

## Item 1 Cover Page

### **BlackRock Alternatives Management, LLC**

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March 29, 2018

This Brochure provides information about the qualifications and business practices of BlackRock Alternatives Management, LLC, as well as its affiliated “relying advisers”, Global Energy & Power Infrastructure Advisors, L.L.C. and Global Energy & Power Infrastructure II Advisors, L.L.C. (collectively, the “Advisers”). If you have any questions about the contents of this Brochure, please contact BlackRock Alternatives Management, LLC at the telephone number provided above. The information in this Brochure has not been approved or verified by the United States Securities and Exchange Commission (“SEC”) or by any state securities authority.

The Advisers are registered as investment advisers with the SEC. Registration as an investment adviser does not imply any level of skill or training.

Additional information about the Advisers is available on the SEC’s website at [www.adviserinfo.sec.gov](http://www.adviserinfo.sec.gov).

## Item 2 Material Changes

### Material changes from March 31, 2017, through August 28, 2017:

**Item 8: Methods of Analysis Investment Strategies and Risk of Loss.** Information regarding index mandates and investment strategy risks was updated.

**Item 10: Other Financial Industry Activities and Affiliations.** Updated to provide additional information regarding:

- BlackRock, Inc.'s acquisition of the energy infrastructure business of First Reserve Partners, L.P. and First Reserve Management, L.P., which included the acquisition of First Reserve Energy Infrastructure Advisors, L.L.C. and First Reserve Advisors, L.L.C.
- BlackRock, Inc.'s acquisition of Cachematrix Holdings, LLC, and its subsidiaries.
- BlackRock Index Services, LLC, an affiliate of the Advisers, which develops indices against which portfolios are managed.

**Item 11: Code of Ethics, Participation or Interest in Client Transactions and Personal Trading.** Updated to provide additional information regarding:

- Engaging in agency cross transactions.
- BlackRock Index Services, LLC, an affiliated index provider.
- Engaging in principal transactions.

**Item 12: Brokerage Practices.** Information regarding research or brokerage services that can be acquired with client commissions are now disclosed under Use of Commissions.

**Item 15: Custody.** Updated to provide additional information regarding custody of client's assets.

### Material changes from August 29, 2017 to the date of this Brochure:

**Item 5: Fees and Compensation - Fees Paid to Adviser by Third-Parties (previously identified in the Brochure as "Offset Fees").** Additional disclosure was added regarding the retention of fees paid by a third-party.

**Item 8: Methods of Analysis, Investment Strategies and Risk of Loss.** Updated to include disclosure on the Advisers' consideration of credit ratings.

**Item 8: Methods of Analysis, Investment Strategies and Risk of Loss - Investment Strategy Risks:** Information added regarding Operational Risk, Real Asset Risk, New Issue Risk, and Technology and Cybersecurity Risk.

**Item 11: Code of Ethics, Participation or Interest in Client Transactions and Personal Trading - Allocation of Investment Opportunities.** Updated to provide additional information regarding the allocation of investment opportunities among BlackRock Client accounts over time.

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## Item 4 Advisory Business

### OVERVIEW OF THE ADVISERS

On June 2, 2017, BlackRock, Inc. acquired the energy infrastructure business of First Reserve Partners, L.P. and First Reserve Management, L.P. (together, “First Reserve”) by acquiring 100% of the equity interests of First Reserve Energy Infrastructure Advisors, L.L.C., (now known as Global Energy & Power Infrastructure Advisors, L.L.C.) and First Reserve Advisors, L.L.C., (now known as Global Energy & Power Infrastructure II Advisors, L.L.C.) and the entities that control, or serve as, the general partners of First Reserve Energy Infrastructure Fund, L.P., (now known as Global Energy & Power Infrastructure Fund I, L.P.), First Reserve Energy Infrastructure Fund II, L.P., (now known as Global Energy & Power Infrastructure Fund II, L.P.) and their respective alternative investment vehicles and co-investment vehicles (the “Transaction”). Following the Transaction, First Reserve Energy Infrastructure Advisors, L.L.C. and First Reserve Advisors, L.L.C. became relying advisers to BlackRock Alternatives Management, LLC (“BAMLLC”).

Each of BAMLLC, Global Energy & Power Infrastructure Advisors, L.L.C. (“GEPIA”) and Global Energy & Power Infrastructure II Advisors, L.L.C. (“GEPIA II”), (each, individually, an “Adviser”) is registered as an investment adviser with the Securities and Exchange Commission (“SEC”) and is an indirect wholly-owned subsidiary of BlackRock, Inc., a publicly traded company (together with its subsidiaries, “BlackRock”). GEPIA, GEPIA II, and BAMLLC (collectively, the “Advisers”) have been in business since May 11, 2009, March 29, 2012 and March 6, 2017, respectively. The Advisers are affiliated advisers organized as separate legal entities, conducting a single advisory business. As such, the Advisers are permitted to satisfy their obligation to register with the SEC through filing of a single Form ADV by BAMLLC, with GEPIA II and GEPIA as relying advisers. The Advisers generally have common policies and procedures with respect to investment advisory clients and share senior management teams. As of December 29, 2017, the Advisers, in aggregate, managed a total of \$3,331,702,591 of regulatory assets under management, all of which is managed on a discretionary basis.

### ADVISORY SERVICES

The Advisers provide investment advisory services to a variety of alternative investment vehicles, including separate accounts and commingled investment vehicles that would be investment companies as defined in the Investment Company Act of 1940, as amended (the “Investment Company Act”), but for section 3(c)(1) or 3(c)(7) thereof (collectively, “Private Funds”). Investment services to clients may be provided on a discretionary or non-discretionary basis. The types of clients to which each Adviser provides investment management services are disclosed in the Advisers’ Form ADV Part 1 and summarized in Item 7 (“Types of Clients”) of this Brochure. Depending on the investment strategy or strategies that a client wishes to pursue, the client’s ultimate contractual relationship may be with one or more of the Advisers.

Each Adviser generally provides investment management services in accordance with applicable investment guidelines and restrictions, including applicable restrictions on investing in certain securities, or types of securities or other financial instruments, that are developed in consultation with the client, or in accordance with the mandate selected by the client. Each pooled investment vehicle managed or otherwise advised by an Adviser is managed in accordance with its investment guidelines and restrictions and generally is not tailored to the individualized needs of any particular fund shareholder or fund investor, and an investment in such a vehicle does not, in and of itself, create an advisory relationship between the shareholder or investor and an Adviser. The Advisers use both automated and/or manual processes to manage portfolios in accordance with their stated portfolio investment guidelines and restrictions.

The current primary focus of the Advisers is to manage assets for Private Funds and institutional clients through separate accounts with mandates that focus on alternative investment strategies and invest in debt and equity instruments relating to the infrastructure sector, including the global energy and natural resources industries. For additional information regarding the services provided to Private Funds and separate accounts by the Advisers, please refer to Item 7 (“Types of Clients”) of this Brochure.

## SERVICES OF AFFILIATES

BlackRock, Inc. operates its investment management business through the Advisers, as well as through multiple affiliates, some which are also registered as an investment adviser through the SEC, one of which is a limited purpose national banking association chartered by the United States ("U.S.") Department of Treasury's Office of the Comptroller of the Currency, and some which are registered only with non-U.S. regulatory authorities or multiple regulatory authorities (collectively, "BlackRock Investment Advisers"). The Advisers use the services of affiliates which are broker-dealers registered under the Securities Exchange Act of 1934, as amended (the "Exchange Act") and members of the Financial Industry Regulatory Authority ("FINRA"), as needed. For additional information, please refer to Item 10 ("Other Financial Industry Activities and Affiliations") and Item 12 ("Brokerage Practices") of this Brochure. The Advisers use the services of one or more BlackRock, Inc. subsidiaries or appropriate personnel of one or more BlackRock, Inc. subsidiaries for investment advice, portfolio execution and trading, operational support, and client servicing in their local or regional markets or their areas of special expertise without specific consent by the client, except to the extent explicitly restricted by the client in or pursuant to its investment management agreement ("IMA"), or inconsistent with applicable law. Arrangements among affiliates take a variety of forms, including but not limited to dual employee, delegation, participating affiliate, sub-advisory, sub-agency, or other servicing agreements. This practice is designed to make BlackRock's global capabilities available to an Adviser's clients in as seamless a manner as practical within a varying global regulatory framework. In these circumstances, the Adviser with which the client has its IMA remains fully responsible for the account from a legal and contractual perspective. No additional fees are charged for the affiliates' services except as set forth in the IMA.

## Item 5 Fees and Compensation

### ADVISORY FEES

An Adviser's fees generally depend on the services being provided. For investment management services, fees typically are expressed as a percentage of assets under management. Fee arrangements vary by client, and are based on a number of different factors, including investment mandate, services performed, and account/relationship size. To the extent permitted under the Investment Advisers Act of 1940, as amended (the "Advisers Act"), the Advisers negotiate and charge performance fees, as well as asset-based fees. In addition, fees and allocations are often fixed, fixed plus performance, or performance only. Certain fixed fees are required to be paid up front. For an additional discussion of performance-based fees and allocations, please refer to Item 6 ("Performance-Based Fees and Side-by-Side Management") of this Brochure.

### TIMING AND PAYMENT OF ADVISORY FEES

#### *Private Funds*

With respect to any Private Fund managed or advised by any of the Advisers ("Adviser Private Funds"), the applicable fees and expenses are set forth in the Adviser Private Fund's IMA, subscription agreement and/or other governing documents, or the Adviser Private Fund's Offering Memorandum (together with any supplements thereto, the "OM"), if the Adviser Private Fund has issued an OM.

Asset-based fees generally are paid monthly, quarterly or semi-annually, and are generally calculated on the value of the account's net or managed assets or, in the case of certain closed-end Adviser Private Funds, committed capital, invested capital or, if applicable, the vehicle's loan capital. Without limiting the generality of the foregoing, as compensation for investment advisory services currently rendered to an Adviser Private Fund, each Adviser Private Fund typically is charged an annual management fee, payable quarterly in advance. The management fees during the commitment period of such Adviser Private Fund generally are based on aggregate capital commitments of the limited partners and are asset-based thereafter, although in certain Adviser Private Funds, management fees are charged on a blended basis based on committed and invested capital. The management fees are negotiated collectively with the limited partners of each Adviser Private Fund, and are subject to waiver or reduction by the applicable Adviser. The management fees during the commitment period typically range from 1% to 2%. Management fees are paid by the Adviser Private Fund on behalf of the limited partners by (i) requiring limited partners to make capital contributions in respect of such fees, or (ii) withholding the amount of such fees from investment proceeds that would otherwise be distributable to the limited partners of such Adviser Private Fund. In some situations, the Advisers may cause an Adviser Private Fund to incur indebtedness for the payment of management fees. Upon termination of a relevant advisory agreement, management fees that have been prepaid are returned on a prorated basis.

Performance fees or other performance-based compensation generally will be based on exceeding specified yield or total return benchmarks or "hurdles" and generally are payable: (i) on a quarterly or annual basis; (ii) at the time of withdrawal or redemption with respect to the amount withdrawn; and/or (iii) as redeemed or as investments are realized and/or capital is distributed. Clawback or deferral provisions also apply to performance fees paid with respect to certain Adviser Private Funds. Without limiting the generality of the foregoing, the general partners of the Adviser Private Funds are also currently entitled to receive carried interest of up to 20% of profits on distributions derived from the disposition of investments (and, in certain circumstances, other income from investments) following a preferred return to the limited partners as set forth in each Adviser Private Fund's OM, where applicable, and other governing documents.

#### *Institutional Separate Accounts*

BAMLLC's fees for managing a separate account are determined through negotiation with each client and are set forth in BAMLLC's IMA with the client. An Adviser's fee may not cover the client's pro rata share of the fees, expenses and/or transaction charges incurred by any mutual fund, ETF or other pooled investment vehicles (including funds or vehicles managed by an Adviser) in which the account invests, although when an Adviser invests an account in a US Registered Fund, the fee paid by clients may or may not be: (i) reduced by the account's pro-rata share of any management fees paid by the US Registered Fund to BlackRock (and any fees paid pursuant to



Rule 12b-1 of the Investment Company Act) as a result of such investment or (ii) assessed on the client assets invested in such US Registered Fund.

## OTHER FEES AND EXPENSES

In addition to the fees described above, clients bear certain other costs associated with investments or accounts including but not limited to: (i) custodial charges, brokerage fees, commissions and related costs; (ii) interest expenses; (iii) taxes, duties and other governmental charges; (iv) transfer and registration fees or similar expenses; (v) costs associated with foreign exchange transactions; (vi) other portfolio expenses; (vii) costs, expenses and fees (including investment advisory and other fees charged by the investment advisers of funds in which the client's account invest) associated with products or services that are necessary or incidental to such investments or accounts and (viii) to the extent negotiated in the IMA, certain of the expenses described in the next paragraph. With respect to certain of the services described in clause (vii), which include, but are not limited to, custodial, securities lending through a third party custodian, brokerage, futures, banking, consulting or third-party advisory or legal services, each client is required to establish business relationships with relevant service providers or other counterparties based on the client's own credit standing. BlackRock will not have any obligation to allow its credit to be used in connection with the establishment of such relationships, nor is it expected that such service providers or counterparties will consider or rely on BlackRock's credit in evaluating the client's creditworthiness.

Adviser Private Funds also generally bear their own organizational, operating and other expenses including, but not limited to, in addition to those listed above: (i) sales expenses; (ii) legal expenses (which includes expenses incurred in connection with an Adviser Private Fund's legal and regulatory compliance with U.S. and non-U.S. laws and regulations (including reporting on and compliance with Form PF), and expenses incurred in connection with complying with provisions in side letter agreements, including "most favored nations" provisions); (iii) internal and external accounting, audit, custody, administration and tax preparation expenses; (iv) the out-of-pocket costs of any litigation; (v) insurance including costs of any D&O liability or other insurance and indemnification (including advances) or extraordinary expense or liability relating to the affairs of Adviser Private Funds; (vi) placement compensation payable to any placement agent (including any out-of-pocket expenses of such placement agent and any indemnification expenses payable to such placement agent); (vii) expenses of the limited partner advisory boards for certain Adviser Private Funds and meetings of the limited partners; (viii) expenses of liquidating and dissolving the Adviser Private Funds, including any fees and expenses of the Adviser Private Funds' liquidator; (ix) certain travel expenses; (x) other services provider expenses (e.g., expenses related to directors of an Adviser Private Fund); (xi) all expenses incurred in connection with an Adviser Private Fund's business, affairs and operations, including identifying, structuring, managing, evaluating, trading, conducting due diligence on, investing in, acquiring, holding, disposition of (including the transfer or sale of), any portfolio investments or prospective investments (whether or not consummated), including "broken-deal expenses," legal, accounting, engineering and other professional fees, fees of finders or sourcing partners, and travel and lodging expenses; (xii) all expenses incurred in connection with the securing of financing, including expenses related to the negotiation and documentation of agreements with one or more lenders or the posting of collateral; (xiii) all principal and interest on, and fees, costs and expenses arising out of, all borrowings and guarantees made by, and other indebtedness of, the Adviser Private Funds; (xiv) all extraordinary expenses or liabilities; (xv) all professional fees incurred in connection with the business or management of the Adviser Private Funds, including reasonable dues for professional organizations related to the investment strategy of the Adviser Private Funds; (xvi) all expenses relating to the potential transfer or actual transfer of investors' interests in the Adviser Private Funds (to the extent not paid by the transferor or transferee); (xvii) all expenses relating to any letter agreements, distribution agreements and other similar agreements with investors and prospective investors and modifications and amendments to such agreements; (xviii) all expenses incurred in connection with the creation of, and any restructuring or amendments or supplements to, the OM or, the constituent documents of the Adviser Private Funds or, of the general partner and related entities; (xix) all expenses incurred in connection with the formation of alternative investment vehicles and special purpose vehicles and subsidiaries of the Adviser Private Funds; (xx) any amounts paid by the Adviser Private Funds or alternative investment vehicles for any hedging transactions (including any amounts necessary to satisfy margin requirements) or permitted borrowing requirements; (xxi) all expenses incurred in connection with multimedia, analytical, database, news or other third-party research services and related terminals for the delivery of such services; (xxii) all fees charged by third parties for sourcing and/or managing portfolio investments, including fees paid to administrators of portfolio investments; (xxiii) all third-party fees and expenses charged to the Adviser Private Funds, including in connection with tax and legal advice, custodial services and compliance services; (xxiv) all fees charged, and reasonable out-of-pocket expenses incurred, by the Adviser Private Funds' administrators

and custodians; (xxv) management fees; and (xxvi) any value added tax payable in respect of any expenses, fees or costs set forth in clauses (i) – (xxv) above. Generally, feeder funds bear a pro rata share of the expenses associated with the related master fund. Accounts or Adviser Private Funds that invest with an underlying manager or in underlying funds generally bear associated fees (which typically include both asset based and performance based fees) and expenses of such underlying managers and/or underlying funds. Investors and clients bear the cost of investments in funds, which can include affiliated funds and exchange traded funds (“ETFs”). Further details on expenses that are charged are in the relevant OM and/or other governing documents.

### **FEES PAID TO ADVISER BY THIRD-PARTIES**

With respect to certain Private Funds and separate accounts an Adviser or one of its employees or affiliates at times receives commitment fees, break-up fees, directors’ fees, consulting fees, transaction fees, advisory fees, closing fees and other similar fees from a portfolio investment of or counterparty to such Private Fund and separate account, respectively, as well as placement or other similar fees payable to a broker-dealer (“Third-Party Fees”). The management fee received by an Adviser from a Private Fund or separate account or one of its affiliates may be reduced by the amount of Third-Party Fees received by such Adviser, or its employees or its affiliates. The extent to which an Adviser or one of its employees or affiliates may retain such Third-Party Fees, if at all, is set forth in such Private Fund’s OM and/or governing documents or the IMA governing the separate account, respectively. Further details on Third-Party Fees are in such Private Fund’s OM and/or governing documents or the IMA governing the applicable separate account, respectively.

Various conflicts of interest may exist when Third-Party Fees can be retained by an Adviser, or its employees or its affiliates and are not required to be applied to reduce the amount of the management fee received by such Adviser. For an additional discussion of the conflicts of interest presented by an Adviser’s or its employee’s or its affiliate’s entitlement to retain Third-Party Fees, please refer to Item 11 (“Code of Ethics, Participation or Interest in Client Transactions and Personal Trading – Conflicts of Interest Presented by the Retention of Third-Party Fees”) of this Brochure.

For an additional discussion of brokerage and other transaction costs, please refer to Item 12 (“Brokerage Practices”) of this Brochure.

### **CO-INVESTMENT VEHICLES**

The Advisers may from time to time offer certain persons the opportunity to co-invest in particular investments alongside of a Private Fund, subject to certain restrictions. In each case where co-investors participate in an investment, the Advisers will allocate expenses associated with such investment, including broken-deal expenses, among such co-investors and other participants in the investment in accordance with BlackRock’s expense allocation policies and procedures.

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

As discussed in Item 5 (“Fees and Compensation”) of this Brochure, fee arrangements vary by client, and are based on a number of different factors. Clients should be aware that when an Adviser or an affiliate receives performance-based fees or allocations, or BlackRock personnel have any other financial incentive to achieve gains in excess of the disincentive to suffer losses, BlackRock and/or such personnel have an incentive to choose investments that are riskier or more speculative than might otherwise be chosen.

In addition, the Advisers manage different types of accounts having different fee arrangements. Side-by-side management by Advisers of accounts raises potential conflicts of interest. For example, in certain cases, an Adviser or its related persons have a financial interest in a Private Fund, and certain clients may be subject to performance fees or allocations while others are not or are charged higher, lower or otherwise different performance fees or allocations. An Adviser may have an incentive to favor certain accounts over others that are less lucrative where: (i) the actions taken on behalf of one account potentially impact other similar or different accounts (e.g., because such accounts have the same or similar investment styles or otherwise compete for investment opportunities, have potentially conflicting investments or investment styles, or have differing abilities to engage in short sales and economically similar transactions); and (ii) the Adviser and its personnel have differential interests in such accounts (i.e., expose the Adviser or its related persons to differing potential for gain or loss through differential ownership interests or compensation structures, including circumstances where some accounts pay only asset-based fees while others are subject to performance or incentive fees or allocations). To help mitigate such potential conflicts of interest, BlackRock’s policies and procedures state that investment decisions are to be made in accordance with the fiduciary duties owed to each such account and without consideration of BlackRock’s or an Adviser’s (or either of their personnel’s) pecuniary, investment or other financial interests.

As a result of certain regulations governing the ability of accounts investing side-by-side, it is possible that different account types are not permitted to participate in an investment opportunity at the same time. The decision as to which accounts participate will take into account the suitability and the strategy of the applicable accounts. It is possible that an account is prevented from participating due to such investment opportunity being more appropriate within the primary strategy of another account.

## Item 7 Types of Clients

### OVERVIEW OF CLIENTS

As discussed in Item 4 (“Advisory Business”) of this Brochure, the Advisers’ investment management services are offered to a variety of clients. The Advisers’ clients currently include financial institutions and Private Funds and in the future may include, without limitation, real estate investment trusts, profit sharing plans, pension funds and other retirement accounts, charitable and endowment organizations, banks and thrift institutions, estates and trusts, and other institutional type accounts (both taxable and tax-exempt), government agencies, government chartered corporations, quasi-governmental agencies, state and local governments and non-U.S. pension funds, national banks, as well as high net worth and other individuals. Not every Adviser covered herein will manage each type of client account. The Advisers can advise both U.S. and non-U.S. clients subject to applicable law. Each of the Advisers generally utilizes the common policies and procedures described in this Brochure.

An Adviser may seek to obtain, verify, and record information that identifies each client and, as applicable, their owners and controllers, who retains the Adviser to manage its separate account and each person who invests in an Adviser Private Fund, in order to help the U.S. Government fight the funding of terrorism and money laundering activities and comply with economic sanctions. The Adviser will also screen clients against appropriate sanctions lists administered by the U.S. Office of Foreign Assets Control, the European Union and the United Nations, including any other applicable regimes where the Adviser operates.

### **Adviser Private Funds**

Adviser Private Funds currently include energy infrastructure funds (i.e., funds focusing on the energy and renewable power sector) and in the future may include, without limitation: other infrastructure funds; single investor funds; fixed income funds; equity funds; direct private equity funds and special situations funds; funds of private equity or hedge funds and funds that invest primarily in other affiliated or unaffiliated investment vehicles (“Funds of Funds”) and direct co-investment funds; and opportunistic funds.

Adviser Private Funds are organized as domestic or offshore (non-U.S.) companies, limited partnerships, limited liability companies, or other legal entities, in order to meet the legal, regulatory and tax demands of investors and as determined appropriate by the applicable Adviser. As a general matter, each Adviser Private Fund is managed in accordance with its investment objectives, strategies and guidelines and is not generally tailored to the individualized needs of any particular investor in the Adviser Private Fund (each an “Investor”). In addition, an investment in an Adviser Private Fund does not, in and of itself, create an advisory relationship between the Investor and an Adviser. Therefore, Investors must consider whether the Adviser Private Fund meets their investment objectives and risk tolerance prior to investing in an Adviser Private Fund. Information about each Adviser Private Fund, including its investment risk, can be found in its confidential private placement OM and/or other governing documents, which will be available to current and prospective Investors only through a BlackRock-affiliated broker-dealer or another authorized party. In some cases, an Adviser Private Fund is established for the benefit of a single investor, in which case the Adviser Private Fund is tailored to the individualized needs of the investor. BlackRock, or an affiliate, generally acts as general partner, managing member or investment manager or otherwise exercises investment discretion with respect to these products in which investors invest. Certain BlackRock non-U.S. affiliates act as placement agents with respect to the distribution of Adviser Private Funds to investors outside the U.S. While this Brochure includes information relevant to investors, this Brochure is designed solely to provide information about the Advisers and should not be considered to be an offer of interests in any Adviser Private Fund.

Private Funds that are offered to U.S. Persons as defined under Regulation S of the Securities Act of 1933 (“U.S. Persons”) are typically excepted from the definition of an “investment company” pursuant to Section 3(c)(1) (such Private Funds, the “3(c)(1) Funds”) or Section 3(c)(7) (such Private Funds, the “3(c)(7) Funds”) of the Investment Company Act. Interests in the Private Funds are offered on a private placement basis or under Regulation S of the Securities Act. Interests in the 3(c)(1) Funds are offered to persons who are “accredited investors” as defined under the Securities Act of 1933, as amended (the “Securities Act”), and “qualified clients” as defined in Rule 205-3 under the Advisers Act (to the extent a performance fee is charged). Interests in the 3(c)(7) Funds are offered to persons who are both “accredited investors” as defined under the Securities Act and “qualified purchasers” as defined under the Investment Company Act. Adviser Private Funds are generally exempt commodity pools for which an Adviser is

a commodity pool operator that is exempt from registration and related requirements pursuant to CEA Rule 4.13(a)(3), or other provisions under the Commodity Exchange Act and the rules of the U.S. Commodities Futures Trading Commission ("CFTC") thereunder. In the future, one or more of the Advisers may register as a commodity pool operator, in which case certain Adviser Private Funds may be exempt commodity pools for which such Adviser is a commodity pool operator that is provided exemptive relief from certain reporting, recordkeeping and disclosure requirements pursuant to Rule 4.7. In connection with any of these exemptions, investors are required to meet additional requirements. Additionally, investors in Adviser Private Funds are subject to certain other eligibility requirements which are set forth in the OM and/or other governing documents for each of the Adviser Private Funds. BlackRock personnel (including, but not limited to, the Advisers' investment strategy personnel responsible for the management of such Adviser Private Funds or other client accounts) who are qualified purchasers, "knowledgeable employees" (as defined in Rule 3c-5 under the Investment Company Act) or who meet the Adviser Private Fund's eligibility criteria and other applicable regulatory requirements, and certain other eligible personnel of BlackRock are permitted to invest in the Adviser Private Funds.

Private Funds that are organized under the laws of jurisdictions outside of the U.S. may be offered outside of the U.S. to persons who are not U.S. Persons. Additionally, pursuant to Section 7(d) of the Investment Company Act and the relevant SEC guidance thereunder, such Private Funds can also be offered on a private placement basis to U.S. Persons (typically tax-exempt institutions) that are both "accredited investors" as defined under the Securities Act and, for 3(c)(7) Funds, "qualified purchasers" as defined under the Investment Company Act.

Adviser Private Funds operate using "master-feeder" structures, pursuant to which trading operations reside in a "master fund" while investors access the master fund directly or invest through one or more "feeder funds" that, in turn, invest (directly or indirectly) in the master fund. Adviser Private Funds can also use special purpose vehicles to aggregate investments by Adviser Private Funds into certain underlying investments or for structuring purposes.

BlackRock and its related persons often invest in and/or serve as general partner or managing member, or on the board of directors or advisory board, of an Adviser Private Fund. BlackRock, and its related persons generally act as investment manager or otherwise exercise investment discretion with respect to certain Adviser Private Funds and often provide services other than advice (including, but not limited to, administration, organizing and managing the business affairs, executing and reconciling trades, preparing financial statements and providing audit support, preparing tax related schedules or documents, and sales and investor relations support, diligence and valuation services) to such funds, in some cases for a fee separate and apart from the advisory fee. An Adviser Private Fund often pays or reimburses BlackRock for certain organizational and initial offering expenses and operating expenses related to the Adviser Private Fund.

### ***Institutional Separate Accounts***

BAMLLC provides investment management services directly to institutional clients through separate accounts pursuant to a negotiated IMA between BAMLLC as the investment adviser and the client. As part of its institutional separate account business, BAMLLC develops and employs investment strategies to meet individual client risk profiles. An institutional client typically consults with BAMLLC at the outset of the investment adviser-client relationship to establish customized investment guidelines applicable to BAMLLC's management of the client's account, and such guidelines are expected to often vary significantly among institutional accounts with the same investment objective.



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

In managing discretionary client accounts and providing recommendations to non-discretionary clients, the Advisers utilize various investment strategies and methods of analysis implemented by BlackRock's Investment Groups. This Item 8 describes various methods of analysis and investment strategies, as well as the primary risks associated with these investment strategies. However, it is not possible to identify all of the risks associated with investing and the particular risks applicable to a client account will depend on the nature of the account, its investment strategy or strategies and the types of securities held.

While an Adviser seeks to manage accounts so that risks are appropriate to the strategy, it is often not possible or desirable to fully mitigate risks. Any investment includes the risk of loss and there can be no guarantee that a particular level of return will be achieved. Clients and other investors should understand that they could lose some or all of their investment and should be prepared to bear the risk of such potential losses. Clients and other investors should read carefully all applicable informational materials and offering/governing documents, including OMs for further information on the various risks prior to retaining an Adviser to manage an account or investing in any BlackRock investment product.

Advisers often consider credit ratings when analyzing bonds, notes and other debt-related investments for client accounts. A credit rating generally reflects an assessment by the rating's provider of the relative credit risk of an investment compared to other investments rated by the provider (please see "Investment Strategy Risks - Credit/Default Risk" below). Credit rating agencies, including nationally recognized statistical rating organizations (each, a "Rating Agency"), may rate specific investments (e.g., bonds), issuers (e.g., corporations, governments and financial institutions) and/or programs (e.g., commercial paper programs). Certain types of investments generally are not rated by Rating Agencies, such as non-US government/sovereign obligations, US agency securities, commercial paper, time deposits at financial institutions, and derivative instruments such as credit default swaps. For those types of investments, as well as US Treasury securities (some of which are not rated), where a Rating Agency has not rated the specific investment but has rated the investment's issuer, program, financial institution or underlying reference asset, an Adviser typically considers the investment to have the same Rating Agency rating as its issuer, program, financial institution or underlying reference asset, as appropriate. In the case of municipal securities, where one Rating Agency provides multiple ratings for the same security (e.g., "underlying," "insured" and/or "enhanced" ratings), an Adviser may consider the security to have the highest of the multiple ratings. For infrastructure debt, an Adviser may consider an internal credit score that may or may not differ from the Rating Agency rating of the issuer.

New issue securities (regardless of type) rarely are rated by a Rating Agency at the time of their initial offering. Preliminary prospectuses or term sheets for new issue securities often include an expected rating for the security (as determined by the underwriter and/or issuer) or a Rating Agency rating for the issuer of the security. When deciding whether to purchase a new issue security that has not yet been rated by a Rating Agency, an Adviser typically will attribute an expected rating to the security based on: (i) the expected rating of the security set forth in the preliminary prospectus or term sheet for the security; (ii) the Rating Agency's rating for the issuer of the security set forth in the preliminary prospectus or term sheet for the security; or (iii) with respect to asset-backed securities, the rating of a prior issuance. Please see "Investment Strategy Risks – New Issue Securities Risk" below for some of the risks associated with new issue securities.

*Credit ratings are subject to change and do not reflect all of the risks associated with an investment.*

Clients and other investors should be aware that while an Adviser does not limit its advice to particular types of investments, mandates can be limited to certain types of securities or to the recommendation of investment advisers or managed funds, and are not always diversified. The accounts managed by the Advisers are generally not intended to provide a complete investment program for a client or investor. Clients and other investors are responsible for appropriately diversifying their assets to guard against the risk of loss.

### ALTERNATIVE MANDATES

BlackRock alternatives focus on sourcing and managing high-alpha investments with lower correlation to public markets and developing a holistic approach to address client needs in alternatives investing. Certain of these products involve a higher level of investment risk, while seeking greater returns than traditional investment products.

Alternative products invest in a wide array of instruments depending on their respective investment guidelines and objectives, including but not limited to equity securities, debt securities, swaps, warrants, commercial paper, government securities, municipal securities, options contracts, future contracts and Private Funds. A primary component of the Advisers' investment management services currently are the products and services offered in the infrastructure and related asset classes. Further information can be found in the relevant OM and/or governing document, if applicable, for each Adviser Private Fund or the IMA for each separate account.

BlackRock solicits clients to invest in such products, from time to time and when appropriate, as these investments are not necessarily appropriate for all clients. Not all clients afforded the opportunity to invest will choose to invest. BlackRock may on a discretionary basis invest in such products on a client's behalf, in accordance with the client's investment guidelines and restrictions.

### **BORROWING AND LEVERAGE**

BlackRock enters into borrowing arrangements on behalf of certain Private Funds, including by entering into a credit facility or other means of borrowing with a service provider to a Private Fund, an affiliate of the Private Fund or such service provider or another third-party lender. As a general matter, these borrowing arrangements are used to meet short-term investment and liquidity needs. However, implementing any of the investment strategies described herein can involve an Adviser borrowing for leverage or employing other forms of leverage to the extent permitted by investment guidelines. The use of leverage entails risks and, in certain cases, involves using reverse repurchase agreements and other borrowing methods, which (a) currently include, but are not limited to, (i) dollar rolls, (ii) employing hedging strategies that include the use of interest rate swaps, caps and floors, (iii) buying and selling options or futures to manage duration and risk in connection with securities portfolios, (iv) entering into forward settlement transactions, some of which include when-issued securities and (v) operational leverage embedded in derivative instruments and other financial products, and (b) in the future may include, without limitation, (i) lending securities through repurchase agreements and other lending methods, and (ii) establishing equity futures positions to equitize cash holdings in an account. The investment strategies and risks associated with employing leverage are set forth in the relevant operating document and/or OM, if applicable, of each Private Fund and the IMA of each separate account.

### **INVESTMENT STRATEGY RISKS**

BlackRock supports its investment strategies with proprietary technology, such as that provided by BlackRock Solutions®, which produces risk management reports using technology such as its "Aladdin" technology platform. In some cases, BlackRock's Risk & Quantitative Analysis Group ("RQA") generates supplementary daily risk reports. However, RQA generally provides periodic detailed risk analyses, including risk reports that are discussed with portfolio managers, across all asset classes, as part of the RQA risk oversight process. Among other things, RQA's role enables the risks associated with the portfolios managed by the Advisers to be understood by relevant portfolio managers and reviewed for conformity with client objectives. Prospective clients and other investors should be aware that no risk management system is fail-safe, and no assurance can be given that risk frameworks employed by RQA and an Adviser's portfolio managers (e.g., stop-win, stop-loss, Sharpe Ratios, loss limits, value-at-risk or any other methodology now known or later developed) will achieve their objectives and prevent or otherwise limit substantial losses. No assurance can be given that the risk management systems and techniques or pricing models will accurately predict future trading patterns or the manner in which investments are priced in financial markets in the future. BlackRock investment professionals employ quantitatively-based financial and analytical models to aid in the selection of investments for clients and to determine the risk profile of client accounts. The success of an investment program and trading activities depends, in part, on the viability of such analytical models. Additional risks for relevant products are more fully described in such products' offering and/or governing documentation.

Certain risks apply specifically to particular investment strategies or investments in different types of securities or other investments that clients and other investors should be prepared to bear. The risks involved for different client accounts or funds will vary based on each client's investment strategy and the type of securities or other investments held in the client's account or the fund. The following are descriptions of various primary risks related to the investment strategies used by the Advisers. Not all possible risks are described below. Clients and other investors should read carefully all applicable informational materials and offering/governing documents, including OMs and prospectuses for further information on the various risks prior to retaining an Adviser to manage an account or investing in any BlackRock investment product.

**Asset Allocation Strategy Risk.** Asset allocation strategies do not assure profit or diversification and do not protect against loss.

**Asset Class Risk.** Securities in a portfolio can underperform in comparison to the general securities markets, a particular securities market, or other asset classes.

**Borrowing Risk.** Borrowing may exaggerate changes in the net assets and returns of a portfolio. Borrowing will cost the portfolio interest expense and other fees, potentially reducing a portfolio's return. This can at times result in a need for the portfolio to liquidate positions when it may not be advantageous to do so to satisfy its borrowing obligations. Borrowing arrangements can be used to meet short-term investment and liquidity needs or to employ forms of leverage that entails risks, including the potential for higher volatility and greater declines of a portfolio's value, and fluctuations of dividend and other distribution payments.

**Commodity Risk.** Negative changes in a commodity market could have an adverse impact on the value of commodity-linked investments including companies that are susceptible to fluctuations in commodity markets. The value of commodity-linked investments can be affected by changes in overall market movements, taxation, terrorism, nationalization or expropriation, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as, weather (e.g., drought, flooding), livestock disease, embargoes, tariffs and international economic, political and regulatory developments. The prices of sector commodities (e.g., energy, metals, agriculture and livestock) can fluctuate widely due to factors such as changes in value, supply and demand and governmental regulatory policies.

**Competition Risk.** There can be no assurance that the Advisers will be able to locate, consummate and exit investments that satisfy a portfolio's rate of return objectives or that a portfolio will be able to invest fully its committed capital.

**Concentration Risk.** Concentrating investments in an issuer or issuers, in a particular country, group of countries, region, market, industry, group of industries, sector or asset class means that performance will be more susceptible to loss due to adverse occurrences affecting that issuer or issuers, particular country, group of countries, region, market, industry, group of industries, sector or asset class than a more diversified mix of investments.

**Controlling Interests Risk.** Because of its equity ownership, representation on the board of directors and/or contractual rights, a portfolio may be considered to control or influence the conduct of portfolio companies. Under certain circumstances, such ownership or roles could be used by third parties as the basis for such parties to assert environmental, pension-related, securities law or other claims against such portfolio or its owners or affiliates.

**Conversion of Equity Investments Risk.** After its purchase, a non-equity investment directly or indirectly held by a portfolio, such as a convertible debt obligation may convert to an equity security (converted investment). Alternatively, a portfolio may directly or indirectly acquire equity securities in connection with a restructuring event related to one or more of its non-equity investments. Challenges in liquidating the converted investment at an advantageous time, would impact the performance of the portfolio.

**Counterparty Risk.** Transactions, including certain derivative transactions, entered into directly with a counterparty are subject to the risk that the counterparty will fail to perform its obligations in accordance with the agreed terms and conditions of the transaction. A counterparty's bankruptcy or other failure to perform its obligations due to financial difficulties, would result in significant delays in obtaining any recovery in a bankruptcy or other reorganization proceeding or no recovery in such circumstances.

**Credit/Default Risk.** Debt issuers and other counterparties of fixed income securities or instruments in some instances default on their obligation to pay interest, repay principal or make a margin payment, or default on any other obligation. Additionally, the credit quality of securities or instruments could deteriorate (e.g., downgraded by Rating Agency), which would impair a security's or instruments liquidity and decrease its value.

**Currency Risk.** Currencies are purchased and sold for portfolios through the use of forward contracts or other instruments. A portfolio that seeks to trade in foreign currencies can have limited access to certain currency markets due to a variety of factors including government regulations, adverse tax treatment, exchange controls, and currency convertibility issues. Certain portfolios can hold investments denominated in currencies other than the currency in



which the portfolio is denominated. Currency exchange rates can be volatile, particularly during times of political or economic unrest or as a result of actions taken by central banks. A change in the exchange rates has the potential to produce significant losses to a portfolio.

**Debt Instruments Risk.** Generally, investments in debt and credit-related instruments may be secured or unsecured and may be structurally or contractually subordinated to substantial amounts of senior indebtedness. Other factors may materially and adversely affect the market price and yield of such debt investments, including investor demand, changes in the financial condition of the applicable portfolio company, government fiscal policy and domestic or worldwide economic conditions.

**Derivative Risk.** Investments in derivatives, or similar instrument, including but not limited to, options, futures, options on futures, forwards, participatory notes, swaps, structured securities, tender-option bonds and derivatives relating to foreign currency transactions, which can be used to hedge a portfolio's investments or to seek to enhance returns, entail specific risks relating to liquidity, leverage and credit that can reduce returns and/or increase volatility. Losses in a portfolio from investments in derivative instruments can result from the potential illiquidity of the markets for derivative instruments, the failure of the counterparty to fulfill its contractual obligations, the portfolio receiving cash collateral under the transactions and some or all of that collateral being invested in the market, or the risks arising from margin posting requirements and related leverage factors associated with such transactions. In addition, many jurisdictions continue to review practices and regulations relating to the use of derivatives, or similar instrument. Such reviews could make such instruments more costly, limiting the availability of, or otherwise adversely affecting the value or performance of such instrument.

**Developed Countries Risk.** Investments in developed countries subject a portfolio to regulatory, political, currency, security, demographic, and economic risk specific to developed countries. Developed countries are impacted by changes to the economic health of certain key trading partners, regulatory burdens, debt burdens, and the price or availability of certain commodities. Developed countries tend to represent a significant portion of the global economy and have generally experienced slower economic growth than some other countries or regions.

**Distressed Securities Risk.** Investments in companies that are in poor financial condition, lack sufficient capital or are involved in bankruptcy or reorganization proceedings face the unique risks of lack of information with respect to the issuer, the effects of bankruptcy laws and regulations and greater market volatility than is typically found in other securities markets. As a result, investments in securities of distressed companies involve significant risks that could result in a portfolio, incurring losses with respect to such investments.

**Due Diligence of and Conduct at Portfolio Companies.** Before making investments, the Advisers will typically conduct due diligence that it deems reasonable and appropriate based on the facts and circumstances applicable to each investment. From time to time, outside consultants, legal advisors, accountants, investment banks and other third parties are involved in the due diligence process to varying degrees depending on the type of investment. Such involvement of third-party advisors, consultants and other third parties may present a number of risks. The due diligence investigation that an Adviser carries out with respect to any investment opportunity may not reveal or highlight all relevant facts that may be necessary or helpful in evaluating such investment opportunity. Moreover, such an investigation will not in itself result in the investment being successful.

**Emerging Markets Risk.** Investments in emerging markets can be subject to a greater risk of loss than investments in more developed markets, as they are more likely to experience inflation risk, political turmoil and rapid changes in economic conditions. Investing in the securities of emerging markets involves certain considerations not typically associated with investing in more developed markets, including but not limited to, the small size of such securities markets and the low volume of trading (possibly resulting in potential lack of liquidity and in price volatility), political risks of emerging markets which can include unstable governments, government intervention in securities or currency markets, nationalization, restrictions on foreign ownership and investment, laws preventing repatriation of assets and legal systems that do not adequately protect property rights. Further, emerging markets can be affected adversely by changes to the economic health of certain key trading partners, such as the U.S., regional and global conflicts and terrorism and war. Emerging markets often have less uniformity in accounting and reporting requirements, unreliable securities valuation and greater risk associated with custody of securities.

**Energy and Natural Resources Industries Risks.** Investments in the energy and natural resources industries and energy infrastructure assets are subject to certain special risks, including, but not limited to, the following:

*Volatility of Commodity Prices.* The performance of all or a portion of a portfolio's investments may substantially depend upon prevailing prices of commodities, which have been, and may in the future be, volatile and subject to wide fluctuations in response to uncertain market factors that are beyond the control of an Adviser.

*Infrastructure Assets.* Generally, investments in infrastructure assets or businesses may be affected by a number of factors including economic conditions, political events, competition, regulation and the financial position and business strategy of customers. Many of these factors are outside of the control of the owner, operator and management of a project and the related portfolio company.

*Regulatory Risk; Government, Agency and Rate Risk.* The energy and natural resources industries are subject to comprehensive U.S. and non-U.S. federal, state and local laws and regulations, which could cause additional expenditures, decreased revenues, restrictions and delays that could materially and adversely affect the portfolio companies and the prospects of the portfolio.

*Uncertainty of Estimates.* Estimates of energy and natural resources reserves and of factors such as solar energy intensity and movement of wind and water flow by qualified engineers are subject to wide variances based on changes in commodity prices and certain technical assumptions. Accordingly, it is possible for such estimates to be significantly revised from time to time, creating significant changes in the value of the assets or businesses owning such reserves.

*Environmental Regulation.* Environmental laws, regulations and regulatory initiatives play a significant role in the energy and natural resources (including renewable power) industries and new and more stringent environmental laws, regulations and regulatory initiatives or stricter interpretations of current laws or regulations could impose substantial additional costs on portfolio investments.

*Operational Risk and Catastrophic and Force Majeure Events.* The long-term profitability of energy and natural resource assets is partly dependent upon the efficient operation and maintenance of the assets and asset-owning portfolio investments. Inefficient operation and maintenance and a wide variety of events outside of a portfolio's control, including, natural disasters, may reduce the profitability of portfolio investments, adversely affecting a portfolio's financial returns.

*Drilling, Exploration, Development and Mining Risks.* From time to time, a portfolio may invest in businesses or projects that engage in exploration and development, a speculative business involving a high degree of risk.

*Importance of PPAs and Exposure to Merchant Power Pricing.* A portfolio investment's expected revenue generally will be dependent on it being able to enter into and sell power under medium to long-term arrangements governing power sales, which can include bilateral agreements, power hedges, feed-in-tariffs and contracts associated with the sale of renewables obligation certificates and other contractual power sale arrangements (any such arrangements are referred to as "PPAs"). There can be no assurance that market prices will be at levels that enable a portfolio's projects to operate profitably or as projected, which may have a material adverse effect on a portfolio's performance levels.

*Political and Societal Challenges.* Energy and energy-related projects are often subject to siting requirements. Proposals to site an energy plant or any associated infrastructure may be challenged based on alleged security concerns, disturbances to natural habitats for wildlife and adverse aesthetic impacts, as well as federal, state, local and private site selection concerns. In addition, there is the possibility that political and societal challenges could delay or prohibit the construction of a power project or impair its operations.

*Sovereign Risk.* The rights of certain portfolio companies to extract mineral resources, or to generate, deliver or sell energy or related services and equipment are often granted by or derive from approval by governmental entities and are subject to special risks, including the risk that the relevant governmental entity will exercise

sovereign rights and take actions contrary to the rights of a portfolio or the relevant portfolio company or project under the relevant agreement.

**Terrorist Activities.** The continued threat of terrorism and the impact of military or other action have led to and will likely lead to increased volatility in prices for electricity and could affect the financial results of the portfolios due to a portfolio company being forced to increase preventative security measures or expand its insurance coverage, adversely affecting the profitability of the investment therein.

**Effects of Ongoing Changes in the Electric Industry.** A portfolio's investments in energy and natural resource assets will be directly and indirectly affected by changes in the electric utility industries, such as increasing competitive pressures and increasing environmental regulations and standards.

**Technical Risk.** Investments in the energy industry are subject to technical risks, including the risk of mechanical breakdown, spare parts shortages, failure to perform according to design specifications and other unanticipated events, which may adversely affect operations.

**Climate Change and Natural Events May Reduce Energy Production Below Expectations.** Prolonged changes in climatic conditions may have a significant impact on the revenues, expenses and conditions of portfolio investments.

**Equity Securities Risk.** Equity securities are subject to changes in value and their values can be more volatile than other asset classes. The value of equity securities varies in response to many factors. These factors include, without limitation, factors specific to an issuer and the industry in which the issuer securities are subject to stock risk. Historically, U.S. and non-U.S. stock markets have experienced periods of substantial price volatility and should be expected to do so again in the future.

**Fraud.** Of paramount concern in originating loans is the possibility of material misrepresentation or omission on the part of a borrower. Such inaccuracy or incompleteness may adversely affect the valuation of the collateral underlying the loans, or may adversely affect the likelihood that a lien on the collateral securing the loans has been properly created and perfected. Under certain circumstances, payments to a portfolio may be reclaimed if any such payment or distribution is later determined to have been made with intent to defraud or prefer creditors.

**Fraudulent Conveyance Risk.** If a court in a lawsuit brought by an unpaid creditor or representative of creditors of a borrower, such as a trustee in bankruptcy or the borrower as debtor-in-possession, were to find that the borrower did not receive fair consideration or reasonably equivalent value for incurring indebtedness evidenced by a loan made by a portfolio and the grant of any security interest or other lien securing such investment made by a portfolio, and, after giving effect to the incurring of such indebtedness, the borrower (a) was insolvent; (b) was engaged in a business for which the assets remaining in such borrower constituted unreasonably small capital; or (c) intended to incur, or believed that it would incur, debts beyond its ability to pay such debts as they mature, such court could invalidate, in whole or in part, such indebtedness and such security interest or other lien as fraudulent conveyances, subordinate such indebtedness to existing or future creditors of the borrower or recover amounts previously paid by the borrower (including to the relevant portfolio) in satisfaction of such indebtedness or proceeds of such security interest or other lien previously applied in satisfaction of such indebtedness.

**Hedging Risk.** Hedging techniques could involve a variety of derivatives, including futures contracts, exchange-listed and over-the-counter put and call options on securities, financial indices, forward foreign currency contracts, and various interest rate transactions. A transaction used as a hedge to reduce or eliminate losses associated with a portfolio holding or particular market that a portfolio has exposure, including currency exposure, can also reduce or eliminate gains. Hedges are sometimes subject to imperfect matching between the hedging transaction and its reference portfolio holding or market (correlation risk), and there can be no assurance that a portfolio's hedging transaction will be effective. In particular, the variable degree of correlation between price movements of hedging instruments and price movements in the position being hedged creates the possibility that losses on the hedge will be greater than gains in the value of the positions of the portfolio. Increased volatility will generally reduce the effectiveness of the portfolio's currency hedging strategy. Hedging techniques involve costs, which could be significant, whether or not the hedging strategy is successful. Hedging transactions, to the extent they are implemented, will not necessarily be completely effective in insulating portfolios from currency or other risks.

**Illiquid and Long-Term Investment Risk.** Certain portfolios may invest in private debt instruments secured by infrastructure assets for which the number of potential purchasers and sellers, if any, is often limited. This factor may have the effect of limiting the availability of these obligations for origination or purchase by a respective portfolio and may also limit the ability of a portfolio to sell such obligations at their fair market value prior to termination of such portfolio or in response to changes in the economy or financial markets. In particular, such investments will be relatively illiquid and there can be no assurance that a portfolio will be able to realize on such investments in a timely manner.

**Income Risk.** A portfolio's income can decline in some instances when interest rates decrease. During periods of falling interest rates if an issuer is able to repay principal prior to the security's maturity ("prepayment"), the portfolio could be caused to reinvest in securities with a lower yield, resulting in a decline in the portfolio's income.

**Interest Rate Risk.** When interest rates increase, fixed income securities or instruments will generally decline in value. Long-term fixed income securities or instruments will normally have more price volatility because of this risk than short-term fixed income securities or instruments.

**Issuer Risk.** A portfolio's performance depends on the performance of individual securities to which the portfolio has exposure. Adverse changes to the financial condition or credit rating of an issuer of those securities often cause the value of the securities to decline or become worthless.

**Investment Style Risk.** Different investment styles tend to shift in and out of favor depending upon market and economic conditions and investor sentiment. Portfolios can outperform or underperform other portfolios that invest in similar asset classes but employ different investment styles.

**Leverage Risk.** A portfolio utilizing leverage will be subject to heightened risk. Leverage often involves the use of various financial instruments or borrowed capital in an attempt to increase the return on an investment and is often intrinsic to certain derivative instruments. Leverage can take the form of borrowing funds, trading on margin, derivative instruments that are inherently leveraged, including but not limited to, forward contracts, futures contracts, options, swaps (including total return financing swaps and interest rate swaps), repurchase agreements and reverse repurchase agreements, or other forms of direct and indirect borrowings and other instruments and transactions that are inherently leveraged. Any such leverage, including instruments and transactions that are inherently leveraged, can result in the portfolio's market value exposure being in excess of the net asset value of the portfolio. A portfolio could need to liquidate positions when it is not advantageous to do so to satisfy its borrowing obligations. The use of leverage entails risks, including the potential for higher volatility and greater declines of a portfolio's value, and fluctuations of dividend and other distribution payments.

**Liquidity Risk.** Liquidity risk exists when particular investments are difficult to purchase or sell (e.g., not publicly traded and/or no market is currently available or may become less liquid in response to market developments). This can reduce a portfolio's returns because the portfolio may be unable to transact at advantageous times or prices. Investments that are illiquid or that trade in lower volumes may be more difficult to value.

**Long/Short Strategy Risk.** There is no guarantee that returns on a portfolio's long or short positions will produce high, or even positive, returns and the portfolio could lose money if either or both the portfolio's long and short positions produce negative returns.

**Management Risk.** A portfolio is subject to management risk, which is the risk that the investment process, techniques and analyses applied will not produce the desired results, and those securities or other financial instruments selected for a portfolio will result in returns that are inconsistent with the portfolio's investment objective. Portfolios advised by BlackRock are subject to threshold limitations on aggregate and/or portfolio-level ownership interests in certain companies and commodities arising from statutory regulatory or self-regulatory organization requirements or company ownership restrictions (e.g., poison pills or other restrictions in organizational documents). In addition, legislative, regulatory, or tax developments affect the investment techniques or opportunities, available in connection with managing the portfolio and can also adversely affect the ability of the portfolio to achieve its investment objective (e.g., where aggregate and/or portfolio-level ownership thresholds or limitations must be observed, a portfolio is subject to investment limitations in certain companies arising from statutory, regulatory or self-regulatory organization requirements or company ownership restrictions).

**Market Risk.** The market value of the instruments in which a portfolio invests will go up or down in response to the prospects of individual companies, particular sectors or governments and/or general economic conditions throughout the world due to increasingly interconnected global economies and financial markets.

**New Issue Securities Risk.** Investing in new issue securities involves risks that are in addition to those associated with investments which have been trading for an extended period of time because information typically used to evaluate investments often is not available for new issue securities. Subsequent to the purchase of a new issue security by an Adviser, information about the security or its issuer may become publicly available (e.g., the issuance of a credit rating by a Rating Agency) which could cause an Adviser to alter its view on the appropriateness of the investment for a portfolio.

**Non-U.S. Securities Risk.** Investments in the securities of non-U.S. issuers are subject to the risks associated with non-U.S. markets in which those non-U.S. issuers are organized and operate, including but not limited to, risks related to foreign currency, limited liquidity, less government regulation, privatization, and the possibility of substantial volatility due to adverse political, economic, geographic events, or other developments, differences in accounting, auditing and financial reporting standards, the possibility of repatriation, expropriation or confiscatory taxation, adverse changes in investment or exchange controls or other regulations and potential restrictions on the flow of international capital. These risks are often heightened for investments in smaller capital markets, emerging markets, developing markets or frontier markets.

**Offshore Investor Risk.** A portfolio seeking to trade in foreign currencies can have limited access to certain currency markets due to a variety of factors including government regulations, adverse tax treatment, exchange controls, and currency convertibility issues. These limitations and restrictions impact the availability, liquidity and pricing of the financial instruments that are necessary for the portfolio to gain exposure to the currency markets, impairing the portfolio's ability to achieve its investment objective.

**Operational Risk.** Inadequate or failed internal processes, people and systems, or external events can pose a direct or indirect risk when investing. This includes any errors, omissions, systems breakdown, natural disasters, and fraudulent activity, which could cause impact in terms of unavailability of services and potentially resulting in financial losses.

**Private Investment Risk.** Investments in private investments, including debt or equity investments in operating and holding companies, investment funds, joint ventures, royalty streams, commodities, physical assets, and other similar types of investments can be highly illiquid and long-term. A portfolio's ability to transfer and/or dispose of private investments is expected to be highly restricted. BlackRock may not be able to obtain material information about the private investment that other investors obtain. Private investments are not subject to the same reporting and disclosure requirements as public companies, which may increase valuation risk for those investments.

**Real Assets Risk.** Investments in real assets such as real estate, infrastructure and energy are subject to certain risks, including, but not limited to, the following: (i) construction risks, including labor disputes or work stoppages, shortages of material or interruptions to the availability of necessary equipment; (ii) accidents, adverse weather, force majeure or catastrophic events, such as explosions, fires or terrorist activity; (iii) personal injury or property damage; (iv) failures on the part of third-party managers or sub-contractors appointed in connection with investments or projects to adequately perform their contractual duties or operate in accordance with applicable laws; (v) exposure to stringent and complex foreign, federal, state and local laws, ordinances and regulations, including those related to financial crime, permits, government contracting, conservation, exploration and production, tenancy, occupational health and safety, foreign investment and environmental protection; (vi) environmental hazards, such as natural gas leaks, product and waste spills, pipeline and tank ruptures, and unauthorized discharges of products, wastes and other pollutants; (vii) changes to the supply and demand for properties and/or tenancies or fluctuations in the price of commodities; (viii) the financial resources of tenants; and (ix) contingent liabilities on disposition of assets.

**Short Selling Risk.** Short sales in securities that it does not own exposes a portfolio to speculative exposure risks. If a portfolio makes short sales in securities that increase in value, the portfolio will lose value. Certain securities may not be available or eligible for short sales. Short selling involves the risks of: increased leverage, and its accompanying potential for losses; the potential inability to reacquire a security in a timely manner, or at an acceptable price; the possibility of the lender terminating the loan at any time, forcing the portfolio to close the transaction under unfavorable



conditions; the additional costs that may be incurred; and the potential loss of investment flexibility caused by the obligation to provide collateral to the lender and set aside assets to cover the open position. There can be no assurance that a portfolio will be able to close out a short sale position at any particular time or at an acceptable price. Loss on short positions is subject to potential offset by investing short-sale proceeds in other investments.

**U.S. Economic Risk.** The United States is a significant trading partner with other countries. Certain changes in the U.S. economy can have an adverse effect on the economy and markets of other countries.

**Valuation Risks.** The net asset value of a portfolio as of a particular date may be materially greater than or less than its net asset value that would be determined if a portfolio's investments were to be liquidated as of such date. For example, if a portfolio was required to sell a certain asset or all or a substantial portion of its assets on a particular date, the actual price that a portfolio would realize upon the disposition of such asset or assets could be materially less than the value of such asset or assets as reflected in the net asset value of a portfolio. Volatile market conditions could also cause reduced liquidity in the market for certain assets, which could result in liquidation values that are materially less than the values of such assets as reflected in the net asset value of a portfolio.

**Volatility Risk.** The prices of a portfolio's investments can be highly volatile. Price movements of assets are influenced by, among other things, interest rates, general economic conditions, the condition of the financial markets, developments or trends in any particular industry, the financial condition of the issuers of such assets, changing supply and demand relationships, programs and policies of governments, and national and international political and economic events and policies.

**Technology and Cybersecurity Risk** - BlackRock is dependent on the effectiveness of the information and cybersecurity policies, procedures and capabilities it maintains to protect the confidentiality, integrity, and availability of its computer and telecommunications systems and the data that resides on or is transmitted through them. An externally caused information security incident, such as a cyber-attack including a phishing scam, malware, or denial-of-service attack, or an internally caused incident, such as failure to control access to sensitive systems, could materially interrupt business operations or cause disclosure or modification of sensitive or confidential client or competitive information. Moreover, BlackRock's use of mobile and cloud technologies could heighten these and other operational risks, as certain aspects of the security of such technologies may be complex, unpredictable or beyond BlackRock's control. BlackRock's usage of the public Internet, as well as any reliance on mobile or cloud technology or any failure by third party service providers to adequately safeguard their systems and prevent cyber-attacks, could disrupt BlackRock's operations and result in misappropriation, corruption or loss of personal, confidential or proprietary information. In addition, there is a risk that encryption and other protective measures may be circumvented, particularly to the extent that new computing technologies increase the speed and computing power available. Moreover, due to the complexity and interconnectedness of BlackRock's systems, the process of upgrading existing capabilities, developing new functionalities and expanding coverage into new markets and geographies, including to address client or regulatory requirements, may expose BlackRock to additional cyber- and information-security risks, as well as increased execution, operational and data management risks or system disruptions, impacting BlackRock, as well as clients who rely upon, or have exposure to, BlackRock's systems.

In addition, due to BlackRock's interconnectivity with third-party vendors, advisors, central agents, exchanges, clearing houses and other financial institutions, BlackRock may be adversely affected if any of them are subject to a successful cyber-attack or other information security event, including those arising due to the use of mobile technology or a third-party cloud environment. BlackRock also routinely transmits and receives personal, confidential or proprietary information by email and other electronic means. BlackRock collaborates with clients, vendors and other third parties to develop secure transmission capabilities and protect against cyber-attacks. However, BlackRock cannot ensure that it or such third parties have all appropriate controls in place to protect the confidentiality of such information.

Although BlackRock takes protective measures and endeavors to strengthen its computer systems, software, technology assets and networks to prevent, detect, react to and recover from potential cyber-attacks, there can be no assurance that any of these measures prove effective. Any information security incident or cyber-attack against BlackRock or third parties with whom it is connected, or issuers of securities or instruments in which the client portfolios invests, including any interception, mishandling or misuse of personal, confidential or proprietary information, have the ability to cause disruptions and impact business operations, potentially resulting in financial

losses, the inability to transact business, violations of applicable privacy and other laws, loss of competitive position, regulatory fines and/or sanctions, breach of client contracts, reputational harm or legal liability.

### OPERATING EVENTS

Trade errors and other operational mistakes (“Operating Events”) occasionally may occur in connection with an Adviser’s management of funds and client accounts (“Portfolios”). The Advisers have policies and procedures that address identification and correction of Operating Events, consistent with applicable standards of care and client documentation. An Operating Event generally is compensable by an Adviser to a client or fund when it is a mistake (whether an action or inaction) in which the Adviser has, in the Adviser’s reasonable view, deviated from the applicable investment guidelines or the applicable standard of care in managing a Portfolio, subject to the considerations set forth below.

Operating Events may include, but are not limited to: (i) the placement of orders (either purchases or sales) in excess of the amount of securities intended to trade for a Portfolio; (ii) the purchase (or sale) of a security when it should have been sold (or purchased); (iii) the purchase or sale of a security not intended for the Portfolio; (iv) the purchase or sale of a security contrary to applicable investment guidelines or restrictions; (v) incorrect allocations of trades; and (vi) transactions with a non-authorized counterparty. Operating Events can also occur in connection with other activities that are undertaken by an Adviser and its affiliates, such as net asset value calculations, management fee calculations, calculations of carried interest or incentive fees, trade recording and settlement and other matters that are non-advisory in nature.

An Adviser makes its determinations regarding Operating Events pursuant to its policies on a case-by-case basis, in its discretion, based on factors it considers reasonable, including regulatory requirements, contractual obligations, and business practices. Not all Operating Events will be considered compensable mistakes. Relevant factors an Adviser considers when evaluating whether an Operating Event is compensable include, among others, the nature of the service being provided at the time of the event, specific applicable contractual and legal requirements and standards of care, whether an applicable investment objective or guideline was contravened, the nature of the client’s investment program, and the nature of the relevant circumstances.

Operating Events may result in gains or losses or could have no financial impact. Clients or funds generally are entitled to retain any gain resulting from an Operating Event.

When BlackRock determines that reimbursement by BlackRock is appropriate, the client or fund will be compensated as determined in good faith by BlackRock. BlackRock will determine the amount to be reimbursed, if any, based on what it considers reasonable guidelines regarding these matters in light of all of the facts and circumstances related to the Operating Event. In general, compensation is expected to be limited to direct and actual losses, which may be calculated relative to comparable conforming investments, market factors and benchmarks and with reference to related transactions and/or other factors BlackRock considers relevant. Compensation generally will not include any amounts or measures that BlackRock determines are speculative or uncertain.

## Item 9 Disciplinary Information

Not Applicable



## Item 10 Other Financial Industry Activities and Affiliations

BlackRock is a broad financial services organization. In some cases, the Advisers have business arrangements with related persons/companies that are material to the Advisers' advisory business or to their clients. In some cases, these business arrangements create the potential conflict of interest, or the appearance of a conflict of interest between the Adviser and a client. The services that BlackRock provides its clients through its Advisers or through investments in a BlackRock investment product, as well as related conflicts of interest, are discussed in Item 11 ("Code of Ethics, Participation or Interest in Client Transactions and Personal Trading") of this Brochure. Potential conflicts of interest are also discussed in other governing documents, including but not limited to in an OM and/or IMA.

### AFFILIATED BROKER-DEALERS

BlackRock Investments, LLC ("BRIL"), and BlackRock Execution Services ("BES") are broker-dealers registered under the Exchange Act and are members of FINRA. BRIL and BES are indirect wholly-owned subsidiaries of BlackRock, Inc.

- BRIL is primarily engaged in the wholesale marketing of certain "BlackRock US Funds"<sup>1</sup> to other registered broker-dealers, investment advisers, banks and other entities, marketing Rule 529 municipal fund securities and the sale of certain other investment products to institutional investors. BRIL also acts as placement agent for certain Private Funds and BlackRock Institutional Trust Company, N.A. ("BTC"), and acts as the distributor for BlackRock's exchange traded registered investment companies which are part of the US iShares ETF Complex ("US iShares ETFs").
- BES provides account introduction and execution services to certain transition accounts of BlackRock Investment Advisers and affiliates that have been authorized or directed by the transition clients to use BES to the extent consistent with applicable laws.

### CFTC - COMMODITY POOL OPERATOR / COMMODITY TRADING ADVISOR

Each of the Advisers is exempt from registration as a commodity trading advisor, and GEPIA II and GEPIA currently operate certain Adviser Private Funds pursuant to the exemption from registration as a commodity pool operator under CFTC Rule 4.13(a)(3). Affiliates of the Advisers are registered or exempt from registration as commodity trading advisors or commodity pool operators. BlackRock Financial Management, Inc. ("BFM"), BlackRock Investment Management, LLC ("BIM"), BlackRock Fund Advisors ("BFA"), BlackRock Advisors, LLC ("BAL") and BlackRock Institutional Trust Company, N.A. ("BTC") registered as commodity pool operators and commodity trading advisors. BlackRock Capital Management, Inc. ("BCM"), BlackRock (Singapore) Limited ("BSL"), BlackRock Investment Management (UK) Limited, and BlackRock Capital Investment Advisors LLC ("BCIA") are exempt commodity pool operators and exempt commodity trading advisors. BlackRock International Limited ("BIL") is a registered commodity trading advisor. BlackRock Asset Management North Asia Limited ("BAMNAL") is an exempt commodity trading advisor. iShares Delaware Trust Sponsor LLC is a registered commodity pool operator.

All of the foregoing non-exempt investment advisers are members of the National Futures Association (the "NFA"). The NFA and CFTC each administer a comparable regulatory system covering futures contracts, swaps and various other financial and derivative instruments in which certain investment management clients of BlackRock ("BlackRock Clients") invest.

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<sup>1</sup> "BlackRock US Funds" – the BlackRock Equity-Bond Complex (consisting of various open-end mutual funds, including variable insurance funds), the BlackRock Closed-End Complex (consisting principally of publicly traded closed-end investment companies), the US iShares Complex (consisting of open-ended investment companies commonly referred to as ETFs, which trade in the secondary market,) and the BlackRock Equity-Liquidity Complex (consisting of various open-end investment companies, including money market funds serving the institutional and retail market).

### AFFILIATED REGISTERED INVESTMENT ADVISERS

The Advisers have affiliates that are direct or indirect wholly-owned subsidiaries of BlackRock, Inc., registered as investment advisers with the SEC under the Advisers Act.

BFM, BAL, BIL, BCM, BIM, BFA, BSL, BAMNAL, and BlackRock Asset Management Schweiz AG (“BAMS”) provide investment management services, directly or indirectly through a sub-advisory arrangement with the client’s primary investment adviser to registered investment companies, single-investor funds, discretionary and non-discretionary advisory programs, commingled investment vehicles, and individuals and institutional investors through separate account management.

BCIA provides investment management services to clients seeking to invest primarily in middle-market companies that operate in a broad variety of industries and are expected to generate positive cash flows. The term “middle-market” refers to companies with annual revenues typically between \$50 million and \$1 billion.

BlackRock Realty Advisors, Inc. specializes in advisory services with respect to investments in real estate and real estate-related debt investments which it invests in on behalf of privately-offered commingled investment funds and institutional separate accounts.

FutureAdvisor specializes in digital investment advisory services, including portfolio optimization, rebalancing, and tax-loss harvesting strategies through its secure website: [FutureAdvisor.com](http://FutureAdvisor.com)

### RELATIONSHIPS OR ARRANGEMENTS WITH AFFILIATES AND/OR RELATED PERSONS

BlackRock, Inc. is a publicly traded company incorporated in the State of Delaware. At December 31, 2017, The PNC Financial Services Group, Inc. (together with its subsidiaries, “PNC”) held 21.2% of BlackRock’s voting common stock and 21.7% of BlackRock’s capital stock, which includes outstanding common and non-voting preferred stock.

As of December 31, 2017, BAL, an indirect subsidiary of BlackRock, Inc. owned approximately 36.5% economic interest, and 4.9% voting interest in 52nd Street Capital Advisors LLC.

From time to time, PNC Capital Markets, LLC participates in underwritings of initial common and/or preferred share offerings of funds in the BlackRock Closed-End Complex. From time to time, Midland Loan Services, a division of PNC Bank, National Association, can act as primary servicer, master servicer and/or special servicer in respect of assets held by funds managed by BlackRock.

BTC, an indirect subsidiary of BlackRock, Inc., is a national banking association organized under the laws of the U.S., and operates as a limited purpose trust company. BTC provides investment management and other fiduciary services for client accounts, including trust accounts, common trust funds and group trusts maintained by BTC, and other unregistered investment vehicles. BTC also provides securities lending services to certain registered and unregistered investment funds managed by BlackRock. BTC is registered as a Municipal Advisor with both the SEC and the Municipal Securities Rulemaking Board.

Through a holding company subsidiary, BlackRock, Inc. owns a non-controlling interest in a joint venture, PennyMac Financial Services, Inc. (“PFSI”) and Private National Mortgage Acceptance Company, LLC (“PNMAC”). PFSI is a publicly traded financial services firm (NYSE: PFSI) with a focus on correspondent lending, and investing in and servicing residential mortgage assets. PFSI is the managing member of, and conducts most of its operations through PNMAC. PNMAC owns PNMAC Capital Management, LLC, an SEC registered investment adviser, that manages PennyMac Mortgage Investment Trust, a publicly traded REIT (NYSE: PMT), and other investment funds.

A subsidiary of BlackRock, Inc. and Chubb Limited (“Chubb”) partially funded the creation of a reinsurance company, ABR Reinsurance Capital Holdings Ltd. (together with its wholly owned subsidiary ABR Reinsurance Ltd., “ABR Re”), pursuant to which BlackRock has approximately a 9.9% ownership interest (“ABR Re Transaction”). Chubb is a publicly traded company whose securities are held in BlackRock Client accounts. The subsidiary of BlackRock, Inc. and Chubb have representation on the board of directors of ABR Re. An independent director of certain BlackRock US Funds also serves as an independent director of Chubb and has no interest or involvement in the ABR Re Transaction. Certain employees and executives of BlackRock have a less than ½ of 1% ownership interest in ABR

## Item 10 Other Financial Industry Activities and Affiliations

Re. BFM manages the investment portfolio of ABR Re. ABR Re participates as a reinsurer with respect to a portfolio of reinsurance contracts written by subsidiaries of Chubb.

BlackRock, Inc. owns indirectly through BFM a non-controlling interest in a joint venture, Luminex Trading & Analytics LLC ("Luminex"). Luminex is an independent equity trading venue owned and operated by a consortium of leading investment management firms. It provides a platform for investment managers to trade large blocks of stock with other investment managers at a lower cost and uses transparent trading rules and protocols.

Through a holding company subsidiary, BlackRock, Inc. owns a non-controlling interest in iCapital Networks ("iCapital"). iCapital is a financial technology platform that provides access to alternative investments for high-net-worth investors and their financial advisors. iCapital's platform provides combination of due diligence capabilities, technology and relationships with alternative asset managers to facilitate investments in hedge funds and private equity funds, including BlackRock. Certain executives of BlackRock serve on iCapital's Board of Directors. iCapital may serve as the managing member or general partner of, and/or other service provider to, certain investment funds managed by BlackRock.

Cachematrix Holdings, LLC is an indirect, wholly-owned subsidiary of BlackRock, Inc., that, together with its subsidiaries, provides technology to banks and other clients, facilitating online trading in money market funds (managed by BlackRock, as well as third party asset managers) and other products.

HLX Financial Holdings, LLC (known by its brand name, "Helix") is an indirect, wholly-owned subsidiary of BlackRock, Inc. Helix is a Charlotte, North Carolina-based company that provides advisory, valuation and analytics solutions to commercial real estate lenders and investors.

BlackRock Services India Private Limited is an indirect, wholly-owned subsidiary of BlackRock, Inc. based in Gurgaon, India that principally provides operational support, portfolio and fund administration services.

Through a holding company subsidiary, BlackRock, Inc. owns a non-controlling interest in a joint venture, DSP BlackRock Investment Managers Private Limited ("DSP India"). DSP India is a financial services company that serves as asset manager in India.

Through a holding company subsidiary, BlackRock, Inc. owns a non-controlling interest in Managed Account Partners (Holdings) Limited, a company that provides managed account services through its wholly-owned subsidiary, Managed Account Partners Limited.

Within the guidance set forth under applicable law, the relevant no-action letter(s) and related SEC staff guidance, registered investment advisers are permitted to access the services of unregistered affiliates under prescribed conditions ("participating affiliates"). BlackRock Advisors (UK) Limited ("BALUK") is a participating affiliate of BFA. BlackRock Japan Co., Ltd. ("BlackRock Japan") is a participating affiliate of BFM and BIL. BlackRock Investment Management (Australia) Limited ("BlackRock Australia") is a participating affiliate of BFM and BAL. The prescribed conditions include, but are not limited to, the participating affiliate providing the SEC access to trading and other records, observing specific recordkeeping rules, submitting to jurisdiction of U.S. courts and cooperating with the SEC as it relates to accounts advised by BFA, BFM, BIL and BAL, for which BALUK, BlackRock Japan or BlackRock Australia, respectively, may provide services pursuant to the relevant participation agreement.

BIL is authorized and regulated by the Financial Conduct Authority, the independent financial services industry regulator in the United Kingdom, and has permission from the Financial Supervisory Service in South Korea to perform (a) investment advisory services and (b) discretionary investment services.

BAMNAL is located in Hong Kong and is licensed by the Securities and Futures Commission and Mandatory Provident Fund Schemes Authority of Hong Kong. The China Securities Regulatory Commission has granted BAMNAL licenses as a Qualified Foreign Institutional Investor and Renminbi Qualified Foreign Institutional Investor. While not its primary business, BAMNAL also provides real estate investment services which include the acquisition, disposition and supervision of management and improvement of real estate investments for its clients.

## Item 10 Other Financial Industry Activities and Affiliations

BSL is located in Singapore and licensed by the Monetary Authority of Singapore. BSL is licensed with the China Securities Regulatory Commission as Renminbi Qualified Foreign Institutional Investor.

BAMS is located in Switzerland and is registered as a management company with the Swiss Financial Market Supervisory Authority.

BFA, BSL and BAMNAL are licensed with the Securities and Exchange Board of India as a Foreign Portfolio Investor.

BlackRock uses BES to provide account introduction and execution services on behalf of BlackRock's Clients in accordance with policies and procedures that are designed to provide for compliance with the requirements of (and BlackRock's duties under) the Advisers Act, Investment Company Act, the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), other laws and regulations and related relief, as applicable to the transaction. These policies and procedures, and the related laws and regulations, address the potential for conflicts of interest arising in connection with using an affiliate to provide trade execution services on behalf of such BlackRock Clients.

BlackRock Index Services, LLC ("BIS"), an affiliate of the Advisers, is the index provider to client accounts advised by affiliated BlackRock Investment Advisers, including US Registered Funds. The BlackRock Investment Advisers and BIS have established a governance framework designed to prevent the undue influence of the BlackRock Investment Advisers in the operation of any index developed by BIS ("BIS Index"). This framework includes information barriers to restrict the sharing of confidential information and a committee that approves index methodology changes and is independent of portfolio management and trading. BIS Indices can be utilized by funds, accounts and other investment products and tools. When permitted, BIS indices may include certain US Registered Funds advised by an Adviser as an index constituent. Certain of these indices are Underlying Indices of investment vehicles including certain US Registered Funds advised by an Adviser. Where BIS is the index provider, BlackRock may pay BIS licensing fees for use of a BIS Index or index name, but only when permissible under applicable law.

### ***BlackRock Solutions®***

BlackRock Solutions® ("BRS"), a business unit within BlackRock, provides a broad range of risk management, investment accounting and trade processing tools to a variety of clients, including insurance companies, asset managers, pension funds, investment consultants, real estate investment trusts, commercial and mortgage banks, savings institutions, government agencies, and central banks. Using proprietary technology, analytics, and product knowledge, BlackRock is able to assist these clients in measuring financial risks in their portfolios and across their lines of business on both the asset and liability sides of their balance sheets. BRS makes available its proprietary enterprise trading system and risk reporting tools to other firms or companies.

### ***Client Solutions***

Client Portfolio Solutions, a business unit within BlackRock, provides analytics-based advice and portfolio analysis to BlackRock Advisers as well as to institutional clients that have themselves implemented multi-asset strategies, which may or may not allocate assets to BlackRock or its affiliates, to manage.

### ***Financial Markets Advisory***

BlackRock's Financial Markets Advisory Group ("FMA") offers clients advice on and/or execution of regulatory capital and balance sheet strategies and/or other investment management, risk management and data management services to manage clients' capital markets exposures and businesses. FMA focuses on delivering capital markets, risk management, advisory and investment management capabilities to advise holders of distressed assets and other complex, difficult to value or special-situation portfolios, and assist such holders with managing, disposing of, restructuring and valuing their portfolios, as well as providing related general advisory and investment advisory services to official institutions and government agencies.

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

BlackRock Investment Advisers make decisions for their clients in accordance with their fiduciary obligations to such clients. BlackRock is a worldwide asset management, risk management, investment system outsourcing and financial services organization, and a major participant in global financial and capital markets. PNC, one of the largest diversified financial services organizations in the U.S., has a significant economic interest in BlackRock, as a result, PNC and certain of its affiliates may be treated as “affiliates” of BlackRock, certain BlackRock subsidiaries and/or funds managed by them.

As a global provider of investment management, risk management and advisory services to institutional and retail clients, BlackRock engages in a broad spectrum of activities, including sponsoring and managing a variety of public and private investment funds, Funds of Funds and separate accounts across fixed income, cash management, equity, multi-asset, alternative investment and real estate strategies, providing discretionary and non-discretionary financial advisory services, providing enterprise trading systems, risk analytics, investment accounting and trading support services under the BRS brand and engaging in certain broker-dealer activities, transition management services, mortgage servicing and other activities. BlackRock acts as, among other things, an investment manager, investment adviser, broker dealer and under certain circumstances an index provider; additionally, PNC may act as, among other things, an investor, investment banker, commercial banker, research provider, investment adviser, custodian, administrator, trustee, financier, adviser, market maker, placement agent, proprietary trader, prime broker, commodity firm, pricing vendor, solicitor, broker, dealer, transfer agent, record keeper, alternative trading systems (“ATS”), electronic communication network (“ECN”), authorized participant for US iShares ETFs, derivative or swap counterparty, underwriter, municipal securities dealer, index provider, lender, futures commission merchant, or agent. Midland Loan Servicing, a subsidiary of PNC, acts as primary servicer, master servicer, and special servicer to BlackRock Clients.

BlackRock makes payments, out of its own profits or other sources, to affiliated or unaffiliated financial institutions, broker-dealers or other entities for distribution and sales support activities, including participation in marketing activities, educational programs, conferences, and technology development and reporting, or sub-accounting, administrative, shareholder processing or other services related to shares or shareholders of investment companies and other funds for which BlackRock provides investment advisory services, or for other services or activities that facilitate investments by BlackRock Clients in such funds. These payments would be in addition to any payments made or fees paid directly by the investment companies or other funds, and recipients of such payments in some instances are affiliates of PNC.

Each of BlackRock and PNC have direct and indirect interests in the global fixed income, currency, commodity, equity, and other markets in which BlackRock Clients invest. As a result, BlackRock and its directors, managers, members, officers, and employees (collectively, the “BlackRock Group”), as well as PNC and its respective other affiliates, directors, partners, trustees, managers, members, officers, and employees (collectively, “PNC Affiliates”), including those involved in the management, sales, investment activities, business operations, or distribution of BlackRock’s services and products, are engaged in businesses and have interests other than that of managing the assets of BlackRock Clients. These activities and interests include potential multiple advisory, transactional, financial, and other interests in securities, instruments, and companies that are directly or indirectly purchased or sold by or on behalf of BlackRock Clients by BlackRock and other persons.

As a result of the various activities and interests of the BlackRock Group and of PNC Affiliates as described below, BlackRock Clients could have multiple business relationships with members of the BlackRock Group and the PNC Affiliates and BlackRock Investment Advisers will, on behalf of BlackRock Clients, invest in, engage in transactions with, make voting decisions with respect to, or obtain services from entities for which the BlackRock Group and PNC Affiliates perform, or seek to perform, risk management, investment system outsourcing, financing, investment banking, lending, loan servicing, or other services. BlackRock Clients could also likely undertake transactions in securities in which one or more PNC Affiliates make a market or otherwise have direct or indirect interests. Although the relationships and activities of the BlackRock Group and the PNC Affiliates tend to offer attractive opportunities and services to BlackRock Clients, such relationships and activities also give rise to potential conflicts of interest



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between or among the BlackRock Group and BlackRock Clients or have other negative effects on BlackRock Clients. Additionally, consistent with applicable law, BlackRock, PNC and their respective affiliates and personnel can receive greater compensation or greater profit in connection with an account for which BlackRock serves as an adviser than with an account advised by an unaffiliated investment adviser. Differentials in compensation result from, among other reasons, BlackRock paying a portion of its advisory fee to its affiliate or other compensation arrangements, including for portfolio management, brokerage transactions, or account servicing. Any differential in compensation creates a potential financial incentive on the part of BlackRock, PNC, their affiliates and personnel to recommend BlackRock over unaffiliated investment advisers, to effect transactions differently in one account over another, or to favor accounts in which they have more significant interests over those in which they have a lesser (or no) interest.

The BlackRock Investment Advisers manage the assets of BlackRock Clients in accordance with the investment mandate selected by each BlackRock Client and applicable law, and will seek to give advice to, and make investment decisions for, such BlackRock Client that the BlackRock Investment Adviser believes to be in the best interests of such BlackRock Client. However, from time to time, investment allocation decisions are made which adversely affect the size or price of the assets purchased or sold for a BlackRock Client and the results of the investment activities of a BlackRock Client may differ significantly from the results achieved by the BlackRock Investment Advisers for other current or future BlackRock Clients. Thus, the management of numerous accounts for BlackRock Clients and other services provided by the BlackRock Investment Advisers creates a number of potential conflicts of interest. Additionally, regulatory and legal restrictions (including those relating to the aggregation of positions among different funds and accounts) and BlackRock's internal policies and procedures restrict certain investment activities of BlackRock Investment Advisers for BlackRock Clients.

These and other potential conflicts are discussed generally herein or in the relevant IMA, offering documents and/or governing documents of the investment funds managed or served by the various BlackRock Investment Advisers, which should be reviewed in conjunction with any investment in that fund. Given the interrelationships among the BlackRock Group and PNC Affiliates and the changing nature of such firms' businesses, affiliations and opportunities, as well as legislative and regulatory developments, there may be other or different potential conflicts that arise in the future or that are not covered by this discussion. As a fiduciary to the BlackRock Clients, however, BlackRock is committed to putting the interests of BlackRock Clients ahead of its own and those of the PNC Affiliates in the provision of investment management and advisory services.

### **BLACKROCK'S GLOBAL PERSONAL TRADING POLICY AND OTHER ETHICAL RESTRICTIONS**

BlackRock's and the Advisers' directors, officers, and employees buy, sell, and hold for their own and their family members' accounts public securities, private securities, and other investments in which such BlackRock personnel have a pecuniary interest, whether because they are also bought, sold, or held for BlackRock Clients or through accounts (or investments in funds) managed by BlackRock Investment Advisers or otherwise. As a result of differing trading and investment strategies or constraints, positions taken by BlackRock directors, officers, and employees can be the same as or different from, or made contemporaneously or at different times than, positions taken for BlackRock Clients.

As these situations involve potential conflicts of interest, BlackRock has adopted policies and procedures relating to personal securities transactions, insider trading and other ethical considerations, including the Global Personal Trading Policy in accordance with Rule 17j-1 under the Investment Company Act and Rule 204A-1 under the Advisers Act (the "Rules"). These policies and procedures are intended to identify and prevent actual conflicts of interest with clients and to resolve such conflicts appropriately if they do occur.

In conformity with the Rules, the Global Personal Trading Policy contains provisions regarding employee personal trading and reporting requirements that are designed to address potential conflicts of interest that might interfere or appear to interfere with making decisions in the best interest of BlackRock Clients, and together with BlackRock's Code of Business Conduct and Ethics (referred to collectively as the "Code"), requires employees to comply with the applicable federal securities laws, as well as fiduciary principles applicable to BlackRock's business, including that employees must avoid placing their own personal interests ahead of BlackRock Clients' interests.

The Global Personal Trading Policy requires that employees at BlackRock conduct all of their personal investment transactions in a manner that is consistent with applicable federal securities laws, the BlackRock Global Insider Trading Policy and other policies of BlackRock. These requirements include reporting of personal investment

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accounts, pre-clearance of personal trading transactions, as well as reporting investment transactions. The Global Personal Trading Policy also generally prohibits employees from acquiring securities in initial public offerings, and contains prohibitions against profiting from short-term trading, subject to very limited exceptions. The Global Personal Trading Policy also imposes “blackout” periods on certain employees, including particular portfolio management personnel, prohibiting transactions in certain securities during time periods surrounding transactions in the same securities by BlackRock Client accounts. Moreover, the Global Personal Trading Policy and other BlackRock policies contain provisions that are designed to prevent conflicts relating to the use of inside information and to participating in outside activities.

Any member of the BlackRock Group covered by the Code who fails to observe its requirements or those contained in related BlackRock policies and procedures is subject to potential remedial action. BlackRock will determine on a case by case basis what remedial action should be taken in response to any violation, including potential voiding or reversal of a trade, the cost of which will be borne by the employee or owner of the account or limiting an employee’s personal trading for some period of time. The Global Personal Trading Policy will be made available to a BlackRock Client or prospective client upon request.

### **OUTSIDE ACTIVITIES**

Members of the BlackRock Group have a duty to act solely in the interest of BlackRock’s Clients; as such BlackRock’s Global Outside Activity Policy requires that BlackRock employees obtain approval before engaging in any outside activities so that BlackRock has the opportunity to consider whether such activities create actual or potential conflicts of interest. The Global Outside Activity Policy is intended to identify activities that have the potential to conflict with an employee’s role at BlackRock and/or BlackRock’s activities.

### **POLITICAL CONTRIBUTIONS**

BlackRock’s political contributions policy establishes the requirements that apply when BlackRock and its employees make or solicit U.S. political contributions or engage in political activities in the U.S. The policy prohibits BlackRock and its employees from making or soliciting U.S. political contributions for the purpose of obtaining or retaining business. The policy requires employees to pre-clear U.S. political contributions before they, their spouse, domestic partner, or dependent children make any contributions to a political candidate, government official, political party, or political action committee (“PAC”) in the U.S.

The BlackRock PAC, a non-partisan political action committee, is supported voluntarily by eligible U.S. employees to help elect U.S. federal candidates who the PAC’s Board of Directors determines share BlackRock’s values and goals.

### **POTENTIAL CONFLICTS RELATING TO ADVISORY ACTIVITIES**

The results of the investment activities provided to a BlackRock Client can differ significantly from the results achieved by BlackRock Investment Advisers for other current or future BlackRock Clients. BlackRock Investment Advisers will manage the assets of a BlackRock Client in accordance with the investment mandate selected by such BlackRock Client. However, members of the BlackRock Group (including BlackRock Investment Advisers), as well as PNC Affiliates (to the extent they have independent relationships with BlackRock Clients), may give advice and take action with respect to their own account, any other BlackRock Client or, in the case of a PNC Affiliate, their own accounts or a client of a PNC Affiliate, that competes or conflicts with the advice a BlackRock Investment Adviser may give to, or an investment action a BlackRock Investment Adviser may take on behalf of, a BlackRock Client (or a group of BlackRock Clients), or advice that may involve different timing than that of a BlackRock Client. The potential conflicts include, in particular, members of the BlackRock Group, the PNC Affiliates and one or more BlackRock Clients buying or selling positions while another BlackRock Client is undertaking the same or a differing, including potentially opposite, strategy. Similarly, BlackRock Investment Advisers’ management of BlackRock Client accounts may benefit members of the BlackRock Group and PNC Affiliates, including, to the extent permitted by applicable law, investing BlackRock Client accounts directly or indirectly in the securities of companies in which a member of the BlackRock Group, or other BlackRock Client, or a PNC Affiliate, for itself or its clients, has an equity, debt, or other interest. In addition, to the extent permitted by applicable law, BlackRock Clients may engage in investment transactions which may result in other BlackRock Clients, or proprietary or client accounts of a PNC Affiliate, being relieved of obligations or otherwise have to divest or cause BlackRock Clients to have to divest certain investments. In some instances, the purchase, holding, and sale, as well as voting of investments by BlackRock Clients may enhance the profitability or increase or decrease the value of a BlackRock Group member’s or other BlackRock Clients’ own investments in, or

of the investments in a PNC Affiliate's proprietary or client account with respect to such companies. This gives rise to potential conflicts of interest.

***Financial or Other Interests in Underlying Funds***

Funds of Funds or other accounts managed by a BlackRock Investment Adviser often acquire a financial interest in certain underlying funds which generally, but not always will include direct or indirect receipt of a portion of any management or performance-based fees paid by the underlying funds to their respective general partner, managing member, or investment adviser. These interests can involve additional rights such as board representation or other means to influence the management or business decisions of such underlying fund. These relationships create the potential for conflicts of interest between Funds of Funds or accounts receiving such interests and other funds or accounts managed by a BlackRock Investment Adviser.

***Cross Trades***

In certain circumstances, BlackRock Investment Advisers effect purchases and sales between BlackRock Clients or clients of affiliates ("cross trades") if BlackRock Investment Advisers believe such transactions are appropriate based on each party's investment objectives and guidelines, subject to applicable law and regulation (but are not required to effect such cross-trades). In this regard, BlackRock maintains a cross-trading program covering various strategies pursuant to which securities are bought and sold among BlackRock Clients. Cross trades for accounts subject to ERISA are made in accordance with applicable U.S. Department of Labor ("DOL") regulations and relevant exemptions. In certain circumstances, based on product and account type, an independent pricing source might be used. BlackRock Investment Advisers seek to assure that the price used in a cross trade is fair and appropriate, and in keeping with, or as required by the relevant regulations.

In addition, a BlackRock Client account may enter into "agency cross transactions," in which a member of the BlackRock Group may act as broker for such BlackRock Client account and for the other party to the transaction, to the extent permitted under applicable law and subject to the terms of the governing documents of such BlackRock Client account. In such cases, the relevant BlackRock Investment Adviser and such affiliate may have a potentially conflicting division of loyalties and responsibilities regarding both parties to the transaction. The authority of the BlackRock Investment Advisers to conduct such agency cross-transactions is subject to the right of the BlackRock Client account investors to revoke such authority by the affirmative vote of a majority of those BlackRock Client account investors who are not directly or indirectly affiliated with the relevant BlackRock Investment Adviser, voting as a single class or, in the case of certain BlackRock Client accounts, the approval of the respective advisory boards of such BlackRock Client accounts. To the extent that any provision of Section 11(a) of the Exchange Act or any of the rules promulgated thereunder is applicable to any transactions effected by the relevant BlackRock Investment Adviser, such transactions will be effected in accordance with the requirements of such provisions and rules.

***Inconsistent Investment Positions and Timing of Competing Transactions***

From time to time, BlackRock takes an investment position or action for one or more accounts that is different from, or inconsistent with, an action or position taken for one or more other accounts having similar or differing investment objectives, resulting in potential adverse impact, or in some instances benefit, to one or more affected accounts. For example, a BlackRock Client may buy a security and another BlackRock Client may establish a short position in that same security. The subsequent short sale could result in a decrease in the price of the security which the first BlackRock Client holds. Conversely, a BlackRock Investment Adviser may establish a short position in a security for a BlackRock Client and another BlackRock Investment Adviser may buy that same security for a different BlackRock Client. The subsequent purchase may result in an increase of the price of the underlying position in the short sale exposure to a BlackRock Client's detriment. Similarly, transactions in investments by one or more BlackRock Clients and members of the BlackRock Group may have the effect of diluting or otherwise disadvantaging the values, prices or investment strategies of another BlackRock Client, particularly, but not limited to, in small capitalization, emerging market, or less liquid strategies. This may occur when portfolio decisions regarding a BlackRock Client account are based on research or other information that is also used to support portfolio decisions for other client accounts. When one BlackRock Investment Adviser implements a portfolio decision or strategy ahead of, or contemporaneously with, similar portfolio decisions or strategies of another BlackRock Investment Adviser (whether or not the portfolio decisions emanate from the same research analysis or other information), market impact, liquidity constraints, or other factors could result in one or more BlackRock Clients receiving less favorable trading results, the costs of implementing such portfolio decisions or strategies could be increased or such BlackRock Clients could otherwise be



disadvantaged. On the other hand, potential conflicts also arise when portfolio decisions regarding a BlackRock Client benefit other BlackRock Clients, for example, where the sale of a long position or establishment of a short position for a BlackRock Client decreases the price of the same security sold short by (and therefore benefit) a BlackRock Group member or other BlackRock Clients, or the purchase of a security or covering of a short position in a security for a BlackRock Client results in an increase in the price of the same security held by (and therefore benefit) a BlackRock Group member or other BlackRock Clients.

Under certain circumstances, if a BlackRock Client (or a group of BlackRock Clients) invests in a transaction in which one or more other BlackRock Clients are expected to participate, or already have made or will seek to make, an investment, such BlackRock Clients (or groups of BlackRock Clients) may have conflicting interests and objectives in connection with such investments, including with respect to views on the operations or activities of the portfolio company involved, the targeted returns from the investment and the timeframe for, and method of, exiting the investment. For example, the BlackRock Investment Advisers' decision on behalf of other client accounts to sell, redeem from, or otherwise liquidate a security in which a BlackRock Client account is invested may adversely affect such BlackRock Client account, including by causing such investment to be less liquid or more concentrated, or by causing such BlackRock Client account to lose the benefit of certain negotiated terms. Conflicts will also arise in cases where different BlackRock Clients (or groups of BlackRock Clients) invest in different parts of an issuer's capital structure, including circumstances in which one or more BlackRock Clients own private securities or obligations of an issuer and other BlackRock Clients own public securities of the same issuer. For example, a BlackRock Client (or group of BlackRock Clients) acquiring a loan, loan participation, or loan assignment of a particular borrower in which one or more other BlackRock Clients have an equity investment. In addition, different BlackRock Clients investing in securities of an issuer that have different voting rights, dividend or repayment priorities or other features that could be in conflict with one another. In negotiating the terms and conditions of any such investments, or any subsequent amendments or waivers, the BlackRock Investment Advisers' interests, BlackRock Client (or group of BlackRock Clients) interests, and/or the interests of one or more other BlackRock Clients could conflict. If an issuer in which a BlackRock Client (or group of BlackRock Clients) and one or more other BlackRock Clients hold different classes of securities (or other assets, instruments or obligations issued by such issuer) encounters financial problems, decisions over the terms of any workout will raise conflicts of interest (including, for example, conflicts over proposed waivers and amendments to debt covenants). For example, a debt holder who could be paid in full likely will be better served by a liquidation of the issuer, whereas an equity holder would be better served by a reorganization that holds the potential to create value for the equity holders. As a result, one or more client accounts may pursue or enforce rights with respect to a particular issuer in which a BlackRock Client account has directly or indirectly invested, and those activities may have an adverse effect on such BlackRock Client account. In the event of an insolvency, bankruptcy or similar proceeding of an issuer, a BlackRock Client account may be limited (by applicable law, courts or otherwise) in the positions or actions it may be permitted to take due to other interests held or actions or positions taken by other client accounts. In negotiating the terms and conditions of any such investments or any subsequent amendments or waivers, the BlackRock Investment Advisers and the other members of the BlackRock Group may find that their own interests, the interests of a BlackRock Client account and/or the interests of one or more other client accounts could conflict. Any of the foregoing conflicts of interest will be discussed and resolved on a case-by-case basis by employees of the BlackRock Investment Advisers and their affiliates. Any such discussions will take into consideration the interests of the relevant BlackRock Clients, the circumstances giving rise to the conflict and applicable laws. When considering whether to pursue applicable claims on behalf of BlackRock Clients, BlackRock considers various factors, including the cost of pursuing the claim and the likelihood of the outcome, and may not pursue every potential claim. BlackRock Clients (and investors in Private Funds) should be aware that conflicts will not necessarily be resolved in favor of their interests. There can be no assurance that any actual or potential conflicts of interest will not result in a particular BlackRock Client or group of BlackRock Clients receiving less favorable investment terms in certain investments than if such conflicts of interest did not exist.

In order to avoid or reduce the conflicts that may arise in cases where a BlackRock Client account, directly or indirectly, and other client accounts invest in different parts of an issuer's capital structure, or for other reasons, a BlackRock Client account may choose not to invest in issuers in which other client accounts hold an existing investment (and BlackRock may grant one or more other client accounts holding such investment the right to prohibit such BlackRock Client account from making such investment), even if the general partner or the BlackRock Investment Advisers believe such investment opportunity to be attractive and otherwise appropriate for such BlackRock Client account, which may adversely affect the performance of such BlackRock Client account. The inability of a BlackRock Client

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account to make such investments as a result of rights BlackRock has granted client accounts may have a material adverse effect on the performance of such BlackRock Client account.

The members of the BlackRock Group may also, in certain circumstances, pursue or enforce rights or take other actions with respect to a particular issuer or investment jointly on behalf of a BlackRock Client account and other client accounts. Once a BlackRock Client account and other client accounts are so joined, a BlackRock Client account may be adversely impacted by the other client accounts' activities, and transactions for such BlackRock Client account may be impaired or effected at prices or terms that may be less favorable than would otherwise have been the case had the other client accounts not pursued a particular course of action with respect to the issuer or investment. For example, one client account may dispose of or make an in-kind distribution of its portion of an investment that is jointly held on behalf of a BlackRock Client account, such client account and other client accounts, and such action may adversely affect such BlackRock Client account and such other client accounts that continue to hold such investment.

Conflicts may also arise because portfolio decisions made by the BlackRock Investment Advisers on behalf of the BlackRock Client accounts may benefit other members of the BlackRock Group or client accounts, including BlackRock Client accounts. For example, a BlackRock Client account may, subject to the terms of the governing documents of such BlackRock Client account, invest directly or indirectly in an investment, or the securities, bank loans or other obligations of issuers affiliated with BlackRock or in which another BlackRock Client account has an equity, debt or other interest. In addition, a BlackRock Client account may engage in investment transactions that may result in other client accounts being relieved of obligations or otherwise divesting of investments that such BlackRock Client account also holds or which cause such BlackRock Client account to have to divest certain investments. The purchase, holding and sale of investments by a BlackRock Client account may enhance the profitability of another client account's own investments in and activities with respect to such investments.

Similarly, BlackRock, through FMA, Client Portfolio Solutions and other business units, may advise entities regarding estimated valuation, risk management, transition management, and potential restructuring or disposition activities in connection with their proprietary or client investment portfolios. Such activities create potential conflicts of interest, as BlackRock, on behalf of BlackRock Clients, may seek to purchase securities or other assets from the foregoing portfolios and may engage, without limitation, in related activities to bid down the price of assets in such portfolios, which may have an adverse effect on those portfolios.

### ***Conflicts Relating to Portfolio Management of Various Accounts***

BlackRock Investment Advisers make decisions for BlackRock Clients based on the investment mandates selected by such BlackRock Clients. In doing so, as a result of similarities or differences in such mandates or otherwise, BlackRock Investment Advisers have potential conflicts in connection with the investments of, and transactions effected for, BlackRock Clients, including in situations in which members of the BlackRock Group have a pecuniary or investment interest. Certain clients are limited by rules issued by regulators or self-regulatory organizations, such as short sale limits and trading halts. For additional information regarding conflicts relating to side-by-side management, please refer to Item 6 ("Performance-Based Fees and Side-By-Side Management") and "Side-By-Side Management" in this Item 11 ("Code of Ethics, Participation or Interest in Client Transactions and Personal Trading") of this Brochure.

### ***Allocation of Investment Opportunities***

The BlackRock Group manages and advises numerous accounts for BlackRock Clients around the world, such as registered and unregistered funds and owners of SMAs. BlackRock Client accounts include funds and accounts in which BlackRock or its personnel have an interest. Certain of these BlackRock Client accounts may have investment objectives, and may utilize investment strategies, that are similar to those of one or more other BlackRock Client accounts. As a result, certain investments may be appropriate for multiple BlackRock Client accounts. BlackRock's allocation of investment opportunities among various BlackRock Client accounts presents inherent potential and actual conflicts of interest, particularly where an investment opportunity is limited. These potential conflicts may be exacerbated in situations where BlackRock is entitled to higher fees and incentive compensation from certain BlackRock Client accounts than from other BlackRock Client accounts (including the Adviser Private Funds), where the portfolio managers making an allocation decision are entitled to an incentive fee, carried interest or other similar compensation from such other BlackRock Client accounts, or where there are differences in proprietary investments in BlackRock Client accounts. The prospect of achieving higher compensation or greater investment return from a BlackRock Client account than from other BlackRock Client accounts may provide incentives for the BlackRock

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Investment Advisers or other members of the BlackRock Group to favor such BlackRock Client account over such other BlackRock Client accounts when allocating investment opportunities. It is the policy of BlackRock not to make decisions based on the foregoing interests or greater fees or compensation.

To address these potential and actual conflicts, BlackRock has developed an Investment Allocation Policy and related guidelines. In addition, certain members of the BlackRock Group have supplemental allocation policies for making allocation decisions among BlackRock Client accounts managed by such members of the BlackRock Group (together with the Investment Allocation Policy and related guidelines, the "Allocation Policy"). The Allocation Policy is intended to ensure that investment opportunities are allocated fairly and consistently among BlackRock Client accounts over time, taking into account various factors including the BlackRock Client account's investment objectives or strategies, investment, investment guidelines and restrictions, portfolio construction, tax considerations, risk or investment concentration parameters, supply or demand for a security at a given price level, size of available investment, available capital commitments or cash availability and liquidity requirements, leverage limitations, regulatory considerations, contractual restrictions, (including with other clients), minimum investment size, relative size and such other factors as may be relevant to a particular transaction. The BlackRock Group reserves the right to allocate investment opportunities appropriate for the investment objectives of the BlackRock Client accounts in any manner deemed fair and equitable by the BlackRock Group consistent with the Allocation Policy and applicable law. The application of the Allocation Policy and the foregoing considerations may result in a particular BlackRock Client account not receiving an allocation of an investment opportunity that has been allocated to other BlackRock Client accounts following the same or similar strategy, or receiving a smaller allocation than other BlackRock Client accounts. Furthermore, as the investment programs of the BlackRock Client accounts change and develop over time, additional issues and considerations may affect the Allocation Policy and the expectations of the BlackRock Group with respect to the allocation of investment opportunities to the BlackRock Client accounts. BlackRock and the BlackRock Investment Advisers may change the Allocation Policy and guidelines relating thereto from time to time without the consent of or notice to the BlackRock Client account investors.

As a general matter, it is expected that each BlackRock Client account will participate primarily in investments sourced by the investment personnel directly responsible for managing the BlackRock Client account, allocated across the investment personnel's BlackRock Client accounts in accordance with the Allocation Policy. While the investment program of certain BlackRock Client accounts permit the making of investments sourced by investment personnel not directly responsible for managing such BlackRock Client accounts, such BlackRock Client accounts have no right or entitlement to receive an allocation of any such investment opportunity. In addition, a BlackRock Client account will not have exclusivity over investment opportunities sourced by the investment personnel directly responsible for managing such BlackRock Client account and such investment opportunities may instead be allocated, in whole or in part, to other BlackRock Client accounts that may be managed by such investment personnel or to BlackRock Client accounts managed by other investment teams.

Therefore, investment opportunities generally will be allocated, in accordance with the Allocation Policy, first, among BlackRock Client accounts for which the investment personnel sourcing the applicable investment opportunity are directly responsible; and, thereafter, as determined by BlackRock in its sole discretion. As a result, BlackRock Client accounts managed by investment personnel and BlackRock Client Accounts managed to provide additional capital will have priority over the BlackRock Client accounts not managed by such investment personnel with respect to investment opportunities sourced by such investment personnel that might otherwise be appropriate for the BlackRock Client accounts not managed by such investment personnel, and in any event the BlackRock Client accounts not managed by such investment personnel will have no right or entitlement, and such BlackRock Client accounts' investors should have no expectation that any such BlackRock Client account will receive an allocation to, such investment opportunities.

In certain circumstances, subject to the Allocation Policy, the BlackRock Investment Advisers may, in their discretion, provide co-investment opportunities to investors in BlackRock Client accounts on terms determined by the relevant BlackRock Investment Adviser and without notice to the other investors in such BlackRock Client accounts. To the extent such co-investment opportunities are offered to the BlackRock Client accounts and other investors, it may present inherent conflicts of interest between the interests of a BlackRock Client account and the co-investors.

Side-by-side management by the BlackRock Group of BlackRock Client accounts may also raise other potential and actual conflicts of interest, including those associated with allocating expenses attributable to the BlackRock Client accounts, management time, services and functions among the BlackRock Client accounts. The relevant BlackRock

Investment Adviser and its affiliates will attempt to make such allocations on a basis that they consider to be fair and equitable.

***Agreements with Other Clients***

The investment terms offered to BlackRock Client accounts or to investors in BlackRock Client accounts (including commingled investment vehicles or dedicated funds managed by the BlackRock Investment Advisers or an affiliate) with similar investment objectives as other BlackRock Client accounts may be different than those offered to such other BlackRock Client account investors and may create conflicts. In particular, with respect to investors in BlackRock Client accounts that are managed as dedicated funds or with respect to BlackRock Clients investing through separate accounts with similar investment objectives to other BlackRock Client accounts, information sharing may be more extensive, detailed and timely as compared to information available to investors in such other BlackRock Client account's, and the liquidity of such BlackRock Client accounts may not be subject to the restrictions that otherwise apply to investors in such other BlackRock Client accounts. These differences could result in, among other things, BlackRock Client accounts selling or withdrawing from securities or other investments in which another BlackRock Client account is invested in advance of such other BlackRock Client account or otherwise adversely affecting such other BlackRock Client account.

**DECISIONS MADE AND ACTIONS TAKEN BY THE BLACKROCK INVESTMENT ADVISERS MAY RAISE POTENTIAL CONFLICTS OF INTEREST**

***Management of the BlackRock Client Accounts***

In connection with the management of the BlackRock Client accounts, the BlackRock Investment Advisers will have the right to make certain determinations on behalf of the BlackRock Client accounts, in their discretion. For example, the relevant BlackRock Investment Adviser may determine from time to time, in its discretion, to make a distribution in kind to certain or all investors in a BlackRock Client account, segregate assets or set reserves for contingent liabilities, in each case subject to the terms of the BlackRock Client account's operating agreements. Any such determinations may affect such BlackRock Client account's investors differently and some investors may be adversely affected by such determinations by the relevant BlackRock Investment Adviser. BlackRock Client account investors may be situated differently in a number of ways, including being resident of, or organized in, various jurisdictions, being subject to different tax rules or regulatory structures and/or having different internally-or externally-imposed investment policies, restrictions or guidelines. As a result, conflicts of interest may arise in connection with decisions made by the relevant BlackRock Investment Adviser that may be more beneficial for certain BlackRock Client account investors. In making determinations on behalf of a BlackRock Client account, the relevant BlackRock Investment Adviser intends to consider the investment objectives of such BlackRock Client account as a whole, not the investment or other objectives of any BlackRock Client account investor individually.

***Managers' Decisions May Benefit the BlackRock Group and BlackRock Client Accounts***

The BlackRock Group may derive ancillary benefits from certain decisions made by the BlackRock Investment Advisers. While the BlackRock Investment Advisers will make decisions for the BlackRock Client accounts in accordance with their obligations to manage the BlackRock Client accounts appropriately, the fees, allocations, compensation and other benefits to the BlackRock Group (including benefits relating to business relationships of the BlackRock Group) arising from those decisions may be greater as a result of certain portfolio, investment, service provider or other decisions made by the relevant BlackRock Investment Adviser for the BlackRock Client accounts than they would have been had other decisions been made which also might have been appropriate for the BlackRock Client accounts. For example, the BlackRock Investment Advisers may make the decision to have a member of the BlackRock Group provide administrative or other services to a BlackRock Client account instead of hiring an unaffiliated administrator or service provider; provided that such engagement is on reasonable commercial terms, as determined by the relevant BlackRock Investment Adviser in its discretion, or otherwise complies with the affiliate transaction provisions of the governing documents of such BlackRock Client account. The BlackRock Investment Advisers may also make decisions and exercise discretion with respect to a BlackRock Client account that could benefit members of the BlackRock Group that have invested in such BlackRock Client account.

***Temporary Investments in Cash Management Products***

Subject to applicable laws, a BlackRock Client account may invest, on a temporary basis, in short-term, high-grade assets or other cash management products, including SEC-registered investment funds (open-end or closed-end) or



unregistered funds, including, if permitted by the terms of the governing documents of the relevant BlackRock Client account, any such funds that are sponsored, managed or serviced by advisory members of the BlackRock Group. In connection with any of these investments, subject to the terms of the governing documents of the BlackRock Client accounts, the BlackRock Client accounts will bear all fees pertaining to the investment, including advisory, administrative or 12b-1 fees, and no portion of any fees otherwise payable by the BlackRock Client accounts will be offset against fees payable in accordance with any of these investments (i.e., there could be “double fees” involved in making any of these investments which would not arise in connection with an investor’s direct investment in such money market or liquidity funds, because a member of the BlackRock Group could receive fees with respect to both the management of a BlackRock Client account, on one hand, and such cash management products, on the other). In these circumstances, as well as in other circumstances in which any members of the BlackRock Group receive any fees or other compensation in any form relating to the provision of services, no accounting, repayment to the BlackRock Client accounts or offset of management fee will be required, unless required by the terms of the governing documents of such BlackRock Client accounts.

### ***Other Services and Activities of the BlackRock Group***

Subject to the terms of the governing documents of the relevant BlackRock Client account, the members of the BlackRock Group (including the BlackRock Investment Advisers) may provide financial, consulting and other services to, and receive compensation from, an entity which is the issuer of a security or other investment held by a BlackRock Client account, counterparties to transaction with a BlackRock Client account or third parties that also provide investment management or other services to a BlackRock Client account. In addition, subject to the terms of the governing documents of the relevant BlackRock Client account, the members of the BlackRock Group may purchase property (including securities) from, sell property (including securities) or lend funds to, or otherwise deal with, any entity which is the issuer of a security held by a BlackRock Client account, counterparties to transactions with a BlackRock Client account or third parties that also provide investment management or other services to a BlackRock Client account. In addition, it is possible that members of the BlackRock Group may receive certain transaction fees from issuers the securities of which a BlackRock Client account invests in directly or indirectly in connection with structuring, negotiating or entering into such investment transactions, as well as ongoing advisory or monitoring fees. Fees may also be earned by, and expenses may be reimbursed to, members of the BlackRock Group or their personnel if such personnel serve as directors or officers of issuers the securities in which a BlackRock Client account directly or indirectly invests. The governing documents of certain BlackRock Client accounts provide that the management fee payable by such BlackRock Client accounts to their respective BlackRock Investment Advisers will be reduced by all or a portion of such fees. It is also likely that a BlackRock Client account will have multiple business relationships with and will invest in, engage in transactions with, make voting decisions with respect to, or obtain services from entities for which members of the BlackRock Group perform or seek to perform certain financial services.

The BlackRock Group may derive ancillary benefits from providing investment advisory, distribution, transfer agency, administrative and other services to a BlackRock Client account, and providing such services to such BlackRock Client account may enhance the BlackRock Group’s relationships with various parties, facilitate additional business development, and enable the BlackRock Group to obtain additional business and generate additional revenue.

### ***Transactions with Certain BlackRock Client Account Investors***

BlackRock Client accounts may enter into transactions with certain investors in such BlackRock Client account, which may raise significant potential conflicts of interest. To the extent that a BlackRock Client account enters into any such transaction, such transactions will be on terms, taken as a whole, that are fair and reasonable to such BlackRock Client account, in the good faith determination of the applicable BlackRock Investment Adviser or other member of the BlackRock Group.

### **SIDE-BY-SIDE MANAGEMENT**

Side-by-side management by BlackRock Investment Advisers of investment companies registered under the Investment Company Act and advised or sub-advised by a BlackRock Investment Adviser (“US Registered Funds”), separate accounts, institutional accounts, separately managed account or “wrap fee” program (“SMA Program”), Private Funds and collective trust funds also involve potential conflicts of interest, including those associated with any differences in fee structures, as well as other pecuniary and investment interests the BlackRock Group may have in an account managed by BlackRock. US Registered Funds and SMA Program accounts, for example, generally pay

management fees based on a fixed percentage of assets under management, whereas institutional accounts and Private Funds often have more varied fee structures, including a combination of asset- and performance-based compensation. The prospect of achieving higher compensation from a Private Fund or institutional account than from a US Registered Fund or SMA Program account results in a potential incentive for the applicable BlackRock Investment Adviser to favor the Private Fund or institutional account over the US Registered Fund or SMA Program account when, for example, placing securities transactions that the applicable BlackRock Investment Adviser believes could more likely result in favorable performance or engaging in cross trades. Similarly, other incentives include where BlackRock or its affiliates or employees have a significant proprietary investment in a fund or account, and where a BlackRock Investment Adviser has an incentive to favor such a fund or account to the detriment of other funds or accounts. BlackRock's policies and procedures state that investment decisions are to be made without consideration of BlackRock's or its employees' pecuniary or investment interests but, instead, in accordance with BlackRock's or an Adviser's (or either of their personnel's) fiduciary duties to its client accounts. For additional information regarding side-by-side management, please refer to Item 6 ("Performance-Based Fees and Side-by-Side Management") of this Brochure.

In certain situations a BlackRock Investment Adviser can influence the structure of an underlying portfolio investment for tax purposes. Such structuring may not benefit all accounts under management. The BlackRock Investment Adviser will seek to structure the underlying portfolio in a way that is fair under the circumstances but there is no guarantee a particular client account will not be harmed. Under certain circumstances a BlackRock Investment Adviser is required to sell or exit an investment on behalf of a BlackRock Client at the direction of the BlackRock Client or due to a need for liquidity of a BlackRock Client, so as to meet the ongoing obligations of the BlackRock Client. Such transactions potentially are not in the best interests of all BlackRock Clients and could result in reduced sales price from current market values.

### **CERTAIN PRINCIPAL TRANSACTIONS**

Subject to the terms of the governing documents of the relevant BlackRock Client account, a member of the BlackRock Group may enter into "principal transactions" with a BlackRock Client account within the meaning of Section 206(3) of the Advisers Act in which such member of the BlackRock Group acts as principal for its own account with respect to the sale of a security or other asset to, or purchase of a security or other asset from, such BlackRock Client account. Principal transactions will be completed in compliance with applicable law and the terms of the governing documents of the relevant BlackRock Client account. In analyzing such principal transactions, the applicable BlackRock Investment Adviser will have a conflict between acting in the best interests of a BlackRock Client account and assisting itself or its affiliates by selling or purchasing a particular security.

On occasion and subject to applicable law and a fund's governing documents, BlackRock or a related person (including its affiliates or its officers, directors or employees) purchases investments on behalf of and in anticipation of opening a Private Fund for investment. Such investments are transferred to the Private Fund. Generally, to the extent permitted by law, the Private Fund pays a market rate of interest and purchases the investment at cost. Since prior to transfer, such investments would be owned by BlackRock or a related person, conflicts of interest arise regarding the decision of whether or not to transfer such investments and the timing of such transfers. In addition, from time to time, BlackRock or a related person, in order to provide initial investment capital, holds a temporary proprietary interest for a period of time after the inception of a Private Fund. BlackRock's or the related person's disposition of such seed investment can have an impact on the value or liquidity of such Private Fund. More information on these arrangements can be found in the offering documents of the particular Private Fund.

From time to time, BlackRock or a related person, in order to provide initial investment capital, holds a temporary proprietary interest for a period of time after the inception of a BlackRock US Fund. When BlackRock or the related person disposes of their interest, the shares are not permitted to be sold, directly or indirectly to clients of BlackRock. In addition, BlackRock's or the related person's disposition of shares can have an impact on the price or liquidity of the shares being sold.

**POTENTIAL RESTRICTIONS AND CONFLICTS RELATING TO INFORMATION POSSESSED OR PROVIDED BY BLACKROCK**

***Availability of Proprietary Information***

In connection with the activities of BlackRock, Inc. and BlackRock Investment Advisers, certain persons within the BlackRock Group receive information regarding proposed investment activities for BlackRock and BlackRock Clients that is not generally available to the public. Also, BlackRock Investment Advisers have access to certain fundamental analyses, research and proprietary technical models developed internally or by other members of the BlackRock Group, PNC Affiliates, certain third-parties and their respective personnel. There will be no obligation on the part of such persons or any BlackRock Investment Adviser, to make available for use by a BlackRock Client, or to effect transactions on behalf of a BlackRock Client on the basis of, any such information, strategies, analyses or models known to them or developed in connection with their own proprietary or other activities. In many cases, such persons will be prohibited from disclosing or using such information for their own benefit or for the benefit of any other person, including BlackRock Clients. In other cases, fundamental analyses, research and proprietary models developed internally are used by various BlackRock Investment Advisers and personnel on behalf of different BlackRock Clients, which could result in purchase or sale transactions in the same security at different times (and could potentially result in certain transactions being made by one portfolio manager on behalf of certain BlackRock Clients before similar transactions are made by a different portfolio manager on behalf of other BlackRock Clients), or could also result in different purchase and sale transactions being made with respect to the same security. Further information regarding inconsistent investment positions and timing of competing transactions is set forth in "Potential Conflicts Relating to Advisory Activities" in this Item 11 ("Code of Ethics, Participation or Interest in Client Transactions and Personal Trading") of this Brochure. Similarly, one or more BlackRock Clients could have, as a result of receiving client reports or otherwise, access to information regarding BlackRock Investment Advisers' transactions or views, including views on voting proxies, which are not available to other BlackRock Clients, and may act on such information through accounts managed by persons other than a BlackRock Investment Adviser. The foregoing transactions may negatively impact BlackRock Clients through market movements or by decreasing the pool of available securities or liquidity. BlackRock Clients could also be adversely affected when cash flows and market movements result from purchase and sale transactions, as well as increases of capital in, and withdrawals of capital from, accounts of other BlackRock Clients. These effects can be more pronounced in thinly traded securities and less liquid markets.

In addition, BlackRock Investment Advisers have no obligation to seek information from or share with any BlackRock Client any information, investment strategies, opportunities, or ideas known to members or affiliates of the BlackRock Group or developed or used in connection with other clients or activities. For example, it is possible that a client account invests in securities of companies with which an affiliate has or is trying to develop investment banking relationships, as well as securities of entities in which BlackRock, PNC or one of their affiliates has significant debt or equity investments, in which an affiliate makes a market or in which an affiliate provides or anticipates someday providing research coverage. Such investments could cause conflicts between the interests of a client account and the interests of other clients of BlackRock or another affiliate, or cause BlackRock to be exposed to material non-public information about an issuer. Moreover, conflicts of interest could arise where members and personnel of the BlackRock Group, including BlackRock Investment Advisers' personnel or other BlackRock personnel advising or otherwise providing services to BlackRock Clients, have possession of information not available to all BlackRock personnel, and such personnel act on the basis of such information, or are required to refrain from acting, in ways that have adverse effects on BlackRock Clients.

***Material Non-Public Information/Insider Trading***

BlackRock Group receives material non-public information in the ordinary course of its business. This is information that is not available to other investors or other confidential information which, if disclosed, would likely affect an investor's decision to buy, sell or hold a security. This information is received voluntarily and involuntarily and under varying circumstances, including, but not limited to, upon execution of a non-disclosure agreement, as a result of serving on the board of directors of a company, serving on ad hoc or official creditors' committees and participation in risk, advisory or other committees for various trading platforms, clearinghouses and other market infrastructure related entities and organizations. Under applicable law, members of the BlackRock Group are generally prohibited from disclosing or using such information for their personal benefit or for the benefit of any other person, regardless of whether that person is a BlackRock Client.

Accordingly, should a member of the BlackRock Group obtain, either voluntarily or involuntarily, material non-public information with respect to an issuer, it is generally prohibited from communicating that information to, or using that information for the benefit of, BlackRock Clients, which could limit the ability of BlackRock Clients to buy, sell, or hold investments and result in an underlying security or investment being priced inconsistently across BlackRock Clients. BlackRock has no obligation or responsibility to disclose the information to, or use such information for the benefit of, any person (including BlackRock Clients), even if requested by BlackRock or its affiliates and even if failure to do so would be detrimental to the interests of that person. BlackRock has adopted a Trading Policy and a Global Material Non-public Information Barrier Policy, which establish procedures reasonably designed to prevent the misuse of material non-public information by BlackRock and its personnel. Under the Global Insider Trading Policy, BlackRock Investment Advisers generally are not permitted to use material non-public information obtained by any department or affiliate of BlackRock in the course of its business activities or otherwise, in effecting purchases and sales in securities transactions for BlackRock Clients or for their personal accounts.

BlackRock also has adopted policies establishing information barriers to minimize the likelihood that particular investment advisory units or teams will come into possession of material non-public information known by some other unit or team at BlackRock and thereby also minimizing the likelihood that a particular unit or team will be precluded from taking action on behalf of its clients. Nonetheless, the investment flexibility of one or more of the BlackRock Investment Advisers or business units on behalf of BlackRock Clients will be constrained as a consequence of BlackRock's policies regarding material non-public information and insider trading and related legal requirements.

Consequently, BlackRock Investment Advisers' investment activities likely will be impacted by receipt of such information, even if a failure to act on such information is ultimately detrimental to BlackRock Clients. In addition, use of such information would also be prohibited by BlackRock's Global Insider Trading Policy.

From time to time, certain BlackRock employees use paid expert networks (subject to the BlackRock policies regarding the handling and restricted use of material non-public information). BlackRock has adopted specific policies and procedures to prevent and address the receipt of any material non-public information from such expert networks.

### **POTENTIAL CONFLICTS THAT ARISE WITH RESPECT TO SERVICES PROVIDED BY OR THROUGH VARIOUS BLACKROCK ENTITIES AND THE PNC AFFILIATES**

Subject to applicable law, BlackRock Clients have a choice of engaging the securities and futures brokerage or dealer, custodial, derivatives, trustee, agency, mortgage servicing, lending, banking, advisory services and other commercial services of, or investing in one of a spectrum of investment products provided or sponsored by, another BlackRock Investment Adviser, other members of the BlackRock Group or a PNC Affiliate. Additionally, the BlackRock Investment Advisers rely on information from, or utilize the services provided by, such persons in managing a BlackRock Client's account. These services and certain other relationships among various members of the BlackRock Group, PNC Affiliates, and their respective subsidiaries and related persons, with or without respect to BlackRock Clients, give rise to potential conflicts of interest and could have potentially adverse effects on BlackRock Clients, described generally below.

When these persons provide such services to BlackRock Clients, and when BlackRock Clients invest in these investment products, relevant BlackRock entities or PNC Affiliates will be entitled, subject to applicable laws, to assess and retain fees and other amounts that they receive in connection with such products and services, without being required to account to any BlackRock Client. Additionally, subject to applicable laws, advisory fees, or other compensation payable by BlackRock Clients may not be reduced or offset by reason of receipt by BlackRock or a PNC Affiliate of any such fees or other amounts. In some instances, members of the BlackRock Group or a PNC Affiliate, when acting in such commercial capacities, take commercial steps in their own interests, which can be adverse to those of the BlackRock Clients. Except as otherwise described herein, a BlackRock Investment Adviser may not take actions to negotiate terms between a BlackRock Client and BlackRock affiliates who provide these services, nor will the BlackRock Investment Adviser generally be responsible with respect to any losses or harms suffered by the BlackRock Client in connection with the BlackRock Client's use of services or products of such persons. Additionally, as with relationships with unaffiliated counterparties as described above, BlackRock Clients will be required to establish these business or commercial relationships with BlackRock affiliates, if at all, based on the BlackRock Client's own credit standing; such persons will not consider or rely on, and neither BlackRock nor any BlackRock Investment Adviser will be required to allow the credit standing of BlackRock or any BlackRock Investment Adviser to be used in connection therewith.



***Services Provided to a BlackRock Client by other BlackRock Investment Advisers or through Investments in a BlackRock Investment Product***

As discussed under “Services of Affiliates” in Item 4 (“Advisory Business”) of this Brochure, BlackRock Investment Advisers use the personnel or services of other BlackRock entities in a variety of ways to make available BlackRock’s global capabilities to BlackRock Clients. While BlackRock believes this practice is generally in the best interests of its clients, it can give rise to certain conflicts of interest, with respect to: (i) allocation of investment opportunities; (ii) execution of portfolio transactions; (iii) client servicing; and (iv) fees. Additionally, BlackRock Clients utilizing the services of BlackRock affiliates can be disadvantaged as a result of, among other things: (i) differences in regulatory requirements of various jurisdictions or organizations to which such BlackRock affiliates are subject; (ii) time differences; (iii) the terms of BlackRock’s and such affiliates’ internal policies and procedures, the client’s investment advisory and other agreements; or (iv) the terms of the governing documents for a Private Fund, US Registered Fund or other investment product. BlackRock and its affiliates will seek to mitigate conflicts that arise by determining not to utilize the personnel or services of a particular affiliate in circumstances where it believes the potential conflict or adverse impact of ameliorative steps outweighs the potential benefits of the relationship.

***BlackRock’s Registered Investment Companies, Private Funds and Other Investment Products***

BlackRock Investment Advisers, when appropriate and in accordance with applicable laws, investment objectives and guidelines, will purchase on behalf of BlackRock Clients, or will recommend to BlackRock Clients that they purchase, shares of US Registered Funds or other pooled investment vehicles (including Private Funds) for which BlackRock Investment Advisers serve as investment advisers or sub-advisers (collectively, “Affiliated Funds”). Certain BlackRock Investment Advisers that are domiciled outside of the U.S. serve as investment manager to ETFs domiciled outside of the U.S. (the “Foreign iShares ETFs”). Certain Foreign iShares ETFs may, from time to time, invest in the securities of the US iShares ETFs pursuant to a no-action letter issued by the SEC staff. In connection with any proxies solicited by the US iShares ETFs, the Foreign iShares ETFs will either abstain from voting or withhold voting, or if a quorum is reasonably expected to be achieved without any action, refrain from voting. BlackRock Investment Advisers also invest BlackRock Client assets in other portfolios managed by BlackRock Investment Advisers (collectively, “Affiliated Accounts”). In the case of Funds of Funds or separate accounts managed in a similar style, this may take the form of an investment in other BlackRock Private Funds, or separate accounts managed by BlackRock affiliates.

The BlackRock Investment Advisers face potential conflicts when recommending the purchase of, or allocating the assets of, a BlackRock Client or Private Fund to one or more Affiliated Funds or Affiliated Accounts with respect to which BlackRock receives fees and/or other compensation. In hindsight, circumstances could be construed that such recommendation or allocation conferred a benefit upon the Affiliated Fund, Affiliated Account, or BlackRock Investment Adviser, to the detriment of the BlackRock Client or Private Fund, or vice versa.

As a shareholder in a pooled investment vehicle, a BlackRock Client will pay a proportionate share of the vehicle’s fees and expenses. Investment by a BlackRock Client in an Affiliated Fund means that, subject to applicable laws, BlackRock will receive directly or indirectly advisory fees and/or other compensation from the Affiliated Fund that are in addition to the fees it will receive from the BlackRock Client for managing the separate account or Private Fund. Similarly, BlackRock Clients who invest in an Affiliated Fund through a Private Fund or separate account managed by another BlackRock Investment Adviser are subject to advisory fees charged in connection therewith.

Some Affiliated Funds could be considered “start-up” or early stage funds with low assets under management. In addition, BlackRock might have its own seed capital invested in certain Affiliated Funds and/or could have discretionary control of a significant amount of BlackRock Client assets invested in such Affiliated Funds. Withdrawing seed capital or BlackRock Client assets from such Affiliated Funds could disadvantage the other BlackRock Clients and other investors invested in the Affiliated Fund.

BlackRock Clients who fund their separate accounts with shares of Affiliated Funds may incur deferred sales charges upon the sale of such shares by BlackRock, which could result in compensation to BlackRock or an affiliate that is in addition to the fees BlackRock will receive for managing the separate account. BlackRock Clients should notify BlackRock if they do not want their separate account assets or Private Fund investments to be invested in Affiliated Funds. Certain BlackRock Clients can invest directly in certain Affiliated Funds or other US Registered Funds outside of their separate accounts without paying additional separate account management fees to BlackRock. Consistent with applicable law, BlackRock may waive fees and/or reimburse fees or expenses for some BlackRock Clients while not waiving fees or reimbursing fees or expenses for other BlackRock Clients.

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

The separate account management fees paid by certain retirement accounts (including those subject to ERISA) that invest in US Registered Funds from which BlackRock or an affiliate receives compensation (including management fees or fees paid pursuant to Rule 12b-1 under the Investment Company Act) will be reduced by the account's pro rata share of such compensation, to the extent required by applicable law. In addition, in certain circumstances, (e.g., at BlackRock's discretion, or if required by applicable contractual arrangements), BlackRock, in order to avoid duplication of advisory fees, will waive or credit all or a portion of its separate account investment management fee with respect to any assets of a BlackRock Client invested in shares of any such US Registered Funds or other pooled investment vehicles, or separately managed accounts of another BlackRock Investment Adviser. To the extent permissible under applicable law and the terms of any relevant contractual arrangement, BlackRock will institute, waive, or alter the terms of such a waiver from time to time in its sole and absolute discretion. Similar conflicts will apply where the fund or account is managed by a PNC Affiliate.

To the extent permitted by applicable laws, BlackRock and its affiliates make payments to financial intermediaries relating to the placement of interests in Private Funds. These payments are in addition to or in lieu of any placement fees payable by investors in those Private Funds. These payments, potentially significant to the financial intermediary and/or its representatives, can create an incentive for the financial intermediary to recommend the Private Fund over other products.

Certain Private Funds, their Advisers, and other BlackRock Investment Advisers may conform to regulations under the Bank Holding Company Act of 1956, as amended (the "Bank Holding Company Act"), resulting in limits or restrictions on investments in certain companies, and underlying funds. These potential restrictions are generally discussed in each applicable Private Fund's OM. See also "PNC Affiliation and Potential Restrictions Under the Bank Holding Company Act" below.

In July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") was signed into law in the U.S. Dodd-Frank is expansive in scope and requires the adoption of extensive regulations and numerous regulatory decisions, many of which have been adopted. BlackRock has a conformance program to address certain regulations adopted under Dodd-Frank, as well as financial reforms that have been introduced as part of the SEC's investment company modernization initiatives

In addition, the SEC, the Federal Reserve, the Internal Revenue Service and the CFTC each continue to review practices and regulations relating to the use of futures, swaps and other derivatives. Such reviews could result in regulations that restrict or limit the use of such products by funds or accounts. If adopted, these limitations could require BlackRock to change certain business practices or implement new compliance processes, which could result in additional costs and/or restrictions.

, capital requirements, leverage, valuation, stakes in EU companies, depositaries, and liquidity management.

### ***PNC Affiliation and Potential Restrictions Under the Bank Holding Company Act***

The Bank Holding Company Act places limitations on the ability of banks and their subsidiaries to engage in proprietary trading and to invest in and transact with certain private investment funds, including hedge funds, private equity funds and funds of funds (collectively "covered funds"). PNC, which is a bank holding company and regulated as a "financial holding company" by the Federal Reserve under the Bank Holding Company Act, owns a minority investment of BlackRock's capital stock. Based on the Federal Reserve's interpretation of the Bank Holding Company Act, the Federal Reserve currently takes the position that this ownership interest causes each of BlackRock and the BlackRock Investment Advisers to be treated as a nonbank subsidiary of PNC for purposes of the Bank Holding Company Act, thereby subjecting BlackRock to banking regulation, including the supervision and regulation of the Federal Reserve and to most banking laws, regulations and orders that apply to PNC, including Section 13 of the Bank Holding Company Act and Regulation VV (12 C.F.R. Part 248) promulgated thereunder, as amended (the "Volcker Rule"). As a result, the activities of the BlackRock and the Advisers with respect to the Private Funds will be subject to additional restrictions and conditions, which could materially adversely affect the Private Funds. Subject to the OM and/or other governing documents of the applicable Private Fund, BlackRock, the Advisers and the general partner of such Private Funds may in the future, in their sole discretion, and without notice to or consent of Investors take such action as they determine in their sole discretion is necessary or appropriate in order to comply with the BHC Act or the Volcker Rule, or to reduce, eliminate or otherwise modify the impact or applicability of the BHC Act or the Volcker Rule to BlackRock, its affiliates or the Private Funds.

***Use of PNC Affiliates to Provide Services or Execute Transactions***

Subsidiaries of PNC are registered broker-dealers, as described in Item 10 (“Other Financial Industry Activities and Affiliations”) above (collectively, “PNC Broker-Dealers”). PNC Broker-Dealers effect securities transactions or other investment transactions as principal and agent for compensation for BlackRock Clients advised by BlackRock Investment Advisers in accordance with applicable law. These activities give rise to potential conflicts of interest. For ERISA specific information see “Considerations for ERISA Clients” below.

***Transactions in Securities, Futures and Similar Instruments***

BlackRock Investment Advisers, on behalf of BlackRock Clients, from time to time enter into relationships with, or engage in transactions with or through, various PNC Affiliates that act as agent or principal for compensation, including securities, futures and/or options on futures contracts, foreign exchange transactions, swaps, and other derivatives transactions, either on a securities or commodities exchange or otherwise, subject to limitations and prohibitions applicable to certain transactions for accounts subject to ERISA and for accounts of US Registered Funds. For information specific to ERISA see “Considerations for ERISA Clients” below.

A PNC Broker-Dealer may effect, as broker or agent, futures and/or options on futures contracts on a commodity exchange for compensation for BlackRock Clients that are not subject to ERISA, including US Registered Funds in accordance with procedures adopted by such US Registered Funds’ boards of directors/trustees. Such procedures include a review of all trades with a PNC Broker-Dealer by the boards of directors/trustees to determine that the rates paid are usual and customary.

In other cases, BlackRock Investment Advisers place orders on behalf of BlackRock Clients with unaffiliated brokers or dealers to buy or sell securities for which PNC Affiliates act as a market maker. A buy or sell order placed by a BlackRock Investment Adviser on behalf of a BlackRock Client for execution on the floor of a securities or commodities exchange (or through an ECN, ATS, “dark pool” or other similar system) potentially will be matched with an order from another BlackRock Investment Adviser, a member of the BlackRock Group or a PNC Affiliate, or a client of a PNC Affiliate, without the BlackRock Investment Adviser’s knowledge. Similarly, from time to time in the ordinary course of business, an order to buy or sell an investment, contract or position placed by a BlackRock Investment Adviser with a PNC Broker-Dealer on behalf of a BlackRock Client potentially will be matched with an order from that PNC Broker-Dealer or a customer of such PNC Broker-Dealer, without the BlackRock Investment Adviser’s knowledge. However, BlackRock and each PNC Broker-Dealer are separate entities, and BlackRock has neither advance knowledge of, nor control over, the counterparty. Nonetheless, BlackRock seeks, to the extent practicable, to conduct such transactions in a manner consistent with BlackRock’s obligations to its clients and in compliance with applicable legal, regulatory, and contractual requirements. In connection with transactions in which a PNC Broker-Dealer will act as principal, the BlackRock Investment Adviser will disclose to that BlackRock Client that the trade will be conducted on a principal basis and obtain the approvals required by Section 206(3) of the Advisers Act.

***Purchases of Unregistered Securities through a PNC Broker-Dealer***

From time to time, BlackRock Investment Advisers may purchase on behalf of BlackRock Clients unregistered securities for which a PNC Broker-Dealer acts as placement agent. This results in additional fees paid to the PNC Broker-Dealer and/or assist the PNC Broker-Dealer in meeting its contractual obligations, although the BlackRock Investment Adviser will not take these factors into account when making the purchase.

***Purchases of Securities for which a PNC Broker-Dealer is an Underwriter***

From time to time, BlackRock Investment Advisers may purchase, on behalf of BlackRock Clients, securities in offerings with respect to which a PNC Broker-Dealer serves as a lead underwriter, manager or member of the underwriting syndicate. In such cases, the purchase generally will be made from a party that is not the PNC Broker-Dealer, but the PNC Broker-Dealer nevertheless may benefit from such transactions. All such transactions will be effected in accordance with applicable law, including the Advisers Act, the Investment Company Act and ERISA. When a PNC Broker-Dealer is engaged in an underwriting or other distribution of securities or bank loans of a company, BlackRock Investment Advisers are prohibited, for certain types of BlackRock Clients, from purchasing or recommending the purchase of certain securities or bank loans of that company for such BlackRock Clients. Notwithstanding the circumstances described above, a client on its own initiative may direct BlackRock to place orders for specific securities transactions in a client account. Purchases for BlackRock Clients that are subject to ERISA are

made in accordance with the provisions of the Exemption as described under “Considerations for ERISA Clients” below.

### ***Borrowing or Lending Funds or Securities and Cash Management***

Subject to applicable laws and regulations, from time to time, BlackRock Investment Advisers cause BlackRock Clients to borrow money from PNC Affiliates, potentially requiring collateral, consisting of assets in the BlackRock Client’s account, to be pledged in connection with such borrowing. Such PNC Affiliates will earn interest, payable out of BlackRock Client funds, on such borrowings, as well as fees for servicing loans made to BlackRock Clients.

### ***Pricing and Valuation of Securities and Other Investments***

In many cases, BlackRock’s fees are based on the value and performance of the assets held in the client account. BlackRock generally does not price securities or other assets for purposes of determining fees. However, to the extent permitted by applicable laws, including ERISA, from time to time, BlackRock or an affiliate will be charged with the responsibility of, or have a role in, determining in good faith asset values with respect to BlackRock products or accounts and BlackRock, or such an affiliate, will be required to price a portfolio holding when a market price is not readily available or when BlackRock has reason to believe in good faith that the market price is unreliable. To the extent BlackRock’s fees are based on the value or performance of client accounts, BlackRock would benefit by receiving a fee based on the impact, if any, of the increased value of assets in an account.

When pricing a security, BlackRock attempts, in good faith and in accordance with applicable laws, to determine the fair value of the security or other assets in question. BlackRock generally relies on prices provided by a custodian, a broker-dealer, index provider or another third-party pricing service for valuation purposes. When market quotations are not readily available or are believed in good faith by BlackRock to be unreliable, the security or other asset or liability is valued by BlackRock in accordance with BlackRock’s valuation procedures. Valuation procedures for certain separate accounts and/or Private Funds may be described in the relevant IMA, OM and/or other governing documents. With respect to Funds of Funds and other BlackRock products or accounts which invest in privately placed pooled investment vehicles managed by third-parties and/or investments sponsored by such third-party managers, BlackRock generally relies on pricing information provided by the Private Fund or its manager or other service provider. While BlackRock expects that such persons will provide appropriate valuations, such persons face conflicts similar to those described above and certain investments may be complex or difficult to value. BlackRock may also perform its own valuation analysis, but generally will not independently assess the accuracy of such valuations. For certain clients, at the clients’ request, BlackRock has agreed to provide “reasonable assistance” involving the valuation of securities. This typically does not include proactively communicating BlackRock’s valuation judgments to such clients.

From time to time, BlackRock, an affiliate, or a PNC Affiliate will be engaged to provide valuation assistance to certain clients with respect to certain securities or other investments. Valuation recommendations made by BlackRock for a client account can differ from the valuations for the same securities or investments assigned by a client’s custodian or pricing vendors, especially if such valuations are based on broker-dealer quotes or other data sources unavailable to the client’s custodian or pricing vendors. In addition, BlackRock, through FMA, provides a variety of services to clients in connection with the evaluation of certain distressed securities or other assets, including advice relating to the management, retention, disposition and valuation of such assets.

In certain instances described below, BlackRock, in good faith based on available information, will determine an asset’s fair value using a variety of methodologies. Furthermore, in circumstances where material non-public information is available to one group at BlackRock but, consistent with BlackRock’s compliance policies and procedures, is not available to all groups at BlackRock, asset valuations used for pricing of underlying investments can be inconsistent. Due to specific time and operational constraints related to the daily calculation of net asset value certain BlackRock-sponsored funds may value the same assets that are held in other non-registered funds or other accounts using different pricing sources than are used by other funds and accounts. BlackRock’s Global Valuation Methodologies Committee (the “GVMC”) reports to and derives its authority from the Valuation Oversight Committee (the “VOC”), which consists of senior members of RQA, BRS, Legal & Compliance and other groups at BlackRock. The GVMC is responsible for overseeing valuation and pricing issues impacting BlackRock and its clients, including the design and implementation of pricing controls and the development of valuation policies and procedures.



For certain assets that BlackRock manages on behalf of BlackRock Clients, pricing and valuation will be unavailable or unreliable, from time to time, due to market dislocations, loss of pricing coverage, or market-making activities by broker-dealers, mergers and liquidations of broker-dealers or pricing vendors that previously supplied pricing data, the distressed nature of certain forced asset sales due to deleveraging transactions, extreme market volatility in certain assets classes, uncertainty surrounding potential or actual government intervention in the markets for certain assets, and other factors that have diminished the timeliness, accuracy or reliability of asset price information. In such circumstances, a client's investments generally will be valued at fair value ("Fair Value Assets"). Fair Value Assets are valued by BlackRock in accordance with BlackRock's valuation procedures or, when held in a BlackRock-sponsored registered investment company, in accordance with valuation and liquidity procedures approved by the investment company's board of directors/trustees. BlackRock may conclude that a market quotation is not readily available or is unreliable: (i) if a security or other asset does not have a price source (e.g., due to technology issues, lack of liquidity, etc.); (ii) if BlackRock believes a market quotation from a broker-dealer or other source is unreliable (e.g., where it varies significantly from a recent trade); (iii) where the security or other asset is thinly traded; (iv) where recent asset sales represent distressed sale prices not reflective of the price that a client might reasonably expect to receive from the current sale of that asset in an arm's-length transaction; or (v) where there is a significant material event subsequent to the most recent market quotation. BlackRock's good faith judgment as to whether an event would constitute a "significant event" likely to cause a material change in an asset's market price may, in hindsight, prove to be incorrect, and the fair value determination made by BlackRock may be incorrect as to the direction and magnitude of any price adjustment when compared to the next available market price. In circumstances where BlackRock typically relies on a valuation provided by a third-party, if the third-party fails to provide a valuation, or if BlackRock believes such valuation is not representative of fair value, BlackRock will determine fair value in good faith in accordance with its valuation policies and procedures.

On a date when the New York Stock Exchange ("NYSE") is open and the primary exchange on which a foreign asset is traded is closed, such asset will generally be valued using the prior day's price, provided that BlackRock is not aware of any significant event or other information that would cause such price to no longer reflect the fair value of the asset. In such case the asset would be treated as a Fair Value Asset.

BlackRock will submit its recommendations regarding the valuation and/or valuation methodologies for Fair Value Assets to BlackRock's GVMC or a subcommittee thereof. The GVMC or its subcommittee will accept, modify, or reject the recommendations. BlackRock's Pricing Group periodically endeavors to confirm the prices it receives from all third-party pricing services, index providers and broker-dealers, and, with the assistance of BlackRock's portfolio managers, to regularly evaluate the values assigned to the securities and other assets held by BlackRock Clients. The pricing of all Fair Value Assets is subsequently reported to the GVMC or a subcommittee thereof with appropriate oversight from the VOC and, in the case of assets held in BlackRock US Funds, reviewed and/or ratified by a BlackRock US Fund's board or a committee thereof.

When determining the price for a Fair Value Asset, BlackRock seeks to determine the price that a client might reasonably expect to: (i) receive upon the current sale of the security or asset; or (ii) pay to transfer the liability associated with the security or asset in an orderly arm's-length transaction between market participants on the date on which the security or asset is being valued. The price generally will not be determined based on what a client might reasonably expect to receive for selling an asset at a later time or if it holds the asset to maturity. Fair value determinations will be made in good faith and will be based upon all available factors that BlackRock deems relevant at the time of the determination, and may be based on analytical values determined by BlackRock using proprietary or third-party valuation models such as the Black-Scholes Option Pricing model. Nevertheless, the models and/or underlying valuation assumptions utilized by BlackRock may potentially not correctly capture the fair value of an asset, which could impact the cost paid or proceeds realized by a client upon the purchase or disposition of the asset. BlackRock's fair value determinations may differ from those made by other advisers for the same security.

Fair value represents a good faith approximation of the value of a security. In retrospect, the fair value of one or more securities can differ from the price at which those assets could have been sold during the period in which the particular fair values were used in determining a client's asset value for performance or fee calculation purposes. For investment companies and other pooled investment vehicles, the sale or redemption of its shares or units at net asset value, at a time when a holding or holdings are valued at fair value, can have the effect of diluting or increasing the economic interest of existing investors and result in a purchasing or redeeming investor receiving too few shares/units or too little cash.

BlackRock will communicate its valuation information or determinations to a client's custodian, pricing vendors and/or fund accountants as reasonably requested. There may be instances where the client's custodian, pricing vendors or fund accountants assign a different valuation to a security or other investment than the valuation for such security or investment determined or recommended by BlackRock.

### ***Banking, Custodial and Related Services***

With respect to institutional accounts, from time to time when asked by a BlackRock Client to recommend a custodian for its account, a BlackRock Investment Adviser could recommend that a BlackRock Client deposit assets with financial institutions affiliated with PNC, which receive fees or earn revenues on such deposits. Additionally, PNC and certain of its affiliates maintain custody of certain of BlackRock Clients' funds and securities, including certain Private Funds.

BlackRock or its affiliates own or have an ownership interest in certain trading, portfolio management, operations and/or information systems (the "Systems") used by one or more service providers providing custodial services to BlackRock Clients or funds managed by a BlackRock Investment Adviser (each a "Service Provider"). The Services Providers remunerate BlackRock or its affiliates for the use of the Systems. Such payments to BlackRock or its affiliates for the use of the Systems may enhance the profitability of BlackRock and its affiliates. The receipt of fees by BlackRock or its affiliates from a Service Provider in connection with the use of the Systems may create an incentive for BlackRock to recommend that a BlackRock Client or fund managed by a BlackRock Investment Adviser enter into or renew a custodial arrangement with a Service Provider.

### ***Conflicts of Interest Presented by the Retention of Third-Party Fees***

As discussed under "Fees Paid to an Adviser by Third Parties" in Item 5 ("Fees and Compensation") of this Brochure, an Adviser or its employees or its affiliates may be entitled to negotiate for and retain Third-Party Fees with respect to the portfolio investments of a Private Fund or separate account to the extent set forth in the applicable Private Fund's OM and/or governing documents or the IMA governing the applicable separate account, respectively, and subject to applicable laws and regulations. The entitlement of an Adviser or its employees or its affiliates in respect of such Third-Party Fees poses various conflicts of interest. For example, an Adviser is financially incentivized to seek out transactions in which a Third-Party Fee would be payable, which may result in the applicable client making investments that it might not otherwise make absent the entitlement of the Adviser to Third-Party Fees. In addition, in situations where an Adviser or its employees or its affiliates have the ability to retain a Third-Party Fee, such Adviser has the financial incentive to negotiate as high a Third-Party Fee as possible. In certain circumstances, transaction counterparties may negotiate terms for the portfolio investments that yield lower returns to the client than might have been the case had the Adviser, its employee or its affiliate not been entitled to the Third-Party Fees.

Even if the terms of a Private Fund's OM and/or governing documents or the IMA governing the separate account, as applicable, do not permit the Adviser or its employees or its affiliate to retain Third-Party Fees, the client may invest alongside other clients with respect to which the Adviser or its employees or its affiliate have a right to retain such fees, which creates conflicts similar to those that arise with respect to such other clients.

### ***Considerations for ERISA Clients***

When executing transactions with PNC Broker-Dealers or engaging in other activities for BlackRock Clients subject to ERISA, BlackRock Investment Advisers will comply with ERISA and the applicable regulations adopted by the DOL.

Although the stockholder agreement between BlackRock, Inc. and PNC Financial Services Inc. (for convenience, PNC Financial Services, Inc. and its affiliates are collectively referred to as "MPS") restricts the ability of an MPS to control the activities of BlackRock, Inc. and BlackRock Investment Advisers, its shareholdings could be deemed to affect the best judgment of the BlackRock Investment Adviser as a fiduciary. This could raise conflict of interest concerns under Section 406(b) of ERISA if a fund or account (each, an "Account") advised by the BlackRock Investment Adviser were to enter into a transaction with an MPS; although subsequent changes in the relevant facts and circumstances could change this determination. In addition, an MPS may be a "party-in-interest" to ERISA plans that have a BlackRock advised Account as a result of providing services to such plans. Entering into transactions on behalf of an Account with an MPS (or the provision of services by an MPS to an Account) can constitute, or result in, prohibited transactions under Section 406(a) of ERISA or Section 4975 of the Internal Revenue Code of 1986, as



amended (the "IRC"), with respect to which the exemptions commonly utilized by the BlackRock Investment Adviser with respect to non-MPS entities may not be available. Because of these potential limits, the DOL has granted an exemption to BlackRock, (PTE 2012-09 or the "Exemption"), which is an individual prohibited transaction exemption from the application of certain provisions of ERISA, the Federal Employees' Retirement System Act of 1986, as amended and Section 4975 of the IRC with respect to certain transactions which are summarized in Sections III and IV of the Exemption. The Exemption was published in the Federal Register on April 2, 2012 (77 FR19836).

Under the Exemption, the BlackRock Investment Adviser is permitted to enter into certain transactions with or involving an MPS (the "Exempted Transactions") on behalf of an Account. The Exempted Transactions include, but are not limited to, repurchase agreements where an MPS acts as seller; the purchase or sale of fixed income obligations with an MPS acting as a principal or agent; the purchase, holding, and sale of securities issued by an MPS; the purchase, holding, and sale of exchange traded funds registered under the Investment Company Act and advised by a BlackRock Investment Adviser (such as the US iShares ETFs); the purchase, holding, and sale of asset-backed securities when an MPS is a sponsor, a servicer, an originator, a swap counterparty, a liquidity provider, a trustee, or an insurer, responding to tender offers and exchange offers solicited by an MPS; the purchase, holding, and sale of commercial paper issued by an Asset-Backed Commercial Paper Conduit where an MPS has one or more continuing roles; the purchase, holding, and sale of BlackRock equity securities; the purchase, holding, and sale of loans where an MPS is an arranger and/or has an ongoing function in relation to the loan; and the purchase in a primary offering of securities where an MPS is (i) a manager or member of the underwriting syndicate and/or acts as trustee, and/or (ii) in the case of commercial mortgage-backed securities, a commercial mortgage originator or servicer. The primary offering purchases tend to also include (i) securities where an MPS has either an ongoing function and/or (ii) securities where the proceeds are used to repay a debt to an MPS. The Exemption does not permit an Account to enter into certain transactions with, or involving, an MPS, including without limitation: (i) over-the-counter derivatives; or (ii) executing or clearing futures. Accordingly, as a consequence of the fact that (i) certain transactions with or involving an MPS are not permitted, and (ii) other transactions with an MPS must be entered into in accordance with the conditions of the Exemption, ERISA could materially limit the activities of an Account.

BlackRock has appointed a third-party to act as an independent monitor (the "Independent Monitor"), to provide independent review and oversight as a condition of the Exemption. In addition, written policies and procedures reasonably designed to comply with the terms of the Exemption have been adopted and implemented. Additionally, BlackRock has appointed an Exemption Compliance Officer, with the approval of the Independent Monitor, to comply with the Exemption. The Exemption Compliance Officer or his/her designee is responsible for monitoring the Exempted Transactions and reviewing compliance with the conditions of the Exemption.

### POTENTIAL CONFLICTS RELATING TO PRODUCTS AND SERVICES OF PNC AFFILIATES

#### ***Certain Investment Products or Services of PNC Affiliates Compete with BlackRock Clients***

From time to time, PNC Affiliates will sponsor and manage investment funds or other client accounts that compete directly or indirectly with the investment program of BlackRock Clients or make investments with funds sponsored or managed by third-party advisers that would reduce capacity otherwise available to BlackRock Clients in such entities. Additionally, from time to time, various PNC Affiliates will create, sell, issue, or act as placement agent or distributor of, derivative instruments with respect to BlackRock Clients or with respect to underlying securities, currencies or instruments held by BlackRock Clients, or which are otherwise based on or related to the performance of BlackRock Clients. The structure or other characteristics of such derivative instruments could have an adverse effect on BlackRock Clients. For example, the derivative instruments developed by a PNC Affiliate could represent leveraged investments in BlackRock Clients, and the leveraged characteristics of such investments could make it more likely, due to events of default or otherwise, that there would be significant changes in the values of securities issued by BlackRock Clients. This could have an adverse effect on the assets owned by, and any resultant investment management and positions, flexibility, and diversification strategies BlackRock Investment Advisers employ for such BlackRock Clients, and consequently on the amount of fees, expenses and other costs incurred directly or indirectly for the account of BlackRock Clients. Similarly, from time to time, members of the BlackRock Group will invest, for BlackRock Clients or themselves, and PNC Affiliates, subject to applicable laws, may invest, on a proprietary basis or for their clients, in securities issued by BlackRock Clients, and may hedge derivative positions by buying or selling securities issued by BlackRock Clients. These investments can be significant and made without notice to BlackRock or BlackRock Clients.

***Investments in Service Clients of the BlackRock Group or the PNC Affiliates***

The BlackRock Group and PNC Affiliates provide a variety of services and advice (including investment banking services, fairness opinions, and extensions of credit provided by PNC) to, various clients ("Service Clients"), including issuers of securities that BlackRock Investment Advisers may purchase or sell for BlackRock investment advisory clients, and may generally receive fees for these services (including fees that are contingent on the successful placement of securities and successful closing of a transaction). As a result of the relationships between BlackRock Group and the PNC Affiliates, BlackRock may have an incentive to invest in securities issued by Service Clients. BlackRock believes, however, that the nature and range of Service Clients is such that it would be inadvisable to exclude the securities of Service Clients. Accordingly, absent a specific investment restriction or direction or regulatory restriction, it is possible that a BlackRock Client's account will include the securities issued by Service Clients. In addition, it is possible that the BlackRock Group will receive certain transaction fees from Service Clients the securities of which BlackRock wishes to purchase or sell on behalf of BlackRock Clients in connection with structuring, negotiating, or entering into such investment transactions, as well as ongoing advisory or monitoring fees. In some instances, fees and expenses will be earned by the BlackRock Group or its personnel if such personnel serve as directors or officers of Service Clients.

**POTENTIAL CONFLICTS RELATING TO BLACKROCK CLIENTS' USE OF INVESTMENT CONSULTANTS AND BLACKROCK'S RELATIONSHIP WITH PENSION CONSULTANTS**

Many BlackRock Clients work with pension or other institutional investment consultants (collectively, "Investment Consultants"), who provide a wide array of services to pension plans and other institutions, including assisting in the selection and monitoring of investment advisers such as BlackRock Investment Advisers. From time to time, BlackRock Clients' Investment Consultants who recommend BlackRock Investment Advisers to, and provide oversight of BlackRock Investment Advisers for, BlackRock Clients also provide services to or purchase services from members of the BlackRock Group and PNC Affiliates. For example, BlackRock purchases certain index and performance-related databases and human resources-related information from Investment Consultants and their affiliates. BlackRock Investment Advisers also utilize brokerage execution services of Investment Consultants or their affiliates, and members of the BlackRock Group, as well as personnel of PNC Affiliates attend conferences sponsored by Investment Consultants. Conversely, from time to time, the BlackRock Group and PNC Affiliates will be hired by Investment Consultants and their affiliates to provide investment management and/or risk management services, creating possible conflicts of interest.

**BLACKROCK IN-SOURCES OR OUTSOURCES CERTAIN SERVICES TO THIRD-PARTIES**

Subject to applicable law and contractual duties to clients, BlackRock, including BlackRock Investment Advisers, from time to time, and without notice to BlackRock Clients, will in-source from or outsource to third-parties, including parties which are affiliated or unaffiliated with BlackRock, certain processes or functions in connection with a variety of services that they provide to BlackRock Clients in their administrative or other capacities. Such in-sourcing or outsourcing can give rise to potential conflicts of interest, including where BlackRock or other BlackRock Clients receive favorable pricing or other benefits that arise from or are connected to another BlackRock Client's vendor relationships.

**POTENTIAL RESTRICTIONS ON INVESTMENT ADVISER ACTIVITY**

From time to time, BlackRock will be restricted from or limited in purchasing, selling or voting securities, derivative instruments or other assets, including Affiliated Accounts, on behalf of BlackRock Clients because of corporate or regulatory and legal requirements, as well as contractual restrictions, applicable to BlackRock or the securities held by BlackRock on behalf of its clients. BlackRock has developed internal policies, to the extent necessary, designed to comply with, limit the applicability of, or otherwise relate to such requirements, as well as address potential conflicts of interest. These restrictions can impact or limit BlackRock's ability to purchase, vote or sell certain securities, derivative instruments or other assets on behalf of certain BlackRock Clients at the same time as other BlackRock Clients. A client not advised by BlackRock will not necessarily be subject to the same considerations.

In some cases, BlackRock Investment Advisers do not initiate or recommend certain types of transactions, or will otherwise restrict or limit their advice with respect to securities or instruments issued by or related to companies for which BlackRock is performing advisory or other services, or companies in which BlackRock has an interest. Such limitations or restrictions can arise solely from actions taken or initiated by BlackRock and have a negative effect on BlackRock Clients. For example, from time to time, when BlackRock is engaged to provide advisory or risk

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

management services for a company, BlackRock Investment Advisers will be prohibited from or limited in purchasing or selling securities of that company for BlackRock Client accounts, particularly where such services result in BlackRock obtaining material non-public information about the company. Similar situations could arise if: (i) BlackRock personnel serve as directors or officers of companies the securities of which BlackRock wishes to purchase or sell; (ii) BlackRock has an ownership or other interest in a company; (iii) BlackRock is provided with material non-public information with respect to the issuer of securities; (iv) BlackRock Investment Advisers on behalf of BlackRock Clients or BlackRock, Inc. participate in a transaction (including a controlled acquisition of a U.S. public company) that results in the requirement to restrict all purchases and voting of equity securities of such target company; or (v) regulations, including portfolio affiliation rules or stock exchange rules, prohibit participation in offerings by an issuer when BlackRock's Clients' have prior holdings of such issuer's securities. However, where permitted by applicable law, and where consistent with BlackRock's policies and procedures (including the implementation of appropriate information barriers), BlackRock can purchase or sell securities or instruments that are issued by such companies or are the subject of an advisory or risk management assignment by BlackRock, or in cases in which BlackRock personnel serve as directors or officers of the issuer.

In certain circumstances where BlackRock invests in securities issued by companies that operate in certain regulated industries or in certain emerging or international markets, or are subject to corporate or regulatory ownership restrictions, there will be limits on the aggregate and/or portfolio-level amount permitted to be invested or voted by BlackRock and/or PNC that can be exceeded only with the grant of a license, waiver, regulatory relief or corporate consent. As a result, BlackRock Investment Advisers on behalf of BlackRock Clients may limit purchases, sell existing investments, or otherwise restrict, forgo, or limit the exercise of rights (including transferring, outsourcing or limiting voting rights or foregoing the right to receive dividends) when BlackRock Investment Advisers, in their sole discretion, deem it appropriate in light of potential regulatory or corporate restrictions on ownership or other consequences resulting from reaching investment thresholds. Similar limitations apply to derivative instruments or other assets or instruments, including futures, options, or swaps.

In those circumstances where ownership thresholds or limitations must be observed, BlackRock seeks to equitably allocate limited investment opportunities among BlackRock Clients, taking into consideration a security's benchmark weight and investment strategy. When BlackRock's ownership in certain securities nears an applicable threshold, BlackRock will limit purchases in such securities to the issuer's weighting in the applicable benchmark used by BlackRock to manage the BlackRock Client account or fund. If BlackRock's Clients' holdings of an issuer exceed an applicable threshold and BlackRock is unable to obtain relief to enable the continued holding of such investments, it will be necessary to sell down these positions to meet the applicable limitations, possibly during deteriorating market conditions. In these cases, benchmark overweight positions will be sold prior to benchmark positions being reduced to meet applicable limitations. For additional information regarding BlackRock's allocation policy, please refer to "Competing or Complementary Investments and Trade Aggregation" in Item 12 ("Brokerage Practices") of this Brochure.

In addition to the foregoing, other ownership thresholds may trigger or require reporting, applications, licenses, or other special obligations to governmental and regulatory authorities, and such reports, applications, or licenses may entail the disclosure of the identity of the BlackRock Client or BlackRock's intended strategy with respect to such securities, instruments, or assets. Where applicable, BlackRock can elect to forego or limit certain investments or opportunities, including limitations on voting or other investor rights, rather than incur the costs of an application, registration, or license.

Under certain circumstances, BlackRock will restrict a purchase or sale of a security, derivative instrument, or other asset on behalf of BlackRock Clients in anticipation of a future conflict that may arise if such purchase or sale would be made. Any such determination will take into consideration the interests of the relevant BlackRock Clients, the circumstances that would give rise to the future conflict and applicable laws. Such determination will be made on a case by case basis.

When evaluating non-index investments on behalf of its clients, especially in the case of private and real assets, BlackRock may consider the reputational risks of such investments to itself or its clients. As a result, BlackRock may, from time to time, forego making or disposing of non-index investments on behalf of its clients based on BlackRock's evaluation of these risks, even in circumstances where such investments are legally permissible and consistent with client guidelines. With respect to index investing, however, BlackRock manages each applicable index without regard to these risks.

## **OTHER RELATIONSHIPS WITH CLIENTS AND MARKET PARTICIPANTS**

The members of the BlackRock Group have developed, and will in the future develop, relationships with a significant number of clients and other market participants, including those that may hold or may have held investments similar to the investments intended to be made by the BlackRock Client accounts, that may themselves represent appropriate investment opportunities for a BlackRock Client account or that may compete with a BlackRock Client account for investment opportunities. It is difficult to predict the circumstances under which these relationships could become material conflicts for a BlackRock Client account, but it is possible that as a result of such relationships (or agreements with other BlackRock Client accounts) the relevant BlackRock Investment Adviser may refrain from making all or a portion of any investment or a disposition on behalf of a BlackRock Client account, which may materially adversely affect the performance of such BlackRock Client account.

## **LEGAL REPRESENTATION**

Certain BlackRock Client accounts, as well as the relevant BlackRock Investment Adviser and/or other members of the BlackRock Group, engage one or more counsel to represent them in connection with the organization of the BlackRock Client accounts and, in the case of BlackRock Client Accounts that are Private Funds, the offer and sale of interests therein, and not for any investor in such BlackRock account or such BlackRock Client account's investors as a group. In connection with such representation, including the preparation of such BlackRock Client accounts' respective governing documents, counsel relies upon certain information furnished to them by the relevant BlackRock Investment Adviser and other members of the BlackRock Group, and does not investigate or verify the accuracy or completeness of such information. In connection with the offering and subsequent advice, such counsels' engagement is limited to the specific matters as to which they are consulted and, therefore, there may exist facts or circumstances that could have a bearing on the BlackRock Client accounts' or BlackRock's financial condition or operations with respect to which counsel has not been consulted and for which they expressly disclaim any responsibility. Counsel does not represent BlackRock Client account investors. No independent counsel has been retained (or is expected to be retained) to represent BlackRock Client account investors. No attorney-client relationship exists between any counsel and any BlackRock Client account investor solely by such BlackRock Client account investor making an investment in a BlackRock Client account. As a result, BlackRock Client account investors are urged to retain their own counsel.

## **RESOLUTION OF CONFLICTS**

It is difficult to predict the circumstances under which one or more of the foregoing conflicts could become material, but it is possible that such relationships could require a BlackRock Client account to refrain from making all or a portion of any investment or a disposition in order for BlackRock or another member of the BlackRock Group to comply with its fiduciary duties, the Advisers Act or other applicable laws. Subject to the terms of the governing documents of the relevant BlackRock Client account, any conflicts of interest that arise between a BlackRock Client account or particular investors in a BlackRock Client account, on the one hand, and other BlackRock Client accounts or members of the BlackRock Group or affiliates thereof, on the other hand, will be discussed and resolved on a case-by-case basis by business, legal and compliance officers of the BlackRock Group, as applicable. Any such discussions will take into consideration the interests of the relevant parties and the circumstances giving rise to the conflicts. Investors in BlackRock Client accounts should be aware that conflicts will not necessarily be resolved in favor of the interests of such account or any affected Limited Partner. There can be no assurance that any actual or potential conflicts of interest will not result in an account receiving less favorable investment or other terms with respect to investments, transactions or services than if such conflicts of interest did not exist.



## Item 12 Brokerage Practices

As a general rule, each Adviser receives discretionary (or non-discretionary) investment authority from its clients at the outset of an advisory relationship. Subject to the terms of the applicable IMA, the Adviser's authority often includes the ability to select brokers and dealers through which to execute transactions on behalf of its clients, and to negotiate the commission rates, if any, at which transactions are effected. In making decisions as to which securities or instruments are to be bought or sold and the amounts thereof, each Adviser is guided by the mandate selected by the client and any client-imposed guidelines or restrictions. In some cases, pursuant to the advisory relationship, each Adviser has the authority to enter into an over the counter derivative relationship and transaction related documentation, repurchase agreements, futures and cleared derivatives agreements, listed options agreements, prime brokerage and securities lending agreements, securities forward agreements and other brokerage and/or trading agreements in connection with the trading of certain securities or instruments.

### SELECTION OF BROKERS, DEALERS AND OTHER TRADING VENUES AND METHODS

The overriding consideration in allocating client orders for execution is the maximization of client profits (or minimization of losses) through a combination of controlling transaction costs (including market impact) and seeking the most effective uses of a broker's capabilities. When an Adviser has the authority to select brokers or dealers to execute transactions for its clients, it seeks to obtain the best execution reasonably available under the circumstances (which may or may not result in paying the lowest available brokerage commissions or spread). In so doing, the Adviser considers all factors it deems relevant. Such factors are typically either venue specific or transaction specific and may include, but not be limited to: (A) for venues: (i) execution capability including speed of execution, quality of communication links to BlackRock, clearance and trade settlement history and capability and ratio of complete versus incomplete trades; (ii) ability to handle large trades in securities having limited liquidity without undue market impact and ability to provide liquidity (as principal, agent or otherwise); (iii) access to market liquidity and quotation sources; (iv) financial condition of the counterparty, including reputation and creditworthiness; (v) responsiveness and reliability in executing trades, keeping records and accounting for and correcting administrative errors; (vi) ability to maximize price improvement opportunities, including the ability to provide ad hoc information or services; and (vii) ability to comply with all regulatory requirements; and (B) for transactions: (i) price and overall cost of the transaction, including any related credit support; (ii) the size, type and timing of the transaction; (iii) existing and expected activity in the market for the security, including any trading patterns of the security and the particular marketplace; (iv) nature and character of the security or instrument and the markets on which it is purchased or sold; (v) value of research provided, if permitted under applicable law or regulation; (vi) fund or portfolio objectives or client requirements (if permissible), as applicable; (vii) if applicable, client-directed brokerage arrangements; and (viii) applicable execution venue factors.

The Advisers do not consider a broker's or dealer's sales of BlackRock or clients' products, including shares of mutual funds or ETFs, when determining whether to select such broker or dealer to execute fund portfolio transactions. In addition, when deemed appropriate by the Adviser and subject to the applicable IMA and investment guidelines, an Adviser will enter into derivatives transactions (including but not limited to futures, swaps, options and currency forward contracts) on behalf of a Client. Counterparties to these derivatives transactions are selected based on a number of factors, including credit rating, execution prices, execution capability with respect to complex derivative structures and other criteria relevant to a particular transaction.

The Advisers endeavor to be aware of current charges assessed by relevant broker-dealers and to minimize the expense incurred for effecting portfolio transactions, to the extent consistent with the interests and policies of client accounts. However, the Advisers will not select broker-dealers solely on the basis of "posted" commission rates nor always seek in advance competitive bidding for the most favorable commission rate applicable to any particular transaction. Although the Advisers generally seek competitive commission rates, they will not necessarily pay the lowest commission or commission equivalent as transactions that involve specialized services on the part of a broker-dealer generally result in higher commission rates or equivalents than would be the case with more routine transactions. The Advisers may pay higher commission rates to those brokers whose execution abilities, brokerage or research services or other legitimate and appropriate services are particularly helpful in seeking good investment results and may consistent with applicable law and client consent, use the services of PNC Broker-Dealers.

The reasonableness of commissions is based on an Adviser's view of the broker's ability to provide professional services, competitive commission rates, research and other services which will help an Adviser in providing investment advisory services to its clients, viewed in terms of either the particular transaction or the Adviser's overall responsibility to its clients, as the extent to which the commission rate or net price associated with a particular transaction reflects the value of services provided often cannot be readily determined. In making these determinations, the Adviser recognizes that some firms are better at executing some types of orders than others and it can be in the clients' best interests to use a broker whose commission rates are not the lowest but whose executions and other services the Adviser believes are likely to result in lower overall transaction costs or more favorable or more certain results.

As noted above, from time to time an Adviser places client transactions through an ECN or other electronic systems or ATS or with brokers or dealers that participate in such systems, including some in which BlackRock, from time to time and in accordance with applicable law, will have an ownership or financial interest. An Adviser uses these systems only when consistent with its relevant policies and procedures and the duty to seek best execution.

Unless inconsistent with the Adviser's duty to seek best execution, an Adviser at times directs a broker to execute a trade and "step out" a portion of the commission in favor of another broker that provides brokerage or research related services to BlackRock as described above. An Adviser also at times uses step out transactions in fulfilling a client-directed brokerage arrangement, to allow for an order to be aggregated, or for regulatory or other purposes. However, BlackRock does not enter into agreements with, or make commitments to, any broker-dealer that would bind BlackRock to compensate that broker-dealer, directly or indirectly, for client referrals or sales efforts through placement of brokerage transactions; nor will BlackRock use step out transactions or similar arrangements to compensate selling brokers for their sales efforts.

***Research and Soft Dollars***

The Advisers do not use client commissions to acquire research or execution services.

***Access Fees Paid to, and Discounts Provided by, ECNs, Derivative Clearing Firms and Other Trading Systems***

BlackRock also places orders for the purchase and sale of securities or other instructions for its clients through electronic trading systems or ATSS, including ECNs, derivatives clearing firms, or with brokers or dealers that participate in such trading systems or platforms, consistent with its duty to seek best execution of client transactions. ECNs and derivatives clearing firms charge fees for their services, including access fees, transaction fees and/or clearing fees. Access fees may be paid by BlackRock even though incurred in connection with executing transactions on behalf of clients, while transaction fees and clearing fees generally will be charged to clients and may be included in the cost of the instrument purchased. In certain circumstances, ECNs and derivatives clearing firms offer volume discounts that will reduce the access fees typically paid by an investment adviser. BlackRock expects to qualify for these volume discounts, which have the effect of reducing the access fees paid by BlackRock. Volume discounts achieved by BlackRock may also benefit or be applied to other BlackRock affiliates or their clients.

BlackRock also, from time to time and in accordance with applicable law, makes a nominal equity investment in or financial arrangement with a trading system or enter into consulting and/or advisory relationships with such electronic trading systems in order to assist in the design and development of such systems. In addition, certain BlackRock employees or employees of affiliates serve as board members or advisory members of ECNs, derivatives clearing firms, and/or other trading systems. Although BlackRock will not accept any payment, commission, rebate, or other compensation that is based on its use of a trading system on behalf of its advisory clients, BlackRock's use of these trading systems would result in some benefit to the trading system and therefore would, in turn, indirectly benefit BlackRock as an investor or party with a financial interest in the trading system.

**COMPETING OR COMPLEMENTARY INVESTMENTS AND TRADE AGGREGATION**

In some circumstances, BlackRock Investment Advisers seek to buy or sell the same securities contemporaneously for multiple BlackRock Client accounts. Similarly, BlackRock Investment Advisers manage or advise accounts of BlackRock Clients that have investment objectives that are similar to those of other BlackRock Clients and/or seek to make investments in securities or other instruments in which BlackRock Clients invest. This will create potential conflicts and potential differences among different BlackRock Clients, particularly where there is limited availability or



limited liquidity for those investments. BlackRock has developed policies and procedures that provide that it will seek to allocate investment opportunities and make purchase and sale decisions among all BlackRock Clients in a manner that it deems fair and equitable over time. Please see Item 11 ("Potential Conflicts Relating to Advisory Activities") of this Brochure for more information.

Although, in some instances, allocating orders among BlackRock Clients can create potential conflicts of interest because of the interests of members of the BlackRock Group or because BlackRock receives greater fees or compensation from certain BlackRock Clients, BlackRock Investment Advisers will not make allocation decisions based on such interests or greater fees or compensation. Notwithstanding the foregoing, and considering BlackRock's policy to treat all eligible BlackRock Clients fairly and equitably over time, any particular allocation decision among accounts can be more or less advantageous to any one BlackRock Client or group of BlackRock Clients and certain allocations, to the extent consistent with BlackRock's fiduciary obligations, deviate from a pro rata basis among BlackRock Clients in order to address legal, tax, regulatory, fiduciary, risk management, and other considerations. In any given circumstance, BlackRock also will consider client guidelines, the source of the investment opportunity, the nature of the mandate, the timing of a given fund or account's closing, contractual obligations, the respective committed capital of the relevant BlackRock Clients, legal or regulatory requirements, and other considerations, as applicable.

For example, BlackRock Investment Advisers allocate investment opportunities among client accounts based upon the nature of the investment opportunity and an assessment of the appropriateness of that opportunity for a client's account, taking into consideration the various risk characteristics associated with the investment opportunity and the relative risk profiles of the client account ("allocation metrics"). The risks considered in determining the allocation metrics for a group of accounts include, without limitation; (i) the type of security being considered; (ii) the security-, issuer- and/or industry-specific risks; (iii) the actual or expected liquidity of the security; and (iv) current and expected concentrations and exposures. In certain cases, BlackRock Investment Advisers will determine that an investment opportunity or particular purchases or sales are appropriate for one or more BlackRock Clients or for the BlackRock Group, but not for other BlackRock Clients, or are appropriate for, or available to, BlackRock Clients but in different sizes, terms, or timing than is appropriate for other BlackRock Clients, or determine not to allocate to or purchase or sell for certain BlackRock Clients all investment transactions for which all BlackRock Clients may be eligible.

BlackRock Investment Advisers, in appropriate circumstances, will aggregate securities trades for a BlackRock Client with similar trades for other BlackRock Clients, but are not required to do so. In particular, a BlackRock Investment Adviser will determine not to aggregate transactions that relate to portfolio management decisions that are made independently for different accounts or if it determines that aggregation is not practicable, not required or inconsistent with, client direction. When transactions are aggregated and it is not possible, due to prevailing trading activity or otherwise, to receive the same price or execution on the entire volume of securities purchased or sold, the various prices will be averaged, in which case all participating accounts generally will be charged or credited with the average price. In addition, under certain circumstances, BlackRock Clients will not be charged the same commission or commission equivalent rates in connection with a bunched or aggregated order. The effect of the aggregation therefore, on some occasions could either advantage or disadvantage a particular BlackRock Client.

From time to time, aggregation will not be possible because a security is thinly traded or otherwise not able to be aggregated and allocated among all client accounts seeking the investment opportunity or a BlackRock Client will be limited in, or precluded from, participating in an aggregated trade as a result of that BlackRock Client's specific brokerage arrangements, as discussed above. In these cases, the BlackRock Investment Advisers generally will choose to allocate on a non-pro rata basis such as through random or rotational allocations among eligible accounts in such a manner as to reasonably assure that BlackRock Clients are treated fairly and equitably over time. Also, BlackRock Clients can become subject to threshold limitations on aggregate and/or portfolio-level ownership interests in certain companies arising from statutory, regulatory or self-regulatory organization requirements, or company ownership restrictions (e.g., poison pills or other restrictions in organizational documents). In these circumstances, the BlackRock Client will be competing for investment opportunities with other BlackRock Clients. Similarly, some BlackRock Clients will be limited or restricted in their ability to participate in certain initial public offerings pursuant to FINRA rules. This will result in client accounts not being able to fully participate, or to participate at all, in such opportunities.

Given all of the foregoing factors, the amount, timing, structuring, or terms of an investment by BlackRock Clients will differ from, and performance can be lower than, investments and performance of other BlackRock Clients, including

those which provide greater fees or other compensation (including performance-based fees) to BlackRock Investment Advisers or are accounts in which members of the BlackRock Group have an interest. The offering documents of certain funds and accounts may include additional information about the allocation of investment opportunities, trade aggregation, and conflicts of interest generally, and include information about the allocation procedures and processes directly applicable to that fund or account.

### **DIRECTED BROKERAGE**

In certain circumstances, BlackRock accepts direction from clients or agrees to limitations with respect to BlackRock's brokerage discretion as to which brokers or dealers are to be used in effecting transactions for client accounts. Clients who direct BlackRock to use a particular broker or dealer, or otherwise limit BlackRock's brokerage discretion, should be aware that, this direction can limit BlackRock in obtaining volume discounts on aggregated orders, or in selecting brokers or dealers on the basis of best price and execution. Clients who direct brokerage can have execution of their orders delayed, since (as discussed above) in certain instances BlackRock will fill directed trades after block trading activity is completed for a particular security.

### **NON-DISCRETIONARY ACCOUNTS**

If a client has retained a BlackRock Investment Adviser to manage an account on a non-discretionary basis ("Non-Discretionary Clients"), there is the potential for the Client to be disadvantaged because the BlackRock Investment Adviser generally must obtain the Non-Discretionary Client's approval prior to effecting investment transactions on their behalf (unless otherwise agreed to with the client). In some instances, Non-Discretionary Clients will not receive notification of proposed trades from the BlackRock Investment Adviser and/or will not provide consent to such trades until after BlackRock's discretionary accounts have finished trading. Therefore, Non-Discretionary Clients will not always benefit from aggregated or "bunched" orders, resulting in a delay in execution of orders, and resulting in their accounts receiving a price that potentially is less favorable than that obtained for discretionary accounts. In addition, in certain instances, Non-Discretionary Clients are precluded from participating in certain investment opportunities that are available to discretionary clients if BlackRock is unable to obtain the client's consent in a timely fashion. As a result of these and other factors, the performance of non-discretionary accounts can differ from (and be better or worse than) the performance of discretionary accounts following the same investment strategy.

A BlackRock Investment Adviser may also provide due diligence support to BlackRock Clients on a non-discretionary basis for investment opportunities brought by such BlackRock Client to the BlackRock Investment Adviser. Typically, the investments for which due diligence support is provided will not be available for allocation to other BlackRock Clients.

### **CHANGES TO BLACKROCK'S BROKERAGE ARRANGEMENTS**

A BlackRock Investment Adviser may choose, from time to time, to alter or not to engage in the above described arrangements to varying degrees, without notice to BlackRock Clients, to the extent permitted by applicable law and the applicable client agreement.

## Item 13 Review of Accounts

BlackRock periodically reviews client accounts and provides reports to clients regarding their accounts. The nature and frequency of these reviews, as well as the frequency and content of these reports, is discussed in more detail below.

### **NATURE AND FREQUENCY OF CLIENT ACCOUNT REVIEW**

Depending on the nature of an institutional client's portfolio, the client's own monitoring capabilities, the type of advice and the arrangements made with the client, BlackRock's frequency of client account reviews ranges from daily to quarterly. The level of review can encompass the client's portfolio, a section of the portfolio, or a specific transaction or investment. Additional reviews can be triggered by changes in the investment objectives or guidelines of a particular client or specific arrangements with particular clients. The frequency, depth, and nature of reviews are often determined by negotiation with individual clients pursuant to the terms of each client's written IMA or by the mandate selected by the client and the particular needs of each client. Reviews typically are conducted by portfolio management and account management personnel. BlackRock holds periodic staff meetings to determine the timing, level and focus of specific client reviews and to review the appropriateness of the review already completed.

### **FREQUENCY AND CONTENT OF CLIENT ACCOUNT REPORTS**

The frequency and content of reports for institutional clients vary according to the particular needs of each client and the agreement between the client and an Adviser. Such reports generally contain information with respect to portfolio holdings, transactions, and performance.

## Item 14 Client Referrals and Other Compensation

### **PAYMENTS TO BLACKROCK BY A NON-CLIENT IN CONNECTION WITH ADVICE PROVIDED TO A CLIENT**

Certain retirement and/or pension plan sponsors will pay management fees in connection with advice provided by BlackRock to such plan directly to BlackRock instead of having the management fee deducted from the retirement or pension plan assets.

### **SOLICITATION, INTRODUCTION OR PLACEMENT ARRANGEMENTS**

From time to time, BlackRock compensates certain affiliated and unaffiliated persons or entities (e.g., Merrill Lynch, Pierce, Fenner & Smith Incorporated, Winklevoss, LLC) for client referrals or introductions to BlackRock or placements of interests in Private Funds, in compliance with applicable law, including circumstances where, in connection with discrete advisory transactions, BlackRock or an affiliate will pay or split a portion of the fees with an unaffiliated third-party for assisting in obtaining a specific client. The material terms of such arrangements will be disclosed to relevant clients or investors. BlackRock informs each Private Fund investor that is the subject of such placement services that the third-party placement agent will be compensated by the investor, the Private Fund or BlackRock, as the case may be. The name of the third-party providing the services also is disclosed to each relevant Private Fund investor, along with the nature of any affiliation between the third-party and BlackRock. From time to time, investors also will be introduced to a Private Fund by the Private Fund's prime broker. Because an increase in the size of a Private Fund would likely result in additional compensation to the prime broker, the prime broker receives a benefit from such introductions.

Certain BlackRock affiliates, such as BRIL in the U.S., serve as the appointed distributor to many of the iShares ETFs. In this capacity, the BlackRock affiliates contract with authorized participants (also called participating dealers in some jurisdictions) to facilitate the creation and redemption of the iShares ETFs. In the U.S., these activities may be deemed participation in a distribution of the iShares ETFs for statutory purposes.

With respect to client solicitation arrangements, the Advisers Act requires that, among other things, compensation to a solicitor be made pursuant to a written agreement and, for third-party solicitor arrangements, that the solicitor provide to each person solicited for BlackRock's advisory services, a written disclosure statement (the "Solicitor's Disclosure Statement") and this Brochure (or alternate brochure required or permitted to be provided). The Solicitor's Disclosure Statement contains important information with respect to, among other things, the material terms of the solicitor's compensation from BlackRock, the nature of any relationship or affiliation between the solicitor and BlackRock, whether the client bears any costs with respect to the solicitation and whether the fees paid by such a client may differ from fees paid by other similarly situated clients who are not so introduced, as a result of the solicitation, and these Solicitor's Disclosure Statements should be reviewed carefully by prospective clients.

From time to time and consistent with BlackRock policy and applicable regulation, BlackRock also pays for, or reimburses broker-dealers to cover, various costs arising from, or activities that may result in, the sale of advisory products or services, including: (i) client and prospective client meetings and entertainment; (ii) sales and marketing materials; (iii) educational and training meetings or entertainment activities with the registered representatives of such broker-dealers and other personnel from entities that distribute BlackRock's products and/or services; and (iv) charitable donations in connection with events involving personnel or clients of entities that distribute BlackRock's products and/or services.

## Item 15 Custody

BlackRock may be deemed to have custody of its clients' assets including, without limitation, because certain clients authorize BlackRock to receive its advisory fees out of the assets in such clients' accounts by sending invoices to the respective custodians of those accounts. Such clients generally will receive account statements directly from their third-party custodians for the accounts and should carefully review these statements. Such clients should contact BlackRock immediately if they do not receive account statements from their custodian on at least a quarterly basis. As noted in Item 13 ("Review of Accounts") of this Brochure, the frequency and content of reports provided by BlackRock to clients vary according to the particular needs of each client and the agreement between the client and the Adviser. Clients should compare any reports provided by BlackRock with the account statements received from the custodian. If clients discover any discrepancy between the account statement provided by BlackRock and the account statement provided by the custodian, then they should contact BlackRock immediately.

BlackRock also could be deemed to have custody of certain Private Funds advised by an Adviser for which it or an affiliate serves as managing member or general partner. In addition, BlackRock may be deemed to have custody of certain aggregating vehicles for which an Adviser or an affiliate serves as managing member or general partner and through which certain clients (including Private Funds and separate account clients) make one or more investments. Investors in such Private Funds or aggregating vehicles generally will receive the vehicle's annual audited financial statements. Such investors should review these statements carefully. If investors in the Private Funds or aggregating vehicles do not receive audited financial statements in a timely manner (120 days for most Private Funds and aggregating vehicles and 180 days for Private Funds that are Funds of Funds), then they should contact BlackRock immediately.

To the extent that a Private Fund or aggregating vehicle for which BlackRock is deemed to have custody does not provide investors with its annual financial statements as described above, such investors will instead receive quarterly account statements from the qualified custodian of such Private Fund or aggregating vehicle and should contact BlackRock immediately if they fail to receive such account statements.

## **Item 16 Investment Discretion**

As a general rule, each Adviser receives discretionary (or non-discretionary) investment authority from its clients at the outset of an advisory relationship. Depending on the terms of the applicable IMA, the Adviser's authority could include the ability to select brokers and dealers through which to execute transactions on behalf of its clients, and to negotiate the commission rates, if any, at which transactions are effected. In making decisions as to which securities are to be bought or sold and the amounts thereof, each Adviser is guided by the mandate selected by the client and any client-imposed guidelines or restrictions. Unless the Adviser and the client have entered into a non-discretionary arrangement, the Adviser generally is not required to provide notice to, consult with, or seek the consent of its clients prior to engaging in transactions. Please see Item 12 ("Brokerage Practices") of this Brochure for more information.



## Item 17 Voting Client Securities

Certain Private Funds managed by BlackRock and other BlackRock Clients have delegated the authority to vote proxies to BlackRock. Consistent with applicable rules under the Advisers Act, BlackRock has adopted and implemented written proxy voting policies and procedures (“Proxy Voting Guidelines”) that are reasonably designed: (i) to vote proxies, consistent with its fiduciary obligations, in the best interests of clients; and (ii) to prevent conflicts of interest from influencing proxy voting decisions made on behalf of clients. Nevertheless, when votes are cast in accordance with the Proxy Voting Guidelines and in a manner that BlackRock believes to be consistent with its fiduciary obligations, actual proxy voting decisions made on behalf of one client can have the effect of favoring or harming the interests of other clients, BlackRock, or its affiliates.

BlackRock provides proxy voting services as part of its investment management service to client accounts and does not separately charge a fee for this service. This function is executed by a team of dedicated BlackRock employees without sales responsibilities (the “Investment Stewardship Group”), which is considered an investment function. BlackRock maintains oversight committees (“Investment Stewardship Committees”) comprising senior BlackRock investment professionals for the following regions: Americas; Europe; Middle East and Africa; Asia Pacific; and Global. The Investment Stewardship Committees review and approve amendments to BlackRock’s proxy voting guidelines (the “Guidelines”) and grant authority to the Global Head of Corporate Governance (“Global Head”), a dedicated BlackRock employee without sales responsibilities, to vote in accordance with the Guidelines. The Global Head leads the Investment Stewardship Group to carry out engagement, voting, and vote operations in a manner consistent with the relevant Corporate Governance Committee’s mandate. In conjunction with portfolio managers, the Investment Stewardship Group engages companies in discussions of significant governance issues, conducts research on corporate governance issues and participates in industry discussions to keep abreast of the field of corporate governance. The Investment Stewardship Group, or vendors overseen by the Investment Stewardship Group, also monitor upcoming proxy votes, execute proxy votes and maintain records of votes cast. The Investment Stewardship Group has adopted policies and procedures to provide ongoing oversight of any vendors used to vote proxies in the best interest of clients. The Investment Stewardship Group will refer complicated or particularly controversial matters or discussions to the appropriate investors and/or regional Investment Stewardship Committees for their review, discussion, and guidance prior to making a voting decision. BlackRock’s Equity Policy Oversight Committee oversees certain aspects of the Global Corporate Governance Committee and the Investment Stewardship Group’s activities.

BlackRock votes (or refrains from voting) proxies for each client for which it has voting authority based on BlackRock’s evaluation of the best long-term economic interests of shareholders, in the exercise of its independent business judgment, and without regard to the relationship of the issuer of the proxy (or any dissident shareholder) to the client, the client’s affiliates (if any), BlackRock, or BlackRock’s affiliates.

When exercising voting rights, BlackRock will normally vote on specific proxy issues in accordance with the Guidelines for the relevant market. The Guidelines are reviewed regularly and are amended consistent with changes in the local market practice, as developments in corporate governance occur, or as otherwise deemed advisable by BlackRock’s Investment Stewardship Committees. From time to time, the Investment Stewardship Committees, in the exercise of their business judgment, will conclude that the Guidelines do not cover the specific matter upon which a proxy vote is requested or that an exception to the Guidelines would be in the best long-term economic interests of BlackRock’s Clients.

In certain markets, proxy voting involves logistical issues which can affect BlackRock’s ability to vote such proxies, as well as the desirability of voting such proxies. These issues include but are not limited to: (i) untimely notice of, shareholder meetings; (ii) restrictions on a foreigner’s ability to exercise votes; (iii) requirements to vote proxies in person; (iv) “share blocking” (requirements that investors who exercise their voting rights surrender the right to dispose of their holdings for some specified period in proximity to the shareholder meeting); (v) potential difficulties in translating the proxy; (vi) requirements to provide local agents with unrestricted powers of attorney to facilitate voting instructions; and (vii) regulatory threshold constraints.

As a consequence, BlackRock votes proxies only on a “best-efforts” basis. In addition, the Investment Stewardship Committees may in some circumstances determine that it is generally in the best interests of BlackRock Clients not

to vote proxies if the committee determines that the costs (including but not limited to opportunity costs associated with share blocking constraints) associated with exercising a vote are expected to outweigh the benefit the client will derive by voting on the issuer's proposal.

While it is expected that BlackRock, as a fiduciary, generally will seek to vote proxies over which BlackRock exercises voting authority in a uniform manner for all BlackRock Clients, in certain circumstances, the portfolio manager of an account, in consultation with the Investment Stewardship Group, will determine that the specific circumstances of an account require that account's proxies be voted differently due to such account's investment objective or other factors that differentiate it from other accounts. In addition, BlackRock believes portfolio managers from time to time legitimately will reach differing but equally valid views, for their funds and the client assets in those funds, on how best to maximize economic value in respect of a particular investment. Accordingly, portfolio managers retain full discretion to vote the shares in the accounts they manage based on their analysis of the economic impact of a particular ballot item.

BlackRock maintains policies and procedures that are designed to prevent undue influence on BlackRock's proxy voting activity that might stem from any relationship between the issuer of a proxy (or any dissident shareholder) and BlackRock, BlackRock's affiliates, a fund or a fund's affiliates. BlackRock manages most conflicts through the structural separation of the Investment Stewardship Group from employees with sales responsibilities. In certain instances, BlackRock will determine to engage an independent fiduciary to vote proxies as a further safeguard to avoid potential conflicts of interest or as otherwise required by applicable law. The independent fiduciary either will vote such proxies, or provide BlackRock with instructions as to how to vote such proxies. In the latter case, BlackRock votes the proxy in accordance with the independent fiduciary's determination. Use of an independent fiduciary has been adopted for voting the proxies related to any company that is affiliated with BlackRock, or any company that includes BlackRock employees on its board of directors.

With respect to fixed income securities or the securities of privately held issuers, proxy voting decisions generally will be made by the portfolio manager of an account or private fund and/or the Investment Stewardship Group based on their assessment of the particular transactions or other matters at issue.

Clients that have not granted BlackRock voting authority over securities held in their accounts will receive their proxies in accordance with the arrangements they have made with their service providers. BlackRock generally does not provide proxy voting recommendations to clients who have not granted BlackRock voting authority over their securities.

With regard to the relationship between securities lending and proxy voting, BlackRock's approach is driven by its clients' economic interests. The evaluation of the economic desirability of voting proxies for securities that are on loan involves balancing the likely economic significance of voting those securities against the revenue-producing value of the loan. Based on BlackRock's evaluation of this relationship, we believe that generally the likely value of casting most votes is less than the securities lending income, either because the votes will not have significant economic consequences or because the outcome of the vote would not be affected by the Adviser recalling loaned securities in order to ensure they are voted. In certain instances however, BlackRock in its discretion will determine that the value of voting outweighs the cost of recalling shares, and thus recall shares to vote in that instance.

BlackRock will provide clients, upon request, a copy of the Proxy Voting Guidelines, which is also available at:

<http://www.blackrock.com/corporate/en-us/about-us/investment-stewardship/voting-guidelines-reports-position-papers> - ("Global Corporate Governance Guidelines & Engagement Principles"). BlackRock also will provide clients, upon request with, information regarding how BlackRock voted their proxies. Except with respect to U.S. Private Funds and third-party funds registered under the Investment Company Act and sub-advised by an Adviser ("Sub-Advised Funds") where disclosure is mandated by SEC rules, BlackRock will not disclose how it voted for a client to third-parties, unless specifically requested, in writing, by the client. However, where BlackRock serves as a sub-adviser to another adviser to a client, BlackRock will be deemed to be authorized to provide proxy voting records with respect to such accounts to that adviser. In addition, information on how BlackRock voted proxies for certain BlackRock US Funds can be found at:

<http://www.blackrock.com/corporate/en-us/about-us/investment-stewardship/voting-guidelines-reports-position-papers> - (Reports - Proxy Voting History).

## Item 18 Financial Information

Not Applicable

## GLOSSARY

ABR Re – ABR Reinsurance Capital Holdings Ltd. and its subsidiary ABR Reinsurance Ltd.

ABR Re Transaction – BlackRock, Inc. and Chubb Limited (“Chubb”) partial funding of the creation of ABR Reinsurance Capital Holdings Ltd., together with its wholly owned subsidiary ABR Reinsurance Ltd.

Account – A fund or account

Adviser Private Funds – Any Private Fund managed or advised by any of the Advisers, including, without limitation, Global Energy & Power Infrastructure Advisors, L.L.C. and Global Energy & Power Infrastructure II Advisors, L.L.C., together with their respective alternative investment vehicles and co-investment vehicles

Advisers – BlackRock Alternatives Management, LLC, Global Energy & Power Infrastructure Advisors, L.L.C. and Global Energy & Power Infrastructure II Advisors, L.L.C., all wholly-owned direct or indirect subsidiaries of BlackRock, Inc.

Advisers Act – Investment Advisers Act of 1940, as amended

Affiliated Accounts – Portfolios managed by BlackRock Investment Advisers

Affiliated Funds – “US Registered Funds” or other pooled investment vehicles (including Private Funds) for which BlackRock Investment Advisers serve as investment adviser or sub-adviser collectively

Allocation Policy – BlackRock’s investment allocation policy and related guidelines, together with the supplemental allocation policies of certain BlackRock Group members for making allocation decisions among BlackRock Client accounts managed by such members of the BlackRock Group

AIFs – Alternative investment funds

ATS – Alternative Trading System

BAA – BlackRock Alternative Advisors, a business unit of BlackRock, Inc.

BAL – BlackRock Advisors, LLC

BALUK – BlackRock Advisors (UK) Limited

BAMLLC – BlackRock Alternatives Management, LLC

BAMNAL – BlackRock Asset Management North Asia Limited

BAMS – BlackRock Asset Management Schweiz AG

Bank Holding Company Act – Bank Holding Company Act of 1956, as amended

BCIA - BlackRock Capital Investment Advisors LLC

BCM – BlackRock Capital Management, Inc.

BES – BlackRock Execution Services

BFA – BlackRock Fund Advisors

BFM – BlackRock Financial Management, Inc.

BIL – BlackRock International Limited

BIM – BlackRock Investment Management, LLC

BIS – BlackRock Index Services, LLC

BIS Index – Index developed by BlackRock Index Services, LLC

BlackRock – BlackRock, Inc. together with its subsidiaries

BlackRock Australia – BlackRock Investment Management (Australia) Limited

BlackRock Clients – Investment management clients of BlackRock, Inc. and its subsidiaries

BlackRock Group – Collectively, BlackRock and its directors, managers, members, officers, and employees

BlackRock Investment Advisers – The various investment advisory and trust company subsidiaries of BlackRock, Inc.

BlackRock Japan – BlackRock Japan Co., Ltd.

BlackRock US Funds – the BlackRock Equity-Bond Complex (consisting of various open-end mutual funds, including variable insurance funds), the BlackRock Closed-End Complex (consisting principally of publicly traded closed-end investment companies), the US iShares Complex (consisting of open-ended investment companies commonly referred to as ETFs, which trade in the secondary market,) and the BlackRock Equity-Liquidity Complex (consisting of various open-end investment companies, including money market funds serving the institutional and retail market)

BRIL – BlackRock Investments, LLC

BRS – BlackRock Solutions®

BSL – BlackRock (Singapore) Limited

BTC – BlackRock Institutional Trust Company, N.A.

CFTC – U.S. Commodities Futures Trading Commission

Chubb – Chubb Limited

Code – Collectively, BlackRock Global Personal Trading Policy and BlackRock's Code of Business Conduct and Ethics

Dodd-Frank Act – Dodd-Frank Wall Street Reform and Consumer Protection Act

DOL – U.S. Department of Labor

DSP India – DSP BlackRock Investment Managers Private Limited

ECN – Electronic Communication Network

ERISA – Employee Retirement Income Security Act of 1974, as amended

ETFs – Exchange traded funds

EU – European Union

Exchange Act – The Securities Exchange Act of 1934, as amended

Fair Value Assets – Assets which are valued by BlackRock in accordance with BlackRock's valuation procedures or, when held in a BlackRock-sponsored registered investment company, in accordance with valuation and liquidity procedures approved by the investment company's board of directors.

FINRA – The Financial Industry Regulatory Authority

First Reserve – First Reserve Partners, L.P. and First Reserve Management, L.P. FMA – BlackRock's Financial Markets Advisory Group

Funds of Funds – Funds that invest primarily in other affiliated or unaffiliated investment vehicles

GEPIA – Global Energy & Power Infrastructure Advisors, L.L.C.



GEPIA II – Global Energy & Power Infrastructure II Advisors, L.L.C.

Guidelines – BlackRock's proxy voting guidelines

GVMC – BlackRock's Global Valuation Methodologies Committee

iCapital – iCapital Networks

IMA – Investment management agreement

Investment Company Act – The Investment Company Act of 1940, as amended

Investment Consultants – Pension or other institutional investment consultants

Investor – A particular investor in a Private Fund

IRC – Internal Revenue Code

Luminex – Luminex Trading & Analytics LLC

MPS – Minority Passive Shareholder

NFA – National Futures Association

NYSE – New York Stock Exchange

OM – Offering memorandum

Operating Events – Trade errors and other operational mistakes made in connection with an Adviser's management of funds and client accounts

PAC – Political Action Committee

PFSI - PennyMac Financial Services, Inc., together with its subsidiaries

PNC – The PNC Financial Services Group, Inc.

PNC Affiliates – PNC and its other affiliates, directors, partners, trustees, managers, members, officers, and employees collectively

PNC Broker-Dealers – Subsidiaries of PNC that are registered broker-dealers

PNMAC – Private National Mortgage Acceptance Company, LLC

Private Fund – Unregistered pooled investment vehicles advised by an Adviser and not registered with the SEC pursuant to exemptions under applicable securities

Portfolios – Funds and client accounts of an Adviser

PPAs – Power purchase agreements

Private Fund – Single investor funds and commingled investment vehicles, that would be investment companies as defined in the Investment Company Act, but for section 3(c)(7) or 3(c)(7) thereof

Proxy Voting Guidelines – The written proxy voting policies and procedures adopted and implemented by BlackRock

Rating Agency – Credit rating agencies, including nationally recognized statistical rating organizations

RQA – BlackRock's Risk & Quantitative Analysis Group

Rules – Collectively, Rule 17j-1 under the Investment Company Act and Rule 204A-1 under the Advisers Act

Service Clients – Various clients for which the BlackRock Group and/or PNC Affiliates provide a variety of services and advice (including investment banking services, fairness opinions and extensions of credit provided by PNC)

SEC – U.S. Securities and Exchange Commission

Securities Act – The Securities Act of 1933, as amended

Service Provider – Service providers providing custodial services to BlackRock Clients or funds managed by a BlackRock Investment Adviser

SMA Program – Separately managed account or wrap fee program

Solicitor's Disclosure Statement – A written disclosure statement provided by the solicitor to each person solicited for BlackRock's advisory services

Sub-Advised Funds – Third-party funds registered under the Investment Company Act and sub-advised by an Adviser

Systems – Certain BlackRock trading, portfolio management, operations and/or information systems

Third-Party Fees – The commitment fees, break-up fees, directors' fees consulting fees, transaction fees, advisory fees, closing fees and other similar fees from a portfolio investment of a Private Funds or separate account, respectively, as well as, placement or other similar fees payable to a broker that an Adviser or one of its employees or affiliates receives at times

Transaction – The transaction entered into among First Reserve and BlackRock, Inc. pursuant to which BlackRock, Inc. acquired the energy infrastructure business of First Reserve by acquiring 100% of the equity interests of Global Energy & Power Infrastructure Advisors, L.L.C. and Global Energy & Power Infrastructure II Advisors, L.L.C. and the entities that control, or serve as, the general partners of Global Energy & Power Infrastructure Fund I, L.P., Global Energy & Power Infrastructure Fund II, L.P. and their respective alternative investment vehicles and co-investment vehicles

U.S. – United States

US iShares ETFs – BlackRock's exchange traded registered investment companies which are part of the US iShares ETF Complex

U.S. Persons – Persons as defined under Regulation S of the Securities Act of 1933

US Registered Funds – BlackRock's proprietary funds registered under the Investment Company Act, together with the "Sub-Advised Funds"

VOC – BlackRock's Valuation Oversight Committee

Volcker Rule – Section 13 of the Bank Holding Company Act and Regulation VV (12 C.F.R. Part 248) promulgated thereunder, as amended

## BlackRock Privacy Principles

The following Privacy Principles govern how BlackRock handles, safeguards and protects non-public personal information as defined by applicable local laws and regulations (“personally identifiable information / PII”).

1. BlackRock is committed to maintaining the privacy of individuals whose PII is held at BlackRock including current and former individual clients (whether invested in funds or otherwise) and other intermediaries with whom we conduct business.
2. BlackRock obtains or verifies PII from different sources, including the following:
  - Directly from Individuals;
  - From financial intermediaries;
  - Information provided in applications, forms or other documents;
  - Information BlackRock receives from a consumer reporting agency;
  - Information collected when an individual visits BlackRock’s websites.

Specifically, BlackRock is committed to the following:

- Obtaining PII fairly and lawfully;
  - Handling PII fairly and lawfully in accordance with the Individual’s rights;
  - Keeping PII accurate and up to date; and
  - Protecting PII from unlawful disclosure;
  - Retaining PII only for as long as is necessary.
3. BlackRock does not sell PII or disclose PII about individuals to unaffiliated third parties, except as may be required by law, or to service client accounts (as allowed by law in the relevant jurisdiction), or with the Individual’s express consent. If PII is provided to a third party, such third party is required to protect the confidentiality and security of this information and to use it only for its intended purpose.
  4. BlackRock may be required to disclose PII in response to lawful requests by public and regulatory authorities, including to meet national security or law enforcement requirements.
  5. BlackRock may share PII with its affiliates to service a client’s account. BlackRock may directly or through service providers use PII to provide clients with information about other products or services of BlackRock that may be of interest to them, except where local laws or client contracts prohibit such sharing.
  6. BlackRock restricts access to PII to those BlackRock employees with a legitimate business need for the information.
  7. BlackRock maintains physical, electronic and procedural safeguards that are designed to protect PII, including procedures relating to the proper storage and disposal of such information.

Individuals may contact BlackRock at any time to confirm, update or verify the PII held by BlackRock or to confirm, update or verify the purposes for which that PII may be used.