Dear Valued Client,

Consistent with our best practices, and in connection with various rules and regulations applicable to Deutsche Bank Securities Inc. ("DBSI" and, together with its affiliates, "Deutsche Bank" or the "Bank"), we provide this letter to highlight the breadth of our activity and certain potential conflicts of interest arising from such activities. Any information we provide is, to the best of our knowledge, accurate, not misleading and based on reasonable sources. The Bank provides a variety of products and services to a broad range of clients, including, without limitation, (a) market making (both by committing capital and on an agency basis) in a variety of asset classes, product types (cash and derivatives) and geographic markets, (b) fundamental, macroeconomic, quantitative and derivatives research, (c) tailored investment products, (d) Bank-issued notes, (e) electronic trading solutions, and (f) prime brokerage, stock loan, repo and reverse repurchase transactions and similar financing products.

I. Trading Considerations

a. Principal Trading

Subject to our best execution obligations and rules relating to customer priority, parity and precedence, your open orders may not receive priority over principal orders handled by DBSI. For instance, where we have committed capital in connection with market making activities and we have taken on as principal the risk of such position, we may trade entirely or partially out of our risk at prices which could satisfy your orders. Or, we may engage in bona-fide hedging activities at prices that may satisfy your orders. In the case of blind bid principal baskets, for example, where DBSI is asked to bid for an order as principal at a guaranteed price at a time that the basket's components are not disclosed, DBSI may manage its expected market risk by executing hedging transactions in assets that it anticipates may be components of the basket. This activity, which is sometimes referred to as pre-hedging, allows us to better manage the expected market risk inherent in the basket, and to therefore provide pricing that reflects such risk mitigation. If DBSI were at full risk for the basket, the pricing would reflect the inability of DBSI to manage the expected risk in the basket. Additionally, in the event of a guaranteed market on close ("GMOC") order such as an index rebalance, we may similarly engage in the aforementioned pre-hedging activities that serve to offset the risks associated with a guaranteed-price order. Please note that due to the size of these activities, for us to facilitate your order, we may hedge over a longer period of time prior to the GMOC. Please also note that we may hold or trade individual instruments composing a basket (or related securities or derivative instruments), whether at risk or pursuant to another client order, and that such trading may impact the pricing of such basket (whether in the market or guaranteed to you). When hedging, DBSI may achieve a better price than guaranteed to you, and DBSI may retain the benefit of such pricing as compensation for risk assumed in providing you a guaranteed price. These hedging activities may impact the market prices of the security you are buying or selling, and may ultimately affect the guaranteed price that we have contractually agree with you.

There may be other cases in which we may handle your orders in this manner. For instance, where we use trading algorithms to execute principal orders, the algorithm may execute these orders at prices which could satisfy your open orders, for reasons having nothing to do with whether the orders were principal orders or customer orders (e.g. time of order entry, specific algorithm strategy, order parameters such as urgency of execution, or any combination of these). Likewise, in instances in which you instruct us to use our discretion in executing your order (for example, your instruction to work the order over the course of the day or subject to other parameters), we may execute principal orders at prices that would satisfy your orders.

Pursuant to FINRA Rule 5320 and certain NYSE exchange rules, you may instruct DBSI not to handle certain types of held orders in equity securities in the manner described in the preceding two paragraphs. When the Bank acts as principal, it may need to trade alongside your order to manage risk. You may notify the Bank if you do not want capital commitment. To the extent you may provide instructions, please let us know whether any instruction applies to all or only some of all of your orders so that we may act accordingly. Please note, however, that we may take such an instruction into account when we set pricing terms for your transactions. In the case of over-the-counter derivatives transactions, for example, the Bank's price for such transactions takes account of and is informed by its hedging activity in respect thereof.

Please also note that DBSI maintains information barriers reasonably designed to prevent our trading units from obtaining knowledge of customer orders handled by other trading units. As such, if you provide us the instruction described in the preceding paragraph, subject to compliance with applicable laws and regulations, DBSI trading units other than those handling your orders may continue to trade on a principal basis at prices that would satisfy your orders.

Once the Bank has committed capital to facilitate a customer trade and taken on as principal the risk of such position, the Bank will manage such resulting risk on an individual, portfolio, or other risk parameter basis. The risk management techniques may include, without limitation, trading in the actual assets or securities that the Bank has taken on, trading in assets or securities that are correlated thereto, and establishing derivatives positions on any of the foregoing. Such risk management techniques may also take account of other positions that the Bank has exposure to, including without limitation principal positions, derivative instruments, and collateral positions.
In addition to the foregoing, the Bank may establish, maintain, modify and terminate principal positions for its own account in some of the same instruments, or the securities or assets underlying such instruments, in which its customers trade or which may be associated with the other services the Bank provides. The Bank takes these positions based on the ideas of its traders, sales staff, structurers, research staff, as well as from public information sources. These same ideas are often ideas shared with Bank customers and upon which the customers may or may not act. It is possible, therefore, that the Bank could have principal positions that are the same, similar, different or opposite to the positions of its customers.

FINRA Rule 5270 generally prohibits a broker-dealer from trading for its own account while in possession of material, non-public information concerning an imminent client block transaction. However, Rule 5270 does not preclude a broker-dealer from trading for its own account when the transactions are undertaken for the purpose of fulfilling or facilitating a client block order. This disclosure outlines the Bank's order handling practices in relation to FINRA Rule 5270. The Bank may trade the same security and one or more related financial instruments for its own account while in possession or after completion of your block order, including trades undertaken to hedge the risk associated with facilitating your block order. Affiliates of the Bank may engage in similar activity when facilitating certain client block orders received by the Bank (e.g., when trading foreign ordinaries to fulfill client orders for depositary receipts). These activities may impact the market prices of the security or related financial instruments you are buying or selling; however, the Bank and its affiliates will conduct these activities in a commercially reasonable manner, consistent with their best execution obligations and in the best interest of clients. Institutional clients that do not consent to the handling of their block orders in this manner should contact their sales or trading representative.

b. Indications of Interest

The Bank may disseminate expressions of trading interest commonly known as "indications of interest" or "IOIs" in order to inform its customers that it seeks to, or that it represents trading interest that seeks to, interact with other order flow in a particular security. One attribute that is often associated with an IOI is whether the IOI is "natural". Please note that when the Bank identifies its IOI as "natural", the Bank is representing that (i) it is committed to the price and quantity of the IOI if contacted within the appropriate time; and (ii) the IOI represents either customer interest, interest for the Bank's own account on a principal basis or as a result of facilitation, or a combination of such. Although you may act upon an IOI, it does not guarantee execution. The definitions of natural and non-natural may be inconsistent across the industry and third party service providers. The Bank may also disseminate IOIs through a service provider, and in doing so, it will disseminate IOIs in a manner consistent with the service provider's guidelines.

c. Order Handling

Absent instructions to the contrary on a per order basis, we will handle accepted orders you place with us on a "not held" basis, regardless of how they are received. This handling provides us with the flexibility to work your orders to obtain favorable pricing on your behalf within the parameters that you provide to us. As per regulatory guidance, not held orders are out of the scope of Rule 5320.

Respecting guaranteed volume weighted average price ("GVWAP") or GMOC orders, once we have agreed to accept such an order from you, we will consider there to be an unconditional, binding contract between you and us based on the terms of your order unless and until you and we specifically agree otherwise.

In furtherance of our best execution for you, your orders may be executed in an automated execution facility operated by DBSI or its affiliate. These execution facilities are designed to provide efficient access to aggregated sources of liquidity within DB. DBSI operates a facility known as SuperX which is a registered alternative trading system bringing together multiple buyers and sellers of U.S. equity securities. SuperX executes orders based on price-time priority without regard to whether the orders represent principal or agency interest. We may also execute your orders in an execution facility separate from SuperX in which DBSI serves as exclusive counterparty (i.e., each trade occurring in the facility is filled by DBSI on a principal basis). Upon your request, your sales coverage can provide you with additional information regarding our automated execution facilities. The SuperX website can be found here: https://autobahn.db.com/microSite/html/superxUS.html

Upon request, we will provide you with information regarding the identity of the venues to which we have routed your orders during the preceding six months, whether the orders were directed orders or non-directed orders, and the time of the transactions, if any, that resulted from such orders. Please note that you may instruct us to discontinue routing your orders to any venue, including any of our own execution facilities.

DBSI may receive payment from certain broker-dealers for directing to them certain orders for listed options on equities and indices. The sources of these payments are marketing fee programs adopted by the options exchanges, which programs have been approved by the Securities and Exchange Commission. If DBSI determines that the execution quality of two venues is materially similar, it may take such payments into account. Please find the Characteristics & Risks of Standardized Options document at http://www.optionsclearing.com/components/docs/riskstoc.pdf.

Certain equities exchanges and third party trading centers to which DBSI routes equities orders have implemented fee structures under which broker-dealer participants may receive rebates on certain orders. Under these fee structures, participants are charged a fee for orders that take liquidity from (or that provide liquidity to) the venue, and provided a rebate for orders that add liquidity to (or that remove liquidity from) the venue. Rebates received by DBSI from a venue during any time period may or may not exceed the fees paid by DBSI to the venue during that time period. Fee rates and rebate amounts on any given venue may change periodically. If DBSI determines that the execution quality of two venues is materially similar, it may take such payments into account. We will provide you additional information regarding fees and rebates on your written request, including the amount per order or per share received by DBSI.

Under SEC Regulation NMS Rule 606, broker-dealers that route customer orders in equity and option securities are required to make publicly available quarterly reports that, among other things, identify the venues to which customer orders are routed for execution. DBSI has contracted with an outside vendor to prepare statistical reports to comply with this rule. To download and view the most recent disclosures please visit http://vrs.vista-one-solutions.com. A written copy of the Rule 606 report for DBSI can also be furnished to you upon request.

Rule 15c3-5 requires broker-dealers with (or providing) access to exchanges or alternative trading systems to establish, document, and maintain a system of risk management controls and supervisory procedures reasonably designed to manage the financial, regulatory and other risks in connection with market access. DBSI has developed and implemented controls that may reject or block orders that exceed previously defined risk parameters.

To the extent you enter stop orders directly, please be aware of risks associated with using such orders, which include:

- Stop orders are not guaranteed prices and therefore the price at which a stop order is ultimately executed may vary from your stop price;
- Stop orders may be triggered by a short-lived, dramatic price change; and
- Sell stop orders may exacerbate price declines during times of extreme volatility and may result in executions well below the stop price.

Note that placing a limit price on the stop order may help manage some risks by indicating the worst price at which your order may execute at (though this may result in unexecuted orders). You should be aware that volatile market conditions can amplify these risks. More information can be found at: http://www.finra.org/sites/default/files/notice_other_file_ref/Regulatory-Notice-16-19.pdf

d. Indicative Pricing

The Bank may, upon your request, provide indicative pricing as an accommodation to you solely for your own internal use. Such indicative pricing is derived all or in part from model prices, external sources, market prices and/or DB's internal books and records prices. Such indicative pricing may be adjusted to take into account market, liquidity, credit, operational and/or other risks, and may not represent the terms at which new transactions or instruments could be entered into with the Bank or the terms at which existing transactions or instruments could be liquidated or unwound with the Bank. The Bank may change its indicative pricing and the related assumptions at any time without notice. The Bank shall not be liable for any errors or omissions made in conducting such indicative pricing, or for any inaccuracies or flaws in the methodologies or assumptions. The Bank specifically disclaims any liability for any losses or damages (incidental, consequential or otherwise) that may arise from your use or reliance upon such indicative pricing, including, without limitation, your use of such indicative pricing in making decisions regarding new or existing transactions with the Bank.

e. Variable Pricing and Services

Deutsche Bank has discretion to offer different prices or services to different counterparties, or the same counterparty, for the same or substantially similar transactions. In determining any markup or spread, we may consider factors such as liquidity of the transaction type in prevailing markets, the size and/or complexity of the transaction, credit risk, counterparty risk, maturity, balance sheet usage, risk limit utilization, trade processing costs, sales efforts and any other relevant considerations. The Bank's internal trading desks could be charged internal financing rates that are less than the financing rates charged to customers and could enjoy better access to hard-to-borrow securities than customers enjoy.

f. Securities Lending and Rehypothecation

To the extent you have entered into a securities lending agreement with DBSI that allows DBSI, as principal, to borrow your fully-paid securities, DBSI may use such securities to make delivery in connection with short sales or to lend to others who may similarly use them in connection therewith. Of course, if you would desire that your fully-paid securities not be used for this purpose, you have the right to terminate the applicable securities lending agreement, subject to the applicable terms of such agreement. Also, please be advised that in accordance with applicable law, DBSI may use or rehypothecate certain of your margin securities (e.g. margin securities that are not fully-paid or excess margin securities) or borrow fully-paid securities (pursuant to a separate securities lending agreement in the case of fully-paid securities) for, among other things, settling short sales and lending the securities for short sales and, in doing so, DBSI and its affiliates may receive compensation in connection therewith. Furthermore, please note that you may lose certain rights with respect to your securities during the time a securities loan is outstanding or while your securities have been rehypothecated. For example, until DBSI returns the loaned or rehypothecated securities to your account, you will not have the right to vote, or to provide any consent or to take any similar action with respect to, the loaned or rehypothecated securities, and you may be unable to tender the securities, participate in a corporate action or deliver the securities to a third party.

DBSI may have in its possession or under its control securities which, by their terms, may be called or redeemed, in part, prior to maturity. Pursuant to FINRA Rule 4340, DBSI has implemented procedures to identify such callable securities and to provide for the fair and impartial allocation of such securities among its customers. DBSI's allocation procedures are available here: https://www.db.com/usa/docs/DBSI-Callable-Securities-Procedures.pdf. In addition, DBSI will provide hard copies of its allocation procedures to customers upon request.

g. Risk Management

The Global Markets Equities division manages its risk on a number of levels, including a centralized approach that is designed to take account of a variety of risks arising across the businesses of the division. These risks include, without limitation, market risk, credit risk, collateral risk, liquidity risk, sector risk, and country risk. The Bank may manage such risks by establishing positions (either, cash, derivative or both) in assets, instruments and securities that are the same, similar, different or opposite to the positions of its customers.

h. Extended Trading Hours

Before trading in any securities in the pre- or post-market sessions, please be aware that trading during such extended hours involves material trading risks (in addition to those present during regular market hours), as further set forth immediately below.

- Risk of Lower Liquidity. There may be lower liquidity during extended hours trading as compared to regular market hours. As a result, your order may only be partially executed, or not at all. Liquidity refers to the ability of market participants to buy and sell securities.
- Risk of Higher Volatility. There may be greater volatility in the price of securities during extended hours trading than during regular market hours. As a result, your order may only be partially executed, or not at all, or you may receive an inferior price during extended hours trading than you would during regular markets hours.
- Risk of Changing Prices. The prices of securities traded during extended hours trading may not reflect the prices either at the end of regular market hours or upon the opening of the next morning's trading session. As a result, you may receive an inferior price during extended hours trading than you would during regular market hours.
- Risk of Unlinked Markets. Depending on the extended hours trading system or the time of day, the prices displayed on a particular extended hours trading system may not reflect the prices in other concurrently operating extended hours trading systems dealing in the same securities. Accordingly, you may receive an inferior price in one extended hours trading system than you would in another extended hours trading system.
- Risk of News Announcements. Issuers often make news announcements that may affect the price of their securities after regular market hours. Similarly, important financial information is frequently announced outside of regular market hours. In an extended hours trading environment, these announcements may occur during trading, and if combined with lower liquidity and higher volatility, may cause an exaggerated and unsustainable effect on the price of a security.
- Risk of Wider Spreads. Lower liquidity and higher volatility during extended hours trading may result in wider than normal spreads for a particular security.
- Risk of Lack of Calculation or Dissemination of Underlying Index Value or Intraday Indicative Value ("IIV"). For certain derivative securities products, an updated underlying index value or IIV may not be calculated or publicly disseminated during extended trading hours. As such, an investor who is unable to calculate implied values for such derivative securities products during those sessions may be at a disadvantage to market professionals.

In addition to the foregoing, please note that the following restrictions are applicable to trading of securities governed by NYSE ARCA rules:

- Except for market orders eligible for execution during the market order auction, limit price orders are the only orders that are eligible for execution during the opening and late trading sessions.
- An order must be designated specifically for trading in the opening and/or late trading sessions to be eligible for trading in such sessions.

i. Proprietary Indices

The Bank serves as the sponsor, administrator and/or calculation agent of proprietary indices and other benchmarks. The Bank in these roles may maintain some discretion in making decisions relating to the operation of these indices and benchmarks and the Bank may carry out calculations necessary to promulgate such proprietary indices and benchmarks. There can be no assurance that any determinations and/or calculations made by the Bank in these various capacities will not affect the value of such indices or other benchmarks. The Bank may hedge its exposure to such proprietary indices or other benchmarks by entering into equity and equity derivative transactions, such as over-the-counter options, futures or exchange-traded instruments. The Bank may establish, adjust or unwind hedge positions by, among other things, purchasing or selling at any time the underlying components of such proprietary indices or benchmarks or instruments whose value is derived from such underlying components. This hedging activity could adversely affect the levels of the proprietary index or benchmark. Such hedging activity could potentially impact the return on any investment in such proprietary index or benchmark. In addition, the Bank may adjust its hedge positions in connection with the reweighting, rebalancing or reconstitution of such index or benchmark by selling some or all of the existing underlying components and/or purchasing new or existing underlying components at or in advance of the time the values and weightings of the underlying components are determined for purposes of such reweighting, rebalancing or reconstitution.

II. Other Deutsche Bank Roles

In addition to the foregoing, please note that the Bank often acts in other capacities which impose different duties upon it. For example, the Bank may act as calculation agent for certain derivatives or other transactions, or may otherwise provide incidental valuation services for such transactions. As noted above, the Bank will undertake these activities with information it believes to be reliable, accurate and not misleading. The Bank may need to exercise appropriate discretion and judgment in such assessments and related activities, including taking account of its own risk exposure on such trades.

DBSI may introduce employment candidates to you without any vetting for fitness for employment. DBSI's introduction is merely a referral and does not create any legally binding obligations. You may contact such candidates directly, but please note that you do so at your own risk and that DBSI's interests may be in conflict with yours. You agree to treat such information as confidential and to not distribute it without written permission. DBSI and its affiliates disclaim any responsibility or liability for the performance or character of any candidate.

III. Information

Protecting the confidentiality and security of customer information is an important part of how Deutsche Bank conducts its business. Deutsche Bank has reasonable controls that are designed to protect a customer's confidential information. However, counterparties should understand that Deutsche Bank does make use of some information contained in trade requests in order to effectuate and risk manage the transactions themselves. Specifically, Deutsche Bank may use the economic terms of a trade request (but not the counterparty's identity) to test liquidity and/or execute trades with one or more third parties (including interdealer brokers) in order to source liquidity consistent with our best execution obligations. Deutsche Bank may also use the economic terms of various transactions (including factors relating to market, liquidity and credit risk) on a portfolio, individual trade or other basis to evaluate and execute risk-mitigating transactions. To facilitate this activity, Deutsche Bank may internally share economic terms relating to a transaction with persons acting in a sales or trading capacity for Deutsche Bank (or one of its agents). Deutsche Bank may also use aggregated economic information in its pricing methodology, as long as such usage is not designed or intended to disadvantage a customer.

In particular, prime brokerage customers should be aware that the Bank's prime finance unit is independent from other business units and serviced by a group with distinct reporting lines to the most senior management levels. In the course of managing DBSI's overall inventory and liquidity needs, senior non-trading desk managers may liaise with managers in the prime finance unit.

Deutsche Bank analyzes transaction data on an individual and aggregate basis for a variety of purposes, including counterparty risk management, sales coverage, and customer relationship management. In addition, Deutsche Bank may analyze, comment on and disseminate aggregated and anonymized information regarding executed transaction, as well as unexecuted orders or transaction instructions (other than market orders), together with other available information regarding various markets, internally and (with potential categorization as to product, geography and/or industry) to its customers as part of its general market commentary and trade ideas. The Bank may introduce such data to a third party vendor in an aggregated form for the purposes of benchmarking its performance. All information provided to a customer by Deutsche Bank (unless already in the public domain) should be treated as confidential and should not be disclosed by a customer to any third party.

Please note that Deutsche Bank has regulatory and other duties to supervise and control its business. Deutsche Bank shares information as necessary to fulfill these responsibilities and respond to general and specific regulatory and other requests with which it is required to comply.

IV. ERISA Section 408(b)(2)

On February 3, 2012, the Department of Labor ("DOL") issued final regulations under Section 408(b)(2) of the U.S. Employee Retirement Income Security Act of 1974 ("ERISA"). ERISA's Section 408(b)(2) exempts the provision of services to a covered employee benefit plan from ERISA's prohibited transaction rules, and prescribes enhanced disclosure requirements for certain covered plans and services under certain conditions. Disclosures made pursuant to those regulations in connection with institutional service contracts or arrangements your plan may have with DB can be found at https://www.db.com/usa/erisa.html. We will update the disclosures as necessary through the online copy and if the disclosures apply to you, we recommend that you review the online copy periodically for any changes. Questions can be sent to Section408b2@list.db.com.

V. Miscellaneous

The Bank maintains a global conflicts of interest policy that is intended to identify and manage potential conflicts of interest, some of which are specifically described in marketing materials, research and external communications. DBSI does not provide tax, legal, or accounting advice. We are not acting as your financial adviser or in a fiduciary capacity. Prospective investors should understand and consult with their professional tax, legal, accounting and other advisors before entering into a transaction.

The Bank may record telephone lines pursuant to regulation or otherwise.

For more information on our business continuity program, please visit the following site:
https://www.db.com/company/en/business-continuity-program.htm

We hope you see this letter as confirming our commitment to serving you as a valued client, bringing to bear the many and diverse resources available through the global activities of Deutsche Bank. We seek to continue to earn your trust and business. You may contact Deutsche Bank at (212) 250-2500 or contact your sales or trading representative with questions.

Deutsche Bank Securities Inc.

M Barry Bausano

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