Morgan Stanley

July 2021

A Message to Morgan Stanley Institutional Securities Group Fixed Income Clients

Re: Fixed Income & Commodities Trading Practices and Information

This letter is part of our ongoing effort to provide transparency to our clients on our business practices. The contents of this letter are also available at Disclosures and may be updated from time to time[1]. As we enter into transactions with you based upon a mutual understanding of the terms and conditions of our dealing, it is important that you read this letter to understand how we may trade in relation to your expressions of interest or orders (as applicable) in fixed income and commodities products (collectively, "FIC Transaction Requests") and otherwise engage with you and others in the fixed income and commodity ("FIC") markets generally. This includes our management of conflicts of interest that may exist or arise in our principal dealing and market making activities. To the extent that you continue to enter into fixed income and commodities transactions with us, it will be on the basis that you have read and understood these terms.

The organization of our letter and the key topics covered are as follows:

- Overview
- Principal Trading & Market Making
- Liquidity Sourcing
- Client Information
- Risk & Other Disclosures (Including LIBOR & Other Benchmarks)
- Conclusion
- Annex A – Pricing Factors
- Annex B – Foreign Exchange, Precious Metals & Fixed Income Bonds, Including for Foreign Exchange & Precious Metals: Electronic Quote Based Trading, Electronic Order-Based Trading (Fusion) & Benchmark Orders

Overview

Morgan Stanley is a global financial services firm and its Institutional Securities Group's Sales & Trading businesses are engaged in a broad spectrum of FIC activities, including transactions in fixed income securities (including corporate bonds, U.S. Treasuries and other sovereign bonds, municipal bonds and asset-backed securities, and repurchase and reverse repurchase transactions in these securities), loans, over-the-counter and listed futures, swaps and options (including interest rates, credit and commodities), foreign exchange, physical

[1] For our clients that are family offices and high net worth individuals, this letter also supplements the Morgan Stanley & Co. LLC Client Relationship Summary (CRS) that will be available in our Sales & Trading Disclosures at Disclosures.

commodities (including natural gas, electricity, environmental attributes and precious and base metals) and other fixed income and commodities financial instruments (collectively, "FIC Products") for a variety of purposes. Morgan Stanley trades as principal in these markets, and, in its role as a dealer and market maker, does not: (1) make recommendations or provide advice; (2) take orders for FIC Products, except in certain limited product types, such as certain types of transactions in foreign exchange, precious metals and other commodities and in certain offerings, such as U.S. Treasury securities via Rates Fusion; or (3) act on an agency or fiduciary basis with respect to any market making transaction, unless specifically agreed with you, and then only where we act with discretion in execution (referred to in certain regions and products, such as securities transactions in the U.S., as being on a "not held" basis).

As Morgan Stanley regularly trades as principal in the FIC markets in connection with its dealing and market making activities for you and other clients, and to hedge its risk with respect to such activities, we may transact as a principal in FIC Products at the same time as, or before we execute trades resulting from your FIC Transaction Request. In addition, and unless we otherwise agree with you, we may source liquidity through a variety of means, including internal liquidity, external trading venues or interdealer markets. In addition to our own internal market making desks, participants in these venues and markets may include other dealers, market makers, clients and professional trading firms.

Principal Trading & Market-Making

The FIC markets are predominantly principal markets. Thus, as a market maker, we typically face our clients as principal when executing trades resulting from FIC Transaction Requests and do not act as an agent, broker or fiduciary with respect to our market making activity. Accordingly, we may trade ahead of, alongside or following your transactions: to execute other client transactions (including where such trading is on a systematic, automated basis through the use of algorithms or other execution methodologies); to hedge or source liquidity for market making purposes (either for your transaction, which may include pre- hedging, or in connection with other client activity); to liquidate risk resulting from our client facilitation business; as part of a previously commenced strategy; or to facilitate the purchase and/or settlement of securities issued in debt offerings (including where we act as billing and delivery agent). These activities and unrelated Morgan Stanley activity on a principal basis in the same or related FIC Products may impact whether we execute transactions with you or the prices (including reference prices) of your transactions and/or the time at which your transactions are executed; and may also trigger or delay, or prevent the trigger of, stop loss orders, binary options (such as barriers, knock-ins and knock-outs) or any other events which are dependent on market movements. We employ reasonably designed means to minimize market impact and stand ready to discuss market pricing and execution levels with you at any time. When we act with discretion in executing an order (for example, at "best," or through an order worked over a period of time and subject to parameters we agree with you), we are not, unless specifically agreed with you, acting as your agent and such order is on a "not held" basis. Morgan Stanley may enter into transactions in the relevant or related instruments through internal sources of liquidity or in the market at different times and prices, including pre-hedging in advance of executing your FIC Transaction Request, in order to offset the risk incurred and ultimately provide you with an overall fill that takes into account these executions. Unless we agree otherwise, the price of any transaction we execute with you may include what we believe to be a reasonable spread, as further described below under "Liquidity Sourcing."

We may choose to leave a position unhedged or partially hedged, and may adjust any hedge from time to time in our sole discretion. In order to unwind a hedge, we may need to unwind our position by trading in the relevant or related instruments. As a result, we may be adjusting or unwinding hedge positions before the performance date or time for determination of a benchmark, fixing or other reference price or rate, stop loss level or barrier price contained in your transactions, or our hedging strategy may involve greater and more frequent dynamic adjustments to our hedge as market prices approach such benchmark, fixing or other reference rate, stop loss level, or barrier price. All of the above dealing, market-making, hedging and hedge unwind activities may affect the market price (including reference price) of the relevant or related instruments, and thus the probability that a particular event as described above will occur. Regardless of whether or how we choose to hedge, any profit or loss resulting from any hedging activity will accrue to Morgan Stanley.

When negotiating any particular transaction with us, you may ask that we do not trade as a principal ahead of, or alongside, your transaction, or that we execute your instructions in a certain manner, such as through the use of algorithms. Please note that such a request may limit the execution services we are able to offer you in any particular case.

Liquidity Sourcing

In certain markets, such as foreign exchange, interest rates (e.g., U.S. Treasuries and other sovereign bonds), precious metals and credit (e.g., U.S agencies, corporate and municipal bonds), Morgan Stanley utilizes a number of internally developed tools designed to access both external and internal sources of liquidity in order for Morgan Stanley, as principal, to provide what we deem to be the most favorable bids and offers, and executions, reasonably available under the circumstances. These tools may include algorithms, internalization engines and/or smart order routers that route full or partial FIC Transaction Requests to various external liquidity sources, including certain trading venues that electronically provide information to us regarding their available and accessible liquidity. Morgan Stanley may benefit from reduced transaction costs when executing through certain internal or external trading venues and, if we have an investment in, or other relationship with, an external venue, the Firm may receive other benefits as a result of that interest. In addition, all or a portion of your transaction may be filled by internal sources of liquidity rather than any external trading venues. Either way, unless we agree otherwise, Morgan Stanley will trade in a principal capacity, and your execution levels may be inclusive of what we believe to be a reasonable spread above the price at which Morgan Stanley may transact, or has transacted, with other clients or trading counterparties, in addition to any disclosed fees that may be charged to access particular sources of liquidity. In determining the price on any trade, we take into account a number of factors that are described in the attached Annex A to this letter. In addition, to the extent we execute a trade with you through internal sources of liquidity, and that liquidity is sourced from another client, we may also receive additional compensation on, and fees for, the trade we execute with our other client.

Our receipt of a FIC Transaction Request and any indication we provide to you that we are "working" on trade execution with you, is our indication that we are willing (but not obligated) to enter into all or a portion of a trade at the price requested by you, and we do not assume any market risk or legal obligation with respect to such FIC Transaction Request until we have agreed to execute a trade with you. At or about the same time that we receive your FIC Transaction Request, we may also be executing transactions in similar or related products as a result of our market making activities for other clients and to hedge our risk with respect to these products. More specifically, for bids/offers wanted in competition ("BWICs" and "OWICs"), it is possible that we may independently submit a bid or offer that is at or above a bid or offer that you have submitted in the BWIC/OWIC without taking your bid or offer into account.

In light of all these activities, we will exercise discretion as to how we may satisfy your FIC Transaction Request and our other market making activities, including as to timing, prioritization, aggregation and manner of execution, as well as the amount and price of your fill In the case of "call orders" in foreign exchange, we will also exercise discretion in terms of if and when we will contact you if the market reaches certain levels. In all cases, our handling of these requests will be dependent on our ability to access liquidity (such as in the case of "market" or "at best" orders) or liquidity at the relevant or better price (such as in the case of "stop loss" or "limit" orders). In addition, your transaction will likely include what we believe is a reasonable spread as described above. For "stop loss," there is a risk, particularly in times of market volatility or stress, that your FIC Transaction Request may be triggered in a manner or at a time that you do not expect (if at all), or at a level that may be worse than you requested. For both "stop loss" and "limit" orders, Morgan Stanley may, on notice to you, watch these orders at levels that include a reasonable spread and reserves the right to retain all or part of any price improvements in the market, in light of the greater risk we take in executing such FIC Transaction Requests. This may also impact the amount of your fill. For requests at "market," any upside or downside fluctuations in the price at the time of execution may be passed to you.

Your FIC Transaction Requests may also be subject to priorities and/or aggregation we determine in our discretion that may result in either Morgan Stanley's own trades or other client trades being executed ahead of, or alongside, any trades we execute with you, which may impact the price of your transactions, the timing of execution and/or the amount of your fill. There may also be inherent latencies at both internal and external venues that result in delays between the time we receive your requests and the time we seek to execute trades resulting from such requests. These latencies and our risk management practices may impact whether we execute transactions relating to all or a portion of your FIC Transaction Requests and the price at which transactions are executed. For example, we may reserve a "last look" in order to determine whether there have been any intervening price moves, market disruptions or other unusual market conditions. If we determine to execute, the costs or benefits of any price changes arising from these risk management practices may, in our discretion, be retained by us or passed on to you. For more information regarding our foreign exchange, precious metals and fixed income bonds risk management practices, please refer to the attached Annex B.

When negotiating any particular transaction with us, you may ask that we access or avoid specific sources of liquidity in the relevant market. Please note that our ability to facilitate such a request will vary, and may limit the execution services we are ultimately able to offer you in any particular case.

Client Information

Protecting the confidentiality and security of client information is an important part of how we conduct our business. Morgan Stanley also has policies and procedures to assist in the identification, prevention and management of conflicts of interest between Morgan Stanley and you, or between you and another Morgan Stanley client, that may arise in the course of your interactions with us. Notwithstanding these conflict management policies and procedures, we may in certain circumstances disclose to you specific information regarding the source and nature of a particular conflict as well as the steps taken by us to mitigate such conflict.

Morgan Stanley has reasonable controls that are designed to protect your confidential information, both internally (on a “need to know” basis) and externally. This includes client bids submitted in U.S. Treasury (“UST”) auctions and actual or potential transactions in “when issued” UST securities, UST futures and UST swaps. Please be advised that you are obligated to report your net long position to the U.S. Treasury if you bid in an auction for $100 million or more of UST notes, bills or bonds (“UST Securities”), as required by Section 356.14(d) of Department of the Treasury Circular (the “UST Circular”), and that customer confirmation reporting requirements under Section 356.24 of the UST Circular apply if you are awarded $2 billion or more in a UST Securities auction.

You should understand that Morgan Stanley does make use of some information contained in FIC Transaction Requests and executed transactions in order to effectuate and risk manage the transactions themselves, as well as for portfolio and inventory risk management purposes. Specifically, and unless you instruct otherwise, Morgan Stanley may use the economic terms of a FIC Transaction Request (but not the client identity) to test liquidity and/or execute trades with one or more third parties (including interdealer brokers) in order to source liquidity. We may also use the economic terms of various transactions (including market, liquidity and credit risks) on an individual, portfolio, or other basis to evaluate and execute risk-mitigating transactions. In addition, as part of its obligations as a regulated entity, Morgan Stanley also shares client information as requested or required by its global regulators and applicable laws, rules and regulations.

With regard to executed FIC Product transactions, Morgan Stanley analyzes this information on an individual and aggregate basis for a variety of purposes, including counterparty, portfolio and inventory risk management, sales coverage, and client relationship management. In addition, Morgan Stanley may analyze, comment on and disseminate anonymized and aggregated information regarding executed FIC transactions, as well as FIC Transaction Requests that may be away from the current market, together with other available information regarding various markets, internally and to its clients as part of its general market commentary and trade ideas.

Risk & Other Disclosures (Including LIBOR & Other Benchmarks)

We also encourage you to review important regulatory and other disclosures describing Morgan Stanley's role as a swap dealer (including material risks of trading swaps, conflicts of interest and our "Additional FID Disclosures" document), which are available at Matrix/Disclosures, and in executing orders in exchange-traded funds (ETFs), which are available in our Sales & Trading Disclosures at Disclosures. If you do not have access to Matrix/Disclosures, please contact your Morgan Stanley representative in order to obtain such access.

In addition, our swap dealer disclosures available at Matrix/Disclosures include risks related to LIBOR and other inter-bank offered benchmarks (such as EURIBOR and EONIA)(collectively, "IBORs") and this risk disclosure is applicable not only to IBOR-linked swaps but also IBOR-linked cash and loan products. It can also be found on the ISDA website under its ISDA Interest Rate Derivatives Disclosure Annex. We also post additional IBOR risk disclosures at Disclosures, which we update from time to time based on recent developments in the IBOR transition.

The IBORs have been determined to be systemically unsound by the Financial Stability Board due to the limited number of unsecured inter-bank funding transactions. In addition, Ice Benchmark Administration, the publisher of LIBOR, has announced that all non-U.S. Dollar LIBOR rates (including Sterling, Yen and Swiss Franc LIBOR) and 1-week and 2-month U.S. Dollar LIBOR will cease publication on a representative basis immediately after December 31, 2021 and all other U.S. Dollar LIBOR tenors will cease publication on a representative basis immediately after June 30, 2023. In the case of EONIA, following a recommendation by the ECB Working Group on Risk-Free Rates, EONIA has been re-defined as €STR plus a spread and will cease being published at the end of 2021. For more information on EONIA, see ECBWG.

In light of the risks related to LIBOR and EONIA, please contact your Morgan Stanley sales representative if you would like to discuss: the IBOR transition; your IBOR transactions with Morgan Stanley; or the possibility of voluntarily converting your outstanding IBOR derivatives or other fixed income products to one of the "risk free rates" recommended by central bank convened committees (including, in the U.S., SOFR which has been recommended by the Alternative Reference Rates Committee, and in the U.K., SONIA, which has been recommended by the Sterling Risk-Free Rate Working Group). Please also contact your Morgan Stanley representative if you have any questions regarding the ISDA IBOR Fallback Protocol that amends legacy IBOR derivatives to include robust fallbacks to these "risk free rates."

Conclusion

Morgan Stanley is dedicated to upholding a high level of integrity and adhering to published industry best practices (such as those published by the TMPG, GFMA, IOSCO, the FSB, the Global Foreign Exchange Committee and other similar industry bodies) in our dealings with clients. This includes relying on the apparent authority of your personnel with respect to FIC Transaction Requests and the execution of any trades.

This letter is meant to underscore Morgan Stanley's commitment to providing clients transparency on our business practices. If you have questions after reading this letter or our dealings with you, we encourage you to contact your regular Morgan Stanley client service representative.

Fixed Income & Commodities Trading Practices and Information

Annex A – Pricing Factors

The price at which you trade with Morgan Stanley will depend on a number of factors, including those set out below. This list is not exhaustive and Morgan Stanley may take into account other factors that it considers appropriate in determining that price.

A. The type of product, transaction and market in which the product would be traded, such as:
   (i) the trading venue (*e.g.*, single dealer or third party electronic or voice trading platform or exchange);

   (ii) the type of FIC Transaction Request (*e.g.*, expression of interest or order, and terms of such request, including "stop loss," "at best" or "limit");

   (iii) the size, type and direction of the transaction;

   (iv) market conditions, including market events, liquidity, volatility and time of execution;

   (v) transparency of the market, including visible liquidity, trading volume and available external venues or platforms; and

   (vi) the accessibility of third party quotations and other pricing information;

B. Internal costs to Morgan Stanley, such as counterparty credit risk, hedging and market risk, funding, capital and overhead;

C. Client-specific factors, such as: the volume, types of trades and frequency/velocity of trading the client executes both with Morgan Stanley and in the market; credit quality; type of collateral posted; and potential market impact; and

D. Applicable regulatory requirements.

Fixed Income & CommoditiesTrading Practices and Information

Annex B – Foreign Exchange, Precious Metals & Fixed Income Bonds

Morgan Stanley provides price quotes to, or for certain limited product types, receives orders from, and executes over-the-counter transactions with, its clients in the FIC markets on a principal basis (and not as fiduciary or agent unless specifically agreed with you). Unless otherwise agreed with you in writing, all confirmations of (i) foreign exchange transactions are subject to the 1998 ISDA FX and Currency Option Definitions; and (ii) precious metals transactions are subject to the 2005 ISDA Commodity Definitions; in each case including all annexes and supplements to such definitions, as in effect on the trade date of any such transactions and regardless of whether such confirmations specifically refer to such definitions.

Foreign exchange, precious metals and fixed income bond expressions of interest or, as applicable, orders may be submitted electronically or by voice or other traditional communication channels, and there is no guarantee that any such request will be filled, in whole or in part. Foreign exchange orders submitted electronically are time stamped upon receipt by Morgan Stanley and voice orders that are not subject to immediate execution are time stamped when input into our order management system.

In the case of either expressions of interest or, as applicable, orders, Morgan Stanley may utilize algorithms, smart order routers and technology which take into account a variety of factors (including, but not limited to, the applicable currency pair, type of bond or precious metal, the time zone/region in which an order or expression of interest is submitted, current market conditions, liquidity, size of order or expression of interest, historically observed fill rates and other proprietary factors we determine to be relevant) and are designed to access external and/or internal sources of liquidity, in order to provide what we deem to be the fairest bids, offers and executions reasonably available under the circumstances.

Morgan Stanley uses the common industry practice of "last look" which may result in the adjustment of its price quotes prior to execution. This is to protect against losses on trades in circumstances arising from intervening price moves, technical latency, market disruptions and/or unusual market conditions. In the case of fixed income bond quotes that we make available electronically, these quotes may be firm for a specified period in accordance with "wire time" conventions determined by 3rd party trading platforms or, in the case of our proprietary trading platforms, Morgan Stanley.

Electronic Quote-Based Trading (E-FX & Precious Metals)

In the case of electronic trading where clients receive streaming foreign exchange and precious metals price quotes, Morgan Stanley's electronic trading business ("MSET") applies "last look" trade acceptance parameters to protect against these losses. Trade requests (each, an FX/PM Transaction Request) that fail any trade acceptance parameter will be rejected. Our default practice is to apply trade acceptance parameters "symmetrically," *i.e.,* if the price move, regardless of direction, is greater than a specified threshold, your FX/PM Transaction Request will be rejected.

You may request to opt-out of the symmetrical application of these "last look" trade acceptance parameters, thus receiving asymmetric application of these parameters. This choice may increase your overall trade acceptance rate and narrow the spread of the quotes provided to you.

In addition to applying "last look" trade acceptance parameters to our electronic quotes, Morgan Stanley may, for some counterparties, also apply a hold time. Based on observed quote update times at a number of different electronic trading platforms, Morgan Stanley has determined that 300 milliseconds is currently the maximum hold time that may be configured for any client. Any actual hold time that is applicable will be set out in our FIX trade reject message. This means that the last look trade acceptance checks described above will not occur until the particular hold time period has elapsed. Morgan Stanley applies a hold time solely to evaluate whether an intervening price movement has occurred. We do not use "last look" or any hold time to "pre-hedge" your transaction requests prior to trade acceptance or rejection.

The trade acceptance parameters and, if applicable, length of hold time, are reviewed periodically by us and may be adjusted based on your trading activity and our overall risk tolerance.

We may in our discretion (and unless you request specific instructions and execution methodology) use our electronic trading technology, and apply our trade acceptance parameters, when executing all or a portion of your FX/PM Transaction Requests submitted to our institutional foreign exchange or precious metals desk by voice or other traditional communication channels.

Electronic Order-Based Trading (Fusion)

Foreign exchange and precious metals orders that are submitted electronically (which may include algorithmic order types such as volume-weighted-average-price and time-weighted-average-price orders) may be filled by Morgan Stanley accessing one or more of the following: (1) external market centers in the relevant foreign exchange or precious metals markets (including but not limited to, trading platforms, inter- dealer brokers and 3rd party matching venues), (2) our internal market making desk as a liquidity provider, or (3) our internal Morgan Stanley matching engines. No assurance can be given that your order will be filled by accessing any of these liquidity sources. If requested, you may opt out of our interacting with our internal market-making desk, matching engines and/or certain external foreign exchange or precious metals market centers.

When we source liquidity from external market centers, the price we receive from the external market center, plus an pre-agreed fee, is the price at which we execute our principal trade with you (*i.e.*, 'print for print'). These external market centers may apply their own "last look" trade acceptance parameters to any trade request Morgan Stanley seeks to execute in order to fill your order with liquidity from these market centers.

We only source liquidity for Fusion orders from our internal market making desk, as a liquidity provider, when the all-in price of a trade will achieve executions at prices which we believe are equal to or better than the prices visible to us on internal or external FX or precious metals market centers (inclusive of any pre-agreed fee)[2]. When we act as a liquidity provider, your execution is not related to a specific external market execution. Unless explicitly pre-agreed with you, these executions for Fusion orders are provided on an "all-in" basis, and no additional execution fees apply.

In circumstances where we source liquidity internally as the operator of a matching mechanism, we only do so when the price of a trade will achieve executions at prices which we believe are comparable to those visible to us on external FX or precious metals market centers. These executions are subject to our pre-agreed fee.

MSET offers clients the ability to have their open Fusion orders visible only to personnel in our MSET foreign exchange and interest rate ("Macro") business or, in the case of precious metals, our Macro and Commodities businesses. This "limited visibility" is our default configuration and clients may request that their orders be seen more broadly across these businesses. Regardless of a client's configuration, personnel in Macro (and, in the case of precious metals, Macro and Commodities) business management, legal, compliance, risk management, technology and other support functions may obtain access to live client order data. In addition, if a significant market disruption or business continuity event were to occur, any "limited visibility" of open Fusion orders may temporarily and without notice be expanded to other personnel in our Macro business, so that we may continue to manage live orders during the occurrence of such event.

Benchmark Orders

Foreign exchange benchmark orders, including for the WM Reuters fix, may be submitted by voice or electronically and are executed at the benchmark price plus either (a) the published benchmark bid/offer or (b) an agreed fee, which in either case is embedded in the all-in rate that is communicated to you after the relevant fixing is published.

Precious metals benchmark orders, such as the IBA LBMA Gold and Silver Price Auctions, are only available in limited circumstances where agreed with you in advance. Morgan Stanley participates in the IBA LBMA Gold and Silver Price Auctions and, where such an order is taken, you will be filled at the relevant LBMA Gold or Silver Price, as applicable, plus a pre-agreed fee.

[2] We may also source liquidity internally in limited circumstances where external sources of liquidity are unavailable or unreliable.