Belfius Bank SA/NV BFCM (Banque Federative du Credit Mutuel) BFCM, Frankfurt am Main branch BlackRock Advisors (UK) Limited Bloomberg Tradebook Europe Ltd BMO Capital Markets Corp BMO Nesbitt Burns Ltd BNG Bank N.V. BNP Paribas (China) Limited BNP Paribas Bank Polska S.A. BNP Paribas Colombia Corporacion Financiera
Barclays Capital Inc. Barclays Securities Japan Limited Bayerische Landesbank BBVA Securities inc Belfius Bank SA/NV BFCM (Banque Federative du Credit Mutuel) BFCM, Frankfurt am Main branch BlackRock Advisors (UK) Limited Bloomberg Tradebook Europe Ltd BMO Capital Markets Corp BMO Nesbitt Burns Ltd BNG Bank N.V. BNP Paribas (China) Limited BNP Paribas Bank Polska S.A. BNP Paribas Colombia Corporacion Financiera
Barclays Securities Japan Limited Bayerische Landesbank BBVA Securities inc Belfius Bank SA/NV BFCM (Banque Federative du Credit Mutuel) BFCM, Frankfurt am Main branch BlackRock Advisors (UK) Limited Bloomberg Tradebook Europe Ltd BMO Capital Markets Corp BMO Nesbitt Burns Ltd BNG Bank N.V. BNP Paribas (China) Limited BNP Paribas Bank Polska S.A. BNP Paribas Colombia Corporacion Financiera
Bayerische Landesbank BBVA Securities inc Belfius Bank SA/NV BFCM (Banque Federative du Credit Mutuel) BFCM, Frankfurt am Main branch BlackRock Advisors (UK) Limited Bloomberg Tradebook Europe Ltd BMO Capital Markets Corp BMO Nesbitt Burns Ltd BNG Bank N.V. BNP Paribas (China) Limited BNP Paribas Bank Polska S.A. BNP Paribas Colombia Corporacion Financiera
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BNP Paribas (China) Limited BNP Paribas Bank Polska S.A. BNP Paribas Colombia Corporacion Financiera
BNP Paribas Bank Polska S.A. BNP Paribas Colombia Corporacion Financiera
BNP Paribas Colombia Corporacion Financiera
BNP Paribas SA
BNP Paribas SA - Warszawa branch
BNP Paribas SA, London branch
BNP Paribas SA, New York branch
BNP Paribas SA, Paris branch
BNP Paribas SA, Seoul branch
BNP Paribas SA, Singapore branch
BNP Paribas SA, Taipei branch
BNP Paribas Securities (Asia) Ltd
BNP Paribas Securities (Japan) Limited.
BofA Securities Europe SA
BofA Securities Japan Co., Ltd.
BPCE SA
BRD-Groupe Societe Generale SA
BRED Banque Populaire
BTG Pactual US Capital LLC
BTIG LLC
C6 Capital Securities LLC
Canaccord Genuity Inc
Cantonal Bank of Zurich

Cantor Fitzgerald Europe
Cantor Fitzgerald LP
Carnegie Investment Bank AB
Carnegie Ltd
Central Tanshi Co., Ltd
Ceska Sporitelna, A.S.
Ceskoslovenska obchodni banka AS
China CITIC Bank International Limited
CHINA INTERNATIONAL CAPITAL CORPORATION HONG KONG SECURITIES
China International Capital Corporation Limited
CIBC World Markets Corp
Citadel Securities (Europe) Ltd
Citibank (China) Co., Ltd.
Citibank Colombia SA
Citibank Europe PLC
Citibank Europe Plc, Magyarorszagi Fioktelepe
Citibank Europe PLC, Romania branch
Citibank NA
Citibank NA, London branch
Citic Securities Brokerage HK
CITIC Securities Company Limited
Citigroup Global Markets Europe AG
Citigroup Global Markets Inc
Citigroup Global Markets Japan Inc.
Citigroup Global Markets Korea Securities Itd
Citigroup Global Markets Ltd
Citigroup Global Markets Taiwan Securities Co. Ltd
CLSA (UK)
CLSA Singapore Pte Ltd
Commerz Markets LLC
Commerzbank AG
Commerzbank AG, London branch
Commerzbank AG, Luxembourg branch
Commonwealth Bank of Australia

Commonwealth Bank of Australia (Europe) N.V.
Coöperatieve Rabobank U.A.
Copernicus Securities SA
Cowen & Co LLC
Credit Agricole CIB
Credit Agricole CIB UK IH
Credit Agricole SA
Crédit Agricole Securities Asia B.V., Tokyo Branch
Credit Agricole USA Inc
Daiwa Capital Markets America Inc
Daiwa Capital Markets Deutschland GmbH
Daiwa Capital Markets Europe Ltd
Daiwa Securities Co. Ltd.
Danske Bank A/S
DBS Bank Ltd
DBS Bank Ltd, Hong Kong branch
DekaBank Deutsche Girozentrale
Deutsche Bank (China) Co., Ltd
Deutsche Bank AG
Deutsche Bank AG, London branch
Deutsche Bank AG, Luxembourg branch
Deutsche Bank AG, Seoul branch
Deutsche Bank AG, Singapore branch
Deutsche Bank AG, Taipei branch
Deutsche Bank Securities Inc
Deutsche Bank Zrt
Deutsche Securities Inc.
DM PKO Banku Polskiego SA
Dom Maklerski Banku Handlowego S.A.
Dom Maklerski Banku Ochrony Srodowiska SA
Dom Maklerski BZWBK S.A.
DZ Bank AG Deutsche Zentral-Genossenschaftsbank
Erste Bank Hungary Nyrt
Erste Group Bank AG
Erste Securities Polska SA
Exane SA
FHB Commercial Bank Ltd
FIRST ABU DHABI BANK P.J.S.C.
Flow Traders B.V.

FMO Bank N.V.
Goldman Sachs Bank Europe SE
Goldman Sachs International Ltd
Goodbody Stockbrokers
GUOTAI JUNAN SECURITIES (HONG KONG) LIMITED
Haitong Bank SA, Warsaw branch
Helvea Ltd
HSBC Bank (China) Company Limited
HSBC Bank PLC
HSBC Bank Plc, Prague branch
HSBC Bank Polska SA
HSBC Bank USA NA
HSBC Continental Europe SA
HSBC Securities (Japan) Ltd. Tokyo Branch
HSBC Securities (Taiwan) Corporation Limited
HSBC Trinkaus Burkhardt AG
Hypo-Bank Burgenland AG
ICAP Securities Ltd
ICAP SECURITIES USA LLC
ICBC Standard Bank PLC
Imperial Capital LLC
Industrial and Commercial Bank of China Limited
ING Bank N.V.
ING Bank N.V. Amsterdam Sucursala Bucuresti
ING Bank N.V. Hungary Branch
ING Bank N.V., pobocka zahranicnej banky
ING Bank N.V., Prague branch
ING Bank N.V., Singapore branch
ING Bank Slaski Spolka Akcyjna
ING Belgium SA/NV
ING Luxembourg SA
Instinet Europe Ltd
INSTINET GERMANY GMBH
INTESA SANPAOLO SPA
Investec Bank Ltd
Investec Europe Limited
Investment Technology Group Ltd
Ipopema Securities SA
ITAU UNIBANCO S.A.

ITG Europe Limited
J & E Davy
J & T Banka AS
J.P. Morgan Markets Ltd
J.P. Morgan SE
J.P. Morgan Securities (Far East) Limited, Seoul Branch
J.P. Morgan Securities (Taiwan) Limited
J.P. Morgan Securities Japan Co., Ltd.
Jane Street Execution Services, LLC
Jane Street Financial Limited
Jane Street Netherlands B.V.
JEFFERIES FINANCIAL GROUP INC.
Jefferies GmbH
Jefferies International Ltd
Jefferies International Ltd, Singapore Branch
Joh. Berenberg, Gossler & Co KG
JP Morgan Chase Bank NA, London branch
JP Morgan Chase Bank NA, Seoul branch
JP Morgan Chase Bank NA, Taipei branch
JPMorgan Chase Bank NA
JPMorgan Chase Bank NA, Singapore branch
JPMorgan ChaseBank (China) Company Limited
JPMorgan Colombia Ltda.
JPMorgan Securities PIc
Kas Bank N.V.
KBC Bank NV
Kempen & Co NV
Kepler Capital Markets SA
Knight Capital Europe Ltd
Komercni Banka AS
Landesbank Baden-Württemberg
Landesbank Hessen-Thüringen Girozentrale
Landwirtshaftliche Rentenbank2
LarrainVial S.A. Corredora de Bolsa
Libra Internet Bank Romania
Liquidity Finance LLP
Liquidnet EU Limited
Liquidnet Europe Limited
Liquidnet Holding Inc
Lloyds Bank Corporate Markets PLC

LLOYDS BANK CORPORATE MARKETS WERTPAPIERHANDELSBANK GMBH
Macquarie Bank Ltd
Macquarie Capital Securites Ltd
Macquarie Equities Ltd
Mariva Capital Markets LLC
MarketAxess Capital Limited
MarketAxess Corp
mBank SA
Merrill Lynch International
Merrill Lynch International Inc, Seoul branch
Merrill Lynch Pierce Fenner & Smith Inc
Michael / Ström Dom Maklerski S.A.
Millennium Advisors LLC
Millennium Dom Maklerski S.A.
Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.
Mitsubishi UFJ Securities (USA) inc
Mitsubishi UFJ Trust and Banking Corporation
Mitsubishi UFJ Trust International Limited
Mizuho Bank Europe N.V.
Mizuho International Plc
Mizuho Securities Asia Limited
Mizuho Securities Co., Ltd
Mizuho Securities USA inc
Moneta Money Bank, A.S.
Morgan Stanley & Co International PLC
Morgan Stanley & Co LLC
Morgan Stanley Europe SE
Morgan Stanley London branch
Morgan Stanley MUFG Securities Co., Ltd
MUFG Securites EMEA PLC, Singapore Branch
MUFG Securities (Europe) N.V.
MUFG Securities Asia (Singapore) Ltd
MUFG Securities EMEA PLC
National Australia Bank Ltd
National Australia Bank Ltd, London branch
National Bank of Canada Financial Inc
Nationale-Nederlanden Bank N.V.
Natixis S.A.
Natixis Securites Americas LLC
NatWest Markets N.V.

Navigator Capital S.A.
Nederlandse Waterschapsbank NV2
NIBC Bank NV
Nomura Financial Products Europe GmbH
Nomura International PLC
Nomura Securities Co., Ltd.
Nomura Securities International Inc
Norddeutsche Landesbank Girozentrale
Nordea Bank Abp
Nordea Bank Norge ASA
NWAI Dom Maklerski SA
ODDO BHF SCA
Odeon Capital Group LLC
Okasan Securities Co., Ltd
Oolders Heijning and Voogelaar B.V.
Oppenheimer & Co Inc
Oppenheimer EU Limited
Optiver V.O.F
OTP Bank Nyrt
OTP Bank Plc.
OTP Bank Romania SA
Oversea-Chinese Banking Corporation Limited
Peel Hunt LLC
PEKAO Investment Banking Spolka Akcyjna
Piraeus Securities SA
PKO Bank Polski SA
PPF Banka AS
Raiffeisen Bank International AG
Raiffeisen Centrobank AG
Raymond James & Associates Inc
RBC Capital Markets (Europe) GmbH
RBC Capital Markets Corp
RBC Europe Ltd
Renaissance Capital Ltd
Renaissance Securities (Cyprus) Limited
RGA Americas Reinsurance Company Ltd
RGA Global Reinsurance Comp Ltd
Robert W Baird & Co Inc
Royal Bank of Canada
RW Pressprich & Co

Samsung Securities Co. Ltd
Sanford C Bernstein Proprietary Ltd
Sanford C Berstein Co Inc
Santander Bank Polska Spolka Akcyjna
SC Lowy Financial (HK) Ltd
Scotia Capital (USA) Inc
Seaport global securities LLC
SGX Bond Trading PTE LTD
Skandinaviska Enskilda Banken AB (Publ)
Slovenska Sporitelna AS
SMBC Bank EU AG
SMBC Nikko Capital Markets Ltd
SMBC Nikko Securities Inc.
SNS securities N.V.
Societe Generale SA
Societe Generale Securities Japan Limited
Societe Generale, Warszawa Branch
Standard Chartered Bank
Standard Chartered Bank (Hong Kong) Ltd
Standard Chartered Bank AG
Standard Chartered Bank, New York branch
State Street Bank and Trust Company
State Street Global markets LLC
Stifel Nicolaus & Co Inc
Stifel Nicolaus Europe Ltd
StoneX Financial Inc
Stuart Frankel & Co Inc
STX Fixed Income B.V
Sumitomo Mitsui Banking Corporation, Brussels branch
Sumitomo Mitsui Trust Bank, Ltd
SumRidge Partners LLC
Suntrust Robinson Humphrey Inc
Susquehanna International Securities Limited
Svenska Handelsbanken
Swedbank AB
Swiss Capital S.A.
Tatra banka, a.s.
TD Global Finance Unlimited Company
TD Securities Itd
The Bank of New York Mellon

The Bank of New York Mellon SA / NV
The Bank of Nova Scotia
The Hongkong and Shanghai Banking Corporation Ltd
The Hongkong and Shanghai Banking Corporation Ltd, Seoul branch
The Hongkong and Shanghai Banking Corporation Ltd, Taipei branch
Tokai Tokyo Securities Co., Ltd.
TP ICAP (Europe) SA
TPCG Financial Services Agente de Valores SA
Tradeweb EU B.V.
Trigon Dom Maklerski SA
Tullett Prebon Securities Ltd
UBS AG
UBS AG, Hong Kong branch
UBS AG, Stamford branch
UBS AG, Taipei branch
UBS Europe SE
UBS Securities Canada inc
UBS Securities Co. Limited
UBS Securities Japan Co., Ltd.
UBS Securities LLC
UBS Securities Pte Ltd, Seoul branch
UBS Securities Pte. Ltd., Taipei Branch
Ueda Yagi Tanshi Co., Ltd
UniCredit Bank AG
UniCredit Bank AG Vienna branch
UniCredit Bank Czech Republic and Slovakia as
UniCredit Bank Hungary
UniCredit Bank SA Romania
UniCredit SpA, London branch
United Overseas Bank Limited
US Bancorp Investments Inc
Virtu ITG Europe Limited
Vseobecna Uverova Banka AS
Wells Fargo Securities (Japan) Co., Ltd
Wells Fargo Securities Europe S.A.
Wells Fargo Securities International Ltd
Wells Fargo Securities LLC
Westpac Banking Corp
Westpac Banking Corp, Singapore Branch
Winterflood Securities Limited

Wood & Company Financial Services A/S

Bilateral OTC Derivatives
ABN AMRO Bank NV
Banco Santander SA
Bank of America NA
Bank of America NA, London branch
Barclays Bank Ireland Public Limited Company
Barclays Bank PLC
Barclays Bank PLC Tokyo Branch
BlackRock Advisors (UK) Limited
BNP Paribas SA
BofA Securities Europe SA
Ceska Sporitelna, A.S.
Citadel Securities (Europe) Ltd
Citibank Europe PLC, Romania branch
Citibank NA
Citibank NA (Tokyo Branch)
Citibank NA, London branch
Citigroup Global Markets Europe AG
Citigroup Global Markets Ltd
Commerzbank AG
Coöperatieve Rabobank U.A.
Deutsche Bank AG
Deutsche Bank AG, London branch
Deutsche Bank AG, Singapore branch
Goldman Sachs Bank Europe SE
Goldman Sachs International Ltd
Hannover Re
HSBC Bank PLC
HSBC Bank USA NA
HSBC Continental Europe SA
HSBC Trinkaus Burkhardt AG
ING Bank N.V.
ING Bank N.V. Hungary Branch
ING Bank N.V., pobocka zahranicnej banky
ING Bank N.V., Prague branch
ING Bank Slaski Spolka Akcyjna
ING Belgium SA/NV
ING Luxembourg SA

J.P. Morgan Chase Bank, N.A., Tokyo Branch
J.P. Morgan SE
JP Morgan Chase Bank NA, London branch
JPMorgan Chase Bank NA
JPMorgan Chase Bank NA, Singapore branch
JPMorgan Securities Plc
Kas Bank N.V.
Merrill Lynch International
Mitsubishi UFJ Trust and Banking Corporation
Morgan Stanley & Co International PLC
Morgan Stanley Europe SE
Morgan Stanley London branch
Morgan Stanley MUFG Securities Co., Ltd
Natixis S.A.
NatWest Markets N.V.
NatWest Markets Plc
NN RE (Netherlands) NV
Nomura Financial Products Europe GmbH
Nomura International PLC
RGA Americas Reinsurance Company Ltd
RGA Global Reinsurance Comp Ltd
Royal Bank of Canada
Slovenska Sporitelna AS
Societe Generale SA
State Street Bank and Trust Company, Tokyo Branch
Sumitomo Mitsui Trust Bank, Ltd
The Bank of New York Mellon
The Hongkong and Shanghai Banking Corporation Ltd Tokyo Branch
UBS AG
UBS AG Tokyo Branch
UBS AG, Hong Kong branch
Vseobecna Uverova Banka AS
Execution of cleared OTC Derivatives (some client specific exceptions

Execution of cleared OTC Derivatives (some client specific exceptions possible)
ABN AMRO Bank NV
Barclays Bank Ireland Public Limited Company
Banco Santander SA
BNP Paribas SA
BofA Securities Europe SA
Citigroup Global Markets Europe AG

Deutsche Bank AG
ING Bank NV
J.P. Morgan AG
Goldman Sachs AG
HSBC France S.A.
Morgan Stanley Europe SE
Nomura Financial Products Europe GmbH
Societe Generale SA
The Royal Bank of Canada
NatWest Markets N.V.
UBS AG

MTFs	
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Bloomberg Trading Facility B.V. (BTFE)

Financial & Risk Transaction Services Ireland Limited (FXAII)

MarketAxess NL B.V. (EU)

MTS S.P.A.

Tradeweb EU B.V.

Third Parties (some client specific exceptions possible) Bank of New York State Street BBH

Listed Derivatives Clearing (some client specific exceptions possible) J.P. Morgan AG

OTC Clearing (some client specific exceptions possible)
BNP Paribas SA
Citigroup Global Markets Europe AG
Deutsche Bank AG
J.P. Morgan AG
BofA Securities Europe SA
Societe Generale SA