

Investments are subject to various risks, including market fluctuations, regulatory change, possible delays in repayment and loss of income and principal invested. The value of investments can fall as well as rise and you may not recover the amount originally invested at any point in time. Furthermore, substantial fluctuations of the value of the investment are possible even over short periods of time. The terms of any investment will be exclusively subject to the detailed provisions, including risk considerations, contained in the Offering Documents. When making an investment decision, you should rely on the final documentation relating to the transaction and not any summary contained herein. Past performance is no guarantee of future results; nothing contained herein shall constitute any representation or warranty as to future performance. Further information is available upon investor's request. Deutsche Bank is not acting as your municipal advisor, swap advisor, financial advisor or in any other advisory, agency or fiduciary capacity with respect to any transaction with you (whether or not Deutsche Bank has provided or is currently providing other services to you on related or other matters) unless expressly agreed by Deutsche Bank in writing. Deutsche Bank may engage in transactions in a manner inconsistent with the views discussed herein. Deutsche Bank trades or may trade as principal in the instruments (or related derivatives), and may have proprietary positions in the instruments (or related derivatives) discussed herein, and these may be known to the author. Deutsche Bank may make a market in the instruments (or related derivatives) discussed herein. Assumptions, estimates and opinions expressed constitute the author's judgment as of the date of this material and are subject to change without notice.

This material is not a research report and was not prepared, reviewed or edited by the Deutsche Bank Research Department. The views expressed herein may differ from those of the Research Department. Sales and Trading functions are subjects to additional potential conflicts of interest which the research Department does not face, so this material should not necessarily be considered objective or unbiased. DB seeks to transact business on an arm's length basis with sophisticated investors capable of independently evaluating the merits and risks of each transaction, with investors who make their own decision regarding those transactions. The distribution of this document and availability of these products and services in certain jurisdictions may be restricted by law. You may not distribute this document, in whole or in part, without our express written permission. DB SPECIFICALLY DISCLAIMS ALL LIABILITY FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL OR OTHER LOSSES OR DAMAGES INCLUDING LOSS OF PROFITS INCURRED BY YOU OR ANY THIRD PARTY THAT MAY ARISE FROM ANY RELIANCE ON THIS DOCUMENT OR FOR THE RELIABILITY, ACCURACY, COMPLETENESS OR TIMELINESS THEREOF

Unless notified to the contrary in a particular case, investment instruments are not insured by the Federal Deposit Insurance Corporation ("FDIC") or any other governmental entity, and are not guaranteed by or obligations of Deutsche Bank AG or its affiliates. This document may not be reproduced or circulated without our written authority. Although information in this document has been obtained from sources believed to be reliable, we do not guarantee its accuracy, completeness or fairness, and it should not be relied upon as such. All opinions and estimates herein, including forecast returns, reflect our judgment on the date of this report and are subject to change without notice and involve a number of assumptions which may not prove valid.

Deutsche Bank AG, including its subsidiaries and affiliates, does not provide legal, tax or accounting advice. This communication was prepared solely in connection with the promotion or marketing, to the extent permitted by applicable law, of the transaction or matter addressed herein, and was not intended or written to be used, and cannot be relied upon, by any taxpayer for the purposes of avoiding any U.S. federal tax penalties. The recipient of this communication should seek advice from an independent tax advisor regarding any tax matters addressed herein based on its particular circumstances.

Deutsche Asset & Wealth Management ("DeAWM") represents the asset management and wealth management activities conducted by Deutsche Bank AG or any of its subsidiaries ("Deutsche Bank"). Not all DeAWM products and services are offered in all jurisdictions and availability is also subject to local regulatory restrictions and requirements. Brokerage services are offered through Deutsche Bank Securities Inc., a registered broker-dealer and investment adviser, which conducts investment banking and securities activities in the United States. Deutsche Bank Securities Inc. is a member of FINRA, NYSE and SIPC. Banking and lending services are offered through Deutsche Bank Trust Company Americas, member FDIC, and other members of the Deutsche