

Deutsche Bank Securities Inc.

Research Services

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Important Disclosure:

This brochure provides information about the qualifications and business practices of Deutsche Bank Securities Inc. ("DBSI" or the "Adviser"), an investment adviser registered with the United States Securities and Exchange Commission ("SEC"). If you have any questions about the contents of this brochure, please contact us at (212) 250-2500. Registration with the SEC does not imply that DBSI or its employees possess a certain level of skill or training. The information in this brochure has not been approved or verified by the SEC or by any state securities authority.

Additional information about Deutsche Bank Securities Inc. is also available on the SEC's website at www.adviserinfo.sec.gov.

Item 2 - Material Changes

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There have been no material changes that have occurred since DBSI filed its updated brochure dated March 28, 2022.

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Item 4 - Advisory Business

Our Organization

DBSI is a Delaware corporation formed in 1971. DBSI provides investment views to institutional clients through the provision of proprietary published research pertaining to investment securities, including debt and equity securities and access to the research analysts who prepare such research (collectively, "Research Services"). Such investment views and Research Services are independently developed and there is no sharing of information between DBSI and DWS Investment Management Americas, Inc. ("DIMA") to develop their respective research views. In addition, pursuant to a continuing relationship agreement entered into by DBSI and Raymond James Financial, Inc., DBSI provides written equity research and strategy-related research reports to Raymond James & Associates, Inc. ("RJA") and to employees of the Alex. Brown Division of RJA, and authorizes RJA to give access to research and strategy reports to certain of its clients and provides limited access for Alex. Brown Division personnel and certain clients to discuss an analyst's published views with the analyst (collectively, the "RJA Services"). As discussed below in Item 7, some of these services may then be made available by RJA to certain of its clients. These Research Services do not include any securities trading activity on a discretionary basis or otherwise, and are not specially tailored for particular clients. Research Services provided by DBSI do not include information from, or access to, DBSI's sales personnel, traders or sales-traders. Such information and access have been and will continue to be delivered as part of the execution services provided by DBSI in its broker-dealer capacity and not as an investment adviser. DBSI is not responsible for the re-distribution of its research and a person's receipt of such re-distributed research shall not, by itself, be deemed to create an investment adviser-client relationship between DBSI and any such person.

DBSI separately provides other investment advisory services, which services are described in separate disclosure brochure(s).

This disclosure brochure is being provided to you pursuant to Section 204 of the Investment Advisers Act of 1940, as amended (the "Advisers Act") with respect to the Research Services and RJA Services provided by the Adviser.

Principal Owners

DBSI is a wholly-owned subsidiary of Deutsche Bank US Financial Markets Holding Corporation, and indirectly a wholly-owned subsidiary of DB USA Corp. DB USA Corp. is a direct, wholly-owned subsidiary of Deutsche Bank AG, the German corporation. DBSI is registered as a broker-dealer and investment adviser with the SEC and as a futures commission merchant with the U.S. Commodities Futures Trading Commission ("CFTC"). DBSI is principally engaged in the businesses of providing securities brokerage and investment advisory services to domestic and international private clients and institutions. DBSI is also a primary dealer in US government securities as designated by the Federal Reserve.

Assets Under Management

With respect to Research Services and RJA Services, DBSI has no assets under management. With respect to DBSI's advisory services which are not described in this brochure, DBSI had approximately \$21,348,952 of regulatory assets under management and a total of approximately \$73,185,081 of client assets in accounts not included in regulatory assets under management as of December 31, 2022.

Item 5 - Fees and Compensation

Fee Schedule

DBSI provides Research Services and RJA Services for a cash fee ("Advisory Fee"). Research Services may constitute eligible research under the safe harbor of section 28(e) of the Securities Exchange Act of 1934 for use in connection with a client's investment making decisions.

All fees are subject to negotiation.

Other Fees and Expenses

DBSI's Advisory Fees are exclusive of any brokerage commissions, transaction fees or other related costs and expenses which may be incurred by the client in connection with any securities transactions independently made by the client. The Research Services provided by DBSI do not include any securities trading activity on a discretionary basis or otherwise.

Item 6 - Performance-Based Fees and Side-By-Side Management

DBSI does not charge any performance-based fees to clients with respect to the Research Services described in this brochure.

Item 7 - Types of Clients

As discussed in Item 4, DBSI provides Research Services directly to institutional clients only. Such clients include without limitation: investment advisers and managers and pension plans. In addition, DBSI separately provides investment advisory services through certain wrap fee programs. As discussed in Item 4, DBSI entered into a continuing relationship agreement with RJA to provide the RJA Services. Pursuant to that agreement, RJA will have the ability to provide certain of its retail and institutional clients with access to written equity research and strategy reports.

Item 8 - Methods of Analysis, Investment Strategies and Risk of Loss

Investing in securities involves risk of loss that clients should be prepared to bear.

With respect to Research Services, research analysts employ a variety of methods of analysis and utilize numerous sources of information. As to the former, analysts arrive at an investment view point by studying the industry and the company, preparing a financial model of the company's securities, and running historical and forecasted results through a model. Valuation is arrived at by using differing methods, such as a sum-of-the-parts analysis or a discounted cash flow analysis. When analyzing a company, the analyst also assesses various other factors, including but not limited to: strength of the management team; competitors; product pipeline; and pending litigation. Analysts may also use econometric and mathematical methods that consider market data and other information. With regard to sources of information, among other things, analysts speak with company officers, review regulatory filings, press releases, earnings announcements and news articles, and market data, listen to earnings conference calls and conduct channel checks by speaking with suppliers and customers.

Risk of Loss

DBSI may make recommendations and provide research analyses on a wide range of securities and investments.. Although DBSI will attempt to structure such recommendations and analyses with care, no assurances can be made that reliance on such recommendations and analyses by any client will generate positive returns. The services described in this brochure are not designed to meet the objectives or needs of specific individuals or accounts and no assurance can be made by the Adviser in this regard.

Item 9 - Disciplinary Information

Share Class Selection Disclosure Initiative Settlement

On March 11, 2019, DBSI, without admitting or denying the findings or conclusions therein, entered into a settlement with the Securities Exchange Commission ("SEC") following DBSI's self-reporting pursuant to the SEC Division of Enforcement's Share Class Selection Disclosure Initiative. The SEC approved the settlement in its Order Instituting Administrative and Cease-and-Desist Proceedings Pursuant to Sections 203(e) and 203(k) of the Investment Advisers Act of 1940, Making Findings, and Imposing Remedial Sanctions and a Cease-and-Desist Order ("Order").

In the Order, the SEC alleged that DBSI purchased, recommended, or held for advisory clients mutual fund share classes that charged 12b-1 fees instead of lower-cost share classes of the same funds for which the clients were eligible between January 1, 2014 and June 11, 2018. The SEC alleged that DBSI received 12b-1 fees from these clients that it would not have collected had such clients been invested in available lower-cost share classes. The

SEC also alleged that DBSI failed to disclose conflicts of interest related to its receipt of 12b-1 fees and its selection of mutual fund share classes that pay such fees. The Order states that DBSI self-reported the alleged conduct to the SEC.

Pursuant to the Order, without admitting or denying the allegations, DBSI agreed to: (i) a censure; (ii) cease and desist from committing or causing any violations of Sections 206(2) and 207 of the Investment Advisers Act of 1940; (iii) pay disgorgement \$2,657,063.46 and prejudgment interest of \$314,399.39, which amount will be paid in accordance with the terms of the Order; and (iv) comply with undertakings regarding, among other things, reviewing and correcting relevant disclosure documents as necessary, moving clients into lower-cost share classes as necessary, notifying affected investors of the settlement terms, reviewing and, if necessary, updating policies and procedures so that they are reasonably designed to prevent violations of the Advisers Act in connection with disclosures regarding mutual fund share class selection.

Equity Research Settlement

In October 2016, without admitting or denying any wrongdoing, DBSI consented to an entry of an order to cease and desist from committing or causing any violations and future violations of Sections 15(g) and 17(a) of the Securities Exchange Act of 1934 and Rule 17a-4 thereunder and Rule 501 of Regulation AC. According to the SEC order, between January 2012 through December 2014, DBSI failed to establish, maintain, and enforce policies and procedures reasonably designed to prevent its equity research analysts from misusing material, nonpublic information by, among other things, disclosing analysts' as yet unpublished views and analyses that appeared in subsequent DBSI research reports, certain changes of estimates by analysts, and short term trading recommendations that were inconsistent with the analysts' published long term ratings. The SEC also alleged that DBSI violated the analysts certification requirement of Regulation AC because DBSI issued a research report prepared and certified by a senior equity research analyst that was inconsistent with the analyst's personally held views. Lastly, the SEC alleged that DBSI also failed to preserve, maintain, and timely produce to the SEC staff certain electronic communications that had been conducted on an internal DBSI messaging system. As part of the settlement, DBSI agreed to pay a civil monetary penalty of \$9,500,000 to the SEC.

Internal Broadcast Transmissions

In August 2016, FINRA alleged that DBSI violated NASD and FINRA rules in connection with the firm's failure to establish, maintain and enforce adequate supervisory systems, written policies and procedures, including written supervisory procedures, reasonably designed to supervise certain registered representatives' access to internal broadcast system speakers in transmissions known as "Hoots" or their communications with customers regarding Hoots. Without admitting or denying the findings, DBSI was censured and paid a monetary fine of \$12,500,000. DBSI also undertook to provide a written certification by a duly authorized Senior Officer that it has adopted and implemented supervisory systems and written procedures reasonably designed to achieve compliance with FINRA Rules and federal securities laws with respect to Hoots.

Investment Banking Engagement

In December 2014, FINRA alleged that DBSI violated NASD and FINRA rules in that in an effort to win investment banking business from a specific company, DBSI's equity research analyst participated in the firm's solicitation efforts and the firm offered favorable research coverage to the company to induce the company to award the firm its investment banking business. The company and its private equity owners (sponsors) asked DBSI to provide a firm-wide valuation that the firm, including its analyst, would be expected to support after the company awarded its IPO business. DBSI complied and the company and its sponsors selected the firm as an underwriter and co-bookrunner for the company's IPO. The company eventually decided not to proceed with the offering. DBSI was censured and paid a monetary fine of \$4,000,000.

Vonage Directed Share Program

In September 2009 FINRA found that DBSI, one of three lead underwriters for the May 2006 initial public offering of the common stock of Vonage LLC, failed to establish supervisory procedures and systems reasonably designed to supervise the activities of a third party company to whom DBSI outsourced communications with DBSI's customers through a website developed by the third party company to administer Vonage's directed share program. While neither admitting nor denying FINRA's findings, DBSI paid a \$100,000 fine in connection with the matter. Pursuant to the terms of the settlement, DBSI will, among other things, provide restitution to eligible customers who provide DBSI with certain executed certifications.

Auction Rate Securities

In June 2009, the SEC brought an action in the U.S. District Court for the Southern District of New York. The SEC's complaint (Complaint) alleged that DBSI misled its customers about the fundamental nature and increasing risks associated with auction rate securities (ARS) that it underwrote, marketed and sold. The Complaint further alleged that DBSI, through client advisers, third-party marketing materials and account statements, misrepresented ARS to its customers as safe, highly-liquid investments comparable to cash or money market instruments, and that DBSI reinforced this perception by committing its own capital to support ARS auctions for which it served as the lead manager to ensure that those auctions did not fail. Without admitting or denying the allegations in the Complaint, DBSI consented to the entry of an injunction permanently enjoining it from engaging in violations of Section 15(c) of the Exchange Act. In addition, DBSI must offer to buy back ARS that were purchased from DBSI and that have failed since February 13, 2008 from retail customers, legal entities forming investment vehicles for family members, charities and certain small and medium-sized businesses. DBSI made such an offer to eligible customers, which offer ended on June 30, 2009. In addition, DBSI is required to make its best efforts to provide liquidity solutions to institutions and other customers not covered by the buyback. DBSI is also obligated, by June 30, 2009, to reimburse certain customers who took out loans secured by ARS for any interest paid in excess of the interest or dividends received on the ARS, or who sold their ARS below par. DBSI will submit progress reports until the end of 2009 detailing its progress with respect to these undertakings. Finally, DBSI agreed, until December 31, 2009, not to liquidate its own inventory of a particular ARS without making that liquidity opportunity available to its institutional and other customers holding the same ARS in their accounts and that have placed a limit order to sell such securities at the same price or better, or otherwise have informed DBSI of their intention or willingness to sell such securities at the same price or better.

Prospectus Delivery

In October 2007, the NYSE censured and fined DBSI \$1.25 million in connection with DBSI's failure to ensure delivery of prospectuses to customers who purchased securities and mutual funds, to deliver product descriptions to customers who acquired exchange-traded funds and to establish and maintain appropriate procedures of supervision and control with respect to these activities. As part of the settlement DBSI agreed to certify that its current policies and procedures are reasonably designed to ensure compliance with current federal securities laws and NYSE rules in these areas. DBSI neither admitted nor denied the NYSE's findings.

Market Timing Settlement

In December 2006, the SEC and DBSI agreed to a settlement in connection with allegations by the SEC that a registered representative (RR) of DBSI engaged in market-timing and late trading of mutual funds, and that DBSI had no procedures and systems to prevent and detect the RR's fraudulent conduct. The SEC alleged that the RR violated Section 17(a) of the Securities Act, Section 10(b) of the Exchange Act and Rule 10b-5 thereunder. The SEC also alleged that DBSI violated Rule 22c-1, as adopted under Section 22(c) of the Investment Company Act of 1940, the RR aided and abetted DBSI's violations of Rule 22c-1 and DBSI failed reasonably to supervise the RR, with a view to preventing his violations of the antifraud provisions and Rule 22c-1 of the federal securities laws, pursuant to Section 15(b)(4) of the Exchange Act.

Without admitting or denying the SEC's findings, DBSI agreed to be censured, agreed to cease and desist from committing or causing any violations and any future violations of Rule 22c-1 (a), and agreed to pay \$202,835 in disgorgement and \$37,284 in prejudgment interest, plus a civil money penalty in the amount of \$202,835, for a total payment of \$442,954.

Research Analyst Settlement

In August 2004, the SEC, the NYSE, NASD Regulation (now FINRA) and DBSI agreed to a settlement in connection with a joint investigation into research analyst conflicts of interest at DBSI and several other large investment banking firms.

The SEC filed a complaint (the "Complaint") against DBSI in the United States District Court for the Southern District of New York (the "District Court") in a civil action captioned Securities and Exchange Commission v. Deutsche Bank Securities Inc. DBSI executed a consent and undertaking in which DBSI neither admitted nor denied any of the allegations in the Complaint, except as to jurisdiction, but consented to the entry of a final judgment against DBSI by the District Court (the "Final Judgment"). The Final Judgment, among other things, enjoined DBSI, directly or through its officers, directors, agents and employees, from violating Section 17(b) of the Securities Act of 1933 (the

"Securities Act"), Section 17(b) of the Exchange Act, NASD Rules 2110, 2210 and 3010 and NYSE Rules 342, 401, 472 and 476. Additionally, the Final Judgment ordered DBSI to make payments of: (a) \$50 million, offset in the amount of \$25 million paid by DBSI pursuant to its agreements with state regulators in related proceedings; (b) \$25 million to fund the provision of independent research to investors; (c) \$5 million to promote investor education; and (d) \$7.5 million in connection with allegations concerning Section 17(b) of the Exchange Act.

Conflicts of Interest Disclosures in Research

In July 2004, DBSI reported to the SEC, the NYSE and the NASD that it had experienced problems with its collection and processing of research report conflict disclosures. Specifically, during the period of July 2002 through July 2004, DBSI failed to include conflict disclosures on its published reports in violation of NYSE Rule 472(k). DBSI also violated NYSE Rule 476(a)(6) by engaging in conduct inconsistent with just and equitable principles of trade by publishing research reports without required conflict of interest disclosures and violated NYSE Rule 342 in failing to establish and maintain appropriate procedures and systems and establish separate systems of follow-up and review to adequately supervise the inclusion of required conflict of interest disclosures on published research reports and in connection with research analysts' public appearances. DBSI was censured and paid a monetary fine in connection with such activities amounting to \$950,000.

Initial Public Offerings

In May 2004, DBSI paid a fine of \$481,000 and disgorged \$4.81 million in profits in connection with allegations that DBSI violated NASD Conduct Rule 2110 in connection with its allocation and sale of initial public offerings (IPOs) from September 1999 through March 2000. The NASD found that DBSI received without inquiry \$4.81 million in unusually high agency commissions on listed agency trades from ten customers within one day of allocating IPO shares to such customers. DBSI received commissions set by these customers of up to \$1 per share to execute institutional-sized agency trades in listed securities. By receiving these payments from certain customers without inquiry while providing the customers with IPO allocations the NASD found that DBSI failed to observe high standards of commercial honor and just and equitable principles of trade, in violation of NASD Rule 2110. DBSI neither admitted nor denied the NASD's findings.

Item 10 - Other Financial Industry Activities and Affiliations

General

DBSI's principal business is that of a full-service broker-dealer and member of the New York Stock Exchange and other principal exchanges in the United States. As such, it executes orders to buy and sell securities as agent; purchases and sells securities as principal; acts as a primary dealer in U.S. Government securities; structures, underwrites and deals in money market instruments, commercial paper and municipal, asset-backed and corporate debt and equity securities; arranges private placements of securities; renders investment banking and other financial advice to corporate clients; and acts as an agent in the origination and sale of loans.

For the avoidance of doubt, Research Services provided to clients and RJA Services do not include any securities trading activity on a discretionary basis or otherwise.

CFTC Registrations

DBSI is registered as a Commodity Pool Operator and Futures Commission Merchant with the CFTC. A list of DBSI's principals is available on DBSI's National Futures Association registration page (NFA ID: 0210600).

Other Affiliations

DBSI is a wholly-owned, indirect subsidiary of Deutsche Bank AG, a publicly traded company on the Frankfurt Stock Exchange. Among Deutsche Bank AG's internationally held direct and indirect affiliates and related persons are various other broker-dealers, investment companies, investment advisers and banking organizations. A complete list of the affiliates of Deutsche Bank AG is available upon request.

DBSI and its management persons do not have any relationship or arrangement with any related person that DBSI believes is material to its provision of the services described in this brochure. DBSI does not recommend or select other investment advisers for its Research Services clients or RJA.

Item 11 - Code of Ethics, Participation or Interest in Client Transactions and Personal Trading

Code of Ethics

Pursuant to the requirements of the Investment Advisers Act of 1940, DBSI has implemented a code of ethics (the "Code of Ethics") designed, among other things, to manage potential conflicts of interest arising in connection with personal trading and to ensure that employee personal trading and knowledge of client transactions does not impermissibly disadvantage any client's account. Pursuant to the Code of Ethics, employees working in connection with DBSI's investment advisory programs must, among other things:

- Receive prior supervisory approval before purchasing any securities in a private placement;
- Receive prior supervisory approval to serve on a board of directors of a publicly traded company;
- Receive prior supervisory approval to engage in certain other outside activities that may conflict with DBSI's obligations to its clients;
- Pre-clear all of their personal securities transactions in securities that are not exempt from the Code of Ethics;
- Not purchase a security pursuant to an initial public offering; and
- Disclose their securities accounts to DBSI upon hire and annually thereafter.

The Code of Ethics also may impose specific restrictions on certain securities issued or covered by Deutsche Bank AG. All employees are subject to personal securities reporting obligations. DBSI has policies and procedures in place which prohibit DBSI employees from accepting or offering gifts, entertainment and other things of material value that may create a conflict of interest or give the appearance of a conflict of interest. The policies impose specific restrictions and require supervisory approval of certain gifts and entertainment. Any employee who violates the Code of Ethics may be subject to disciplinary actions, including dismissal.

A copy of the Code of Ethics is available to any client or prospective client upon request.

Participation or Interest in Client Transactions

As a broker-dealer, DBSI may invest for its own account or engage in market making transactions in many of the securities that are subject to research recommendations or analysis by DBSI in its provision of the services described in this brochure.

DBSI may recommend to clients securities in which DBSI or an affiliate also invests or otherwise has a material financial interest (including securities of DBSI affiliates), or make such recommendations at or about the same time that DBSI or an affiliate may buy or sell securities for its own account. In order to address any potential conflicts of interest, DBSI has established information barriers designed to prevent personnel outside of its research division from obtaining advance knowledge of any pending changes in ratings, price targets or estimates by its research division.

DBSI has established policies and procedures which generally prohibit research analysts from owning, purchasing or selling any securities with respect to which he or she provides Research Services or RJA Services. When limited exceptions to these policies and procedures are made, disclosure of such fact is made in the written research report of that security.

Item 12 - Brokerage Practices

Not applicable to Adviser's provision of the services described in this brochure.

Item 13 - Review of Accounts

Not applicable to Adviser's provision of the services described in this brochure.

Item 14 - Client Referrals and Other Compensation

DBSI does not receive any economic benefit from persons other than clients for the services described in this brochure.

Neither DBSI nor any related person directly or indirectly compensates any person who is not a supervised person for client referrals.

Item 15 - Custody

In providing the services described in this brochure, Adviser does not take custody of any client assets/funds.

Item 16 - Investment Discretion

Not applicable to Adviser's provision of the services described in this brochure.

Item 17 - Voting Client Securities

With respect to the provision of the services described in this brochure, Adviser does not have investment discretion over client accounts or assets and does not vote proxies.

Item 18 - Financial Information

With respect to the provision of the services described in this brochure, DBSI does not require or solicit prepayment of more than \$1,200 in fees per client, six months or more in advance.

DBSI is not aware of having any financial condition that is reasonably likely to impair its ability to meet contractual commitments to clients. DBSI has not been subject to a bankruptcy petition within the last ten years.

Item 19 - Requirements for State-Registered Advisers

Not applicable.