

BlackRock Funds
Estimated Distributions

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Fund	Record Date	Ex-Date	Payable Date	Estimated Income Distribution	Estimated Short-Term Capital Gain Distribution	Estimated Long-Term Capital Gain Distribution
BlackRock 20/80 Target Allocation Fund	12/28/18	12/31/18	01/02/19	2% - 3%	-	1% - 2%
BlackRock 40/60 Target Allocation Fund	12/28/18	12/31/18	01/02/19	1% - 2%	0% - 1%	5% - 6%
BlackRock 60/40 Target Allocation Fund	11/12/18	11/13/18	11/14/18	0% - 1%	1% - 2%	4% - 5%
BlackRock 60/40 Target Allocation Fund	12/28/18	12/31/18	01/02/19	0% - 1%	-	0% - 1%
BlackRock 80/20 Target Allocation Fund	12/28/18	12/31/18	01/02/19	0% - 1%	2% - 3%	3% - 4%
BlackRock Advantage Emerging Markets Fund	12/13/18	12/14/18	12/17/18	-	-	-
BlackRock Advantage Global Fund	11/26/18	11/27/18	11/28/18	1% - 2%	1% - 2%	0% - 1%
BlackRock Advantage International Portfolio	12/04/18	12/05/18	12/06/18	2% - 3%	-	-
BlackRock Advantage Large Cap Core Fund	11/12/18	11/13/18	11/14/18	1% - 2%	3% - 4%	3.5% - 4.5%
BlackRock Advantage Large Cap Growth Fund	12/04/18	12/05/18	12/06/18	0% - 1%	6% - 7%	1% - 2%
BlackRock Advantage Large Cap Value Fund	11/26/18	11/27/18	11/28/18	1% - 2%	4% - 5%	3% - 4%
BlackRock Advantage Small Cap Core Fund	12/04/18	12/05/18	12/06/18	0% - 1%	2% - 3%	0% - 1%
BlackRock Advantage Small Cap Growth Fund	12/04/18	12/05/18	12/06/18	0% - 1%	7% - 8%	10% - 11%
BlackRock Advantage U.S. Total Market Fund	12/04/18	12/05/18	12/06/18	0% - 1%	1% - 2%	0% - 1%
BlackRock All-Cap Energy & Resources Portfolio	12/04/18	12/05/18	12/06/18	1% - 2%	-	-
BlackRock Allocation Target Shares - A Portfolio	12/27/18	12/28/18	12/31/18	0% - 1%*	-	0% - 1%
BlackRock Allocation Target Shares - C Portfolio	12/19/18	12/20/18	12/21/18	**	0% - 1%	0% - 1%
BlackRock Allocation Target Shares - E Portfolio	12/19/18	12/20/18	12/21/18	0% - 1%*	0% - 1%	0% - 1%
BlackRock Allocation Target Shares - M Portfolio	12/19/18	12/20/18	12/21/18	0% - 1%*	-	-
BlackRock Allocation Target Shares - P Portfolio	12/27/18	12/28/18	12/31/18	0% - 1%	-	-
BlackRock Allocation Target Shares - S Portfolio	12/19/18	12/20/18	12/21/18	**	-	-
BlackRock Alternative Capital Strategies Fund	12/27/18	12/28/18	12/31/18	0% - 1%	1% - 2%	-
BlackRock Asian Dragon Fund	12/04/18	12/05/18	12/06/18	1% - 2%	0% - 1%	2.5% - 3.5%
BlackRock Balanced Capital Fund	12/19/18	12/20/18	12/21/18	0% - 1%	2% - 3%	2% - 3%
BlackRock Basic Value Fund	11/26/18	11/27/18	11/28/18	1% - 2%	0% - 1%	18% - 19%
BlackRock California Municipal Opportunities Fund	12/06/18	12/07/18	12/10/18	0% - 1%*	0% - 1%	1% - 2%
BlackRock Capital Appreciation Fund	12/04/18	12/05/18	12/06/18	-	0% - 1%	10% - 11%
BlackRock Commodity Strategies Fund	12/04/18	12/05/18	12/06/18	1% - 2%	-	-
BlackRock Core Bond Portfolio	12/20/18	12/21/18	12/24/18	0% - 0.5%*	-	-
BlackRock CoreAlpha Bond Fund	12/13/18	12/14/18	12/17/18	0% - 0.5%*	-	-
BlackRock Credit Strategies Income Fund	12/20/18	12/21/18	12/24/18	0% - 1%*	-	-
BlackRock Dynamic High Income Portfolio	12/20/18	12/21/18	12/24/18	**	-	-
BlackRock Emerging Markets Bond Fund	12/19/18	12/20/18	12/21/18	**	-	-
BlackRock Emerging Markets Dividend Fund	12/04/18	12/05/18	12/06/18	0% - 1%	-	2% - 3%
BlackRock Emerging Markets Equity Strategies Fund	12/27/18	12/28/18	12/31/18	19% - 21%	-	-
BlackRock Emerging Markets Flexible Dynamic Bond Portfolio	12/20/18	12/21/18	12/24/18	**	-	-
BlackRock Emerging Markets Fund	12/13/18	12/14/18	12/17/18	0% - 1%	-	-
BlackRock Emerging Markets Local Currency Bond Fund	12/19/18	12/20/18	12/21/18	**	-	-
BlackRock Energy & Resources Portfolio	12/04/18	12/05/18	12/06/18	0% - 1%	-	-
BlackRock Equity Dividend Fund	11/26/18	11/27/18	11/28/18	0% - 1%	0% - 1%	8% - 9%
BlackRock EuroFund	12/04/18	12/05/18	12/06/18	1% - 2%	-	-
BlackRock Event Driven Equity Fund	12/19/18	12/20/18	12/21/18	0% - 1%*	1% - 2%	-
BlackRock Exchange Portfolio	12/27/18	12/28/18	12/31/18	1% - 2%	-	-
BlackRock Floating Rate Income Portfolio	12/20/18	12/21/18	12/24/18	0% - 1%*	-	-
BlackRock Focus Growth Fund	12/04/18	12/05/18	12/06/18	-	-	4% - 5%
BlackRock Global Allocation Fund	12/18/18	12/19/18	12/20/18	0% - 1%	-	4% - 5%

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Fund	Record Date	Ex-Date	Payable Date	Estimated Income Distribution	Estimated Short-Term Capital Gain Distribution	Estimated Long-Term Capital Gain Distribution
BlackRock Global Dividend Portfolio	12/04/18	12/05/18	12/06/18	0% - 1%	-	3% - 4%
BlackRock Global Long/Short Credit Fund	12/20/18	12/21/18	12/24/18	4.5% - 5.5%	-	-
BlackRock Global Long/Short Equity Fund	12/18/18	12/19/18	12/20/18	-	-	0% - 1%
BlackRock GNMA Portfolio	12/20/18	12/21/18	12/24/18	0% - 1%*	-	-
BlackRock Health Sciences Opportunities Portfolio	12/04/18	12/05/18	12/06/18	0% - 1%	0% - 1%	7% - 8%
BlackRock High Equity Income Portfolio	12/04/18	12/05/18	12/06/18	0% - 1%	0% - 1%	3% - 4%
BlackRock High Yield Bond Portfolio	12/20/18	12/21/18	12/24/18	0% - 1%*	-	-
BlackRock High Yield Municipal Fund	12/06/18	12/07/18	12/10/18	0% - 1%*	-	-
BlackRock Impact Bond Fund	12/19/18	12/20/18	12/21/18	**	-	-
BlackRock Impact U.S. Equity Fund	12/04/18	12/05/18	12/06/18	0% - 1%	1% - 2%	1% - 2%
BlackRock Inflation Protected Bond Portfolio	12/20/18	12/21/18	12/24/18	**	-	-
BlackRock International Dividend Portfolio	12/04/18	12/05/18	12/06/18	0% - 1%	-	3% - 4%
BlackRock International Fund	12/13/18	12/14/18	12/17/18	1% - 2%	-	-
BlackRock Large Cap Focus Growth Fund	12/04/18	12/05/18	12/06/18	-	-	0% - 1%
BlackRock Latin America Fund	12/13/18	12/14/18	12/17/18	0.5% - 1.5%	-	-
BlackRock LifePath Smart Beta 2020 Fund	12/28/18	12/31/18	01/02/19	2% - 3%	-	6% - 7%
BlackRock LifePath Smart Beta 2025 Fund	12/28/18	12/31/18	01/02/19	1% - 2%	0% - 1%	6% - 7%
BlackRock LifePath Smart Beta 2030 Fund	12/28/18	12/31/18	01/02/19	1% - 2%	0% - 1%	4% - 5%
BlackRock LifePath Smart Beta 2035 Fund	12/28/18	12/31/18	01/02/19	1% - 2%	0% - 1%	6% - 7%
BlackRock LifePath Smart Beta 2040 Fund	12/28/18	12/31/18	01/02/19	1% - 2%	0% - 1%	2.5% - 3.5%
BlackRock LifePath Smart Beta 2045 Fund	12/28/18	12/31/18	01/02/19	1% - 2%	0% - 1%	5% - 6.5%
BlackRock LifePath Smart Beta 2050 Fund	12/28/18	12/31/18	01/02/19	1% - 2%	0% - 1%	3% - 4%
BlackRock LifePath Smart Beta 2055 Fund	12/28/18	12/31/18	01/02/19	1% - 2%	0% - 1%	2% - 3%
BlackRock LifePath Smart Beta 2060 Fund	12/28/18	12/31/18	01/02/19	0% - 1%	0% - 1%	0% - 1%
BlackRock LifePath Smart Beta Retirement Fund	12/28/18	12/31/18	01/02/19	2% - 3%	-	5% - 6%
BlackRock Long-Horizon Equity Fund	12/13/18	12/14/18	12/17/18	0% - 1%	0.5% - 1.5%	5% - 6%
BlackRock Low Duration Bond Portfolio	12/20/18	12/21/18	12/24/18	**	-	-
BlackRock Managed Income Fund	12/27/18	12/28/18	12/31/18	0% - 1%*	-	0% - 1%
BlackRock Mid Cap Dividend Fund	12/04/18	12/05/18	12/06/18	0% - 1%	1% - 2%	1% - 2%
BlackRock Mid-Cap Growth Equity Portfolio	12/04/18	12/05/18	12/06/18	-	1% - 2%	2% - 3.5%
BlackRock Multi-Asset Income Portfolio	12/20/18	12/21/18	12/24/18	0% - 1%*	-	-
BlackRock National Municipal Fund	12/06/18	12/07/18	12/10/18	0% - 1%*	-	0% - 1%
BlackRock Natural Resources Trust	11/26/18	11/27/18	11/28/18	1.5% - 2.5%	2% - 3%	10% - 11%
BlackRock New Jersey Municipal Bond Fund	12/06/18	12/07/18	12/10/18	0% - 1%*	-	-
BlackRock New York Municipal Opportunities Fund	12/06/18	12/07/18	12/10/18	0% - 1%*	0% - 1%	1% - 1.5%
BlackRock Pennsylvania Municipal Bond Fund	12/06/18	12/07/18	12/10/18	0% - 1%*	-	-
BlackRock Real Estate Securities Fund	12/04/18	12/05/18	12/06/18	0% - 1%	-	-
BlackRock Technology Opportunities Fund	12/04/18	12/05/18	12/06/18	0% - 1%	-	1% - 2%
BlackRock Short-Term Municipal Fund	12/06/18	12/07/18	12/10/18	**	-	-
BlackRock Strategic Global Bond Fund	12/19/18	12/20/18	12/21/18	0% - 1%*	-	-
BlackRock Strategic Income Opportunities Portfolio	12/20/18	12/21/18	12/24/18	**	-	-
BlackRock Strategic Municipal Opportunities Fund	12/06/18	12/07/18	12/10/18	0% - 1%*	0% - 1%	1% - 2%
BlackRock Tactical Opportunities Fund	12/20/18	12/21/18	12/24/18	2.5% - 3.5%	1% - 2%	1% - 2%
BlackRock Total Emerging Markets Fund	12/18/18	12/19/18	12/20/18	3% - 4%	0% - 1%	1% - 2%
BlackRock Total Factor Fund	12/27/18	12/28/18	12/31/18	1% - 2%	0% - 1%	-
BlackRock Total Return Fund	12/19/18	12/20/18	12/21/18	0% - 0.5%*	-	-

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BlackRock U.S. Government Bond Portfolio	12/20/18	12/21/18	12/24/18	0% - 1%*	-	-
FDP BlackRock CoreAlpha Bond Fund	12/19/18	12/20/18	12/21/18	**	-	-
FDP BlackRock Equity Dividend Fund	12/04/18	12/05/18	12/06/18	0% - 1%	0% - 1%	3% - 4%
FDP BlackRock Capital Appreciation Fund	12/04/18	12/05/18	12/06/18	-	1% - 2%	1% - 2%
FDP BlackRock International Fund	12/04/18	12/05/18	12/06/18	0% - 1%	-	-
iShares Developed Real Estate Index Fund	12/13/18	12/14/18	12/17/18	0.5% - 2%	0% - 1%	0% - 1%
iShares Edge MSCI Min Vol EAFE Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	0% - 1%	0% - 1%
iShares Edge MSCI Min Vol USA Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	-	2% - 3%
iShares Edge MSCI Multifactor Intl Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	1% - 2%	4% - 5%
iShares Edge MSCI Multifactor USA Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	0% - 1%	1% - 2%
iShares Edge MSCI USA Momentum Factor Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	4.5% - 5.5%	4% - 5%
iShares Edge MSCI USA Quality Factor Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	1% - 2%	0% - 1%
iShares Edge MSCI USA Size Factor Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	1% - 2%	0% - 1%
iShares Edge MSCI USA Value Factor Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	0% - 1%	1% - 2%
iShares MSCI Asia ex Japan Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	2% - 3%	2% - 3%
iShares MSCI Developed World Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	1% - 2%	4% - 6%
iShares MSCI EAFE International Index Fund	12/13/18	12/14/18	12/17/18	3% - 4%	-	-
iShares MSCI Total International Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	-	-
iShares Russell 1000 Large-Cap Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	-	-
iShares Russell 2000 Small-Cap Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	0% - 1%	1% - 2%
iShares Russell Mid-Cap Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	0.5% - 1.5%	0% - 1%
iShares Russell Small/Mid-Cap Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	0% - 1%	1% - 2%
iShares S&P 500 Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	-	0% - 1%
iShares Short-Term TIPS Bond Index Fund	12/19/18	12/20/18	12/21/18	0% - 1%*	-	-
iShares Total U.S. Stock Market Index Fund	12/13/18	12/14/18	12/17/18	0% - 1%	0% - 1%	0% - 1%
iShares U.S. Aggregate Bond Index Fund	12/13/18	12/14/18	12/17/18	**	-	-
Managed Account Series: BlackRock GA Disciplined Volatility Equity Fund	12/18/18	12/19/18	12/20/18	0% - 1%	3% - 4%	-
Managed Account Series: BlackRock GA Enhanced Equity Fund	12/18/18	12/19/18	12/20/18	1% - 2%	8% - 8.5%	1% - 1.5%
Managed Account Series: Advantage Global SmallCap Fund	12/04/18	12/05/18	12/06/18	2.5% - 3.5%	4% - 5%	1% - 2%
Managed Account Series: Mid Cap Dividend Fund	12/04/18	12/05/18	12/06/18	0% - 1%	3% - 4%	2% - 3%
Managed Account Series: US Mortgage Portfolio	12/20/18	12/21/18	12/24/18	0% - 1%*	-	-

* This estimated income distribution is in addition to the regular monthly net investment income distribution.

** No special income distribution is projected. The fund will pay its regular monthly net investment income distribution.

Investing involves risks, including possible loss of principal.

You should consider the investment objectives, risks, charges and expenses of each fund carefully before investing. The funds' prospectuses and, if available, the summary prospectuses contain this and other information about the funds and are available, along with information on other BlackRock funds, by calling 800-882-0052 or from your financial professional. The prospectuses and, if available, the summary prospectuses should be read carefully before investing.

Prepared by Blackrock Investments, LLC. Member Finra.

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