

MORGAN STANLEY & CO. LLC FIRM-SPECIFIC DISCLOSURE DOCUMENTS
PURSUANT TO CFTC RULE 1.55

Table of Contents

Overview of MS&Co., its Significant Business Activities and Product Lines	2
<i>Significant Business Activities and Product Lines.</i>	<i>2</i>
<i>Types of Customers.</i>	<i>3</i>
<i>Market, clearing organization, and carrying broker relationships.</i>	<i>3</i>
Customer Funds Segregation and MS&Co. Collateral Management and Investments	6
<i>Customer funds segregation.</i>	<i>6</i>
<i>MS&Co. 's choice of bank depositories, custodians, and counterparties for customer funds.</i>	<i>9</i>
<i>Collateral management.</i>	<i>9</i>
Permitted investment of customer funds.	9
<i>Non-Recognition of Initial Margin.</i>	<i>10</i>
Separate Margining of Certain Accounts	10
Treatment of Separately Margined Accounts in the Event of an FCM Bankruptcy	10
Investments of MS&Co. own funds	10
Material Risks	10
<i>Potential risks from investments of customer funds.</i>	<i>11</i>
<i>Potential risks from operations of MS&Co., its affiliates, and third-party service providers.</i>	<i>11</i>
<i>Potential risks associated with the financial condition of MS&Co. or its affiliates.</i>	<i>12</i>
Current Risk Practices, Controls, and Procedures	14
Legal and Regulatory Contingencies.....	17
Appendix A: General Information about MS&Co.	26
Appendix B: General Information about MSCO's Principals	27
Appendix C: Current Financial Data.....	33

Overview of MS&Co., its Significant Business Activities and Product Lines

This disclosure is designed to provide customers with information about Morgan Stanley & Co. LLC (“**MS&Co.**” or “the Firm”), including its significant business activities, the products and services it offers, and service providers and intermediaries with which it conducts its business activities, in each case, in its capacity as a registered futures commission merchant (“**FCM**”). This disclosure is effective as of July 3, 2019.

MS&Co is registered as an FCM with the U.S. Commodity Futures Trading Commission (“**CFTC**”) and as a broker-dealer with the U.S. Securities and Exchange Commission (“**SEC**”). As an FCM, MS&Co. is regulated by the CFTC, the National Futures Association (“**NFA**”), an industry-wide self-regulatory organization, and by the Financial and Regulatory Surveillance Department of the Chicago Mercantile Exchange (“**CME**”), in its capacity as MS&Co.’s designated self-regulatory organization (“**DSRO**”) under the regulations of the CFTC. As a securities broker-dealer, MS&Co. is regulated by the SEC and the Financial Industry Regulatory Authority (“**FINRA**”), the self-regulatory organization for broker-dealers. MS&Co. operates in both U.S. and non-U.S. markets, with its non-U.S. business activities principally conducted and managed through European and Asian locations.

MS&Co. is a wholly-owned indirect subsidiary of Morgan Stanley, a global financial services firm that, through its subsidiaries and affiliates, provides financial products and services to a large and diversified group of clients and customers, including corporations, governments, financial institutions and individuals. Morgan Stanley was originally incorporated under the laws of the State of Delaware in 1981, and its predecessor companies date back to 1924. Morgan Stanley is a financial holding company regulated by the Board of Governors of the Federal Reserve System. Morgan Stanley conducts its business from its headquarters in and around New York City, its regional offices and branches throughout the U.S. and around the world, as well as its principal offices in London, Tokyo, Hong Kong and Singapore.

MS&Co.’s current Consolidated Statement of Financial Condition and Independent Auditors’ Report are available here:

http://www.morganstanley.com/about-us-ir/shareholder/morganstanley_co_llc.pdf?v=20160314

Morgan Stanley’s current annual report and other SEC filings are available here:

<http://www.morganstanley.com/about/ir/index.html>.

Significant Business Activities and Product Lines. MS&Co.’s significant business activities in its capacity as an FCM include customer execution and clearing services in listed futures, swaps, forwards, options and other derivative instruments. These instruments may reference, among other things, interest rates, currencies, investment grade and non-investment grade corporate credits, bonds (including emerging market bonds), securities (including securities issued by the U.S. government and other government issuers), metals, energy products, agricultural commodities, credit indices, and broad and narrow-based security indices listed on U.S. and non-U.S. security exchanges. Consistent with the requirements of the restrictions on activities and investments imposed by a section of the Bank Holding Company Act of 1956 referred to as the “Volcker Rule,” MS&Co. also engages in trading and making markets in the same types of instruments.

As a broker-dealer, MS&Co. also engages in securities underwriting and distribution; financial advisory services, including advice on mergers and acquisitions, restructurings, real estate and project finance; sales, trading, financing and market-making activities in equity securities and related products and fixed income securities and related products including foreign exchange and investment activities. The following table sets forth, as of May 31, 2019, the significant types of business activities and product lines engaged in by MS&Co. and the approximate percentage of MS&Co.'s assets and capital that are used in each type of activity.

Activity/Product Line	Percentage of Assets	Percentage of Capital
Financing (Resales, Borrows)	55.38%	10.78%
Inventory by Business Line:		
FICC	23.14%	24.46%
Equities	4.90%	7.08%
Other Inventory	0.56%	3.51%
Goodwill and Intangible Assets	0.04%	1.82%
Receivable from Broker-Dealers and Customers	7.46%	2.95%
Investments in Subsidiaries and Receivable from Affiliates	0.04%	1.84%
Fixed and All Other Assets	8.48%	47.56%
	100.00%	100.00%

Types of Customers. MS&Co. provides futures and swaps execution and clearing services to a large and diversified group of clients and customers, including a broad range of institutional clients, hedge funds, asset managers, financial institutions, governmental entities, pension plans, and corporations, as well as individuals, non-profit corporations, foundations, and family offices.

Morgan Stanley Smith Barney LLC d/b/a Morgan Stanley Wealth Management operates as an introducing broker that from time to time introduces, on a fully disclosed basis, futures customers to MS&Co., as clearing broker.

Market, clearing organization, and carrying broker relationships. MS&Co. is a member or trading participant of various futures exchanges (known as designated contract markets (“DCMs”) under CFTC regulations) and swaps execution facilities (“SEFs”) on which it trades or facilitates the execution of futures and swaps for its customers, including the following:

DCM (Designated Contract Market) Memberships	SEF (Swaps Execution Facilities) Memberships
CBOE Futures LLC	BGC Derivatives Markets

Chicago Board of Trade	Bloomberg SEF
Chicago Mercantile Exchange, Inc.	DW SEF (Dealerweb)
Commodity Exchange Inc.	GFI Swaps Exchange
ICE Futures US, Inc.	GTX SEF (Gain)
Nasdaq Futures Exchange, Inc.	ICAP Global Derivatives
New York Mercantile Exchange, Inc.	ICE Swap Trade (Creditex)
Nodal Exchange LLC	NEX SEF
OneChicago LLC	Refinitiv US SEF
	SwapEX (State Street)
	tpSEF (Tullett Prebon)
	Tradition SEF (Trad-X)
	TW SEF (Tradeweb)

In addition, MS&Co. is a foreign approved participant on the Bourse Montréal and a trading participant of the Mercado Mexicano de Derivados (MexDer). MS&Co. is also a clearing member of several clearing houses, and facilitates access to many others through a network of affiliated and non-affiliated carrying brokers, including the following:

Clearing Organization	MS&Co. is a Clearing Member	MS&Co. clears through an affiliate or arranges clearing through non-affiliate (as indicated)
Asigna	No	Non-affiliate
ASX Clear	No	Affiliate
ATHEXClear	No	Non-affiliate
BME Clearing	No	Affiliate
BM&FBOVESPA Clearinghouse	No	Affiliate
Bursa Malaysia Derivatives Clearing	No	Non-affiliate
Canadian Derivatives Clearing Corporation	No	Non-affiliate
Cassa di Compensazione e Garanzia	No	Affiliate
CME Clearing	Yes	
Eurex Clearing	No	Affiliate
European Commodity Clearing	No	Affiliate
HKFE Clearing Corporation	No	Affiliate
ICE Clear Credit	Yes	

ICE Clear Europe	Yes¹	
ICE Clear U.S.	Yes	
Japan Commodity Clearing House	No	Affiliate
Japan Securities Clearing Corporation	No	Non-affiliate
JSE Clear	No	Non-affiliate
Korea Exchange	No	Affiliate
LCH.Clearnet Limited	Yes	
LCH.Clearnet SA	No	Affiliate
LME Clear	No	Affiliate
Minneapolis Grain Exchange	No	Non-affiliate
NASDAQ OMX Stockholm AB	No	Affiliate
National Depository for Securities (KDPW) Securities Clearing Corporation Limited	No	Non-affiliate
Nodal Clear	Yes	
Options Clearing Corporation	Yes	
SEHK Options Clearing House	No	Affiliate
Singapore Exchange Derivatives Clearing	No	Affiliate
Taiwan Futures Exchange	No	Affiliate
Takasbank	No	Non-affiliate
Thailand Clearing House Co.	No	Non-affiliate
Tokyo Financial Exchange	No	Non-affiliate

MS&Co.’s global network of trading and clearing relationships with affiliates and non-affiliates includes: Morgan Stanley & Co. International plc, Morgan Stanley Asia Singapore Securities Pte Ltd., Morgan Stanley Corretora de Títulos e Valores Mobiliários S.A., Morgan Stanley MUFG Securities Co. Ltd., Morgan Stanley Australia Securities Limited, Morgan Stanley & Co. International plc, Seoul Branch, Morgan Stanley Taiwan Ltd., Morgan Stanley Hong Kong Securities Limited, Morgan Stanley India Company Private Limited, BMO Bank of Montreal

¹ MS&Co. and its affiliate Morgan Stanley & Co. International plc (“MSIP”) are clearing members of ICE Clear Europe. MS&Co. maintains clearing accounts at ICE Clear Europe in its own name, as well as indirectly through its affiliate MSIP.

(Bourse Montréal), Newedge USA LLC (Minneapolis Grain Exchange), and Banco Santander S.A. (MexDer).

Customer Funds Segregation and MS&Co. Collateral Management and Investments

For additional information on the protection of customer funds under U.S. law, please see the FAQ on Protection of Customer Funds, prepared by the Law and Compliance Division of the Futures Industry Association, which sets forth questions and answers addressing the basics of (i) segregation, collateral management and investments, (ii) minimum financial and other requirements for futures commission merchants (FCMs) and joint FCM/broker-dealers, and (iii) derivatives clearing organization (DCO) guarantee funds. The FAQ is available here: https://secure.fia.org/downloads/pcf_questions.pdf.

Customer funds segregation. MS&Co. must keep customer cash, securities, and other property (“customer funds”) provided to MS&Co. to margin or guarantee customer futures and cleared swap customer transactions segregated from MS&Co.’s own funds. Depending on the purpose for which such funds are received, customer funds deposited with MS&Co. are allocated to (i) customer segregated accounts for U.S. futures and options on futures; (ii) customer cleared swaps accounts; or (iii) customer foreign futures and options on futures “secured amount” accounts (each, and collectively, the “customer segregated accounts”). Customer funds required to be held in one type of customer segregated account may not be commingled with funds required to be held in another type of customer segregated account (except as specifically authorized under applicable law or by the CFTC).

- ***Customer segregated account for futures or options on futures traded on U.S. exchanges.*** Customer funds provided to MS&Co. to margin or guarantee futures or options on futures traded on U.S. futures exchanges must be held by MS&Co. in a customer segregated account established at a U.S. bank or trust company, a clearing organization, or another FCM. Funds attributable to multiple customers may be commingled in a single account at a bank or trust company or other permitted depository; however, customer funds attributable to one customer may not be used to meet the obligations of any other person, including another customer.
- ***Secured amount account for foreign futures and options on futures trades by U.S. customers.*** MS&Co. is required to separately hold customer funds for its customers to margin or guarantee their futures and options on futures trades on foreign boards of trade. Collectively these funds are called the “secured amount” and are held in a customer segregated account separate from the funds held in the futures and cleared swap origins. Secured amount customer funds may be maintained in one commingled account for all of MS&Co.’s foreign futures and options on futures customers. Secured amount customer funds may be held with: (i) a bank or trust company located in the United States; (ii) the clearing organization of any foreign board of trade; (iii) a foreign broker; (iv) such a clearing organization’s or foreign broker’s designated depositories; (vi) a bank or trust company located outside the United States that has in excess of \$1 billion of regulatory capital; or (vii) an FCM registered with the CFTC. However, MS&Co. may not maintain customer funds in the foreign futures and options on futures account outside the United States except as necessary to meet margin requirements

(including pre-funding requirements) established by rule, regulation or order of a foreign boards of trade or foreign clearing organization, or to meet margin calls issued by a foreign broker carrying the secured amount account.

- ***Customer segregated account for cleared swap trades.*** MS&Co. must maintain customer funds that margin cleared swap transactions in a customer segregated account that is separate from the customer segregated account for U.S. futures and from the secured amount account. Funds for all cleared swaps customers may be commingled in a single account and must be held at a bank or trust company, a clearing organization, or another FCM. Customer funds attributable to one cleared swap customer may not be used to meet the obligations of MS&Co. or of any other person, including another customer.

Acknowledgment Letters. Customer funds must be held in an account with a name that clearly identifies the funds as customer funds and shows that the funds are segregated as required under applicable law. An FCM is required to obtain written acknowledgements from each depository with which it custodies customer funds that the depository was informed that such customer funds belong to customers and are being held in accordance with applicable law. (An FCM is not required to obtain a written acknowledgment from a registered derivatives clearing organization that has adopted rules providing for the segregation of customer funds in accordance with the provisions of applicable law.) Among other representations, the depository must acknowledge that it cannot use any portion of customer funds to satisfy any obligations that the FCM may owe the depository. A copy of the letter must be filed with the CFTC and the FCM's DSRO. Among other provisions, the depository must agree that it will reply promptly and directly to any request for confirmation of account balances or any other information regarding or related to the customer segregated account from authorized members of the CFTC staff or an appropriate representative of the FCM's DSRO. In addition, the depository must undertake to provide the CFTC with the technological capability to obtain direct, read-only access to account and transaction information. Separately, DSRO rules require each FCM to instruct each depository, whether located in the United States or outside the United States, that holds customer funds (in any or all of the customer account origins) to confirm to the DSRO all account balances daily. DSRO programs compare the daily balances reported by the depositories with the balances reported by the FCMs in their daily segregation reports. Any material discrepancies would generate an immediate alert to regulators.

Reporting. MS&Co. is required, on each business day, to calculate its segregation requirement for each segregated customer account and to submit (on the next following business day) to the CFTC and to CME (as its DSRO) a report that sets out (i) the total amount of customer funds required to be held in each segregated customer account origin, (ii) the amount of such customer funds actually held in each segregated customer account origin, and (iii) its residual interest in each segregated customer account origin. In the event that the total amount of funds in a customer segregated account origin is less than the required amounts, MS&Co. would be required to give immediate notice of that fact to the CFTC, NFA, CME (as its DSRO) and other exchanges and clearing houses on which MS&Co. transacts as a member.

MS&Co. makes available on its website (available here: <http://www.morganstanley.com/institutional-sales/CFTC-CAP-rules-Firm-Disclosures-and->

[Financial-Data.html](#)) the following financial information relating to MS&Co.'s operations as an FCM: (i) the daily segregation statement, secured amount statement and cleared swap customer statement for each business day of the last calendar year; (ii) a schedule of the currently available month-end figures for MS&Co.'s tentative net capital, net capital and excess net capital for each month of the last calendar year; (iii) the year-end certified statement of financial condition, segregation statement, secured amount statement and cleared swap statement and all related footnotes thereto as set forth in MS&Co.'s most current and currently available certified annual report; and (iv) the month-end segregation statement, secured amount statement and cleared swap customer statement as set forth on MS&Co.'s month-end and currently available FOCUS reports for each month of the preceding calendar year.

Residual Interest. To ensure that it is continuously in compliance with its segregation requirements, MS&Co. deposits a portion of its own funds in each customer segregated account as a buffer to ensure that account levels do not fall below those required to margin customer positions. These excess funds represent MS&Co.'s "residual interest" in each customer segregated account. Residual interest funds are held for the exclusive benefit of MS&Co.'s customers while held in a customer segregated account. MS&Co. is required to have written policies and procedures regarding the establishment and maintenance of a targeted residual interest in each of the three customer segregated account origins. In establishing the residual interest target amount, MS&Co. senior management have taken into consideration a number factors, including: (i) the nature of MS&Co.'s customers, their general creditworthiness, and their trading activity; (ii) the type of markets and products traded by those customers, as well as MS&Co.'s proprietary trading; (iii) the general volatility and liquidity of those markets and products; (iv) MS&Co.'s own liquidity and capital needs; and (v) historical trends in balances and customer debits in each customer segregated account.

All FCMs are required to notify the CFTC and its DSRO (the CME, for MS&Co.) immediately whenever the amount of residual interest in any segregated customer account falls below the FCM's targeted residual interest for such customer segregated account. In addition, certain restrictions and conditions apply to an FCM's ability to withdraw funds comprising its residual interest from any customer segregated account. Specifically, an FCM must file a regulatory report of any withdrawal of funds from a customer segregated account that exceeds 25 percent of the FCM's residual interest in that account, and any such withdrawal must be pre-approved in writing by a senior financial officer of the FCM.

Periodic Regulatory Audits. MS&Co. is subject to an annual financial and operational audit conducted by its DSRO, which tests for MS&Co.'s compliance with its obligations under applicable law relating to the handling of and accounting for customer segregated funds. In addition, MS&Co. is subject to periodic audits by the CFTC, NFA and other self-regulatory organizations.

Bankruptcy Protections. The Federal Bankruptcy Code (the "Code") includes provisions relating to the insolvency of an FCM that define customer property to mean cash, securities, or other property held by the FCM for the account of a customer. The Code also sets forth special priority rules for distribution of property to futures customers and exceptions to the automatic stay and voidability provisions of the Code. The Code affords claims of public customers of the

FCM (that is, customers of the FCM that are not affiliates of the FCM) the highest priority, subject only to the payment of claims relating to the administration of customer property. In the event of the insolvency of an FCM, where there also was a shortfall in customer funds, customers participating in the relevant account class would be entitled to a pro-rata distribution of customer property, in accordance with the requirements of section 766 of the Code.

MS&Co.'s choice of bank depositories, custodians, and counterparties for customer funds. MS&Co. has adopted policies and procedures for the evaluation of depositories of customer funds, which include criteria that must be met by a depository to be selected to hold customer funds. In evaluating a depository's suitability as a custodian of customer funds, MS&Co. examines, among other factors, the depository's capitalization, creditworthiness, operational reliability, and access to liquidity. MS&Co. also takes into account the extent to which customer funds are concentrated with any depository or group of depositories. The criteria also include the availability of deposit insurance and the extent of the regulation and supervision of the depository.

Upon the approval of a depository as a custodian of customer funds, account opening procedures ensure that, prior to the deposit of customer funds, the depository's authorization requirements are fully documented, and acknowledgment letters required from the depository are executed and filed with the appropriate regulator in accordance with applicable law.

MS&Co. also has policies and procedures for monitoring any approved depository of customer funds on an ongoing basis to assess its continued satisfaction of its established criteria, including annual due diligence review of each depository.

Collateral management. MS&Co. seeks to enable its customers to make efficient use of funds deposited with MS&Co. CFTC regulations and MS&Co. policies and procedures govern how customer funds provided to MS&Co. may be maintained and invested. Joint futures and securities customers of MS&Co. (and its broker-dealer affiliates) may transfer excess margin from their futures, secured amount or cleared swap customer accounts to their securities accounts, and may in turn meet their margin calls to MS&Co. as FCM by a transfer of available cash or collateral from their MS&Co. securities account. Customers should be aware that the funds transferred by a customer from a futures or cleared swaps account to a securities account would no longer receive the regulatory treatment afforded to funds held in a customer futures or cleared swaps account. Instead, the funds would be subject to applicable securities customer protection rules and statutes such as Rule 15c3-3 under the Securities Exchange Act of 1934, as well as the Securities Investor Protection Act of 1970 ("**SIPA**").

Permitted Investment of customer funds. CFTC Regulation 1.25 ("**Regulation 1.25**") sets forth requirements on how FCMs may invest customer funds. Pursuant to Regulation 1.25, an FCM is permitted to use customer funds to purchase permitted investments. Permitted investments must be separately accounted for by the FCM under CFTC Regulation 1.26 and segregated from the FCM's own assets in accounts that designate the funds as belonging to customers of the FCM and held in segregation as required by the Commodity Exchange Act and CFTC regulations.

MS&Co. submits a Segregated Investment Detail Report (“**SIDR**”) to the CFTC, the NFA and CME as its DSRO on the fifteenth and last business days of each month listing the names of all banks, trust companies, FCMs, DCOs, or any other depository or custodian holding customer funds for MS&Co., for each customer segregated account. This report includes: (1) the name and location of each entity holding such customer funds; (2) the total amount of customer funds held by each entity; and (3) the total amount of customer funds, cash and investments that each entity holds. A summary of the information set forth in the current MS&Co. SIDR may be viewed here:

<https://www.nfa.futures.org/basicnet/FCMFinancialsIndex.aspx?entityId=UpygXzt3Ct4%3d>

Non-recognition of Initial Margin. MS&Co. has implemented changes to the treatment of initial margin that is received from its futures and cleared swaps customers in the form of cash. In accordance with generally accepted accounting principles in the United States, these changes have resulted in the non-recognition of those cash initial margin balances on Morgan Stanley’s balance sheet.

Separate Margining of Certain Accounts. In accordance with and at all times subject to the conditions set forth in CFTC Staff Advisory No. 19-17, dated July 10, 2019, issued by the Division of Clearing and Risk and the Division of Swap Dealer and Intermediary Oversight (“Staff Advisory 19-17”), MS&Co. permits the treatment of certain accounts of the same beneficial owner as accounts of separate entities for purposes of CFTC Regulation 39.13(g)(8)(iii).

Treatment of Separately Margined Accounts in the Event of an FCM Bankruptcy. In the event of an FCM bankruptcy under 17 C.F.R. §§ 190.01 through 190.10 (the “Part 190 Rules”), all accounts of a customer that are separately margined in accordance with the terms and conditions of Staff Advisory 19-17 will be combined, and any such customer’s rights and obligations with respect to such separate accounts will be determined in accordance with the U.S. Bankruptcy Code and the Part 190 Rules.

Investments of MS&Co. own funds. MS&Co. invests its own funds separately from its investments of customer funds. These investments include direct investments in: U.S. government and agency securities and other sovereign government obligations; state and municipal securities and other corporate debt; residential mortgage-backed securities, commercial mortgage-backed securities and other asset-backed securities; collateralized debt obligations that typically reference a tranche of an underlying synthetic portfolio of single name credit default swaps collateralized by corporate bonds or cash portfolio of asset-backed securities; exchange-traded and unlisted equity securities and listed fund units; and listed and over-the-counter derivative contracts, including forward, swap and option contracts related to interest rates, foreign currencies, credit standing of reference entities, or equity prices. MS&Co.’s investments also include direct investments in private equity funds, real estate funds and hedge funds.

Material Risks

As discussed above, customer funds entrusted to MS&Co. are protected by significant regulatory protections and MS&Co.’s internal risk management and investment policies. Nonetheless,

customer funds held by MS&Co. are subject to certain risks. As described below, these include the risk of loss of all or part of the customer's funds due to investments made by MS&Co., risks associated with the operations of MS&Co. or its affiliates, and risks related to the financial condition of MS&Co. or its affiliates.

Potential risks from investments of customer funds. As of the date hereof, MS&Co. does not engage in permitted investments under Regulation 1.25. Were MS&Co. at any time to resume such permitted investments, such activity would entail risks arising from the particular investments, including market risk (the risk of loss arising from changes in price or value of an investment), credit risk (the risk of loss from a counterparty or issuer failing to meet its financial obligations), interest rate risk (the risk of loss due to changes to the level of one or more interest rates), and foreign exchange risk (the risk of loss due to changes to the value of a foreign currency or exchange rate between currencies). Under normal circumstances, and in accordance with CFTC regulations, an FCM bears sole responsibility for any losses resulting from the investment of customer funds in permitted investments under Regulation 1.25. However, in the extraordinary circumstance of an FCM's insolvency involving losses on permitted investments that the FCM was unable to cover, customers could end up bearing a pro rata share of such losses.

Potential risks from operations of MS&Co., its affiliates, and third-party service providers. Customers may be exposed to risks associated with the operations of MS&Co. or its affiliates. These risks include the risk of financial or other loss arising from inadequate or failed internal processes, employees, resources and systems or from fraudulent or other improper conduct. MS&Co.'s business is highly dependent on its ability to process, on a daily basis, a large number of transactions across numerous and diverse markets and in many currencies. MS&Co. performs the functions required to operate its different businesses either by itself or through third-party service providers. MS&Co. relies on the ability of its employees, its internal systems and systems at technology centers operated by unaffiliated third parties to process a high volume of transactions. These third parties may fail to perform their obligations, which could, in turn, disrupt MS&Co.'s operations. MS&Co. also faces the risk of default, operational failure or cessation of operations of any of the clearing firms, exchanges, clearing houses, custodians, depositories or other financial intermediaries it uses to facilitate customer transactions. In the event of such a default, breakdown or improper operation of MS&Co.'s, an affiliate's, or a third party's systems, or improper or unauthorized action by third parties or MS&Co.'s employees, MS&Co. could suffer financial loss, an impairment of liquidity, a disruption of business, regulatory sanctions or damage to its reputation, any of which could adversely affect its customers.

As a member of a futures exchange or clearing organization, MS&Co. may be required to pay a proportionate share of the financial obligations of other members who default on their obligations to the exchange or the clearing organization. While the rules governing exchange and clearing organization memberships vary, in general, MS&Co.'s guarantee obligations would arise only if the exchange or clearing organization had previously exhausted its other default resources. The maximum potential payout of an exchange cannot be estimated. MS&Co. believes that any potential requirement to make payments under these agreements is remote.

MS&Co. is regulated by the CFTC and is also subject to the rules of the NFA and of the futures exchanges, clearing organizations and SEFs on which it conducts business. Violations of the rules of the CFTC, NFA, futures exchanges, or SEFs could result in remedial actions, including fines, registration restrictions or terminations, trading prohibitions or revocations of exchange, clearing organization or SEF memberships.

Potential risks associated with the financial condition of MS&Co. or its affiliates. The financial condition of MS&Co. is critical to its continuing operations. As an FCM and a bank affiliate, MS&Co. is subject to capital, liquidity, leverage and other requirements designed to ensure that it is creditworthy and has sufficient financial resources to conduct its business activities. Customers may be negatively affected in their ability to do business with MS&Co. or may elect to transfer positions or collateral to another FCM in the unlikely event of a significant deterioration in the financial condition of MS&Co. Similarly, the deterioration of the financial condition of one of MS&Co.'s affiliates could negatively affect MS&Co. and its customers. In the event of MS&Co.'s insolvency, customers may be subject to fellow customer risk, which is the risk that losses in customer accounts will not be able to be covered by MS&Co., and the shortfall in customer funds will be apportioned pro rata among MS&Co. customers under U.S. bankruptcy law. An insolvency could also necessitate liquidation of customer positions and could delay reimbursement or reduce the amount of customer account equity.

Credit and creditworthiness. MS&Co. is rated A+ by Standard & Poor's ("S&P"). MS&Co.'s corporate parent, Morgan Stanley, currently has a credit rating of A by Fitch, A3 by Moody's, A by DBRS, Inc., A- by Rating and Investment Information, Inc., and BBB+ by S&P. MS&Co.'s rating reflects its material earnings, assets, and capital, and the importance of its products and services to Morgan Stanley's global client base and long-term operating strategy. MS&Co. incurs credit risk exposure to institutions and individuals. This risk may arise from a variety of business activities, including, but not limited to, entering into contracts under which counterparties have obligations to make payments to MS&Co.; extending credit to clients; providing funding that is secured by physical or financial collateral whose value may at times be insufficient to cover the exposure to MS&Co.; and posting margin and/or collateral to counterparties. Managing credit risk requires credit analysis of specific counterparties, both initially and on an ongoing basis. MS&Co. also incurs credit risk from investments whose value may fluctuate based on realized or expected defaults on the underlying obligations or loans.

Market risk. MS&Co.'s operations may be materially affected by market fluctuations and by global and economic conditions and other factors. This risk may impact the demand for MS&Co.'s services, costs of doing business and the value of its investments of its own funds, including in equity securities and interests in private equity, real estate, and hedge funds, as described above. In connection with MS&Co.'s efforts to monitor, measure, and analyze market risk across Morgan Stanley, the Firm's market risk division establishes risk limits and risk concentrations across all material firm exposures. In addition, analytical measures, such as VaR and S-VaR, are used by the market risk division as the basis for calculating capital allowances for market risk under SEC rules for broker-dealers and regulatory expectations of the Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency and other national and international regulatory bodies for Morgan Stanley. However, notwithstanding these efforts, there remains residual risk that exposures will be measured incorrectly, or that material risk issues will not be appropriately escalated or addressed.

Capital, liquidity and funding risk. MS&Co. is subject to the minimum net capital requirements of the CFTC (as an FCM) and the SEC and FINRA (as a broker-dealer). These requirements are designed to ensure that MS&Co. has sufficient capital to fund its operations and to meet its obligations to customers, counterparties, and creditors. MS&Co., as a dually registered FCM and broker-dealer, must maintain net capital equal to or in excess of the net capital required under Rule 15c3-1 under the Securities Exchange Act of 1934 as well as adjusted net capital in compliance with CFTC Rule 1.17. Under CFTC rules, MS&Co. must maintain adjusted net capital in compliance with CFTC Rule 1.17. Adjusted net capital under Rule 1.17 means, in general terms, the amount by which current assets exceed liabilities, with adjustments for a wide array of exposures. The adjusted net capital requirements are intended to assure that a firm is sufficiently well capitalized to meet its obligations out of its own funds, independent of segregated customer property. A summary schedule of MS&Co.'s adjusted net capital, net capital, and excess net capital, all computed in accordance with Rule 1.17 and reflecting balances as of the month-end for the 12 most recent months is available in this disclosure. MS&Co. has consistently operated with capital in excess of these regulatory capital requirements. CFTC regulations require an FCM to file a notice with the CFTC and with the Firm's designated self-regulatory organization (meaning, for MS&Co., the CME) whenever the Firm fails to maintain compliance with CFTC's capital requirements. If MS&Co. were unable to meet its capital requirements, it could be subject to regulatory action that could cause it to modify, suspend or cease some or all of its business activities.

Liquidity and funding risk refers to the risk that MS&Co. will be unable to finance its operations due to a loss of access to the capital markets or difficulty in liquidating MS&Co.'s assets. Liquidity and funding risk also encompasses risks to MS&Co.'s ability to meet its financial obligations without experiencing significant business disruption or reputational damage that may threaten MS&Co.'s viability as a going concern.

Customer activities. MS&Co.'s customer activities involve the execution, clearing, settlement and financing of various securities, futures, swaps and other derivatives transactions on behalf of customers. Customer securities activities are transacted on either a cash (fully paid) or margin (financed) basis. Customer futures and swap transactions are transacted on a margin basis (meaning the customer must post margin to cover some measure of the exposure on the underlying position). MS&Co. may have to purchase or sell financial instruments at prevailing market prices in the event of the failure of a customer to settle a trade on its original terms or in the event that the customer margin deposits or other collateral are not sufficient to fully cover its losses. MS&Co. seeks to control the risks associated with customer activities by requiring customers to maintain margin collateral in compliance with applicable regulations and internal policies.

Affiliate risk. MS&Co. is permitted to deposit customer funds with affiliated entities, such as affiliated banks, securities brokers or dealers or foreign brokers. Specifically, MS&Co. deposits funds with its affiliates, including Morgan Stanley & Co. International plc, Morgan Stanley MUFG Securities Co. Ltd., Morgan Stanley Asia Singapore Securities Pte Ltd., Morgan Stanley Taiwan Ltd., Morgan Stanley Hong Kong Securities Limited, and Morgan Stanley Australia Securities Limited. Such deposits by MS&Co. with its affiliates may increase the risk to customer funds but they may also provide benefits. MS&Co. has far more information about an affiliate, including the affiliate's internal controls, investment policies, customer protection

regime, finances and systems, than about a third party entity. Moreover, MS&Co. is able to provide services to its customers more efficiently and more effectively if trades are executed and cleared through its affiliate(s), given that MS&Co. and its affiliate(s) use the same systems, which permits straight-through processing of trades, enhancing certainty of execution and reducing errors. The use of affiliates, however, also poses certain risks. Because the activities of MS&Co. and its affiliates are integrated, the failure of one such entity may cause all of the affiliated companies to fail or be placed in administration within a relatively brief period of time. As is the case if an unaffiliated foreign broker, custodian or depository were to fail, an affiliate of MS&Co. would be liquidated in accordance with the bankruptcy laws of the local jurisdiction. Customer funds held with such entities would not necessarily receive the same protections afforded customer funds under U.S. law.

Liabilities. MS&Co.'s assets and liabilities are primarily related to transactions attributable to sales, and trading and securities financing activities. Securities financing transactions include cash deposited with clearing organizations or segregated under federal and other regulations or requirements, repurchase and resale agreements, securities borrowed and loaned transactions, securities received as collateral and obligation to return securities received, and customer and other receivables and payables. Securities financing assets and liabilities also include matched book transactions with minimal market, credit and/or liquidity risk. Matched book transactions accommodate customers, as well as obtain securities for the settlement and financing of inventory positions. The customer receivable portion of the securities financing transactions includes customer margin loans, collateralized by customer-owned securities, and customer cash, which is segregated in accordance with regulatory requirements. The customer payable portion of the securities financing transactions primarily includes customer payables to MS&Co.'s prime brokerage customers. MS&Co.'s risk exposure on these transactions is mitigated by collateral maintenance policies that limit MS&Co.'s credit exposure to customers. Additional disclosure relating to MS&Co.'s liabilities is available in MS&Co.'s current Consolidated Statement of Financial Condition, which is available at: http://www.morganstanley.com/about-us-ir/shareholder/morganstanley_co_llc.pdf?v=20160314.

Current Risk Practices, Controls, and Procedures

Risk controls and procedures. MS&Co. has established risk management practices, controls and procedures implementing its obligations as an FCM under the Commodity Exchange Act and CFTC regulations. In connection with these practices, controls and procedures, MS&Co. establishes credit and market risk-based limits for each proprietary and customer account; screens orders for compliance with such risk-based limits; monitors for adherence to the risk-based limits intra-day and overnight; conducts stress tests of all positions in the proprietary account and all positions in any customer account that could pose material risk; periodically evaluates its ability to meet margin requirements, and to liquidate the positions it clears in an orderly manner; and regularly tests all lines of credit.

MS&Co.'s risk management controls and procedures are implemented as part of a consolidated risk management program that manages risk on a consolidated basis across exposures firm-wide. On that consolidated level, Morgan Stanley has exposures and manages risk relating to a wide range of interest rates, equity prices, foreign exchange rates and commodity prices—and the

associated implied volatilities and spreads—related to the global markets in which it conducts its trading activities.

Morgan Stanley is exposed to interest rate and credit spread risk as a result of its market-making activities and other trading in interest rate-sensitive financial instruments (e.g., risk arising from changes in the level or implied volatility of interest rates, the timing of mortgage prepayments, the shape of the yield curve and credit spreads). The activities from which those exposures arise and the markets in which Morgan Stanley is active include, but are not limited to, the following: corporate and government debt across both developed and emerging markets and asset-backed debt (including mortgage-related securities).

Morgan Stanley is exposed to equity price and implied volatility risk as a result of making markets in equity securities and derivatives and maintaining other positions (including positions in non-public entities). Positions in non-public entities may include, but are not limited to, exposures to private equity, venture capital, private partnerships, real estate funds and other funds. Such positions are less liquid, have longer investment horizons and are more difficult to hedge than listed equities.

Morgan Stanley is exposed to foreign exchange rate and implied volatility risk as a result of making markets in foreign currencies and foreign currency derivatives, from maintaining foreign exchange positions and from holding non-U.S. dollar-denominated financial instruments.

Morgan Stanley is exposed to commodity price and implied volatility risk as a result of market-making activities and maintaining commodity positions in physical commodities (such as crude and refined oil products, natural gas, electricity, and precious and base metals) and related derivatives. Commodity exposures are subject to periods of high price volatility as a result of changes in supply and demand. These changes can be caused by weather conditions; physical production, transportation and storage issues; or geopolitical and other events that affect the available supply and level of demand for these commodities.

Morgan Stanley manages its trading positions by employing a variety of risk mitigation strategies. These strategies include diversification of risk exposures and hedging. Hedging activities consist of the purchase or sale of positions in related securities and financial instruments, including a variety of derivative products (e.g., futures, forwards, swaps and options). Hedging activities may not always provide effective mitigation against trading losses due to differences in the terms, specific characteristics or other basis risks that may exist between the hedge instrument and the risk exposure that is being hedged. Morgan Stanley manages the market risk associated with its trading activities on a company-wide basis, on a worldwide trading division level and on an individual product basis. Morgan Stanley manages and monitors its market risk exposures in such a way as to maintain a portfolio that Morgan Stanley believes is well-diversified in the aggregate with respect to market risk factors and that reflects Morgan Stanley's aggregate risk tolerance as established by its senior management.

Aggregate market risk limits have been approved for Morgan Stanley across all divisions worldwide. Additional market risk limits are assigned to trading desks and, as appropriate, products and regions. Trading division risk managers, desk risk managers, traders and the Market

Risk Department monitor market risk measures against limits in accordance with policies set by senior management.

Legal and Regulatory Contingencies.

MS&Co. is a wholly-owned, indirect subsidiary of Morgan Stanley, a Delaware holding company. Morgan Stanley files periodic reports with the Securities and Exchange Commission as required by the Securities Exchange Act of 1934, which include current descriptions of material litigation and material proceedings and investigations, if any, by governmental and/or regulatory agencies or self-regulatory organizations concerning Morgan Stanley and its subsidiaries, including MS&Co. As a consolidated subsidiary of Morgan Stanley, MS&Co. does not file its own periodic reports with the SEC that contain descriptions of material litigation, proceedings and investigations. As a result, we refer you to the “Legal Proceedings” section of Morgan Stanley’s SEC 10-K filings for 2018, 2017, 2016, 2015, and 2014. In addition, MS&Co. annually prepares an Audited, Consolidated Statement of Financial Condition (“Audited Financial Statement”) that is publicly available on Morgan Stanley’s website at http://www.morganstanley.com/about-us-ir/shareholder/morganstanley_co_llc.pdf?v=20160314. We refer you to the Commitments, Guarantees and Contingencies – Legal section of MS&Co.’s 2018 Audited Financial Statement.

In addition to the matters described in those filings, in the normal course of business, each of Morgan Stanley and MS&Co. has been named, from time to time, as a defendant in various legal actions, including arbitrations, class actions, and other litigation, arising in connection with its activities as a global diversified financial services institution. Certain of the legal actions include claims for substantial compensatory and/or punitive damages or claims for indeterminate amounts of damages. Each of Morgan Stanley and MS&Co. is also involved, from time to time, in investigations and proceedings by governmental and/or regulatory agencies or self-regulatory organizations, certain of which may result in adverse judgments, fines or penalties. The number of these investigations and proceedings has increased in recent years with regard to many financial services institutions, including Morgan Stanley and MS&Co.

MS&Co. is a Delaware limited liability company with its main business office located at 1585 Broadway, New York, New York 10036. Among other registrations and memberships, MS&Co. is registered as a futures commission merchant and is a member of the National Futures Association.

During the preceding five years, the following administrative, civil, or criminal actions pending, on appeal or concluded against MS&Co. or any of its principals are material within the meaning of CFTC Rule 4.24(l)(2) or 4.34(k)(2).

Regulatory and Governmental Matters

On February 25, 2015, the Firm reached an agreement in principle with the United States Department of Justice, Civil Division and the United States Attorney’s Office for the Northern District of California, Civil Division (collectively, the “Civil Division”) to pay \$2.6 billion to resolve certain claims that the Civil Division indicated it intended to bring against the Firm. That settlement was finalized on February 10, 2016.

In October 2014, the Illinois Attorney General’s Office (“ILAG”) sent a letter to the Firm alleging that the Firm knowingly made misrepresentations related to RMBS purchased by certain

pension funds affiliated with the State of Illinois and demanding that the Firm pay ILAG approximately \$88 million. The Firm and ILAG reached an agreement to resolve the matter on February 10, 2016.

On January 13, 2015, the New York Attorney General's Office ("NYAG"), which is also a member of the RMBS Working Group, indicated that it intended to file a lawsuit related to approximately 30 subprime securitizations sponsored by the Firm. NYAG indicated that the lawsuit would allege that the Firm misrepresented or omitted material information related to the due diligence, underwriting and valuation of the loans in the securitizations and the properties securing them and indicated that its lawsuit would be brought under the Martin Act. The Firm and NYAG reached an agreement to resolve the matter on February 10, 2016.

On July 23, 2014, the U.S. Securities and Exchange Commission ("SEC") approved a settlement by the Firm and certain affiliates to resolve an investigation related to certain subprime RMBS transactions sponsored and underwritten by those entities in 2007. Pursuant to the settlement, the Firm and certain affiliates were charged with violating Sections 17(a)(2) and 17(a)(3) of the Securities Act, agreed to pay disgorgement and penalties in an amount of \$275 million and neither admitted nor denied the SEC's findings.

On April 21, 2015, the Chicago Board Options Exchange, Incorporated (CBOE) and the CBOE Futures Exchange, LLC (CFE) filed statements of charges against the Firm in connection with trading by one of the Firm's former traders of EEM options contracts that allegedly disrupted the final settlement price of the November 2012 VXEM futures. CBOE alleged that the Firm violated CBOE Rules 4.1, 4.2 and 4.7, Sections 9(a) and 10(b) of the Securities Exchange Act of 1934, and Rule 10b-5 thereunder. CFE alleged that the Firm violated CFE Rules 608, 609 and 620. The matters were resolved on June 28, 2016 without any findings of fraud.

On June 18, 2015, the Firm entered into a settlement with the SEC and paid a fine of \$500,000 as part of the MCDC Initiative to resolve allegations that the Firm failed to form a reasonable basis through adequate due diligence for believing the truthfulness of the assertions by issuers and/or obligors regarding their compliance with previous continuing disclosure undertakings pursuant to Rule 15c2-12 in connection with offerings in which the Firm acted as senior or sole underwriter.

On August 6, 2015, the Firm consented to and became the subject of an order by the CFTC to resolve allegations that the Firm violated CFTC Regulation 22.9(a) by failing to hold sufficient US Dollars in cleared swap segregated accounts in the United States to meet all US Dollar obligations to cleared swaps customers. Specifically, the CFTC found that while the Firm at all times held sufficient funds in segregation to cover its obligations to its customers, on certain days during 2013 and 2014, it held currencies, such as euros, instead of US dollars, to meet its US dollar obligations. In addition, the CFTC found that the Firm violated Regulation 166.3 by failing to have in place adequate procedures to ensure that it complied with Regulation 22.9(a). Without admitting or denying the findings or conclusions and without adjudication of any issue of law or fact, the Firm accepted and consented to the entry of findings, the imposition of a cease and desist order, a civil monetary penalty of \$300,000, and undertakings related to public statements, cooperation, and payment of the monetary penalty.

On December 20, 2016, the Firm consented to and became the subject of an order by the SEC in connection with allegations that the Firm willfully violated Sections 15(c)(3) and 17(a)(1) of the Securities Exchange Act of 1934 and Rules 15c3-3(e), 17a-5(a), and 17a-5(d) thereunder, by inaccurately calculating its Reserve Account requirement under Rule 15c3-3 by including margin loans to an affiliate in its calculations, which resulted in making inaccurate records and submitting inaccurate reports to the SEC. Without admitting or denying the underlying allegations and without adjudication of any issue of law or fact, the Firm consented to a cease and desist order, a censure, and a civil monetary penalty of \$7,500,000.

On September 28, 2017, the CFTC issued an order filing and simultaneously settling charges against the Firm regarding violations of CFTC Rule 166.3 by failing to diligently supervise the reconciliation of exchange and clearing fees with the amounts it ultimately charged customers for certain transactions on multiple exchanges. The order and settlement required the Firm to pay a \$500,000 penalty and cease and desist from violating Rule 166.3.

On November 2, 2017, the CFTC issued an order filing and simultaneously settling charges against the Firm for non-compliance with applicable rules governing Part 17 Large Trader reports to the CFTC. The order requires the Firm to pay a \$350,000 penalty and cease and desist from further violations of the Commodity Exchange Act.

Civil Litigation

On July 15, 2010, China Development Industrial Bank (“CDIB”) filed a complaint against the Firm, styled *China Development Industrial Bank v. Morgan Stanley & Co. Incorporated et al.*, which is pending in the Supreme Court of the State of New York, New York County (“Supreme Court of NY”). The complaint relates to a \$275 million CDS referencing the super senior portion of the STACK 2006-1 CDO. The complaint asserts claims for common law fraud, fraudulent inducement and fraudulent concealment and alleges that the Firm misrepresented the risks of the STACK 2006-1 CDO to CDIB, and that the Firm knew that the assets backing the CDO were of poor quality when it entered into the CDS with CDIB. The complaint seeks compensatory damages related to the approximately \$228 million that CDIB alleges it has already lost under the CDS, rescission of CDIB’s obligation to pay an additional \$12 million, punitive damages, equitable relief, fees and costs. On February 28, 2011, the court denied the Firm’s motion to dismiss the complaint. On December 21, 2018, the court denied the Firm’s motion for summary judgment and granted in part the Firm’s motion for sanctions relating to spoliation of evidence. On January 24, 2019, CDIB filed a notice of appeal from the court’s December 21, 2018 order, and on January 25, 2019, the Firm filed a notice of appeal from the same order. On March 7, 2019, the court denied the relief that CDIB sought in a motion to clarify and resettle the portion of the court’s December 21, 2018 order granting spoliation sanctions. Based on currently available information, the Firm believes it could incur a loss in this action of up to approximately \$240 million plus pre- and post-judgment interest, fees and costs.

On October 15, 2010, the Federal Home Loan Bank of Chicago filed a complaint against the Firm and other defendants in the Circuit Court of the State of Illinois, styled *Federal Home Loan Bank of Chicago v. Bank of America Funding Corporation et al.* A corrected amended complaint was filed on April 8, 2011, which alleges that defendants made untrue statements and material omissions in the sale to plaintiff of a number of mortgage pass-through certificates backed by

securitization trusts containing residential mortgage loans and asserts claims under Illinois law. The total amount of certificates allegedly sold to plaintiff by the Firm at issue in the action was approximately \$203 million. The complaint seeks, among other things, to rescind the plaintiff's purchase of such certificates. The defendants filed a motion to dismiss the corrected amended complaint on May 27, 2011, which was denied on September 19, 2012. On December 13, 2013, the court entered an order dismissing all claims related to one of the securitizations at issue. On January 18, 2017, the court entered an order dismissing all claims related to an additional securitization at issue. After those dismissals, the remaining amount of certificates allegedly issued by the Firm or sold to plaintiff by the Firm was approximately \$65 million. At March 25, 2019, the current unpaid balance of the mortgage pass-through certificates at issue in this action was approximately \$36 million, and the certificates had not yet incurred actual losses. Based on currently available information, the Firm believes it could incur a loss in this action up to the difference between the \$36 million unpaid balance of these certificates (plus any losses incurred) and their fair market value at the time of a judgment against the Firm, plus pre- and post-judgment interest, fees and costs. The Firm may be entitled to be indemnified for some of these losses and to an offset for interest received by the plaintiff prior to a judgment.

On May 17, 2013, plaintiff in *IKB International S.A. in Liquidation, et al. v. Morgan Stanley, et al.* filed a complaint against the Firm and certain affiliates in the Supreme Court of NY. The complaint alleges that defendants made material misrepresentations and omissions in the sale to plaintiff of certain mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The total amount of certificates allegedly sponsored, underwritten and/or sold by the Firm to plaintiff was approximately \$133 million. The complaint alleges causes of action against the Firm for common law fraud, fraudulent concealment, aiding and abetting fraud, and negligent misrepresentation, and seeks, among other things, compensatory and punitive damages. On October 29, 2014, the court granted in part and denied in part the Firm's motion to dismiss. All claims regarding four certificates were dismissed. After these dismissals, the remaining amount of certificates allegedly issued by the Firm or sold to plaintiff by the Firm was approximately \$116 million. On August 11, 2016, the Appellate Division, First Department affirmed the trial court's decision denying in part the Firm's motion to dismiss the complaint. At March 25, 2019, the current unpaid balance of the mortgage pass-through certificates at issue in this action was approximately \$23 million, and the certificates had incurred actual losses of \$58 million. Based on currently available information, the Firm believes it could incur a loss in this action up to the difference between the \$23 million unpaid balance of these certificates (plus any losses incurred) and their fair market value at the time of a judgment against the Firm, or upon sale, plus pre- and post-judgment interest, fees and costs. The Firm may be entitled to be indemnified for some of these losses and to an offset for interest received by the plaintiff prior to a judgment.

In August of 2017, the Firm was named as a defendant in a purported antitrust class action in the United States District Court for the Southern District of New York styled *Iowa Public Employees' Retirement System et al. v. Bank of America Corporation et al.* Plaintiffs allege, inter alia, that the Firm, together with a number of other financial institution defendants, violated U.S. antitrust laws and New York state law in connection with their alleged efforts to prevent the development of electronic exchange-based platforms for securities lending. The class action complaint was filed on behalf of a purported class of borrowers and lenders who entered into stock loan transactions with the defendants. The class action complaint seeks,

among other relief, certification of the class of plaintiffs and treble damages. On September 27, 2018, the court denied the defendants' motion to dismiss the class action complaint.

Beginning on March 25, 2019, the Firm was named as a defendant in a series of putative class action complaints filed in the Southern District of New York, the first of which is styled *Alaska Electrical Pension Fund v. BofA Secs., Inc., et al.* Each complaint alleges a conspiracy to fix prices and restrain competition in the market for unsecured bonds issued by the following Government-Sponsored Enterprises: the Federal National Mortgage Associate; the Federal Home Loan Mortgage Corporation; the Federal Farm Credit Banks Funding Corporation; and the Federal Home Loan Banks. The purported class period for each suit is from January 1, 2012 to June 1, 2018. Each complaint raises a claim under Section 1 of the Sherman Act and seeks, among other things, injunctive relief and treble compensatory damages.

Settled Civil Litigation

On December 23, 2009, the Federal Home Loan Bank of Seattle filed a complaint against the Firm and another defendant in the Superior Court of the State of Washington, styled *Federal Home Loan Bank of Seattle v. Morgan Stanley & Co. Inc., et al.* The amended complaint, filed on September 28, 2010, alleges that defendants made untrue statements and material omissions in the sale to plaintiff of certain mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The total amount of certificates allegedly sold to plaintiff by the Firm was approximately \$233 million. The complaint raises claims under the Washington State Securities Act and seeks, among other things, to rescind the plaintiff's purchase of such certificates. On January 23, 2017, the parties reached an agreement to settle the litigation.

On March 15, 2010, the Federal Home Loan Bank of San Francisco filed a complaint against the Firm and other defendants in the Superior Court of the State of California styled *Federal Home Loan Bank of San Francisco v. Credit Suisse Securities (USA) LLC, et al.* An amended complaint filed on June 10, 2010 alleged that defendants made untrue statements and material omissions in connection with the sale to plaintiff of a number of mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The amount of certificates allegedly sold to plaintiff by the Firm was approximately \$704 million. The complaint raised claims under both the federal securities laws and California law and sought, among other things, to rescind the plaintiff's purchase of such certificates. On January 26, 2015, as a result of a settlement with certain other defendants, the plaintiff requested and the court subsequently entered a dismissal with prejudice of certain of the plaintiff's claims, including all remaining claims against the Firm.

On March 15, 2010, the Federal Home Loan Bank of San Francisco filed a complaint against the Firm and other defendants in the Superior Court of the State of California styled *Federal Home Loan Bank of San Francisco v. Deutsche Bank Securities Inc. et al.* An amended complaint, filed on June 10, 2010, alleges that defendants made untrue statements and material omissions in connection with the sale to plaintiff of certain mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The amount of certificates allegedly sold to plaintiff by the Firm was approximately \$276 million. The complaint raises claims under both the federal securities laws and California law and seeks, among other things, to rescind the

plaintiff's purchase of such certificates. On December 21, 2016, the parties reached an agreement to settle the litigation.

On July 9, 2010 and February 11, 2011, Cambridge Place Investment Management Inc. filed two separate complaints against the Firm and/or its affiliates and other defendants in the Superior Court of the Commonwealth of Massachusetts, both styled *Cambridge Place Investment Management Inc. v. Morgan Stanley & Co., Inc., et al.* The complaints asserted claims on behalf of certain clients of plaintiff's affiliates and allege that defendants made untrue statements and material omissions in the sale of a number of mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The total amount of certificates allegedly issued by the Firm and/or its affiliates or sold to plaintiff's affiliates' clients by the Firm and/or its affiliates in the two matters was approximately \$263 million. On February 11, 2014, the parties entered into an agreement to settle the litigation. On February 20, 2014, the court dismissed the action.

On October 25, 2010, the Firm, certain affiliates and Pinnacle Performance Limited, a special purpose vehicle ("SPV"), were named as defendants in a purported class action in the United States District Court for the Southern District of New York ("SDNY"), styled *Ge Dandong, et al. v. Pinnacle Performance Ltd., et al.* On January 31, 2014, the plaintiffs in the action, which related to securities issued by the SPV in Singapore, filed a second amended complaint, which asserted common law claims of fraud, aiding and abetting fraud, fraudulent inducement, aiding and abetting fraudulent inducement, and breach of the implied covenant of good faith and fair dealing. On July 17, 2014, the parties reached an agreement to settle the litigation, which received final court approval on July 2, 2015.

On July 5, 2011, Allstate Insurance Company and certain of its affiliated entities filed a complaint against the Firm in the Supreme Court of NY, styled *Allstate Insurance Company, et al. v. Morgan Stanley, et al.* An amended complaint was filed on September 9, 2011, and alleges that the defendants made untrue statements and material omissions in the sale to the plaintiffs of certain mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The total amount of certificates allegedly issued and/or sold to the plaintiffs by the Firm was approximately \$104 million. The complaint raised common law claims of fraud, fraudulent inducement, aiding and abetting fraud, and negligent misrepresentation and seeks, among other things, compensatory and/or recessionary damages associated with the plaintiffs' purchases of such certificates. On January 16, 2015, the parties reached an agreement to settle the litigation.

On July 18, 2011, the Western and Southern Life Insurance Company and certain affiliated companies filed a complaint against the Firm and other defendants in the Court of Common Pleas in Ohio, styled *Western and Southern Life Insurance Company, et al. v. Morgan Stanley Mortgage Capital Inc., et al.* An amended complaint was filed on April 2, 2012 and alleges that defendants made untrue statements and material omissions in the sale to plaintiffs of certain mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The amount of the certificates allegedly sold to plaintiffs by the Firm was approximately \$153 million. On June 8, 2015, the parties reached an agreement to settle the litigation.

On April 25, 2012, Metropolitan Life Insurance Company and certain affiliates filed a complaint against the Firm and certain affiliates in the Supreme Court of NY, styled *Metropolitan Life Insurance Company, et al. v. Morgan Stanley, et al.* An amended complaint was filed on June 29, 2012, and alleges that the defendants made untrue statements and material omissions in the sale to the plaintiffs of certain mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The total amount of certificates allegedly sponsored, underwritten, and/or sold by the Firm was approximately \$758 million. The amended complaint raised common law claims of fraud, fraudulent inducement, and aiding and abetting fraud and seeks, among other things, rescission, compensatory, and/or rescissionary damages, as well as punitive damages, associated with the plaintiffs' purchases of such certificates. On April 11, 2014, the parties entered into a settlement agreement.

On April 25, 2012, The Prudential Insurance Company of America and certain affiliates filed a complaint against the Firm and certain affiliates in the Superior Court of the State of New Jersey, styled *The Prudential Insurance Company of America, et al. v. Morgan Stanley, et al.* On October 16, 2012, plaintiffs filed an amended complaint. The amended complaint alleged that defendants made untrue statements and material omissions in connection with the sale to plaintiffs of certain mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The total amount of certificates allegedly sponsored, underwritten and/or sold by the Firm was approximately \$1.073 billion. The amended complaint raises claims under the New Jersey Uniform Securities Law, as well as common law claims of negligent misrepresentation, fraud, fraudulent inducement, equitable fraud, aiding and abetting fraud, and violations of the New Jersey RICO statute, and includes a claim for treble damages. On January 8, 2016, the parties reached an agreement to settle the litigation.

In re Morgan Stanley Mortgage Pass-Through Certificates Litigation, which had been pending in the SDNY, was a putative class action involving allegations that, among other things, the registration statements and offering documents related to the offerings of certain mortgage pass-through certificates in 2006 and 2007 contained false and misleading information concerning the pools of residential loans that backed these securitizations. On December 18, 2014, the parties' agreement to settle the litigation received final court approval, and on December 19, 2014, the court entered an order dismissing the action.

On November 4, 2011, the Federal Deposit Insurance Corporation ("FDIC"), as receiver for Franklin Bank S.S.B, filed two complaints against the Firm in the District Court of the State of Texas. Each was styled *Federal Deposit Insurance Corporation as Receiver for Franklin Bank, S.S.B v. Morgan Stanley & Company LLC F/K/A Morgan Stanley & Co. Inc.* and alleged that the Firm made untrue statements and material omissions in connection with the sale to plaintiff of mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The amount of certificates allegedly underwritten and sold to plaintiff by the Firm in these cases was approximately \$67 million and \$35 million, respectively. On July 2, 2015, the parties reached an agreement to settle the litigation.

On February 14, 2013, Bank Hapoalim B.M. filed a complaint against the Firm and certain affiliates in the Supreme Court of NY, styled *Bank Hapoalim B.M. v. Morgan Stanley et al.* The complaint alleges that defendants made material misrepresentations and omissions in the sale to plaintiff of certain mortgage pass-through certificates backed by securitization trusts containing

residential mortgage loans. The total amount of certificates allegedly sponsored, underwritten and/or sold by the Firm to plaintiff was approximately \$141 million. On July 28, 2015, the parties reached an agreement to settle the litigation, and on August 12, 2015, the plaintiff filed a stipulation of discontinuance with prejudice.

On September 23, 2013, the plaintiff in *National Credit Union Administration Board v. Morgan Stanley & Co. Inc., et al.* filed a complaint against the Firm and certain affiliates in the SDNY. The complaint alleged that defendants made untrue statements of material fact or omitted to state material facts in the sale to the plaintiff of certain mortgage pass-through certificates issued by securitization trusts containing residential mortgage loans. The total amount of certificates allegedly sponsored, underwritten and/or sold by the Firm to plaintiffs in the matter was approximately \$417 million. The complaint alleged violations of federal and various state securities laws and sought, among other things, rescissory and compensatory damages. On November 23, 2015, the parties reached an agreement to settle the matter.

On September 16, 2014, the Virginia Attorney General's Office filed a civil lawsuit, styled *Commonwealth of Virginia ex rel. Integra REC LLC v. Barclays Capital Inc., et al.*, against the Firm and several other defendants in the Circuit Court of the City of Richmond related to RMBS. The lawsuit alleged that the Firm and the other defendants knowingly made misrepresentations and omissions related to the loans backing RMBS purchased by the Virginia Retirement System. The complaint asserts claims under the Virginia Fraud Against Taxpayers Act, as well as common law claims of actual and constructive fraud, and seeks, among other things, treble damages and civil penalties. On January 6, 2016, the parties reached an agreement to settle the litigation. An order dismissing the action with prejudice was entered on January 28, 2016.

On April 20, 2011, the Federal Home Loan Bank of Boston filed a complaint against the Firm and other defendants in the Superior Court of the Commonwealth of Massachusetts styled *Federal Home Loan Bank of Boston v. Ally Financial, Inc. F/K/A GMAC LLC et al.* An amended complaint was filed on June 29, 2012 and alleges that defendants made untrue statements and material omissions in the sale to plaintiff of certain mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The total amount of certificates allegedly issued by the Firm or sold to plaintiff by the Firm was approximately \$385 million. The amended complaint raises claims under the Massachusetts Uniform Securities Act, the Massachusetts Consumer Protection Act and common law and seeks, among other things, to rescind the plaintiff's purchase of such certificates. On November 25, 2013, July 16, 2014, and May 19, 2015, respectively, the plaintiff voluntarily dismissed its claims against the Firm with respect to three of the securitizations at issue. After these voluntary dismissals, the remaining amount of certificates allegedly issued by the Firm or sold to plaintiff by the Firm was approximately \$332 million. On July 13, 2018, the parties reached an agreement in principle to settle the litigation.

On May 3, 2013, plaintiffs in *Deutsche Zentral-Genossenschaftsbank AG et al. v. Morgan Stanley et al.* filed a complaint against the Firm, certain affiliates, and other defendants in the Supreme Court of NY. The complaint alleges that defendants made material misrepresentations and omissions in the sale to plaintiffs of certain mortgage pass-through certificates backed by securitization trusts containing residential mortgage loans. The total amount of certificates allegedly sponsored, underwritten and/or sold by the Firm to plaintiff was approximately

\$634 million. The complaint alleges causes of action against the Firm for common law fraud, fraudulent concealment, aiding and abetting fraud, negligent misrepresentation, and rescission and seeks, among other things, compensatory and punitive damages. On June 26, 2018, the parties entered into an agreement to settle the litigation.

On April 1, 2016, the California Attorney General's Office filed an action against the Firm in California state court styled *California v. Morgan Stanley, et al.*, on behalf of California investors, including the California Public Employees' Retirement System and the California Teachers' Retirement System. The complaint alleges that the Firm made misrepresentations and omissions regarding RMBS and notes issued by the Cheyne SIV, and asserts violations of the California False Claims Act and other state laws and seeks treble damages, civil penalties, disgorgement, and injunctive relief. On April 24, 2019, the parties reached an agreement to settle the litigation.

Additional information regarding administrative, civil and other enforcement matters filed against Morgan Stanley may be obtained from Morgan Stanley's entry on the NFA's Background Affiliation Status Information Center, which is available here: <http://www.nfa.futures.org/basicnet/Details.aspx?entityid=UpygXzt3Ct4%3d&rn=Y>, as well as on FINRA's Brokercheck site, available here: https://files.brokercheck.finra.org/firm/firm_8209.pdf

Appendix A: General Information about MS&Co.

FCM Name	Morgan Stanley & Co. LLC
Address of Principal Place of Business	1585 Broadway New York, NY 10036 United States
Phone Number	(866) 227-2256 (Monday - Friday, 9 am-7 pm)
Fax Number	(801) 519-3696
Email Address	ClientAdvocate@morganstanley.com
Web Site Address	http://www.morganstanley.com
Web Site Address of MS&Co.'s Annual Audited Financial Statement	http://www.morganstanley.com/about-us-ir/subsidiaries
MS&Co.'s Self-Regulatory Organizations ("SROs") and Related Websites	<ul style="list-style-type: none"> • Chicago Mercantile Exchange Financial and Regulatory Surveillance Department (MS&Co.'s designated SRO). (www.cmegroup.com) • Financial Industry Regulatory Authority (www.finra.org) • Municipal Securities Rulemaking Board (www.msrb.org) • National Futures Association (www.nfa.futures.org) • Intercontinental Exchange (www.theice.com) • LCH.Clearnet Ltd. (www.lchclearnet.com)
Address for Complaints	<p>A customer that wishes to file a complaint about Morgan Stanley & Co. LLC or one of its employees with the CFTC can contact the Division of Enforcement either electronically at https://www.cftc.gov/Forms/tipsandcomplaints.html or by calling the Division of Enforcement toll-free at 866-FON-CFTC (866-366-2382).</p> <p>A customer that may file a complaint about the Morgan Stanley & Co. LLC or one of its employees with the National Futures Association electronically at http://www.nfa.futures.org/basicnet/Complaint.aspx or by calling NFA directly at 800-621-3570.</p> <p>A customer that wishes to file a complaint about the Morgan Stanley & Co. LLC or one of its employees with the Chicago Mercantile Exchange electronically at: http://www.cmegroup.com/market-regulation/file-complaint.html or by calling the CME at 312.341.3286.</p>

Appendix B: General Information about the Principals of Morgan Stanley & Co. LLC in its capacity as a futures commission merchant (“FCM”)

Craig T. Abruzzo	
Principal’s Title	Managing Director
Principal’s Business Address	1585 Broadway New York, NY 10036
Principal’s Business Background	Employed with Morgan Stanley since 1995
Principal’s Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal’s Duties	Global Head Morgan Stanley Listed Derivatives and Customer Clearing
Joseph Dean Anderson	
Principal’s Title	Managing Director
Principal’s Business Address	1585 Broadway New York, NY 10036
Principal’s Business Background	Employed with Morgan Stanley since 2009
Principal’s Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal’s Duties	Fixed Income Management
Mohit Ashok Assomull	
Principal’s Title	Managing Director
Principal’s Business Address	1585 Broadway New York, NY 10036
Principal’s Business Background	Employed with Morgan Stanley since 1996
Principal’s Areas of Responsibilities	Board of Directors
Nature of Principal’s Duties	Institutional Securities Management
Edward R. Backer	
Principal’s Title	Managing Director
Principal’s Business Address	1585 Broadway New York, NY 10036

Principal's Business Background	Employed with Morgan Stanley since 1995
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Futures Execution
Matthew E. Berke	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 1994
Principal's Areas of Responsibilities	Chief Executive Officer
Nature of Principal's Duties	Global Chief Operating Officer for Institutional Sales & Trading
Ismail O. Bhaimia	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 2009
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Fixed Income Management
Belinda Anne Blaine	
Principal's Title	Managing Director
Principal's Business Address	1221 Avenue of the Americas NY, NY 10020
Principal's Business Background	<u>Employed with Morgan Stanley since 2002</u>
Principal's Areas of Responsibilities	Chief Compliance Officer
Nature of Principal's Duties	Compliance
Peter Hing Chan	
Principal's Title	Executive Director
Principal's Business Address	1585 Broadway New York, NY 10036

Principal's Business Background	Employed with Morgan Stanley since 2007
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Operations
Sebastian J. Crapanzano	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 2000
Principal's Areas of Responsibilities	Head of a Business Unit, Division, or Function
Nature of Principal's Duties	Risk Management
Philip J. Davies	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 2009
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Operations
Cheryl Dennerlein	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 2007
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Operations
Shaun Patrick Fallon	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036

Principal's Business Background	Employed with Morgan Stanley since 2002
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Institutional Equity Management
William D. Hirshorn	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 1986
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Operations
Gary Michael Lynn	
Principal's Title	Managing Director
Principal's Business Address	1 New York Plaza New York, NY 10004
Principal's Business Background	Employed with Morgan Stanley since 2007
Principal's Areas of Responsibilities	Chief Financial Officer
Nature of Principal's Duties	Regulatory Reporting
Damien Chun Wai Matthews	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 2004
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Institutional Securities Management
Sean M. Maher	
Principal's Title	Managing Director
Principal's Business Address	1221 Avenue of the Americas NY, NY 10020

Principal's Business Background	Employed with Morgan Stanley since 2006
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Wealth Management
Graeme McEvoy	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 2008
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Operations
Mitchell Neil Nadel	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 2010
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Fixed Income Management
Sarah Jane Nolan	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 1997
Principal's Areas of Responsibilities	Head of a Business Unit, Division, or Function
Nature of Principal's Duties	Operations
Joseph Anthony Spano	
Principal's Title	Executive Director
Principal's Business Address	1585 Broadway New York, NY 10036

Principal's Business Background	Employed with Morgan Stanley since 1997
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Operations
Michael A. Stern	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 2005
Principal's Areas of Responsibilities	Board of Directors
Nature of Principal's Duties	Risk Management – Institutional Equities Division
David Todd Sullivan	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 2004
Principal's Areas of Responsibilities	Head of a Business Unit, Division, or Function
Nature of Principal's Duties	Risk Management – Fixed Income Division
Rodney Sunada-Wong	
Principal's Title	Executive Director
Principal's Business Address	750 Seventh Avenue New York, NY 10019
Principal's Business Background	Employed with Morgan Stanley since 2008
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	Risk Management
Jason Swankoski	
Principal's Title	Executive Director
Principal's Business Address	1585 Broadway New York, NY 10036

Principal's Business Background	Employed with Morgan Stanley since 2005
Principal's Areas of Responsibilities	Head of Business Unit, Division, or Function
Nature of Principal's Duties	OTC Client Clearing
Jason Scott Tarantino	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	<u>Employed with Morgan Stanley since 2016</u>
Principal's Areas of Responsibilities	Head of a Business Unit, Division, or Function
Nature of Principal's Duties	Operations
Thomas G. Wipf	
Principal's Title	Managing Director
Principal's Business Address	1585 Broadway New York, NY 10036
Principal's Business Background	Employed with Morgan Stanley since 1986
Principal's Areas of Responsibilities	Board of Directors
Nature of Principal's Duties	Institutional Securities Management

Appendix C: Current Financial Data

The following financial data for Morgan Stanley & Co. LLC is current as of the dates indicated below:

1. MS&Co.'s (i) total equity, (ii) regulatory net capital and (iii) net worth, computed in accordance with U.S. Generally Accepted Accounting Principles and CFTC Rule 1.17, as of May 31, 2019: **(i) \$7,771,624,259; (ii) \$13,126,635,390; and (iii) \$7,771,624,259**
2. Dollar value of MS&Co.'s margin requirements for its proprietary trading as a percentage of the aggregate margin requirement for futures customers, Cleared Swaps Customers, and 30.7 customers: **17 percent as of May 31, 2019**
3. Smallest number of futures customers, Cleared Swaps Customers, and 30.7 customers that comprise 50% of MS&Co.'s total funds held for futures customers, Cleared Swaps Customers, and 30.7 customers, respectively: **Futures = 60; 30.7 Customers = 48; Cleared Swaps Customers = 29, in each case, as of May 31, 2019**
4. Aggregate notional value, by asset class, of all non-hedged, principal OTC transactions into which MS&Co. has entered.

Please see page 13 of MS&Co.'s Consolidated Statement of Financial Condition as of December 31, 2018 and Report of Independent Registered Public Accounting Firm, available here:

http://www.morganstanley.com/about-us-ir/shareholder/morganstanley_co_llc.pdf?v=20160314

5. Amount, generic source and purpose of any committed unsecured lines of credit (or similar short-term funding) MS&Co. has obtained but not yet drawn upon: ***Not applicable***
6. Aggregated amount of financing MS&Co. provides for customer transactions involving illiquid financial products for which it is difficult to obtain timely and accurate prices: ***Not applicable***
7. Percentage of futures customer, Cleared Swaps Customer, and 30.7 customer receivable balances that MS&Co. had to write-off as uncollectable during the past 12-month period, as compared to the current balance of funds held for futures customers, Cleared Swaps Customers, and 30.7 customers: ***Not applicable***

In addition, the following financial information is available each business day on this website:

(i) The daily Statement of Segregation Requirements and Funds in Segregation for Customers Trading on U.S. Exchanges for the most current 12-month period;

(ii) The daily Statement of Secured Amounts and Funds Held in Separate Accounts for 30.7 Customers Pursuant to Commission Regulation 30.7 for the most current 12-month period;

(iii) The daily Statement of Cleared Swaps Customer Segregation Requirements and Funds in Cleared Swaps Customer Accounts Under Section 4d(f) of the Act for the most current 12-month period;

(iv) A summary schedule of MS&Co.'s adjusted net capital, net capital, and excess net capital, all computed in accordance with CFTC Rule 1.17 and reflecting balances as of the month-end for the 12 most recent months;

(v) The Statement of Financial Condition, the Statement of Segregation Requirements and Funds in Segregation for Customers Trading on U.S. Exchanges, the Statement of Secured Amounts and Funds Held in Separate Accounts for 30.7 Customers Pursuant to Commission Regulation 30.7, the Statement of Cleared Swaps Customer Segregation Requirements and Funds in Cleared Swaps Customer Accounts Under Section 4d(f) of the Act, and all related footnotes to the above schedules that are part of MS&Co.'s most current certified annual report pursuant to CFTC Rule 1.16; and

(vi) The Statement of Segregation Requirements and Funds in Segregation for Customers Trading on U.S. Exchanges, the Statement of Secured Amounts and Funds Held in Separate Accounts for 30.7 Customers Pursuant to Commission Regulation 30.7, and the Statement of Cleared Swaps Customer Accounts Under Section 4d(f) of the Act that are part of MS&Co.'s unaudited Form 1-FR-FCM or Financial and Operational Combined Uniform Single Report under the Securities Exchange Act of 1934 ("FOCUS Report") for the most current 12-month period.