

DEUTSCHE BANK AKTIENGESELLSCHAFT

Form FWP

February 02, 2018

Equity Risk Premia An Alternative approach to Equity Market Beta Free Writing Prospectus Filed pursuant to Rule 433 Registration Statement No. 333 - 206013 Dated : February 1, 2018

Page 2 Motivation — Investors are increasingly aware of the need to diversify away from traditional assets — Traditional portfolios of equities and bonds can be dominated by equity risk in times of market stress — Alternative investments have become a step toward the solution — Allocation to alternative instruments can be diversifying, but may require a significant cost to access — However, even the “Yale Model,” an investment strategy named after the university endowment, which seeks diversification through allocation to alternative investments – hedge funds, private equity funds, commodities and real estate – proved ineffective during the most recent financial crisis — Is true diversification fundamentally unachievable? — Gradually, a new paradigm may be emerging – diversification through investment in risk factors, or risk “premia” that attempts to: — Capture liquid, uncorrelated sources of return — Improve diversification — Apply old ideas in new ways

Page 3 What Is Meant By Risk Premia? — A premium generated for taking a certain type of risk — Persistent source of potential return that can be accessed systematically, also referred to as a risk factor or alternative beta — Some risk factors represent simple exposure to the excess return of an asset class, such as the equity risk premium or the credit risk premium — Others represent systematic investment in assets with certain characteristics or trading of related instruments to capture relative value: — Equity investment strategies such as value, size and momentum — Convertible arbitrage and merger arbitrage strategies — Implied/realized volatility strategies — Also present beyond the equity space, in strategies such as foreign currency carry and interest rates term structure carry — Most well - known risk factors have been analyzed extensively in academic and practitioner literature

Page 4 The Investment Universe Market Risk, Alternative Beta and Alpha — The investment universe can be divided into three categories: — Pure alpha is what is left after market risk and alternative beta are accounted for — A valuable manager is one who can provide alpha over and above the various alternative beta — A valuable manager should be able to offer market timing expertise — A high management fee is justifiable for a valuable manager providing pure alpha, while efficient capture of market risk and alternative beta may be achieved without involving managers — The primary focus of Deutsche Bank’s approach is to capture efficient alternative beta in a cost - effective way Alpha Alternative Beta Market Risk – “Beta” + +

Page 5 Identifying Risk Factors — When identifying risk factors for investment, several criteria should be evaluated: — Explainable: risk factors should have a strong basis for existence — Persistent: there must be a rationale for the persistence of the risk factor — Attractive risk/return: it is important for risk factors to have attractive return characteristics in isolation — Unique: in the portfolio framework it is important to find uncorrelated sources of return — risk factors should exhibit low correlations to traditional market betas and to other risk factors being considered for investment — Accessible: risk factors must be accessible at a level of cost that is sufficiently low to avoid dilution of the return — The explanations for why a premium exists can generally be placed into one of the following: — Risk - Based : The premium is a compensation for taking on a systematic risk — Behavioral : The premium occurs due to persistent behavior of investors in the market place — Structural : The premium results from industry structure, constraints or targets — Often more than one of the categories apply to any one risk factor, and sometimes all three categories are applicable

— The key to efficient risk factor implementation is taking a disciplined and systematic approach – skill lies in designing strategies that are simple and robust — Deutsche Bank’s approach is to isolate factors that meet the following criteria: — Fully transparent: strategies are systematic and work within well - defined rules — Liquid: strategies are designed to allow cost - efficient entry and exit to investors with no lock - ups — Cost efficient: a well - defined systematic approach allows efficient transactions costs versus potentially more expensive managed solutions — Flexible access: strategies can be accessed in a variety of formats – either funded or unfunded as a portfolio overlay and in a variety of wrappers — Portfolio construction then involves combining a range of these return generators that are designed to capture different sources of risk premium — By creating a portfolio of liquid risk factors it is possible to build a more diversified portfolio, thereby attempting to reduce drawdown risk and improving risk - adjusted returns

Page 6 Implementing Risk Factors

— Deutsche Bank has surveyed a universe of well documented equity risk factors — Value — The concept of value investing is founded on the belief that cheap stocks outperform expensive stocks in the long - run. The landmark Fama - French paper from 1992 (a) identified a systematic approach to value investing — An example of traditional measures of value are ratios such as Price - to - Earnings (P/E) and Enterprise Value (EV) - to - Earnings before Interest, Taxes and Amortization (EBITDA) where investment are made into companies that are viewed as cheap — Growth — Growth investing involves investing in stocks whose earnings are expected to grow at an above - average rate as compared to their industry or overall market — Examples of measuring growth include 12 - month trailing Earnings - per - Share (EPS) growth, long - term EPS growth, current P/E vs. 5Y P/E and 12 - month trailing dividend growth — Quality — In reporting seasons, earnings quantity tends to get the most attention – in reality though the quality of earnings is a better gauge of future earnings performance — Accruals – the difference between cash and accounting earnings – can be a good inverse measure of earnings quality. Accrual earnings have been less reliable than cash earnings because they involve subjective judgments regarding the period in which revenues and expenses are recognized — Academic research (Sloan) (b) has highlighted that earnings performance related to accruals exhibits lower persistence than earnings attributed to cash flow Page 7 Equity Risk Factors Examples (a) Fama , E., and French, K., 1992, “The Cross - section of Expected Stock Returns”, Journal of Finance, 47, 427 - 465. (b) Richardson, S. A., Sloan, R. G., Soliman , M. T. and Tuna, I., 2005, "Accrual Reliability, Earnings Persistence and Stock Prices", Journal of Accounting and Economics, 39(3), 437 - 485.

Equity Risk Factors Examples ( con't ) — Momentum — Prior stock returns have been shown to have explanatory power – this temporal pattern in prices is referred to as momentum — Jegadeesh and Titman (1993) (a) show that a strategy that simultaneously buys past winners and sells past losers generates significant abnormal returns over holding periods of 3 to 12 - months — Size — The Fama - French (1992) (b) paper argues that investors have historically received additional returns by investing in stocks of companies with relatively small market capitalization — Low Beta/Volatility — Historical long term studies (Baker) (c) show that low volatility and low beta portfolios can offer a combination of high average returns coupled with low drawdowns — Explanations for structural alpha in low - risk stocks appear to be rooted in irrational investor behavior leading to market inefficiency — Metrics used to monetize the low risk factor include realized volatility and market beta Page 8 (a) Jegadeesh , N., and Titman, S., 1993, “Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency”, Journal of Finance, Vol. 48, Issue 1. (b) Fama , E., and French, K., 1992, “The Cross - section of Expected Stock Returns”, Journal of Finance, 47, 427 - 465. (c) Baker, B, 2011, “Benchmarks As Limits to Arbitrage: Understanding the Low Volatility Anomaly.”, Financial Analysts Journal (January/February), 40 - 54.



Page 9 Equity Risk Premia Investment Choices — The following risk factors in particular may display persistent and attractive risk - return characteristics: — Value — Low Beta — Quality — Momentum — Investors can look at investing in risk factors in multiple ways — One option would be to look at each individual risk factor — Assess an existing portfolio for specific risk factor exposures — Use individual risk factors to address over - or under - exposures in the portfolio — Another option is to allocate to a basket of investible risk factors — The investor may benefit from low correlation between factors in the basket — The correlation of the basket to the existing portfolio may also be low

Equity Value Factor Index Retrospective Performance (BBG: DBGLSNVU) Page 10 Performance Annual Returns Performance Analysis 12 - Month Volatility Note: The Value Factor Index did not exist prior to July 1, 2013 (the “Live Date”). The Value Factor Index has limited performance history and no actual investment which allowed tracking of the performance of The Value Factor Index was possible before the Live Date. All results prior to the Live Date were retrospectively calculated except that the levels of the Value Factor Index prior to the Live Date were calculated based on historical stock prices (adjusted to reflect historical corporate events) provided by dbGrade which uses FAME (database). Such adjustments to the historical stock prices provided by dbGrade may be different from the adjustments for corporate events set forth below in the description of the Value Factor Index, and the levels of the Value Factor Index prior to July 1, 2013 may have been lower had the adjustments for corporate events set forth in the description of the Value Factor Index been applied. Furthermore, the index methodology of the Value Factor Index was designed, constructed and tested using historical market data and based on knowledge of factors that may have affected its performance. Any returns prior to July 1, 2013 were achieved by means of a retroactive application of such back - tested methodologies designed with the benefit of hindsight. It is impossible to predict whether the Value Factor Index will rise or fall. The actual performance of this index may bear little relation to its retrospectively calculated performance. The performance of any investment product based on The Value Factor Index would have been lower than The Value Factor Index as a result of fees and /or costs. See Risk Factors for more information. “ MSCI World ‘ER’ ” is the cumulative daily return of the MSCI World TR Net USD Index over the Fed Funds Effective Rate. Source: Deutsche Bank, Bloomberg Finance L.P., 2017 DB Equity Value Factor MSCI World "ER" Jan 6, 2000 - Dec 30, 2017 Return Over Period 264.0% 58.7% Annualized Return 7.4% 2.6% Volatility 9.2% 16.4% Sharpe Ratio 0.8 0.2 Max. Drawdown - 25.4% - 59.0% Start Date April 10, 2014 October 12, 2007 End Date July 6, 2016 March 9, 2009 Monthly Returns % Positive 60.6% 57.1% Best 13.8% 11.2% Worst - 9.9% - 19.0% Correlation to Factor 0.08 Index Live Date 0 50 100 150 200 250 300 350 400 450 500 Jan-2000 Jan-2002 Jan-2004 Jan-2006 Jan-2008 Jan-2010 Jan-2012 Jan-2014 Jan-2016 DB Equity Value Factor MSCI World "ER" -50% -40% -30% -20% -10% 0% 10% 20% 30% 40% 50% 2003 2005 2007 2009 2011 2013 2015 2017 DB Equity Value Factor MSCI World "ER" Index Live Date 0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% Jan-2001 Jan-2004 Jan-2007 Jan-2010 Jan-2013 Jan-2016 DB Equity Value Factor MSCI World "ER"

Equity Low Beta Factor Index Retrospective Performance (BBG: DBGLSTBU) Page 11 Performance Annual Returns Performance Analysis 12 - Month Volatility Note: The Low Beta Factor Index did not exist prior to July 1, 2013 (the "Live Date"). The Low Beta Factor Index has limited performance history and no actual investment which allowed tracking of the performance of The Low Beta Factor Index was possible before the Live Date. All results prior to the Live Date were retrospectively calculated except that the levels of the Low Beta Factor Index prior to the Live Date were calculated based on historical stock prices (adjusted to reflect historical corporate events) provided by dbGrade which uses FAME (database). Such adjustments to the historical stock prices provided by dbGrade may be different from the adjustments for corporate events set forth below in the description of the Low Beta Factor Index, and the levels of the Low Beta Factor Index prior to July 1, 2013 may have been lower had the adjustments for corporate events set forth in the description of the Low Beta Factor Index been applied. Furthermore, the index methodology of the Low Beta Factor Index was designed, constructed and tested using historical market data and based on knowledge of factors that may have affected its performance. Any returns prior to July 1, 2013 were achieved by means of a retroactive application of such back - tested methodologies designed with the benefit of hindsight. It is impossible to predict whether the Low Beta Factor Index will rise or fall. The actual performance of this index may bear little relation to its retrospectively calculated performance. The performance of any investment product based on The Low Beta Factor Index would have been lower than The Low Beta Factor Index as a result of fees and/or costs. See Risk Factors for more information. "MSCI World 'ER'" is the cumulative daily return of the MSCI World TR Net USD Index over the Fed Funds Effective Rate. Source: Deutsche Bank, Bloomberg Finance L.P., 2017 DB Equity Low Beta Factor MSCI World "ER" Feb 7, 2000 - Dec 30, 2017 Return Over Period 210.4% 55.8% Annualized Return 6.5% 2.5% Volatility 7.4% 16.4% Sharpe Ratio 0.9 0.2 Max. Drawdown - 26.9% - 59.0% Start Date End Date May 8, 2009 March 9, 2009 Monthly Returns % Positive 66.8% 57.4% Best 5.1% 11.2% Worst - 7.3% - 19.0% Correlation to Factor 0.32 Index Live Date 0 50 100 150 200 250 300 350 400 Feb-2000 Feb-2002 Feb-2004 Feb-2006 Feb-2008 Feb-2010 Feb-2012 Feb-2014 Feb-2016 DB Equity Low Beta Factor MSCI World "ER" -50% -40% -30% -20% -10% 0% 10% 20% 30% 40% 2003 2005 2007 2009 2011 2013 2015 2017 DB Equity Low Beta Factor MSCI World "ER" Index Live Date 0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% Feb-2001 Feb-2004 Feb-2007 Feb-2010 Feb-2013 Feb-2016 DB Equity Low Beta Factor MSCI World "ER"

Equity Quality Factor Index Retrospective Performance (BBG: DBGLSNQU) Page 12 Performance Annual Returns Performance Analysis 12 - Month Volatility Note: The Quality Factor Index did not exist prior to July 1, 2013 (the “Live Date”). The Quality Factor Index has limited performance history and no actual investment which allowed tracking of the performance of The Quality Factor Index was possible before the Live Date. All results prior to the Live Date were retrospectively calculated except that the levels of the Quality Factor Index prior to the Live Date were calculated based on historical stock prices (adjusted to reflect historical corporate events) provided by dbGrade which uses FAME (database). Such adjustments to the historical stock prices provided by dbGrade may be different from the adjustments for corporate events set forth below in the description of the Quality Factor Index, and the levels of the Quality Factor Index prior to July 1, 2013 may have been lower had the adjustments for corporate events set forth in the description of the Quality Factor Index been applied. Furthermore, the index methodology of the Quality Factor Index was designed, constructed and tested using historical market data and based on knowledge of factors that may have affected its performance. Any returns prior to July 1, 2013 were achieved by means of a retroactive application of such back - tested methodologies designed with the benefit of hindsight. It is impossible to predict whether Quality Factor Index will rise or fall. The actual performance of this index may bear little relation to its retrospectively calculated performance. The performance of any investment product based on The Quality Factor Index would have been lower than The Quality Factor Index as a result of fees and/or costs. See Risk Factors for more information. “ MSCI World ‘ER’ ” is the cumulative daily return of the MSCI World TR Net USD Index over the Fed Funds Effective Rate. Source: Deutsche Bank, Bloomberg Finance L.P., 2017 DB Equity Quality Factor MSCI World "ER" Feb 7, 2000 - Dec 30, 2017 Return Over Period 84.0% 55.8% Annualized Return 3.5% 2.5% Volatility 7.1% 16.4% Sharpe Ratio 0.5 0.2 Max. Drawdown - 24.2% - 59.0% Start Date End Date January 26, 2004 March 9, 2009 Monthly Returns % Positive 58.4% 57.4% Best 8.1% 11.2% Worst - 7.1% - 19.0% Correlation to Factor - 0.18 Index Live Date 0 50 100 150 200 250 Feb-2000 Feb-2002 Feb-2004 Feb-2006 Feb-2008 Feb-2010 Feb-2012 Feb-2014 Feb-2016 DB Equity Quality Factor MSCI World "ER" -50% -40% -30% -20% -10% 0% 10% 20% 30% 40% 2003 2005 2007 2009 2011 2013 2015 2017 DB Equity Quality Factor MSCI World "ER" Index Live Date 0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% Feb-2001 Feb-2004 Feb-2007 Feb-2010 Feb-2013 Feb-2016 DB Equity Quality Factor MSCI World "ER"

Equity Momentum Factor Index Retrospective Performance (BBG: DBGLSNMU) Page 13 Performance Annual Returns Performance Analysis 12 - Month Volatility Note: The Momentum Factor Index did not exist prior to July 1, 2013 (the "Live Date"). The Momentum Factor Index has limited performance history and no actual investment which allowed tracking of the performance of The Momentum Factor Index was possible before the Live Date. All results prior to the Live Date were retrospectively calculated except that the levels of the Momentum Factor Index prior to the Live Date were calculated based on historical stock prices (adjusted to reflect historical corporate events) provided by dbGrade which uses FAME (database). Such adjustments to the historical stock prices provided by dbGrade may be different from the adjustments for corporate events set forth below in the description of the Momentum Factor Index, and the levels of the Momentum Factor Index prior to July 1, 2013 may have been lower had the adjustments for corporate events set forth in the description of the Momentum Factor Index been applied. Furthermore, the index methodology of the Momentum Factor Index was designed, constructed and tested using historical market data and based on knowledge of factors that may have affected its performance. Any returns prior to July 1, 2013 were achieved by means of a retroactive application of such back - tested methodologies designed with the benefit of hindsight. It is impossible to predict whether Momentum Factor Index will rise or fall. The actual performance of this index may bear little relation to its retrospectively calculated performance. The performance of any investment product based on The Momentum Factor Index would have been lower than The Momentum Factor Index as a result of fees and/or costs. See Risk Factors for more information. "MSCI World 'ER'" is the cumulative daily return of the MSCI World TR Net USD Index over the Fed Funds Effective Rate. Source: Deutsche Bank, Bloomberg Finance L.P., 2017 DB Equity Momentum Factor MSCI World "ER" Jan 9, 2001 - Dec 30, 2017 Return Over Period 25.2% 87.6% Annualized Return 1.3% 3.8% Volatility 8.3% 16.5% Sharpe Ratio 0.2 0.2 Max. Drawdown - 27.1% - 59.0% Start Date April 10, 2014 October 12, 2007 End Date June 18, 2009 March 9, 2009 Monthly Returns % Positive 55.5% 58.1% Best 7.9% 11.2% Worst - 7.4% - 19.0% Correlation to Factor - 0.04 Index Live Date 0 20 40 60 80 100 120 140 160 180 200 Jan-2001 Jan-2004 Jan-2007 Jan-2010 Jan-2013 Jan-2016 DB Equity Momentum Factor MSCI World "ER" -50% -40% -30% -20% -10% 0% 10% 20% 30% 40% 2003 2005 2007 2009 2011 2013 2015 2017 DB Equity Momentum Factor MSCI World "ER" Index Live Date 0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% Jan-2002 Jan-2005 Jan-2008 Jan-2011 Jan-2014 Jan-2017 DB Equity Momentum Factor MSCI World "ER"

DB Equity Risk Premia 5% VT Portfolio Retrospective Performance (BBG: DBGLRP5U) Page 14 Performance Annual Returns Performance Analysis 12 - Month Volatility Note: The Risk Premia Portfolio did not exist prior to September 27, 2013 (the "Live Date"). The Risk Premia Portfolio has limited performance history and no actual investment which allowed tracking of the performance of The Risk Premia Portfolio was possible before the Live Date. All results prior to the Live Date were retrospectively calculated except that the levels of each Risk Premia Index prior to its respective live date were calculated based on historical stock prices (adjusted to reflect historical corporate events) provided by dbGrade which uses FAME (database). Such adjustments to the historical stock prices provided by dbGrade may be different from the adjustments for corporate events set forth below in the description of each Risk Premia Index, and the levels of the Risk Premia Portfolio prior to September 27, 2013 may have been lower had the adjustments for corporate events set forth in the description of each Risk Premia Index been applied. Furthermore, the index methodology of the Risk Premia Portfolio was designed, constructed and tested using historical market data and based on knowledge of factors that may have affected its performance. Any returns prior to September 27, 2013 were achieved by means of a retroactive application of such back - tested methodologies designed with the benefit of hindsight. It is impossible to predict whether Risk Premia Portfolio will rise or fall. The actual performance of this index may bear little relation to its retrospectively calculated performance. The performance of any investment product based on The Risk Premia Portfolio would have been lower than The Risk Premia Portfolio as a result of fees and/or costs. See Risk Factors for more information. "MSCI World 'ER'" is the cumulative daily return of the MSCI World TR Net USD Index over the Fed Funds Effective Rate. Source: Deutsche Bank, Bloomberg Finance L.P., 2017 DB Equity Risk Premia 5% VT Portfolio MSCI World "ER" Feb 20, 2002 - Dec 30, 2017 Return Over Period 172.1% 144.5% Annualized Return 6.5% 5.8% Volatility 5.0% 16.5% Sharpe Ratio 1.3 0.4 Max. Drawdown - 8.5% - 59.0% Start Date June 1, 2007 October 12, 2007 End Date May 8, 2009 March 9, 2009 Monthly Returns % Positive 71.6% 59.7% Best 4.2% 11.2% Worst - 3.5% - 19.0% Correlation to Factor 0.21 0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% Feb-2003 Feb-2005 Feb-2007 Feb-2009 Feb-2011 Feb-2013 Feb-2015 DB Equity Risk Premia 5% VT Portfolio MSCI World "ER" Index Live Date Index Live Date 0 50 100 150 200 250 300 Feb-2002 Feb-2005 Feb-2008 Feb-2011 Feb-2014 Feb-2017 DB Equity Risk Premia 5% VT Portfolio MSCI World "ER" -50% -40% -30% -20% -10% 0% 10% 20% 30% 40% 2003 2005 2007 2009 2011 2013 2015 2017 DB Equity Risk Premia 5% VT Portfolio MSCI World "ER"

Implementation

-60% -50% -40% -30% -20% -10% 0% MSCI World "ER" Reduction of Drawdowns — By diversifying away from traditional equity beta it may be possible to construct a portfolio that significantly reduces drawdowns — The chart below shows the historical drawdowns of the Risk Premia Portfolio compared to a long exposure to MSCI World “ER”

Page 16 Note: The Risk Premia Portfolio did not exist prior to September 27, 2013 ( the “Live Date”). The Risk Premia Portfolio has limited performance history and no actual investment which allowed tracking of the performance of The Risk Premia Portfolio was possible before the Live Date. All results prior to the Live Date were retrospectively calculated except that the levels of each Risk Premia Index prior to its respective live date were calculated based on historical stock prices (adjusted to reflect historical corporate events) provided by dbGrade which uses FAME (database). Such adjustments to the historical stock prices provided by dbGrade may be different from the adjustments for corporate events set forth below in the description of each Risk Premia Index, and the levels of the Risk Premia Portfolio prior to September 27, 2013 may have been lower had the adjustments for corporate events set forth in the description of each Risk Premia Index been applied. Furthermore, the index methodology of the Risk Premia Portfolio was designed, constructed and tested using historical market data and based on knowledge of factors that may have affected its performance. Any returns prior to September 27, 2013 were achieved by means of a retroactive application of such back - tested methodologies designed with the benefit of hindsight. It is impossible to predict whether Risk Premia Portfolio will rise or fall. The actual performance of this index may bear little relation to its retrospectively calculated performance. The performance of any investment product based on The Risk Premia Portfolio would have been lower than The Risk Premia Portfolio as a result of fees and/or costs. See Risk Factors for more information. “ MSCI World ‘ER’ ” is the cumulative daily return of the MSCI World TR Net USD Index over the Fed Funds Effective Rate. Source: Deutsche Bank, Bloomberg Finance L.P., 2017 Max Drawdown 8.5% Max Drawdown 59% Drawdowns of DB Equity Risk Premia Portfolio compared to MSCI World



Implementation Example — As an example, a basic 60% equity and 40% fixed income portfolio is used as a proxy and the impact of a portfolio reallocation and the addition of a risk premia overlay is quantified — 5% of the portfolio's notional from the equity allocation is moved into cash and a 25% allocation is added as an overlay — The risk reduction in the overall portfolio allows for a substantial allocation to be made to the DB Equity Risk Premia 5% VT Portfolio — Based on retrospective performance, the 25% allocation to the risk premia overlay would have resulted in both an overall risk reduction and an improvement in returns (see returns on next page) Page 17

Initial Portfolio Investment Proxy	Capital Allocation	Notional Exposure	Equity	MSCI World Index	60%	60%	Fixed Income	JPM Global																	
Aggregate Bond Index	40%	40%	Reallocated Portfolio Investment Proxy	Capital Allocation	Notional Exposure	Equity	MSCI World Index	55%	55%	Fixed Income	JPM Global	Aggregate Bond Index	40%	40%	Cash	DB Fed	Funds Index	5%	5%	Risk Premia Overlay	DB Equity Risk Premia	5%	VT Portfolio	0%	25%

Note: The portfolios are calculated on a total return basis and are rebalanced annually

Reallocated Portfolio with Risk Premia Overlay Original Portfolio Feb 20, 2002 - Dec 30, 2017 Return Over Period 268.2% 200.2% Annualized Return 8.6% 7.2% Volatility 9.1% 9.6% Sharpe Ratio 0.8 0.6 Max. Drawdown - 33.5% - 36.6% Start Date Nov 1, 2007 Nov 1, 2007 End Date Sep 24, 2010 Oct 14, 2010 Monthly Returns % Positive 65.1% 60.8% Best 6.3% 7.0% Worst - 10.7% - 12.1% Reallocation Shifting 5% from Equity into Cash and Overlaying Risk Premia Page 18 Performance Annual Returns Performance Analysis 12 - Month Volatility Note: The Risk Premia Portfolio used for calculating the Reallocated Portfolio with Risk Premia Overlay did not exist prior to September 27, 2013 ( the “Live Date”). The Risk Premia Portfolio has limited performance history and no actual investment which allowed tracking of the performance of The Risk Premia Portfolio was possible before the Live Date. All results prior to the Live Date were retrospectively calculated except that the levels of each Risk Premia Index prior to its respective live date were calculated based on historical stock prices (adjusted to reflect historical corporate events) provided by dbGrade which uses FAME (database). Such adjustments to the historical stock prices provided by dbGrade may be different from the adjustments for corporate events set forth below in the description of each Risk Premia Index, and the levels of the Risk Premia Portfolio prior to September 27, 2013 may have been lower had the adjustments for corporate events set forth in the description of each Risk Premia Index been applied. Furthermore, the index methodology of the Risk Premia Portfolio was designed, constructed and tested using historical market data and based on knowledge of factors that may have affected its performance. Any returns prior to September 27, 2013 were achieved by means of a retroactive application of such back - tested methodologies designed with the benefit of hindsight. It is impossible to predict whether Risk Premia Portfolio will rise or fall. The actual performance of this index may bear little relation to its retrospectively calculated performance. The performance of any investment product based on The Risk Premia Portfolio would have been lower than The Risk Premia Portfolio as a result of fees and/or costs. See Risk Factors for more information. Source : Deutsche Bank, Bloomberg Finance L.P., 2017 0% 5% 10% 15% 20% 25% 30% Feb-2003 Feb-2006 Feb-2009 Feb-2012 Feb-2015 Reallocated Portfolio with Risk Premia Overlay Original Portfolio 0 50 100 150 200 250 300 350 Feb-2002 Feb-2005 Feb-2008 Feb-2011 Feb-2014 Feb-2017 Reallocated Portfolio with Risk Premia Overlay Original Portfolio -30% -20% -10% 0% 10% 20% 30% 2003 2005 2007 2009 2011 2013 2015 2017 Reallocated Portfolio with Risk Premia Overlay Original Portfolio

Appendix I Equity Risk Factors: In - Depth Analysis

DB Equity Value Factor Introduction — The landmark paper on Value investing (in a systematic context) is the original Fama - French paper from 1992 (a) which argued that cheap stocks outperform expensive stocks in the long - run — Explanations for the premium: — Risk - based: the Value premium is a rational phenomenon, which is priced in equilibrium, and represents compensation for systematic risk (exposure to financial distress, gearing, cash flow risk, volatility risk) — Behavioral: Investors tend to overreact by overselling or avoiding buying “value” stocks that fall out of favor — Structural: money managers and pension funds gravitating towards successful growth - orientated names. Value at Risk (VAR) limits may prevent investors from accessing cheap assets — Risk - based explanations have significant support in academia. There has been increasing evidence of the Value premium being explained by modeling economic uncertainty ( e.g. Bali and Zhou (2012)) (b) — The Value premium has potentially all the characteristics of a “true” premium: It is not confined to one market or geography; it is not limited to one size segment. Value strategies have been successful in sector and country selection. And finally, there is evidence of a value premium across asset classes (for example, see “Value and Momentum Everywhere”, Asness et al, 2009) (c) Page 20 Source : Deutsche Bank (a) Fama , E., and French, K., 1992, “The Cross - section of Expected Stock Returns”, Journal of Finance, 47, 427 - 465. (b) Bali, T., and Zhou, H., 2012, “Risk, Uncertainty and Expected Returns”. (c) Asness , C., Moskowitz , T., and Pedersen, L., 2009, “Value and Momentum Everywhere”.

DB Equity Value Factor Metrics — There are various valuation metrics that can be used to gauge the relative cheapness or expensiveness of a company — The DB Equity Value Factor Index scores stocks based on one defensive and one cyclical measure of value — Defensive: 12 - month Trailing Dividend Yield — Cyclical: EV/EBITDA (the inverse, EBITDA/EV is used to score the stocks) — Why EV/EBITDA? — P/E ratios are impacted by a company's choice of capital structure; companies that raise money via debt will have lower P/Es than companies that raise an equivalent amount of money by issuing shares — Enterprise Value includes the value of debt — EBITDA excludes interest payments on that debt and also excludes the cost of upfront investments or capital expenditures which can make it a more appropriate measure of a business's underlying profit potential Page 21 Source : Deutsche Bank

DB Equity Value Factor Sector Neutralization — Value tends to tilt toward specific sectors due to structural industry biases — For example: Technology vs. Financials vs. Industrials — Younger technology companies may have a smaller focus on earnings and dividend yields — Industrials may focus heavily on earnings — Financials may focus more on dividends — These sector biases are not necessarily reflective of relative value of the companies cross - sector — The Value score of each stock is adjusted to take into account the average score for that stock's sector, in order to mitigate the sector bias inherent in the value metrics Page 22 Source : Deutsche Bank

DB Equity Value Factor Index Construction — For the MSCI World universe of stocks, the 12 - month Trailing Dividend Yield and EBITDA/EV is determined — The metrics are then normalized and sector - adjusted to get a Value score — The stocks are ranked according to their Value score — The universe is then divided into five quintiles based on that score — The stocks in the Top quintile (high Value score) constitute the Long Value basket, and the stocks in the Bottom quintile (low Value score) constitute the Short Value basket — The process is repeated every month and the stocks in both baskets are equally weighted — The Long and Short baskets are then combined to form the aggregated Value Factor Page 23 Source : Deutsche Bank

DB Equity Low Beta Factor Introduction — The Low Beta anomaly is often considered to be one of the greatest anomalies in finance — Based on a study of stock returns between 1968 and 2008, Baker et al. (2011) find that low volatility and low beta portfolios offer an enviable combination of high average returns and small drawdowns — Although the anomaly has received particular interest in recent years, it was actually pointed out decades ago (e.g. Black, Jensen and Scholes (1972) (b) , Haugen and Baker (1991) (c) ) — Explanations for the premium: — Behavioral and Structural: Attention bias and overconfidence — One of the main reasons behind the Low Beta premium are institutional constraints. Fixed - benchmark mandates that are typically capitalization weighted)discourage investments in low - volatility stocks and are usually accompanied by leverage constraints — The Low Beta premium appears in different time periods, geographies, and even asset classes, rendering it a powerful candidate for a consistent return source ( Frazzini and Pedersen (2011)) (d) — Structural conditions suggest future persistence of the premium: — Popular benchmarking methods would inhibit many “smart” investors from exploiting it — For the low beta anomaly to erode significantly, either the market capitalization weighted benchmarks would need to be gradually abolished, or a separate allocation to low risk (low beta/low volatility) strategies would need to be made an essential part of strategic asset allocation frameworks Page 24 Source : Deutsche Bank (a) Baker, B, 2011, “Benchmarks As Limits to Arbitrage: Understanding the Low Volatility Anomaly.”, Financial Analysts Journal (January/February), 40 - 54. (b) Black, F., Jensen, M., and Scholes , M., 1972, “The Capital Asset Pricing Model: Some Empirical Tests”, Studies in the Theory of Capital Markets, 79 - 121. (c) Haugen, R. A., and Baker, 1991, “The Efficient Market Inefficiency of Capitalization - weighted Stock Portfolios”, The Journal of Portfolio Management, Vol. 17, No. 3. (d) Frazzini , A., and Pedersen, L. H., 2011, "Embedded Leverage", AQR Capital .



DB Equity Low Beta Factor Beta Neutralization — A simple long - low - beta/short - high - beta strategy fails to generate abnormal returns, despite the long leg exhibiting significantly higher risk - adjusted returns compared to the short leg — A reason for this lies in the asymmetry of the volatilities of both legs, as well as the inherent negative beta exposure of the strategy — To mitigate the asymmetry, the exposure to the long leg is kept at 100%, and the exposure to the short leg is reduced to match the long leg's beta Page 25 Source : Deutsche Bank

DB Equity Low Beta Factor Index Construction — On a monthly basis, the 5 - year rolling beta of each stock, in relation to the MSCI World Equal Weight Index, is computed using daily returns — The stocks are ranked according to their Beta, low to high — The universe is then divided into five quintiles — The stocks in the Top quintile (low Beta) constitute the Long Beta basket, and the stocks in the Bottom quintile (high Beta) constitute the Short Beta basket — To address turnover control, the ranking is further split into deciles — If a stock's beta moves to an adjacent quintile, there is minimal impact on the strategy's profile — For existing constituents, unless its Beta moves below (above) the 4<sup>th</sup> (6<sup>th</sup>) decile, it will not be removed from the long (short) portfolio upon rebalancing — The process is repeated every month and the stocks in both baskets are equally weighted — To neutralize beta, the exposure to the Short basket is reduced by a factor equivalent to the ratio of the overall beta of the Long basket to the overall beta of the Short basket — The difference in exposure between the two baskets is made up by adding a cash component to the short basket — The Long basket and the Short basket are combined to create the aggregated Low Beta Factor

Page 26 Source : Deutsche Bank

DB Equity Quality Factor Introduction — The strength and composition of a company's balance sheet, the source of its earnings, the ability of a company to generate profits, the rate at which it turns over its assets, and the reputation of its management could all be considered aspects of a company's "quality" — Explanations for the premium — Behavioral: There is an attention bias; investors tend to look more at earnings quantity versus earnings quality (Sloan, "Do Stock Prices Fully Reflect Information in Accruals and Cash Flow about Future Earnings?", *The Accounting Review*, July 1996) (a) — From a rational expectations point of view, quality is about changing expectations of future cash flows, and changing perceptions of quality should be expected to move stock prices — The Quality anomaly seems to be a strong predictor of returns in international stock markets, across various time periods and market segments Page 27 Source : Deutsche Bank (a) Sloan, R. G., 1996, "Do stock Prices Fully Reflect Information in Accruals and Cash Flows about Future Earnings?", *Accounting Review*, 289 - 315.

DB Equity Quality Factor Metrics — The DB Equity Quality Factor uses a measure of earnings quality and a measure of profitability — Earnings Quality: represented by Accruals as an inverse indicator — Profitability: represented by Return on Invested Capital — Accrual accounting attempts to match expenses with associated revenues, with a substantial amount of discretion left to managers — Revenues and expenses for a certain financial year can be recognized more or less aggressively with the consequence that subsequent years will depend on bookings from the previous years — The degree to which a company relies on accruals to boost net income results in lower quality earnings — Accruals are represented by the year on year Change in Net Operating Assets, normalized by the previous year's Net Operating Assets — Operating assets are calculated as the residual from total assets after subtracting financial assets, and operating liabilities are the residual amount from total assets after subtracting equity and financial liabilities Page 28 Source : Deutsche Bank

DB Equity Quality Factor Sector Neutralization — Quality tends to tilt toward specific sectors due to structural industry biases — For example, industrial companies may operate businesses with stricter accounting rules with less potential for accruals, while technology or service companies may operate businesses with less strict accounting rules and more potential for accruals — These sector biases are not necessarily reflective of relative quality of the companies cross - sector — The Quality score of each stock is adjusted to take into account the average score for that stock's sector, in order to mitigate the sector bias inherent in the Quality metrics Page 29 Source : Deutsche Bank

DB Equity Quality Factor Index Construction — For the MSCI World Universe of stocks, the accruals and profitability score are determined and then adjusted for sector — The normalized and sector - adjusted accruals score is then subtracted from the normalized and sector - adjusted profitability score to arrive at the final Quality score of the stock — The stocks are ranked according to their Quality score, high to low — The universe is then divided into five quintiles based on that score — The stocks in the Top quintile (high Quality score) constitute the Long Quality basket, and the stocks in the Bottom quintile (low Quality score) constitute the Short Quality basket — The process is repeated every month and the stocks in both baskets are equally weighted — The Long and Short baskets are then combined to form the aggregated Quality Factor Page 30 Source : Deutsche Bank

DB Equity Momentum Factor Introduction — Prior stock returns have been shown to have explanatory power in the cross section of common stock returns (e.g. Jegadeesh and Titman's (1993) (a) , Carhart (1997) (b) ) independent of market, size, or value factors. An abundance of empirical evidence in favor of the Momentum factor exists in the academic literature — Explanations for the premium: — Risk - Based: momentum profits represent reward for priced business cycle risk, and trends in the business cycle drive trends in prices (and vice versa). Momentum is related to economic distress risk and consumption risk — Behavioral: initial under - reaction followed by over - reaction induces price trends. Overconfidence leads to extrapolation of past price trends — Structural: closet index tracking by fund managers who aim to achieve returns similar to a benchmark index without replicating such index — It is likely that none of the above explanations in their own right are adequate to explain the existence and persistence of this phenomenon over time — Momentum is one of the strongest premiums/anomalies, which though less profitable over the past decade, still may persist in the future based on its pervasiveness across assets, geographies, and time periods Page 31 Source : Deutsche Bank (a) Jegadeesh , N., and Titman, S., 1993, "Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency", Journal of Finance, Vol. 48, Issue 1. (b) Carhart , M., 1997, "On Persistence in Mutual Fund Performance," Journal of Finance, Vol. 52.

DB Equity Momentum Factor Horizon Performance — First - 11 - Month Momentum, despite its popularization in both academic and investment circles following the Carhart (1997) (a) publication, has remained the most profitable look - back window to define momentum stocks — All else being equal, preference is given to a longer look - back horizon because it will require less turnover and, on average, will impose less transaction costs Page 32 Source : Axioma , Bloomberg Finance LLP, Compustat , IBES, S&P, Thomson Reuters, MSCI, BMI, Deutsche Bank - 1.00% - 0.50% - 0.00% 0.50% 1.00% 1 Month Momentum 3 - 1 Month Momentum 6 - 1 Month Momentum 9 - 1 Month Momentum 12 - 1Month Momentum Average monthly long/short decile return spread (%) - 0.6 - 0.4 - 0.2 0 0.2 0.4 0.6 1 Month Momentum 3 - 1 Month Momentum 6 - 1 Month Momentum 9 - 1 Month Momentum 12 - 1Month Momentum Annualized Sharpe Ratio Return to momentum across different look - back horizons Sharpe ratios across different look - back horizons (a) Carhart , M., 1997, “On Persistence in Mutual Fund Performance,” Journal of Finance, Vol. 52.



DB Equity Momentum Factor Performance and Risk — The strong positive returns of momentum strategies are punctuated with strong reversals, or “crashes.” Like the returns to the carry trade in currencies, momentum returns are negatively skewed — These drawdowns in the strategy coincide with periods of strong and sudden reversals in market sentiment or investor risk aversion — For example: the technology bubble crash starting in the spring of 2000; the re-risking episode after the end of the bear market at the end of 2002; the re-risking episode in the spring of 2009 following the financial crises — Additionally, the momentum portfolio will typically be concentrated in stocks with attributes that are common across relative winners (e.g. defensive stocks, growth stocks) — For example, when market sentiment is strong and investor risk appetite is high, momentum strategies commonly have a strong tilt towards higher volatility stocks (e.g. technology bubble period); similarly, when investors are decreasing risk appetite, momentum strategies will align themselves with a tilt towards less volatile stocks (e.g. early to end of 2008) Page 33  
Source : Deutsche Bank

DB Equity Momentum Factor Risk Neutralization — According to academic research, momentum is to a great extent related to sector effects ( Moskowitz and Grinblatt , 1999) (a) as well as country exposures — Constraints on region and sectors mitigate the drawdown, but suppresses performance — A factor neutralization approach is utilized to reduce exposure to market beta/volatility — Our momentum metric is the traditional First - 11 - Month Momentum, uncontrolled for sector or region — Idiosyncratic (stock - specific) volatility, measured as the volatility of each stock relative to a market, is used as a proxy for risk — A risk - neutralized Momentum score is computed incorporating each stock's momentum and idiosyncratic volatility and the relationship between that volatility and market momentum generally Page 34 Source : Deutsche Bank (a) Moskowitz , T., and Grinblatt , M., 1999, “Do industries explain momentum?”, The Journal of Finance, 54, 1249 - 1290.

DB Equity Momentum Factor Index Construction — Using the MSCI World universe, with total returns in USD, the risk - neutralized Momentum scores are calculated — Correlations and volatilities needed for the neutralization are computed based on 1 - year rolling daily returns — The stocks are ranked according to their Momentum score, high to low — The universe is then divided into five quintiles based on that score — The stocks in the Top quintile (high Momentum score) constitute the Long Momentum basket — The process is repeated every month and the stocks in Long basket are equally weighted — The strategy is long the Long Momentum basket and short the benchmark (MSCI World)

Page 35 Source : Deutsche Bank

Appendix II Portfolio Construction

Effect of Combining Individual Risk Factors Page 37 Performance 12 - Month Volatility Individual Risk Factor Correlations Quality Momentum Low Beta Value - 1.6% - 43.4% - 3.1% Quality - 22.4% - 5.2% Momentum 15.8% The Risk Premia Basket contains the Equity Value, Equity Low Beta, Equity Quality and Equity Momentum factor indices. The factor indices are weighted proportionally to the inverse of their historical realized volatilities, rebalanced monthly. Volatility is calculated on a rolling 1 - year basis using daily returns. Source: Deutsche Bank, Bloomberg Finance L.P., 2017 Risk Premia Basket Value Low Beta Quality Momentum Feb 20, 2002 - Dec 30, 2017 Return Over Period 82.2% 113.0% 142.3% 34.0% 14.6% Annualized Return 3.9% 4.9% 5.7% 1.9% 0.9% Volatility 3.2% 8.7% 7.7% 6.7% 8.4% Sharpe Ratio 1.2 0.6 0.7 0.3 0.1 Max. Drawdown - 7.2% - 25.4% - 26.9% - 24.2% - 27.1% Start Date Nov 20, 2008 May 9, 2014 Jun 5, 2007 Oct 11, 2002 Jul 15, 2008 End Date Sep 17, 2010 Dec 29, 2017 Feb 28, 2013 Jul 11, 2008 Dec 29, 2017 Monthly Returns % Positive 71.4% 57.1% 66.3% 56.6% 55.4% Best 2.9% 13.8% 4.7% 8.1% 4.8% Worst - 3.0% - 4.8% - 7.3% - 7.1% - 7.4% Correlation to Factor 0.30 0.64 0.34 0.32 0% 5% 10% 15% 20% 25% Mar-03 Mar-05 Mar-07 Mar-09 Mar-11 Mar-13 Mar-15 Mar-17 DB Equity Value Factor DB Equity Low Beta Factor DB Equity Quality Factor DB Equity Momentum Factor Risk Premia Basket 0 50 100 150 200 250 300 Feb-02 Feb-04 Feb-06 Feb-08 Feb-10 Feb-12 Feb-14 Feb-16 DB Equity Value Factor DB Equity Low Beta Factor DB Equity Quality Factor DB Equity Momentum Factor Risk Premia Basket — By combining risk factors to form a risk premia basket, it is possible to achieve a significant diversification benefit and improved risk adjusted return

Portfolio Construction: Introduction — When constructing a diversified portfolio of investments, the following objectives are taken into consideration: — Maximize the benefits of diversification and low correlation between portfolio constituents — Increase the likelihood of positive returns — Reduce the likelihood of significant losses — Equally weighting exposure across investments is an unbiased and simple approach but does not capture the full benefits of diversification where assets have different volatilities — One traditional tool for portfolio construction is mean - variance optimization (MVO) — However, MVO - based optimizations can be very sensitive to input parameters, this approach is generally avoided — A Risk Parity approach seeks to construct a portfolio that allocates risk evenly between its components — Although somewhat simplistic, Risk Parity avoids some of the sensitivity to inputs of other methods

Page 38

Inverse Volatility Risk Parity — Risk Parity is a dynamic allocation mechanism which determines the weights of the portfolio components in such a way that the “risk” is distributed evenly among its components — “Risk distribution” is achieved by assigning a lower weight to components with a high historical volatility and a higher weight to components with a low historical volatility

Page 39 Equal Weighted Portfolio Asset Volatility Weight Risk Allocation (Volatility x Weight) A 40% 33.3% 13.3% B 20% 33.3% 6.7% C 10% 33.3% 3.3%

- Equal nominal weights do not ensure equal risk allocation
- Asset A dominates risk whereas Asset C contributes much less to the risk of the index
- Risk Parity weights are proportional to the inverse of the volatility of each asset
- Risk Parity seeks to ensure that investment risk of the index is well distributed among its components

Risk Parity Weighted Portfolio Asset Volatility Weight Risk Allocation (Volatility x Weight) A 40% 14.3% 5.7% B 20% 28.6% 5.7% C 10% 57.1% 5.7%

Volatility Targeting — With the aim of stabilizing the volatility and also to create an index with a volatility comparable to a diversified hedge fund portfolio, the DB Equity Risk Premia 5% VT Portfolio was created, which targets an annualized volatility of 5% — On a monthly basis, a risk - parity based allocation is determined to the four individual risk factor indices (the “ risk - parity basket ”) — A hypothetical trailing 1 - year volatility of the risk - parity basket is then calculated — The Portfolio increases (or decreases) its overall exposure to the risk - parity basket such that the historical volatility would have equaled 5% — The exposure to the risk - parity basket is capped at 2 and floored at 0.5 Page 40



**Index Costs** The Deutsche Bank Equity Risk Premia 5% VT Portfolio Index (the “ Portfolio Index ”) is subject to a deduction for the cost (the “ Rebalancing Transaction Cost ”) of hypothetically implementing the volatility controlled, “risk - parity” weighted portfolio of the Deutsche Bank Value Factor Index, Quality Factor Index, Low Beta Factor Index and Momentum Factor Index (each, a “ Risk Premium Index ”) on each monthly rebalancing date. The cost is 0.04% of the change in the notional position in connection with increasing or decreasing exposure of the Portfolio Index to the Value Factor Index, the Quality Factor Index and the Momentum Index. The cost is 0.03% of the change in the notional position in connection with increasing or decreasing exposure of the Portfolio Index to the Low Beta Factor Index. As a result of these deductions, the levels of the Portfolio Index will be lower than would otherwise be the case if such costs were not included. Because the Portfolio Index is linked to the performance of the weighted portfolio of four Risk Premium Indices, the level of the Portfolio Index will also be reduced by the deductions of costs from the levels of the Risk Premium Indices. The calculation of each Risk Premium Index includes a daily deduction for the sum of the cost of hypothetically implementing the notional long position at a rate of 0.40% per annum and the cost of implementing the notional short position at a rate of 0.45% per annum. The calculation of the notional long and short positions also includes a cost deduction of 0.02% (in the case of the long position) and - 0.02% (in the case of the short position) in connection with their monthly reconstitution. As a result of these cost deductions, the levels of the Risk Premium Indices will be lower than would otherwise be the case if such costs were not included. The reconstitution costs will be deducted separately from each Risk Premium Index. It is possible that one of the Risk Premium Indices will take a notional long position in a component stock while another Risk Premium Index will take a notional short position in the same component stock. Even if the Portfolio Index as a whole takes both a notional long and short position in the same component stock, the reconstitution cost will be deducted for both the long and short positions without offsetting such reconstitution costs against each other. These deductions of costs and fees from the levels of the Risk Premium Indices are in addition to the Rebalancing Transaction Cost at the Portfolio Index level. From, and including, January 1, 2014 to , and including, 2017, the annual cost deduction has ranged from 0.65% to 0.87% for the Value Factor Index, 0.17% to 0.95% for the Low Beta Factor Index, 0.84% to 0.86% for the Quality Factor Index, and 0.61% to 0.85% for the Momentum Factor Index. The total annual costs deducted from the level of the Portfolio Index (i.e., the costs deducted from the level of the Portfolio Index plus the costs deducted from the levels of the Risk Premium Indices) from January 1, 2014 to , and including 2017 have ranged from 0.00% to 0.03%. Page 41

Risk Factors THE PORTFOLIO INDEX AND THE RISK PREMIUM INDICES ARE SUBJECT TO STRATEGY RISK — The Portfolio Index and Risk Premium Indices aim to generate returns by identifying persistent risk premia in the equity markets and implementing systematic strategies to access them . However, the risk premia may not persist and the Portfolio Index and the Risk Premium Indices Deutsche Bank develop to access them may fail to generate positive returns associated with such risk premia . THE PORTFOLIO INDEX MAY NOT ALWAYS SUCCESSFULLY MAINTAIN THE TARGET VOLATILITY OF 5 % — The Portfolio Index is intended to reflect the performance of a dynamic allocation strategy that adjusts the Portfolio Index’s notional exposure to the Portfolio Weighted Basket with the aim of maintaining an intended target volatility of 5 % each day, calculated by reference to the realized volatility of the Portfolio Weighted Basket (weighted in its then - current form) over the last year (which we refer to as the hypothetical volatility of the Portfolio Weighted Basket) . Because the Portfolio Index is subject to a maximum notional exposure of 200 % and a minimum notional exposure of 50 % to the Portfolio Weighted Basket, the Portfolio Index may not be able to maintain an intended target volatility of 5 % each day . For example, if the hypothetical volatility of the Portfolio Weighted Basket were to be less than 2 . 50 % and consequently the notional exposure to the Portfolio Weighted Basket were to be reset to the maximum notional exposure of 200 % , the target volatility would be less than 5 % . Similarly, if the hypothetical volatility of the Portfolio Weighted Basket were to be greater than 10 % and consequently the notional exposure to the Portfolio Weighted Basket were to be reset to the minimum notional exposure of 50 % , the target volatility would be greater than 5 % . In addition, the Portfolio Index’s notional exposure to the Portfolio Weighted Basket is calculated based on the hypothetical volatility of the Portfolio Weighted Basket over the last year . However, there can be no assurance that historical trends in volatility will continue in the future . Accordingly, there is no assurance that the hypothetical volatility of the Portfolio Weighted Basket’s over the past year will be an effective way to (i) accurately assess volatility of the Portfolio Weighted Basket at the given time or (ii) predict patterns of volatility in the future . Thus, the realized volatility of the Portfolio Index at any time in the future could differ significantly from the target volatility of 5 % . Furthermore, because the Portfolio Index adjusts its notional exposure to the Portfolio Weighted Basket only once a month, the Portfolio Index will not be able to adjust its notional exposure to the Portfolio Weighted Basket to account for any change in volatility until the next monthly rebalancing date . As a result, the Portfolio Index may not achieve its target volatility of 5 % , which may adversely affect the level of the Portfolio Index and the return on the securities . THE PORTFOLIO INDEX AND THE RISK PREMIUM INDICES CONTAIN EMBEDDED COSTS — The Portfolio Index is subject to a deduction for the cost of hypothetically implementing the volatility controlled, “risk - parity” Portfolio Weighted Basket . As a result of this deduction, the level of the Portfolio Index will be lower than would otherwise be the case if such cost were not included . Because the Portfolio Index is linked to the performance of the Portfolio Weighted Basket, which is composed of the four Risk Premium Indices, the deduction of costs or fees from the levels of the Risk Premium Indices will also lower the level of the Portfolio Index . The calculation of each Risk Premium Index includes a daily deduction for the sum of the cost of hypothetically implementing, as well as the cost in connection with the monthly reconstitution of, the notional long position and short position (if applicable) . As a result of these deductions, the levels of the Risk Premium Indices will be lower than would otherwise be the case if such costs were not included . The reconstitution costs will be deducted separately from each Risk Premium Index . It is possible that one of the Risk Premium Indices will take a notional long position in a component stock while another Risk Premium Index will take a notional short position in the same component stock . Even if the Portfolio Index as a whole takes both a notionally long and short position in the same component stock, the reconstitution cost will be deducted for both the long and short positions without offsetting such reconstitution costs against each other . These deductions of costs from the levels of the Risk Premium Indices are in addition to the deduction of costs at the Portfolio Index level . From, and including, January 1 , 2014 to, and including, 2017 , the annual cost deduction has ranged from 0 . 65 % to 0 . 87 % for the Value Factor Index, 0 . 17 % to 0 . 95 % for the Low Beta Factor Index, 0 . 84 % to 0 . 86 % for the Quality Factor Index, and 0 . 61 % to 0 . 85 % for the Momentum Factor Index . The total annual costs deducted from the level of the Portfolio Index ( i . e . , the costs deducted from the level of the Portfolio Index plus the costs deducted from the levels of the Risk Premium Indices) from January 1 , 2014 to, and including 2017 have ranged from 0 . 00 % to 0 . 03 % . The historical costs deducted from the Portfolio Index should not be taken as an indication of future costs and, depending on market conditions, such costs could be significantly higher in the future . THE PORTFOLIO

INDEX AND THE RISK PREMIUM INDICES HAVE LIMITED PERFORMANCE HISTORY — Calculation of the Portfolio Index began on September 27 , 2013 and calculation of each of the Risk Premium Indices began on July 1 , 2013 . Therefore, both the Portfolio Index and the Risk Premium Indices have limited performance history and no actual investment which allowed tracking of the performance of the Portfolio Index or the Risk Premium Indices was possible before their respective live dates . The performance data of the Portfolio Index prior to their respective live dates shown in this presentation have been retrospectively calculated using historical data and the same methodologies as described above, except that the levels of each Risk Premium Index prior to its respective live date were calculated by the Index Sponsor (as defined below) based on historical stock prices (adjusted to reflect historical corporate events) provided by dbGrade , which uses FAME (database) . Such adjustments to the historical stock prices provided by dbGrade may be different from the adjustments for corporate events set forth below in the description of each Risk Premium Index, and the levels of the Portfolio Index prior to September 27 , 2013 may have been lower had the adjustments for corporate events set forth in the description of each Risk Premium Index been applied . Although the Index Sponsor believes that these retrospective calculations fairly represent how these indices would have performed before their respective live dates, the Portfolio Index and the Risk Premium Indices did not, in fact, exist prior to their respective live dates . Furthermore, the index methodologies of the Portfolio Index and each of the Risk Premium Indices were designed, constructed and tested using historical market data and based on knowledge of factors that may have possibly affected their performance . The returns prior to their respective live dates were achieved by means of a retroactive application of such back - tested index methodologies designed with the benefit of hindsight . All prospective investors should be aware that no actual investment that allowed a tracking of the performance of the Portfolio Index or the Risk Premium Indices was possible at any time prior to their respective live dates . Furthermore, it is impossible to predict whether the Portfolio Index and the Risk Premium Indices will rise or fall . The actual performance of these indices may bear little relation to their retrospectively calculated performance . Page 42

Page 43 Risk Factors DEUTSCHE BANK AG, LONDON BRANCH, AS THE SPONSOR OF THE PORTFOLIO INDEX AND THE RISK PREMIUM INDICES, MAY ADJUST EACH INDEX IN A WAY THAT AFFECTS ITS LEVEL AND MAY HAVE CONFLICTS OF INTEREST — Deutsche Bank AG, London Branch is the sponsor of the Portfolio Index and the Risk Premium Indices (the “Index Sponsor”) and will determine whether there has been a market disruption event with respect to these indices. In the event of any such market disruption event, the Index Sponsor may use an alternate method to calculate the closing levels of the Portfolio Index and the Risk Premium Indices. The Index Sponsor carries out calculations necessary to promulgate these indices and maintains some discretion as to how such calculations are made. In particular, the Index Sponsor has discretion in selecting among methods of how to calculate the Portfolio Index and the Risk Premium Indices in the event the regular means of determining these indices are unavailable at the time a determination is scheduled to take place. There can be no assurance that any determinations made by the Index Sponsor in the several capacities will not affect the levels of these indices and the value of the securities. Any of these actions could adversely affect the value of securities linked to these indices. The Index Sponsor has no obligation to consider the interests of holders of securities linked to the Portfolio Index or the Risk Premium Indices in calculating or revising these indices. Furthermore, Deutsche Bank AG, London Branch or one or more of its affiliates may have published, and may in the future publish, research reports on the Portfolio Index and the Risk Premium Indices or investment strategies reflected by these indices (or any transaction, product or security related to these indices or any components thereof). This research is modified from time to time without notice and may express opinions or provide recommendations that are inconsistent with purchasing or holding of transactions, products or securities related to these indices. Any of these activities may affect the Portfolio Index and the Risk Premium Indices or transactions, products or securities related to these indices. Investor should make their own independent investigation of the merits of investing in contracts or products related to the Portfolio Index and the Risk Premium Indices.

TRADING AND OTHER TRANSACTIONS BY US OR OUR AFFILIATES IN THE DERIVATIVE MARKETS MAY IMPAIR THE VALUE OF A FINANCIAL PRODUCT LINKED TO THE PORTFOLIO INDEX OR A RISK PREMIUM INDEX — We or our affiliates expect to hedge our exposure from any financial product linked to the Portfolio Index or a Risk Premium Index (a “Financial Product”) that we or our affiliates offer and sell by entering into derivative transactions, such as over-the-counter options, futures or exchange-traded instruments. In addition to such Financial Products, we or our affiliates may issue or underwrite other securities or financial or derivative instruments with returns linked or related to the Portfolio Index, a Risk Premium Index or their components. We or our affiliates may establish, adjust or unwind hedge positions with respect to the Financial Products and such other securities or instruments by, among other things, purchasing or selling at any time the components of the Portfolio Index, a Risk Premium Index or instruments whose value is derived from the Portfolio Index, a Risk Premium Index or their components. This hedging activity could adversely affect the levels of the Portfolio Index, a Risk Premium Index and the value of a Financial Product. For example, on or prior to the trade date of a Financial Product, we or our affiliates may purchase the components of the Portfolio Index, the relevant Risk Premium Index or instruments whose value is derived from the Portfolio Index, such Risk Premium Index or their components as part of our or our affiliates’ hedge. Such hedging activity could potentially increase the level of the Portfolio Index or such Risk Premium Index prior to the close of trading on the trade date and effectively establish a higher level that the Portfolio Index or such Risk Premium Index must achieve for an investor to obtain a positive return on its investment in the Financial Product or avoid a loss of some or all of its investment. In addition, during the term of the Financial Product, we or our affiliates may adjust our or their hedge positions in connection with the reweighting, rebalancing or reconstitution of the Portfolio Index or the relevant Risk Premium Index by selling some or all of the existing components and/or purchasing new or existing components of the Portfolio Index or such Risk Premium Index at or in advance of the time the values and weightings of the components are determined for purposes of such reweighting, rebalancing or reconstitution. This hedging activity could potentially decrease the prices at which the Portfolio Index or such Risk Premium Index notionally sells existing components and increase the prices at which the Portfolio Index or such Risk Premium Index notionally purchases new or existing components, and thus adversely affect the level of the Portfolio Index or such Risk Premium Index. Finally, unwinding any hedge positions on or prior to the valuation date(s) of the Financial Product by us or our affiliates could potentially decrease the level of the Portfolio Index or the relevant Risk Premium Index prior to the close of trading on such valuation date(s) and

adversely affect the value of the Financial Product. We or our affiliates may also engage in trading in instruments linked or related to the Portfolio Index and the Risk Premium Indices on a regular basis as part of our or their general broker - dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate transactions for customers, including block transactions. Such trading and hedging activities may adversely affect the levels of the Portfolio Index and the Risk Premium Indices and make it less likely that an investor will receive a positive return on its investment in the Financial Product. It is possible that we or our affiliates could receive substantial returns from these hedging and trading activities while the value of the Financial Product declines. Introducing competing products linked or related to the Portfolio Index, the Risk Premium Indices or their components into the marketplace could also adversely affect the value of the Financial Product in the secondary market. Any of the foregoing activities described in this risk factor may reflect trading strategies that differ from, or are in direct opposition to, an investor's trading and investment strategies related to the Financial Product.

Important Information This road show data is provided for informational purposes only and does not create any legally binding obligations on Deutsche Bank. Without limitation, provision of this data does not constitute an offer, an invitation to offer or a recommendation to enter into any transaction or to take any action on your part. The data does not constitute investment advice and Deutsche Bank is not acting in a fiduciary capacity with respect to you or any other party. You should understand and discuss with their professional tax, legal, accounting and other advisors the effect of entering into or purchasing any transaction, product or security (each, a “Structured Product”). Before entering into any Structured Product, you should take steps to ensure that you understand and have assessed with your financial advisor, or made an independent assessment of, the appropriateness of the transaction in the light of your own objectives and circumstances, including the possible risks and benefits of entering into such Structured Product. If after making your own assessment you independently decide you would like to pursue a specific transaction with Deutsche Bank, there will be separate offering or other legal documentation the terms of which will (if agreed) supersede any indicative and summary terms contained in this document. The data is based on material Deutsche Bank believes to be reliable; however, Deutsche Bank does not represent that the data is accurate, current, complete or error free. Assumptions, estimates and opinions contained in the data constitute Deutsche Bank’s judgment as of the date of the material and are subject to change without notice. Deutsche Bank reserves the right, at any time and without notice, to discontinue making the data available. The data may not be reproduced or distributed, in whole or in part, without Deutsche Bank’s express prior written approval. Quantitative models, processes and parameters are subject to amendment, modification, adjustment and correction at Deutsche Bank’s discretion, and may incorporate Deutsche Bank’s qualitative judgment. Deutsche Bank will from time to time run or update such models at its discretion. The distribution of this document and the availability of some of the products and services referred to herein may be restricted by law in certain jurisdictions. Some products and services referred to herein are not eligible for sale in all countries and in any event may only be sold to qualified investors. Deutsche Bank will not offer or sell any products or services to any persons prohibited by the law in their country of origin or in any other relevant country from engaging in any such transactions. Structured Products are not suitable for all investors due to illiquidity, optionality, time to redemption, and payoff nature of the strategy. Deutsche Bank or persons associated with Deutsche Bank and their affiliates may: maintain a long or short position in securities referenced herein or in related futures or options; purchase, sell or maintain inventory; engage in any other transaction involving such securities; and earn brokerage or other compensation. Any payout information, scenario analysis, and hypothetical calculations should in no case be construed as an indication of expected payout on an actual investment and/or expected behavior of an actual Structured Product. Calculations of returns on Structured Products may be linked to a referenced index or interest rate. As such, Structured Products may not be suitable for persons unfamiliar with such index or interest rate, or unwilling or unable to bear the risks associated with the transaction. Structured Products denominated in a currency, other than the investor’s home currency, will be subject to changes in exchange rates, which may have an adverse effect on the value, price or income return of the products. These Structured Products may not be readily realizable investments and are not traded on any regulated market. Structured Products involve risk, which may include interest rate, index, currency, credit, political, liquidity, time value, commodity and market risk and are not suitable for all investors. The past performance of an index, securities or other instruments does not guarantee or predict future performance. The distribution of this document and availability of these products and services in certain jurisdictions may be restricted by law. In this document, various performance-related statistics, such as index return and volatility, among others, of the Portfolio Index and the Risk Premium Indices are compared with those of MSCI World “ER”. Such comparisons are for information purposes only. No assurance can be given that the Portfolio Index or any Risk Premium Index will outperform MSCI World “ER” in the future; nor can assurance be given that the Portfolio Index or any Risk Premium Index will not significantly underperform MSCI World “ER” in the future. Similarly, no assurance can be given that the relative volatility levels of the Portfolio Index or any Risk Premium Index and MSCI World “ER” will remain the same in the future. In this document, various performance-related statistics, such as annualized return and volatility, among others, of a hypothetical portfolio with the risk premia overlay are for information purposes only. No assurance can be given that the hypothetical portfolio with the risk premia overlay will outperform the hypothetical portfolio without the risk premia overlay in the future; nor can assurance be given that the hypothetical portfolio with the risk premia overlay will not significantly underperform the

hypothetical portfolio without the risk premia overlay in the future . Similarly, no assurance can be given that the relative volatility levels of the hypothetical portfolio (with or without an overlay) will remain the same in the future .  
Page 44

Important Information Backtested , hypothetical or simulated performance results presented herein have inherent limitations . Unlike an actual performance record based on trading actual client portfolios, simulated results are achieved by means of the retroactive application of a backtested model itself designed with the benefit of hindsight and knowledge of factors that may have possibly affected its performance . Taking into account historical events the backtesting of performance also differs from actual account performance because an actual investment strategy may be adjusted any time, for any reason, including a response to material, economic or market factors . The backtested performance includes hypothetical results that do not reflect the reinvestment of dividends and other earnings or the deduction of advisory fees, brokerage or other commissions, and any other expenses that a client would have paid or actually paid and do not account for all financial risk that may affect the actual performance of an investment . No representation is made that any trading strategy or account will or is likely to achieve profits or losses similar to those shown . Alternative modeling techniques or assumptions might produce significantly different results and prove to be more appropriate . Past hypothetical backtested results are neither an indicator nor a guarantee of future returns . Actual results will vary, perhaps materially, from the analysis . Structured Products discussed herein are not insured by the Federal Deposit Insurance Corporation (FDIC) or any other US governmental agency . These Structured Products are not insured by any statutory scheme or governmental agency of the United Kingdom . Structured Products typically involve a high degree of risk, are not readily transferable and typically will not be listed or traded on any exchange, and are intended for sale only to investors who are capable of understanding and assuming the risks involved . The market value of any Structured Product may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility and the equity prices and credit quality of any issuer or reference issuer . Additional information (including index methodology and rules) about the Deutsche Bank proprietary indices discussed in this presentation is available upon request by calling ( 212 ) 250 - 6054 . Any results shown do not reflect the impact of commission and/or fees, unless stated . Deutsche Bank does not provide accounting, tax or legal advice . This communication was prepared solely in connection with the promotion or marketing, to the extent permitted by applicable law, of the transaction or matter addressed herein, and was not intended or written to be used, and cannot be used or relied upon, by any taxpayer for purposes of avoiding any U . S . federal income tax penalties . The recipient of this communication should seek advice from an independent tax advisor regarding any tax matters addressed herein based on its particular circumstances . **BEFORE ENTERING INTO ANY TRANSACTION YOU SHOULD TAKE STEPS TO ENSURE THAT YOU UNDERSTAND AND HAVE MADE AN INDEPENDENT ASSESSMENT OF THE APPROPRIATENESS OF THE STRUCTURED PRODUCT IN LIGHT OF YOUR OWN OBJECTIVES AND CIRCUMSTANCES, INCLUDING THE POSSIBLE RISKS AND BENEFITS OF ENTERING INTO SUCH STRUCTURED PRODUCT . YOU SHOULD ALSO CONSIDER MAKING SUCH INDEPENDENT INVESTIGATIONS AS YOU CONSIDER NECESSARY OR APPROPRIATE FOR SUCH PURPOSE .** Deutsche Bank” means Deutsche Bank AG and its affiliated companies, as the context requires . Deutsche Bank Private Wealth Management refers to Deutsche Bank’s wealth management activities for high - net - worth clients around the world . Deutsche Bank Alex Brown is a division of Deutsche Bank Securities Inc . Deutsche Bank AG has filed a registration statement (including a prospectus) with the SEC for the offerings to which this communication relates . Before you invest, you should read the prospectus in that registration statement and other documents the issuer has filed with the SEC for more complete information about the issuer and this offering . You may get these documents for free by visiting EDGAR on the SEC Web site at . [www . sec . gov](http://www.sec.gov) . Alternatively, the issuer, any underwriter or any dealer participating in the offering will arrange to send you the prospectus if you request it by calling toll - free 1 - 800 - 503 - 4611 . Page 45



Important Information NONE OF THE PORTFOLIO INDEX, ANY RISK PREMIUM INDEX (THE RISK PREMIUM INDICES, TOGETHER WITH THE PORTFOLIO INDEX, THE “ DB INDICES ”) NOR ANY FINANCIAL PRODUCT IS SPONSORED, ENDORSED, SOLD OR PROMOTED BY MSCI INC . , ANY OF ITS AFFILIATES, ANY OF ITS INFORMATION PROVIDERS OR ANY OTHER THIRD PARTY INVOLVED IN, OR RELATED TO, COMPILING, COMPUTING OR CREATING ANY MSCI INDEX (COLLECTIVELY, THE “ MSCI PARTIES ”) . THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI . MSCI AND THE MSCI INDEX NAMES ARE SERVICE MARK(S) OF MSCI OR ITS AFFILIATES AND HAVE BEEN LICENSED FOR USE FOR CERTAIN PURPOSES BY DEUTSCHE BANK AG . NEITHER ANY DB INDEX NOR ANY FINANCIAL PRODUCT HAS BEEN PASSED ON BY ANY OF THE MSCI PARTIES AS TO ITS LEGALITY OR SUITABILITY WITH RESPECT TO ANY PERSON OR ENTITY AND NONE OF THE MSCI PARTIES MAKES ANY WARRANTIES OR BEARS ANY LIABILITY WITH RESPECT TO THE DB INDICES OR ANY FINANCIAL PRODUCT . WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, NONE OF THE MSCI PARTIES MAKES ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, TO THE INDEX SPONSOR, THE RISK PREMIUM INDEX SPONSORS OR THE ISSUER OR OWNERS OF ANY FINANCIAL PRODUCT OR ANY OTHER PERSON OR ENTITY REGARDING THE ADVISABILITY OF INVESTING IN FINANCIAL PRODUCTS GENERALLY OR IN ANY FINANCIAL PRODUCT PARTICULARLY OR THE ABILITY OF ANY MSCI INDEX TO TRACK CORRESPONDING STOCK MARKET PERFORMANCE . MSCI OR ITS AFFILIATES ARE THE LICENSORS OF CERTAIN TRADEMARKS, SERVICE MARKS AND TRADE NAMES AND OF THE MSCI INDEXES WHICH ARE DETERMINED, COMPOSED AND CALCULATED BY MSCI WITHOUT REGARD TO THE DB INDICES OR ANY FINANCIAL PRODUCT OR ANY ISSUER OR OWNER OF ANY FINANCIAL PRODUCT OR ANY OTHER PERSON OR ENTITY . NONE OF THE MSCI PARTIES HAS ANY OBLIGATION TO TAKE THE NEEDS OF THE DB INDICES OR ISSUERS OR OWNERS OF ANY FINANCIAL PRODUCT OR ANY OTHER PERSON OR ENTITY INTO CONSIDERATION IN DETERMINING, COMPOSING OR CALCULATING THE MSCI INDEXES . NONE OF THE MSCI PARTIES IS RESPONSIBLE FOR OR HAS PARTICIPATED IN THE DETERMINATION OF THE TIMING OF, PRICES AT, OR QUANTITIES OF ANY FINANCIAL PRODUCT TO BE ISSUED OR IN THE DETERMINATION OR CALCULATION OF THE EQUATION BY OR THE CONSIDERATION INTO WHICH ANY FINANCIAL PRODUCT IS REDEEMABLE OR IN THE CALCULATION OF THE DB INDICES . NONE OF THE MSCI PARTIES HAS ANY OBLIGATION OR LIABILITY TO THE ISSUER OR OWNERS OF ANY FINANCIAL PRODUCT OR ANY OTHER PERSON OR ENTITY IN CONNECTION WITH THE ADMINISTRATION, MARKETING OR OFFERING OF THE DB INDICES OR ANY FINANCIAL PRODUCT . ALTHOUGH MSCI SHALL OBTAIN INFORMATION FOR INCLUSION IN OR FOR USE IN THE CALCULATION OF THE MSCI INDEXES FROM SOURCES THAT MSCI CONSIDERS RELIABLE, NONE OF THE MSCI PARTIES WARRANTS OR GUARANTEES THE ORIGINALITY, ACCURACY AND/OR COMPLETENESS OF ANY MSCI INDEX OR ANY DATA INCLUDED THEREIN OR THE RESULTS TO BE OBTAINED BY THE INDEX SPONSOR, THE RISK PREMIUM INDEX SPONSORS OR THE ISSUER OF ANY FINANCIAL PRODUCT, OWNERS OF ANY FINANCIAL PRODUCT, OR ANY OTHER PERSON OR ENTITY, FROM THE USE OF ANY MSCI INDEX OR ANY DATA INCLUDED THEREIN AND NONE OF THE MSCI PARTIES SHALL HAVE ANY LIABILITY TO ANY PERSON OR ENTITY FOR ANY ERRORS, OMISSIONS OR INTERRUPTIONS OF OR IN CONNECTION WITH ANY MSCI INDEX OR ANY DATA INCLUDED THEREIN . FURTHER, NONE OF THE MSCI PARTIES MAKES ANY EXPRESS OR IMPLIED WARRANTIES OF ANY KIND AND THE MSCI PARTIES HEREBY EXPRESSLY DISCLAIM ALL WARRANTIES (INCLUDING, WITHOUT LIMITATION AND FOR PURPOSES OF EXAMPLE ONLY, ALL WARRANTIES OF TITLE, SEQUENCE, AVAILABILITY, ORIGINALITY, ACCURACY, COMPLETENESS, TIMELINESS, NON - INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL IMPLIED WARRANTIES ARISING FROM TRADE USAGE, COURSE OF DEALING AND COURSE OF PERFORMANCE) WITH RESPECT TO EACH MSCI INDEX AND ALL DATA INCLUDED THEREIN . WITHOUT LIMITING THE GENERALITY OF ANY OF THE FOREGOING, IN NO EVENT SHALL ANY OF THE MSCI PARTIES HAVE ANY LIABILITY TO ANY

PERSON OR ENTITY FOR ANY DAMAGES, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, LOSS OF USE, LOSS OF PROFITS OR REVENUES OR OTHER ECONOMIC LOSS), AND WHETHER IN TORT (INCLUDING, WITHOUT LIMITATION, STRICT LIABILITY AND NEGLIGENCE) CONTRACT OR OTHERWISE, EVEN IF IT MIGHT HAVE ANTICIPATED, OR WAS ADVISED OF, THE POSSIBILITY OF SUCH DAMAGES . No purchaser, seller or holder of any financial product, or any other person or entity, should use or refer to any MSCI trade name, trademark or service mark to sponsor, endorse, market or promote any security without first contacting MSCI to determine whether MSCI's permission is required . Under no circumstances may any person or entity claim any affiliation with MSCI without the prior written permission of MSCI . Page 46