

Guide to the Strategy Indices of Deutsche Börse

Version 2.1

September 2010

General Information

In order to ensure the highest quality of each of its indices, Deutsche Börse AG exercises the greatest care when compiling and calculating indices on the basis of the rules set out in this Guideline.

However, Deutsche Börse AG cannot guarantee that the various indices, or the various ratios that are required for index compilation and computation purposes, as set out in this Guideline, are always calculated free of errors. Deutsche Börse AG accepts no liability for any direct or indirect losses arising from any incorrect calculation of such indices or ratios.

Decisions concerning the way its indices are calculated, as well as regarding their compilation, are always taken by Deutsche Börse AG to the best of its knowledge and belief. Deutsche Börse AG shall not be liable for any losses arising from such decisions.

The indices of Deutsche Börse AG do not represent a recommendation for investment of whatever nature. In particular, the compilation and calculation of the various indices shall not be construed as a recommendation of Deutsche Börse AG to buy or sell individual instruments, or the basket of instruments underlying a given index.

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History of Amendments to the Rules and Regulations

27 Sep 2010	Version 2.1 Launch of LevDAX® x2 Monthly, ShortDAX® x2 Monthly
4 Jan 2010	Version 2.0 Introduction DAXplus® Family Index
28 Aug. 2009	Version 1.19 Changed chaining date of DAXplus® Maximum Dividend
4 May 2009	Version 1.18 Launch of DAX® Dividend Points, DivDAX® Dividend Points
27 Apr. 2009	Version 1.17 Launch of DAXplus® Risk Trigger Germany
30 Mar. 2009	Version 1.16 Launch of LevDAX® x4, ShortDAX® x2, ShortDAX® x4
9 Mar. 2009	Version 1.15 Launch of DAXplus® Maximum Dividend
5 Feb. 2009	Version 1.14 Concretion of exception handling in DivDAX®
16 Dec. 2008	Version 1.13 Launch of DAXplus® Directors Dealings Germany
31 Mar. 2008	Version 1.12 International indices moved to "Guide to the international Strategy Indices of Deutsche Börse"
3 Sep. 2007	Version 1.11 Launch of DAXplus® Maximum Sharpe Ratio Japan (JPY), DAXplus® Minimum Variance Japan (JPY)
9 Jul. 2007	Version 1.10 Launch of DAXplus® Maximum Sharpe Ratio France, DAXplus® Maximum Sharpe Ratio Japan, DAXplus® Maximum Sharpe Ratio Switzerland, DAXplus® Maximum Sharpe Ratio US
9 Jul. 2007	Version 1.10 Launch of DAXplus® Minimum Variance France, DAXplus® Minimum Variance Japan, DAXplus® Minimum Variance Switzerland, DAXplus® Minimum Variance US
12 Jun. 2007	Version 1.9 Launch of DAXplus® Maximum Sharpe Ratio Germany
29 May 2007	Version 1.8 Launch of DAXplus® Minimum Variance Germany
27 Mar. 2007	Version 1.7 Launch of ShortDAX®
7 Aug. 2006	Version 1.6 Launch of DAXplus® Protective Put
28 Jun. 2006	Version 1.5 Launch of LevDAX®
6 Jun. 2006	Version 1.4 New Cap Limit for DAXplus® Seasonal Strategy
23 Jan. 2006	Version 1.3 Launch of DAXplus® Covered Call
24 Oct. 2005	Version 1.2 Launch of DAXplus® Export Strategy
13 Jun. 2005	Version 1.1 Launch of DAXplus® Seasonal Strategy

CDAX®, Classic All Share®, DAX®, DivDAX®, DAXplus®, FWB® Frankfurter Wertpapierbörse, HDAX®, MDAX®, LevDAX®, ShortDAX®, SDAX®, SMAX®, NEMAX50®, TecDAX®, Eurex®, Xetra® und XTF® Exchange Traded Funds are registered trademarks of Deutsche Börse AG.

1 General Index Information

Deutsche Börse calculates indices which enhance the transparency of the markets it operates, thus facilitating comparison.¹ At the same time, indices are increasingly used as underlying instruments for financial products such as futures, options, warrants, as well as funds. The existing index universe is now complemented by the introduction of additional strategy indices.

With the DAXplus® index family, Deutsche Börse has launched a range of strategy indices providing investors with transparent, rule-based, and low-cost tools to implement successful investment strategies.

1.1 DivDAX

Deutsche Börse's DivDAX® index is constructed using dividend yield as a selection criterion: the index contains the 15 companies with the highest dividend yield within the German blue chip DAX® index.

1.2 DAXplus Seasonal Strategy

The DAXplus® Seasonal Strategy index is a German equity index calculated by Deutsche Börse. This special index concept allows for seasonal investment strategies by locking in the index level achieved during August and September – traditionally, lower index levels prevail during these months. The index comprises the 30 component issues of the blue chip DAX® index, and is calculated accordingly.

1.3 DAXplus Export Strategy

The DAXplus® Export Strategy index consists of strong exporting companies, who thus benefit from strong growth outside the German economy. The index comprises the ten component issues from the DAX® and MDAX® indices with the highest proportion of exports in their revenues.

1.4 DAXplus Covered Call

With the DAXplus® Covered Call index, Deutsche Börse reflects the so-called "covered call" option strategy. This strategy – which is also referred to as "buy-write" – involves the purchase of an underlying instrument and the simultaneous sale of a call option on that instrument.

The index is based on the DAX®-index and a (short) DAX call option traded at Eurex®.

1) Cf. „Guide to the Equity Indices of Deutsche Börse“ for an overview of Selection- und All Share-indices.

1.5 Leveraged and Short Indices

With leveraged indices Deutsche Börse calculates indices linked by the leverage effect (cf. chapter 3.3.2) to the movements of blue-chip index DAX®. A positive change of DAX will result in double respectively quadruple performance of leveraged indices and vice versa.

With short indices Deutsche Börse calculates indices linked inversely to the movements of its blue-chip index DAX®. A positive change of DAX will result in a negative change in short indices.

1.6 DAXplus Protective Put

With the DAXplus® Protective Put index, Deutsche Börse reflects the Protective Put investment strategy, which provides protection from losses. This strategy combines an index investment with an options position. It involves buying a put option while simultaneously purchasing the option's underlying.

The index is based on the DAX®-index and a (long) DAX put option traded at Eurex®.

1.7 DAXplus Minimum Variance Germany

The concept of DAXplus® Minimum Variance Germany is based on the portfolio analysis from capital market theory which allows the calculation of variance optimized weight for each of the DAX® constituents. On the basis of these weights DAXplus Minimum Variance Germany is calculated under risk minimizing aspects.

For information concerning international DAXplus Minimum Variance indices cf. "Guide to the international Strategy Indices of Deutsche Börse".

1.8 DAXplus Maximum Sharpe Ratio Germany

The concept of DAXplus® Maximum Sharpe Ratio Germany is based upon the portfolio analysis and takes into account the same capital market theoretical effects as DAXplus® Minimum Variance Germany. As a distinctive feature DAXplus Maximum Sharpe Ratio Germany not only focuses on minimization of risk but also on maximization of return. By maximizing the portfolios sharpe ratio a trade of between minimized volatility and maximized return shall be aspired (cp. chapter 3.4.1).

For information concerning international DAXplus Maximum Sharpe Ratio indices cf. "Guide to the international Strategy Indices of Deutsche Börse".

1.9 DAXplus Maximum Dividend

With DAXplus® Maximum Dividend Deutsche Börse® calculates a strategy index that aims to maximize the dividend yield of the index portfolio. The index comprises 20 shares from the HDAX index which have the highest expected dividend yield.

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1.10 DAXplus Risk Trigger Germany

DAXplus® Risk Trigger Germany measures the performance of the DAX index, but limits the losses in bear markets by getting out in time when volatility is critical. In the meantime, the equity investment is exchanged for a risk-free money market investment with a low but guaranteed return. Reinvestment is possible again when the volatility in the markets is less high.

For information concerning international DAXplus Risk Trigger indices cf. "Guide to the international Strategy Indices of Deutsche Börse".

1.11 Dividend Points Indices

The indices DAX® Dividend Points and DivDAX® Dividend Points measure the dividend component of the underlying indices DAX and DivDAX. The Dividend Points indices reflect the absolute income of the portfolio and not the performance of the portfolio itself as conventional indices do. With these indices, it is possible to separate the dividend component and the resulting risk and hedge the dividend effect on short equity positions in DAX and DivDAX.

1.12 DAXplus Family

The DAXplus Family index measures the performance of founder dominated companies ("family enterprises") that are listed at the Frankfurt Stock Exchange (FWB®). The DAXplus Family Index was developed in cooperation with the Center for Entrepreneurial and Financial Studies (CEFS) at Technische Universität München (TUM). The continuous review of selection criteria is performed quarterly by the Center for Entrepreneurial and Financial Studies (CEFS) in agreement with Deutsche Börse.

2 Index Composition

The composition of strategy indices is based on the respective underlying trading strategy. Special characteristics are presented below.

2.1 DivDAX

The index comprises the 15 companies with the highest dividend yield within DAX® index. Historical dividend yields are calculated by dividing distributed dividends by the closing price of the respective share on the day preceding the ex date.

The 15 DivDAX® component issues are re-determined each September, concurrently with the decision on adjustments to the DAX composition. Hence, the index composition will generally change once a year. If a member of DivDAX Index publicly announces that it will not pay dividends at the upcoming dividend date, it will be removed from the index at the next chaining date. It will be replaced by the next company on the ranking list, that has not ceased dividend payments itself. If no replacement exists, the company will be removed from the index without replacement. If there is no chaining date between the announcement and the previously planned payout date the change will be executed with two full trading days notice following the announcement.

The index weighting is based on the free float market capitalization², whereby the maximum weighting per share is capped at 10 percent. This cap is designed to prevent individual shares from dominating the index.

All DivDAX issues are also DAX component issues, thus ensuring high liquidity.

Chaining takes place on a quarterly basis, in line with the methodology applied to DAX.

The base date of DivDAX is 20 September 1999, with a base level of 100.

DivDAX is calculated both as a price and as a performance index. The index is calculated every 15 seconds, using Xetra® price data for companies quoted in the Prime Standard segment.

2.2 DAXplus Seasonal Strategy

The index comprises the 30 component issues of the German blue-chip DAX® index.

Similar to DivDAX®, the index weighting is based on the free float market capitalization, but with the maximum weighting per share capped at 10 percent³.

²⁾ Cf. free float definition in „Guide to the Equity Indices of Deutsche Börse“.

The base date of DAXplus® Seasonal Strategy is 30 December 1987, with a base level of 1000.

Chaining takes place on a quarterly basis, in line with the methodology applied to the DAX.

The special feature of DAXplus Seasonal Strategy index is that the index value is frozen on the last trading day in July, and is not changed until the last trading day in September. The period between is referred to as the 'de-investment phase'. Starting with the first trading day in October, the index will again be calculated on the basis of the then current DAX composition.

Outside the de-investment phase during August and September, the index is calculated every 15 seconds, using Xetra® price data for companies quoted in the Prime Standard segment. DAXplus Seasonal Strategy is calculated both as a price and as a performance index.

2.3 DAXplus Export Strategy

The index composition is updated once a year, on the chaining date in September. Ten component issues of the DAX® and MDAX® indices are chosen, selecting those companies that, within each index, have derived the highest proportion of their revenues outside Germany (based on figures disclosed in their annual reports for the preceding business year). The Banks and Financial Services sectors are not considered for this index.

Similar to DivDAX®, the index weighting is based on the free-float market capitalization, with the maximum weighting per share also capped at 10 percent. The outcome of this is the equal weighting of all index constituents.

The base date of DAXplus® Export Strategy is 18 March 2002, with a base level of 100.

DAXplus Export Strategy is calculated both as a price and as a performance index. The price index is calculated every 15 seconds and the performance index end of day, using Xetra® price data for companies quoted in the Prime Standard segment.

2.4 DAXplus Covered Call

DAXplus® Covered Call index combines the DAX® index and a DAX call option.

The base date of DAXplus Covered Call is the 31 December 1992, with a base level of 100.

3) As of the chaining day in September 2006 the cap limit of DAXplus Seasonal Strategy was lowered to 10 percent.

The index composition is adjusted on a monthly basis. On each third Friday of the month, a new front-month call option is determined, which will be used to calculate the index until their last trading day, at 1.00 p.m. CET.

On normal trading days, the DAXplus Covered Call index is calculated every 60 seconds, between 9.00 a.m. and 5.45 p.m. CET; on option rollover dates, only from 9.00 a.m. to 1.00 p.m. CET. The calculation is based on Xetra® and Eurex® price data.

2.5 Leveraged and Short Indices

Leveraged indices are linked to the changes of blue-chip index DAX®, applying a leverage factor of two respectively four to DAX movements. Therefore, investing in leveraged indices yields the double respectively quadruple performance as DAX, compared to the closing level from the last day of calculation. Short Indices are linked to the inverse movement of blue-chip index DAX®.

The adjustment of leverage takes place daily or (in case of monthly adjustment) on each third Friday of a month.

The base date of the leveraged indices is 30 December 1987, with a base value of 1,000, analogous to DAX index. The base date of the short indices is 29 December 2006, with a base value of 6,596.92, analogous to the closing value of the DAX index on that day.

The leveraged and short indices are calculated in real time every 15 seconds between 9.00 a.m. and 5.45 p.m. based on DAX (performance index).

2.6 DAXplus Protective Put

The DAXplus® Protective Put index combines the DAX® index and a DAX put option.

The base date of DAXplus Protective Put is 31 December 1992, with a base level of 100.

The index composition is adjusted on a quarterly basis. On third Friday in March, June, September and December, a new put option is determined, which will be used to calculate the index until the last trading day, at 1.00 p.m. CET for the following three months.

On normal trading days, the DAXplus Protective Put index is calculated every 60 seconds, between 9.00 a.m. and 5.45 p.m. CET; on option rollover dates, only from 9.00 a.m. to 1.00 p.m. CET. The calculation is based on Xetra® and Eurex® price data.

2.7 DAXplus Minimum Variance Germany

DAXplus® Minimum Variance Germany reflects the DAX® portfolio with the optimized weight for each of the DAX constituents in consideration of the portfolio theory model. Taking into account the correlation and the volatility of the single DAX values, DAXplus Minimum Variance Germany represents an optimal solution under risk minimizing aspects.

The base date of DAXplus Minimum Variance Germany is the 21 September 2001, with a base level of 100.

The chaining takes place on a quarterly basis (i.e. on the third Friday of the last month of a quarter). Therefore, the optimal weights are recalculated as described in chapter 3.4.1. In this context, it can occur that some of the weights are determined with 0.00 percent. Accordingly, these constituents are not considered in the index. For the variance calculation of the DAX constituents the continuous day's yield over the last twelve months is used (cf. chapter 3.4.1). The date, as of the continuous yield over the last twelve months is considered, is also actualized quarterly as it depends on the chaining date. Between two chaining dates the weighting factors $q_{i,T}$ which are derived out of the weight (cf. chapter 3.4.2) are kept constant.

DAXplus Minimum Variance Germany is calculated as performance and price index in real time every 15 seconds, between 9.00 a.m. and 5.45 p.m. CET in Euro, US-Dollar and British Pound. The calculation is based on Xetra® price data.

2.8 DAXplus Maximum Sharpe Ratio Germany

DAXplus® Maximum Sharpe Ratio Germany is based on the portfolio of the DAX®-Index, but also utilizes the possibility to optimize the weights analogous to DAXplus® Minimum Variance Germany. In contrast to DAXplus Minimum Variance Germany the objective function is augmented to take into account return as well as risk of the portfolio. This approach aims to realize an optimal risk-return ratio.

The base date of DAXplus Maximum Sharpe Ratio Germany is the 21 September 2001, with a base level of 100.

The chaining takes place on a quarterly basis (i.e. on the third Friday of the last month of a quarter). The weightings are calculated in line with the methodology applied to DAXplus Minimum Variance Germany (cp. chapters 2.7 and 3.4.1). Between two chaining dates the weighting factors $q_{i,T}$ which are derived out of the weight (cp. chapter 3.4.2) are kept constant.

DAXplus Maximum Sharpe Ratio Germany is calculated as performance and price index in real time every 15 seconds, between 9.00 a.m. and 5.45 p.m. CET in Euro, US-Dollar and British Pound. The calculation is based on Xetra® price data.

2.9 DAXplus Maximum Dividend

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The index consists of the 20 companies in the HDAX Index, which have the highest expected dividend yield and will pay a dividend within the forthcoming adjustment period. The expected dividend yield will be determined by the announced and the estimated dividend amount and the closing price of the stock at the time of selection.

The composition of the index is reviewed twice a year at the end of April and October and becomes effective on 2nd Friday in May and November after the close of trading (in case

that an extraordinary adjustment of the index composition is required, it will become effective on the 2nd Friday of the month). Those HDAX companies are considered which will pay a dividend within the upcoming six months and have a free-float market capitalization of at least 1 billion Euro and an average daily turnover of 2 million Euro over the last three months. This ensures a high liquidity of the index. If less than 20 companies meet the above named criteria, the index portfolio will be supplemented by the best companies (in terms of the dividend yield) of the previous period.

If a member of the DAXplus Maximum Dividend index leaves the HDAX index or publicly announces that it will not pay a dividend, it will be replaced by the next company on the most recent ranking list that neither has cancelled his distribution. If no replacement candidate exists, no action will be taken. The monthly ranking lists comprise all HDAX shares that will pay a dividend until the next regular index review and meet the additional index criteria.

The index weighting is based on the expected dividend yield: the higher the dividend yield of a company, the higher its weight in the index portfolio. The maximum weight of a company at the time of adjustment is ten percent. This prevents that single issues dominate the index.

The base date of DAXplus® Maximum Dividend Index is 21 May 1999 with an index level of 100.

DAXplus Maximum Dividend is calculated as price and performance index. The calculation is performed every 15 seconds on the basis of Xetra prices.

2.10 DAXplus Risk Trigger Germany

The index concept of DAXplus® Risk Trigger Germany is based on the premise that share price increases generally happen slowly and steadily, i.e. with low volatility, whereas decreases mostly happen very quickly, displaying a much higher volatility. High volatility is equated to a high level of risk. If the DAX® index underlying DAXplus Risk Trigger Germany exceeds a certain defined threshold, the investment is reallocated in its entirety to the money market (eb.rexx Money Market Index).

Reinvestment in the equity portfolio will not take place until the volatility level has fallen below a defined lower limit and the market phase is no longer deemed to be risky. The short-term 10-day volatility level of the underlying index forms the basis of this decision. The definition of the relevant volatility limits is based on the long term average volatility of the DAX index (DAXplus Risk Trigger Germany: 20%/30%).

The base date of DAXplus Risk Trigger Germany is the 30 December 1987, with a base level of 1,000.

2.11 Dividend Points Indices

DAX® Dividend Points and DivDAX® Dividend points reflect the income resulting from regular dividends and bonus payments of the companies included in the respective

underlying index. These distributions are accumulated for the entire index portfolio and hence measure the income of the current year in index points. The Dividend Points indices are reset to zero on the regular chaining date of the underlying indices in December.

The indices are calculated and published once a day.

2.12 DAXplus Family

The DAXplus Family index is an all-share index that comprises all companies listed in the Prime Standard segment at the Frankfurt Stock Exchange and meet the specific selection criteria for family enterprises. Family enterprises are characterized – according to the understanding applied here – by the following two attributes:

- **Family Ownership**
The group of index relevant people is a major shareholder of the company, i.e. it holds at least 25 percent of all ordinary shares

and/or

- **Family Management**
The group of index relevant people holds at least 5 percent of the ordinary shares and is member of the company management (management or supervisory board).

The group of index relevant people consists of founders (both single founders and teams of founders) of the company and their families.

In a broader sense the group of index relevant people is also assigned such shares that are being held indirectly by an asset management, investment or holding company, in case these are owned or controlled by the group of index relevant people.

In addition, with the DAXplus Family 30 index a liquid selection index is being calculated that comprises the 30 largest family enterprises (according to free float market capitalization) which have an average daily trading volume of at least €500,000 over the preceding three months at the time of index review.

The base date of the DAXplus Family indices is 21 June 2002 with a base value of 1000.

The composition of the index is reviewed on a quarterly basis. The index weighting is based on the free float market capitalization of the shares. The weight of an underlying is limited to a maximum of 10 percent.

The DAXplus Family indices are calculated continuously every 60 seconds from 9 a.m. to 5:45 p.m. as total return index, the price indices are computed once a day at market close. The calculation is based on Xetra® prices.

3 Calculation

3.1 DivDAX , DAXplus Seasonal Strategy and DAXplus Export Strategy

3.1.1 Index Formula

Deutsche Börse's indices are conceived according to the Laspeyres formula set out below:

A. DivDAX® and DAXplus® Export Strategy

$$\text{Index}_t = K_T \cdot \frac{\sum_{i=1}^n p_{it} \cdot q_{iT} \cdot ff_{iT} \cdot c_{it}}{\sum_{i=1}^n p_{i0} \cdot q_{i0}} \cdot \text{Base}$$

B. DAXplus® Seasonal Strategy

$$\text{Index}_t = \begin{cases} K_T \cdot \frac{\sum_{i=1}^n p_{it} \cdot q_{iT} \cdot ff_{iT} \cdot c_{it}}{\sum_{i=1}^n p_{i0} \cdot q_{i0}} \cdot \text{Base} & \text{;October until July} \\ \text{Index}_j & \text{;August and September} \end{cases}$$

whereby:

c_{it}	=	Adjustment factor of company i at time t
ff_{iT}	=	Free-float factor of share class i at time T
n	=	Number of shares in the index
p_{i0}	=	Closing price of share i on the trading day before the first inclusion in an index of Deutsche Börse
p_{it}	=	Price of share i at time t
q_{i0}	=	Number of shares of company i on the trading day before the first inclusion in an index of Deutsche Börse

q_{iT}	=	Number of shares of company i at time T
t	=	calculation time of the index
K_T	=	Index-specific chaining factor valid as of chaining date T
T	=	Date of the last chaining

The formula set out below is equivalent in analytic terms, but designed to achieve relative weightings:

$$\text{Index}_t = \frac{\sum_{i=1}^n p_{it} \cdot (K_T \cdot \frac{ff_{iT} \cdot q_{iT}}{\sum_{i=1}^n q_{i0}} \cdot 100 \cdot c_{it})}{\sum_{i=1}^n p_{i0} \cdot \frac{q_{i0}}{\sum_{i=1}^n q_{i0}} \cdot 100} \cdot \text{Base} = \frac{\sum_{i=1}^n p_{it} \cdot F_i}{A} \cdot \text{Base}$$

whereby: $A = \frac{\sum_{i=1}^n p_{i0} \cdot q_{i0} \cdot 100}{\sum_{i=1}^n q_{i0}}$

and: $F_i = K_T \cdot \frac{ff_{iT} \cdot q_{iT}}{\sum_{i=1}^n q_{i0}} \cdot 100 \cdot c_{it}$

Index calculation can be reproduced in simplified terms by using the expression F_i :

- Multiply the current price by the respective F_i weighting factor;
- take the sum of these products; and
- divide this by the base value (A) which remains constant until a modification in the index composition occurs.

The F_i factors provide information on the number of shares required from each company to track the underlying index portfolio.

3.1.2 Computational Accuracy

The K_T chaining factors are used and published as figures rounded to seven decimal places.

The c_{it} adjustment factors are included in the index formula on the basis of six decimal places.

In the event of several adjustment events coinciding, such as “ex-dividend” and “ex subscription right” markdowns on the same day, only one single adjustment factor (six decimal places) is computed using the total markdown. Where several adjustment events are required for a single share but at different times, the factors rounded that way are multiplied by each other, and the product is rounded to six decimal places again.

When determining the c_{it} adjustment factor for subscription rights, the rights value is used as a figure with two decimal places. Only in the case of a capital increase out of company reserves, such rights value is not rounded at all. If a dividend disadvantage has to be prorated (e.g. for three months), the value of such disadvantage used for index calculation is rounded to two decimal places.

The free-float-factors are used as figures rounded to four decimal places.

The indices are rounded to two decimal places and published accordingly. The F_i factors are rounded to five decimal places and published accordingly, changing with each share-specific adjustment.

3.1.3 Cap Limit

On the day of regular quarterly chaining, the weighting of any single company in DivDAX®, DAXplus® Export Strategy and in DAXplus® Seasonal Strategy is capped to 10 percent of the index capitalization, respectively.

For this purpose, the index capitalization is computed using the total number of all freely available shares. If any single class of shares accounts for a share of more than i.e. 10 percent in the respective capitalization, the number of shares used as weight for that company is reduced to 10 percent of the index capitalization (which is being reduced accordingly). Should yet another company exceed the cap limit after that, the capitalization is to be determined with which both companies would account for exactly 10 percent of the revised index capitalization. This procedure is repeated for as long as there is no company exceeding the respective cap limit. Then the next smaller integer of shares resulting in the desired capitalization is used as the new weight for calculating the index.

Where the capped share of a company falls or rises below or above 10 percent during the quarter, it may only be raised or lowered to 10 percent again on the following chaining date as the above-described procedure is repeated for every single chaining process.

3.1.4 Adjustments

The performance indices of Deutsche Börse are adjusted for exogenous influences (e.g. price-relevant capital changes) by means of certain correction factors, assuming a reinvestment according to the “opération blanche”.

All continuously calculated indices require a simultaneous adjustment of systematic price changes. The prerequisite for this is to calculate the correction factor on an ex-ante basis.

Consequently, already the first "ex" price can be adequately included for index calculation purposes. The ex-ante incorporation of adjustments presupposes a general acceptance of the computation formula as well as a general availability of the parameters used.

All parameters necessary for the respective computation are available from Deutsche Börse via its website (www.deutsche-boerse.com) on the evening before each adjustment. As with all other adjustment processes there may be differences between the calculated values and the actually traded prices. However, since a preliminary correction is necessary and any delay would be problematic, this procedure remains the most appropriate one.

The calculated adjustment factor and a synthetic price accordingly adjusted for this factor are used in the index from the ex date of a share as long as there is no "ex" price available.

3.1.5 New Listings and Deletion

Regular modifications to the index composition only occur if the ordinary chaining coincides with the actualization of the index composition at the same time. This process is predominantly based on the criteria as set out in: "Guide to the Equity Indices of Deutsche Börse".

3.1.6 Chaining

In line with the concept conceived by Deutsche Börse for its indices, dividend payments and capital changes are initially reflected through an adjustment of the respective cit adjustment factors. Quarterly chaining is carried out on the maturity date of the various equity index futures of Eurex, implying that on this day (i.e. on the third Friday of the last month of a quarter), the index is calculated for the last time on the basis of weights valid up to that point. Chaining is based on the Xetra® closing prices established on that day, with the new weights to be applied as from the following trading day.

A change in the index composition also becomes necessary in the event of an index component issue being or becoming subject to extraordinary circumstances, such as deletion, composition proceedings, bankruptcy, new admission, etc.

3.1.7 Ordinary Chaining

The ordinary chaining procedure takes place on a quarterly basis and encompasses the following measures:

- § The number of shares and the respective free-float-factors are updated in accordance with the capital changes carried out.

§ The accumulated income from distributions and capital changes is allocated to the index component issues according to the respective new weights. For this purpose, the individual c_{it} adjustment factors are set to 1.

§ A chaining factor is calculated to avoid a gap in the respective index.

If the ordinary chaining coincides with the actualization of the index composition at the same time, a change of the composition takes place additionally.

These measures help to prevent the weighting scheme from "ageing" due to capital changes and the accumulation of income.

Chaining is carried out in three steps:

a) *Calculation of the index value on the chaining date according to the old weighting scheme*

The following applies accordingly:

$$\text{Index}_t = K_T \cdot \frac{\sum_{i=1}^n p_{it} \cdot ff_{iT} \cdot q_{iT} \cdot c_{it}}{\sum_{i=1}^n p_{i0} \cdot q_{i0}} \cdot \text{Base}$$

This value corresponds to the closing index published on the date of chaining, and is used with two decimal places (as published) for all subsequent calculations.

b) *Computation of an interim value*

The interim value is computed using the number of shares valid on the chaining date ($q_{i,T+1}$) and the current free-float factors ($ff_{i,T+1}$). The c_{it} adjustment factors are set to 1.

The following applies accordingly:

$$\text{Interim value} = \frac{\sum_{i=1}^n p_{it} \cdot ff_{i,T+1} \cdot q_{i,T+1}}{\sum_{i=1}^n p_{i0} \cdot q_{i0}} \cdot \text{Base}$$

The interim value is used as an exact figure for subsequent calculations.

c) *Calculation of the new chaining factor*

The following applies accordingly:

$$K_{T+1} = \frac{\text{Index}_t}{\text{Interim value}}$$

After chaining, the index is computed on the basis of the new chaining factor (K_{T+1}).

After calculation of the chaining factor, capital changes and dividend payments due on the date of chaining are taken into account via the c_{it} factor.

The F_i weighting factors of the index formula based on relative weights are calculated as follows:

$$F_i = K_{T+1} \cdot \frac{ff_{i,T+1} \cdot q_{i,T+1} \cdot c_{it}}{\sum_{i=1}^n q_{i0}} \cdot 100$$

3.1.8 Unscheduled Chaining

In the event of a change in the index composition, chaining is carried out in line with the procedure described in section 3.1.7 above, however, usually without adjustment to the number of shares and the various c_{it} factors. Newly included issues are taken into account with their respective current number of shares.

Computation of the interim value is based on the component issues of the revised index portfolio.

$$\text{Interim value} = \frac{\sum_{i=1}^n p_{it} \cdot ff_{iT} \cdot q_{iT} \cdot c_{it}}{\sum_{i=1}^n p_{i0} \cdot q_{i0}} \cdot \text{Base}$$

With the new chaining factor to result as

$$K_{T+1} = \frac{\text{Index}_t}{\text{Interim value}}$$

If a newly included company was not listed in the Frankfurt Stock Exchange's Prime Standard or General Standard segments on the base date, the number of shares (q_{i0}) and the price (p_{i0}) must be sourced from the Third Segment (Open Market – OTC market) as per that base date. If the company was not listed in Frankfurt at all, the corresponding figures from the respective domestic exchange are used for the index calculation instead. If the company was not listed at all on the base date of the index, the basis number of shares (q_{i0}) corresponds to the number of shares at the time of admission to trading. The basis price (p_{i0}) is the first price available at the time of such admission.

3.2 DAXplus Covered Call and DAXplus Protective Put

3.2.1 Index Formulas

A. DAXplus Covered Call

On Xetra® trading days DAXplus® Covered Call is calculated as follows:

$$CC_t = \frac{DAX_t - C_t}{DAX_s - C_0} \cdot CC_s$$

The rolling is carried out monthly on every third Friday.

$$CC_s = \frac{DAX_s - C'_s}{DAX_{s-m} - C'_0} \cdot CC_{s-m}$$

whereby:

CC_t	=	covered call index at time t
CC_s	=	settlement value of covered call index at last rolling day
CC_{s-m}	=	settlement value of covered call index at previous rolling day
DAX_t	=	last price of DAX® at time t
DAX_s	=	settlement price of DAX at last rolling day
DAX_{s-m}	=	settlement price of DAX at previous rolling day
C_t	=	last price of call option at time t
C_0	=	inclusion price of new call option at last rolling day
C'_s	=	settlement price of old call option at last rolling day
C'_0	=	inclusion price of old call option at previous rolling day

B. DAXplus Protective Put

On Xetra® trading days DAXplus® Protective Put is calculated as follows:

$$PP_t = \frac{DAX_t + P_t}{DAX_s + P_0} \cdot PP_s$$

The rolling is carried out on third Friday at the end of each quarter.

$$PP_s = \frac{DAX_s + P'_s}{DAX_{s-m} + P'_0} \cdot PP_{s-m}$$

whereby:

PP_t	=	protective put index at time t
PP_s	=	settlement value of protective put index on last rolling day
PP_{s-m}	=	settlement value of protective put index one rolling before
DAX_t	=	last price of DAX® before time t
DAX_s	=	settlement price of DAX on last rolling day
DAX_{s-m}	=	settlement price of DAX one rolling before
P_t	=	last price of put option before time t
P_0	=	inclusion price of new put option on last rolling day
P'_s	=	settlement price of old put option on expiry day
P'_0	=	inclusion price of old put option one rolling before

3.2.2 Computational Accuracy

DAX®, DAX Call Option, DAX Put Option, DAXplus® Covered Call index and DAXplus® Protective Put index are published as figures rounded to two decimal places.

3.2.3 Rolling

DAXplus® Covered Call requires a monthly rollover operation, whereby the old call option ceases trading at 1.00 p.m. CET on the pre-determined rollover date, and is replaced by a new option whose last trading day falls on the next rollover date. The new call option must have a remaining lifetime of one month, and must be 5 percent out of the money (i.e. the highest strike price below or equal to the DAX® settlement price plus 5 percent).

The DAXplus Protective Put requires a quarterly rollover operation, whereby the old put option ceases trading at 1.00 p.m. CET on the pre-determined rollover date, and is replaced by a new put option whose last trading day falls on the next rollover date. The new option must have a remaining lifetime of three months, and must be 5 percent out of the money (i.e. the lowest strike price above or equal to the DAX settlement price minus 5 percent).

The prices at which the call- and put options are included in the respective index are based on the weighted averages of all best bids for call options and best asks for put options quoted on Eurex® between 1.15 p.m. and 1.45 p.m. CET.

3.2.4 Trading Interruption/Suspension

If there is any interruption/suspension of the DAX® index or the DAX call option which is included in DAXplus® Covered Call or DAX put option which is included in the DAXplus® Protective Put at any time then the index will be calculated with the latest prices which will be available.

If suspension occurs on a rolling day during the averaging process, only bids before the interruption/suspension will be considered.

In case averaging does not start at all (i.e. interruption/suspension starts before 1.15 p.m. CET) then the averaging will be delayed until the end of the interruption/suspension on the same index business day. 30 minutes after the end of the interruption/suspension the averaging will start and will then take 30 minutes.

If the interruption/suspension will continue until the end of trading then the averaging will be delayed until the next index business day at 1.15 p.m. CET.

3.3 Leveraged and Short Indices

3.3.1 Index Formula

Leveraged and short Indices are calculated as follows:

$$\text{LevDAX}_t = \text{LevDAX}_T \cdot \underbrace{\left[1 + L \cdot \left(\frac{\text{DAX}_t}{\text{DAX}_T} - 1 \right) \right]}_{\text{LEVERAGE TERM}} + \underbrace{(1 - L) \cdot \text{IR}_T \cdot \frac{d}{360}}_{\text{FINANCE/INTEREST TERM}}$$

Where:

L	= leverage factor
DAX	= DAX index
IR	= interest rate: EONIA or EURIBOR (1M)
t	= time of calculation
T	= time of last rebalancing (last trading day resp. third Friday)
d	= number of calendar days between t and T

The leverage term describes the effect of DAX® index movements on leveraged and short Indices. The "finance term" indicates the costs caused by raising capital and reinvesting into DAX portfolio. The "interest term" represents the additional interest generated by selling the DAX portfolio and the risk-free investment of the proceeds.

Euro Overnight Index Average (EONIA) is the effective reference rate computed daily as a weighted average of all overnight unsecured lending transactions undertaken in the interbank market by European Central Bank since 1 January 1999. Up to this date the daily interest provided by Deutsche Bundesbank has been used for calculation. The Euro Interbank Offered Rate (EURIBOR) is a daily reference rate based on the

averaged interest rates at which banks offer to lend unsecured funds to other banks in the euro wholesale money market (or interbank market). Prior to its introduction on 1 January 1999 Frankfurt Interbank Offered Rate (FIBOR) has been used.

The following leveraged and short Indices are calculated:

Index	Leverage factor L
LevDAX [®] x2	2
LevDAX [®] x2 Monthly	2
LevDAX [®] x4	4
ShortDAX [®]	-1
ShortDAX [®] x2	-2
ShortDAX [®] x2 Monthly	-2
ShortDAX [®] x4	-4

3.3.2 Adjustments due to extreme market movements

If daily leveraged or short indices drop by more than 50 percent at the time of calculation t in comparison to the closing prices on the last adjustment day T then the leverage will be adjusted. During the adjustment those prices are considered which were received last before time t . No additional refinancing costs ("Financing Term") are calculated and no additional interests are credited ("Interest Term").

The rebalancing will be carried out by simulating a new day:

$$t := T \text{ (i.e. } DAX_T = DAX_t \text{ and LevDAX}_T = \text{LevDAX}_t)$$

$$d := 0$$

If the DAX index (closing value) rises or falls by more than 40% in the course of the month, the monthly leveraged and short indices will be subject to an extraordinary adjustment. The leverage factor will be adjusted based on the DAX closing value on the previous trading day.

Herewith the risk of a potential total loss is minimized.

3.3.3 Leverage Effect

The leverage effect causes an over proportional change of capital, employed during positive and negative market movements. This effect can be achieved by raising additional capital and reinvesting into DAX[®] and by investing capital from purchases and additional interests respectively. Therewith, investors can make use of this opportunity to employ a profitable investment strategy with low initial capital in order to multiply the chances of profit considerably. On the other hand this leverage effect inherits the risk of an over proportional capital loss ("downside risk").

3.3.4 Computational Accuracy

Leveraged and short Indices are published rounded to two decimal places.

All DAX® adjustment factors are described in the "Guide to the Equity Indices of Deutsche Börse".

3.4 DAXplus Minimum Variance/ Maximum Sharp Ratio Germany

3.4.1 Weight Calculation

The weight calculation of DAXplus® Minimum Variance Germany and DAXplus® Maximum Sharp Ratio Germany takes place in three steps.

Step 1)

First the continuous day's yield for each DAX® constituent over the last twelve months must be calculated as follows:

$$I_{ik} = \ln\left(\frac{\text{Share}_{ik}}{\text{Share}_{ik-1}}\right)$$

whereby:

I_{ik} = continuous day's yield of share $i = 1, \dots, 30$ at the time $k = 1, \dots, HT$

Share_{ik} = closing price of share $i = 1, \dots, 30$ at the time $k = 2, \dots, HT$

k = trading day index

HT = number of trading days over the last twelve months

Step 2)

On the basis of the yields determined in step 1 for all DAX constituents the variances and the covariances are calculated as follows:

$$s_i = \sqrt{HT \cdot \frac{1}{HT-1} \sum_{k=1}^{HT} (I_{ik} - \bar{I}_i)^2}$$

whereby:

s_i = standard deviation of share $i = 1, \dots, 30$

\bar{I}_i = average yield of share $i = 1, \dots, 30$

$$\text{Cov}_{i,j} = HT \cdot \frac{1}{HT-1} \sum_{k=1}^{HT} (I_{ik} - \bar{I}_i) \cdot (I_{jk} - \bar{I}_j)$$

whereby:

$Cov_{i,j}$ = covariance⁴ of share $i = 1, \dots, 30$ to share $j = 1, \dots, 30$

Step 3)

On the basis of the variances and covariances determined in step 2 the weights can be calculated which leads to an optimized portfolio. For DAXplus Minimum Variance Germany the function to be optimized applies as follows:

$$S_{\text{Portfolio}}^2 = \sum_{i=1}^{30} \sum_{j=1}^{30} x_i \cdot x_j \cdot Cov_{i,j} = \sum_{i=1}^{30} \sum_{j=1}^{30} x_i \cdot x_j \cdot s_i \cdot s_j \cdot r_{i,j}$$

x_i = weight of share $i = 1 \dots 30$ in DAX portfolio

$r_{i,j}$ = correlation coefficient of share $i = 1 \dots 30$ to share $j = 1 \dots 30$

$S_{\text{Portfolio}}^2$ = variance of DAX portfolio

The correlation coefficient describes the reaction of a share to the price change of another share in the same portfolio and can be calculated as follows:

$$r_{i,j} = \frac{Cov_{i,j}}{s_i \cdot s_j}$$

For DAXplus Maximum Sharpe Ratio Germany the function to be optimized applies as follows:

$$sr_p = \frac{r_p - r_f}{S_{\text{Portfolio}}}$$

The Sharpe ratio reflects the difference between achieved or designated return of the portfolio and the risk-free return in relation to the portfolios standard deviation. By maximization of this ratio the difference between the two returns shall be maximized as well, thus the selected portfolio return exceeds the risk-free interest yield, whereas the risk of the portfolio reminds in focus as well.

$$r_p = p_1 \cdot x_1 + \dots + p_n \cdot x_n$$

$$p_i = \ln \left(\frac{\text{Share}_{i\text{Endoftheyear}}}{\text{Share}_{i\text{Beginningoftheyear}-1}} \right)$$

p_i = annual return of constituent $i = 1, \dots, 30$

⁴) In case $i=j$ the covariance is the same as the variance of share i .

r_p = designated return for the entire portfolio

$$s_{\text{Portfolio}} = \sqrt{s^2_{\text{Portfolio}}}$$

$s_{\text{Portfolio}}$ = standard deviation of the entire portfolio

r_f = risk- free return on capital market

Following the optimization models with objective function and constraints:

A) DAXplus Minimum Variance Germany:

$$\min s^2_{\text{Portfolio}} = \sum_{i=1}^{30} \sum_{j=1}^{30} x_i \cdot x_j \cdot s_i \cdot s_j \cdot r_{i,j}$$

B) DAXplus Maximum Sharpe Ratio Germany:

$$\max sr_p = \frac{r_p - r_f}{s_{\text{Portfolio}}}$$

The objective functions are minimized respectively maximized subject to the following constraints:

$$\text{Constraint 1 : } \sum_{i=1}^{30} x_i = 1$$

The first constraint indicates that the weight sum must be 100 percent. However, for single constituent the weight with 0.00 percent can also occur. These constituents won't be considered in the index.

$$\text{Constraint 2 : } x_i \geq 0 \text{ for } (i=1, \dots, 30)$$

The second constraint completes the mathematical model taking into account the non-negativity of the weight as well as exclusion of short sales.

$$\text{Constraint 3 : } x_i \leq 0.1 \text{ for } (i=1, \dots, 30)$$

The third constraint makes sure that the weight of each constituent is restricted to 10 percent.

In case of negative value for the objective function of DAXplus Maximum Sharpe Ratio Germany, the constituents from the last index composition are considered and weighted equally.

3.4.2 Weighting Factors Calculation

The weighting factors q_{iT} are derived using the weights which were determined in chapter 3.4.1. For each constituent the weight x_i is multiplied by the scale factor 1 bn. and divided by the current price p_{it} . Reference date for the calculation is the last trading day of the month preceding the chaining month. The calculation of the weighting factors (q_{iT}) will be carried out using the closing prices of this date. The determined weighting factors become effective for the index calculation on the next chaining Friday.

$$q_{iT} = \frac{x_i}{p_{it}} \cdot 1 \text{ bn.}$$

The scale factor 1 bn. is defined as the sum of the product of the prices p_{it} and weighting factors q_{iT} .

The weighting factors are kept constant for the following three months after the chaining procedure.

3.4.3 Index Formula

The weighting factors q_{iT} are kept constant between two chaining dates and DAXplus® Minimum Variance Germany and DAXplus® Maximum Sharpe Ratio Germany are calculated as follows:

$$\text{Index}_t = K_T \cdot \frac{\sum_{i=1}^n p_{it} \cdot q_{iT} \cdot c_{it}}{\sum_{i=1}^n p_{i0} \cdot q_{i0}} \cdot \text{Base}$$

whereby:

c_{it}	=	Adjustment factor of company i at time t
n	=	Number of shares in the index
p_{i0}	=	Closing price of share of company i on the trading day before the first inclusion in an index of Deutsche Börse
p_{it}	=	Price of share of company i at time t
q_{i0}	=	weighting factor of company i on the trading day before the first inclusion in an index of Deutsche Börse
q_{iT}	=	weighting factor of company i at time T
t	=	calculation time of the index

K_T = Index-specific chaining factor valid as of chaining date T

T = Date of the last chaining

The formula set out below is equivalent in analytic terms, but designed to achieve relative weightings:

$$\text{Index}_t = \frac{\sum_{i=1}^n p_{it} \cdot (K_T \cdot \frac{q_{iT}}{\sum_{i=1}^n q_{i0}} \cdot 100 \cdot c_{it})}{\sum_{i=1}^n p_{i0} \cdot \frac{q_{i0}}{\sum_{i=1}^n q_{i0}} \cdot 100} \cdot \text{Base} = \frac{\sum_{i=1}^n p_{it} \cdot F_i}{A} \cdot \text{Base}$$

whereby:

$$A = \frac{\sum_{i=1}^n p_{i0} \cdot q_{i0} \cdot 100}{\sum_{i=1}^n q_{i0}}$$

and:

$$F_i = K_T \cdot \frac{q_{iT}}{\sum_{i=1}^n q_{i0}} \cdot 100 \cdot c_{it}$$

Index calculation can be reproduced in simplified terms by using the expression F_i :

- Multiply the current price by the respective F_i weighting factor;
- take the sum of these products; and
- divide this by the base value (A) which remains constant until a modification in the index composition occurs.

The F_i factors provide information on the number of shares required from each company to track the underlying index portfolio.

3.4.4 Computational Accuracy

DAXplus® Minimum Variance Germany and DAXplus® Maximum Sharpe Ratio Germany are published rounded to two decimal places.

All factors which are required for the calculation are rounded to two decimal places as well.

All DAX[®] adjustment factors are described in the "Guide to the Equity Indices of Deutsche Börse".

3.4.5 Chaining

The chaining⁵ procedure for DAXplus[®] Minimum Variance Germany and DAXplus[®] Maximum Sharpe Ratio Germany takes place as described in chapters 3.1.6, 3.1.7 and 3.1.8 with the special focus on actualization of the weights x_i and weighting factors q_{iT} as defined in chapter 3.4.1 in step 3 and in chapter 3.4.2.

3.5 DAXplus Maximum Dividend

3.5.1 Index formula

$$\text{Index}_t = K_T \cdot \frac{\sum_{i=1}^n p_{it} \cdot q_{iT} \cdot c_{it}}{\sum_{i=1}^n p_{i0} \cdot q_{i0}} \cdot \text{Basis}$$

c_{it} = Adjustment factor of company i at time t

n = Number of shares in the index

p_{it} = Price of share of company i at time t

p_{iT} = Closing price of share of company i at time t

q_{iT} = weighting factor of company i at time T

t = calculation time of the index

K_T = Index specific chaining factor valid as of chaining date T

T = Date of the last chaining

3.5.2 Determination of weighting factors

The weighting factors are derived from the expected dividend yields by dividing the dividend yield DY_i by the current price p_i and multiplying by the normalization factor of 1 billion. The expected dividend yield is calculated on the basis of announced or expected dividends and the closing price at the time of the ranking.

$$DY_i = \frac{\sum_t d_{i,t}}{p_i}$$

whereby:

⁵ The free-float factors f_{it} are set to 1.

$d_{i,t}$	=	announced or expected dividend payout for share i at time t
p_i	=	closing price of share i on the last trading day in April and October
t	=	time within the upcoming six-month index calculation period

The index weights and weighting factors are calculated as follows:

$$w_i = \frac{DY_i}{\sum DY_i}$$

$$q_{i,T} = \frac{w_i}{p_{i,T}} \cdot 1 \text{ bn}$$

whereby:

w_i	=	weight of share i
DY_i	=	expected dividend yield of share i
$p_{i,T}$	=	closing price of share i at time of the rebalancing

The weighting factors q_{iT} from each chaining remain stable for six month.

3.6 DAXplus Risk Trigger Germany

3.6.1 Index formula

$$RTI_t = RTI_{t-1} \cdot \frac{\text{Index}_t}{\text{Index}_{t-1}}$$

whereby:

t	=	calculation time of the index
Index_t	=	DAX / eb.rexx Money Market, depending on the currently selected asset class

Format
Number

3.6.2 Calculation Accuracy

DAXplus® Risk Trigger Germany is published rounded to two decimal places.

All adjustment factors are described in the "Guide to the Equity Indices of Deutsche Börse".

3.7 Dividend Points Indices

3.7.1 Index formula

DAX® Dividend Points and DivDAX® Dividend Points are calculated as follows:

$$DVP_t = DVP_{t-1} + DP_t,$$

with DP_t reflecting the dividend points of the underlying index portfolio.

The dividend points of the index portfolio are derived as follows:

$$DP_t = K_T \cdot \frac{\sum_{i=1}^n d_{it} \cdot q_{it} \cdot ff_{it} \cdot c_{it}}{\sum_{i=1}^n p_{i0} \cdot q_{i0}} \cdot \text{Basis}$$

d_{it} = Distribution of share class i on ex-date t

The remaining parameters are identical to those used in the calculation of the underlying price index.

After the regular index chaining in December the Dividend Points index is reset to zero.

3.7.2 Calculation Accuracy

DAX® Dividends Points and DivDAX® Dividend Points are published rounded to two decimal places.

All adjustment factors are described in the "Guide to the Equity Indices of Deutsche Börse".

3.8 DAXplus Family-Index

3.8.1 Index Formula

The indices of Deutsche Börse are based on the index formula of Laspeyres und are calculated as follows:

$$\text{Index}_t = K_T \cdot \frac{\sum p_{it} \cdot ff_{iT} \cdot q_{iT} \cdot c_{it}}{\sum p_{i0} \cdot q_{i0}} \cdot \text{Base}$$

whereby:

c_{it} = Adjustment factor of share i at time t

ff_{iT} = Free float factor of share i at time T

n = Number of shares in the index

p_{i0} = Closing price of share i on the trading day before the first inclusion in an index of Deutsche Börse

p_{it} = Price of share i at time t

q_{i0}	=	Number of shares of company i on the trading day before the first inclusion in an index of Deutsche Börse
q_{iT}	=	Number of shares of company i at time T
t	=	calculation time of the index
K_T	=	Index specific chaining factor valid as of chaining date T
T	=	Date of the last chaining

3.8.2 Calculation Accuracy

The DAXplus® Family index will be published rounded at two decimal places.

All adjustment factors refer to the "Guide to the Equity Indices of Deutsche Börse".

4 General Information

4.1 Index Labels

An index is published with the label "A" ("amtlich") once the opening criteria are fulfilled. Where the opening criteria have not been met for an index on a certain trading day, an index value is derived from the last available prices at the end of the calculation period. Accordingly, this index is labelled "I" (indicative).

In the event of price changes of more than 1 percent against the last traded price, the corresponding index is labelled "U" (unchecked). The calculated index value is subsequently checked for data entry or computation errors. Any data entry or computation error is corrected accordingly, followed by a recalculation of the respective index. In the case of a deviation in excess of 1 percent where no error has occurred, the index is revalidated (i.e. labelled in keeping with its corresponding status).

4.2 Historical Data

Historical index data exists for all indices, dating back at least to the respective base date.

Until 18 June 1999, inclusive, data had been generated on the basis of prices sourced from floor trading at the Frankfurt Stock Exchange. Since 21 June 1999, time series have been based on Xetra[®] price data.

Time series for the various indices are available from Market Data & Analytics – Customer Service (cf. chapter 5.2) at Deutsche Börse AG.

4.3 Licensing

The indices of Deutsche Börse are registered trademarks of Deutsche Börse AG and therefore protected against unlawful usage inside and outside Germany. Exchanges, banks and investment companies may, however, apply to Deutsche Börse for licenses to use these indices as underlying instruments for derivative instruments. The standardised licensing agreement grants the licensee the right to use the indices for any number of instruments, with the license fee set according to the actual usage. For enquiries regarding the licensing of indices, please contact Deutsche Börse, Market Data & Analytics (cf. chapter 5.2).

5 Appendix

5.1 ISINs and Alpha Codes

Index	Alpha (TR)	ISIN (TR)	Alpha (PR)	ISIN (PR)
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Strategy Indices

DivDAX®	GSUL	DE000A0C33D1	GSUK	DE000A0C33C3
DAXplus® Seasonal Strategy	D1AB	DE000A0C4BV8	D1AA	DE000A0C4BU0
DAXplus® Export Strategy	D1EP	DE000A0C4BX4	D1EK	DE000A0C4BW6
DAXplus® Covered Call	D3CC	DE000A0C4BY2	n/a	n/a
LevDAX® x2	D1AJ	DE000A0C4B34	2DMT	DE000A0Z3JF9
LevDAX® x2 Monthly	2DWK	DE000A0Z3K92	n/a	n/a
LevDAX® x4	4NAS	DE000A0SNAM8	2DMV	DE000A0Z3JH5
ShortDAX®	D1A8	DE000A0C4CT0	2DMM	DE000A0Z3H97
ShortDAX® x2	D1A9	DE000A0SNAK2	2DMP	DE000A0Z3JB8
ShortDAX® x2 Monthly	2DWL	DE000A0Z3LA6	n/a	n/a
ShortDAX® x4	4NAQ	DE000A0SNAL0	2DMR	DE000A0Z3JD4
DAXplus® Protective Put	D1A8	DE000A0C4CS2	n/a	n/a
DAXplus® Minimum Variance Germany (EUR)	XEFN	DE000A0METN8	XEFM	DE000A0METM0
DAXplus® Minimum Variance Germany (USD)	XEFO	DE000A0MET03	XEFZ	DE000A0METZ2
DAXplus® Minimum Variance Germany (GBP)	XEGC	DE000A0MEUC9	XEGB	DE000A0MEUB1
DAXplus® Maximum Sharpe Ratio Germany (EUR)	XEFL	DE000A0METL2	XEFK	DE000A0METK4
DAXplus® Maximum Sharpe Ratio Germany (USD)	F9MG	DE000A0ME7G7	F9MF	DE000A0ME7F9
DAXplus® Maximum Sharpe Ratio Germany (GBP)	F9MT	DE000A0ME7U8	F9MS	DE000A0ME7T0
DAXplus® Maximum Dividend	1NGL	DE000A0XXDZ3	1NGX	DE000A0XXEA4
DAXplus® Risk Trigger Germany	G7X3	DE000A0X7J39	n/a	n/a
DAX® Dividend Points	1MZB	DE000A0XXAL9	n/a	n/a
DivDAX® Dividend Points	G73K	DE000A0X7KL8	n/a	n/a
DAXplus® Family	D1BL	DE000A0YKTL4	D1BM	DE000A0YKTM2
DAXplus® Family 30	D1BN	DE000A0YKTNO	D1BP	DE000A0YKTP5

5.2 Your Direct Line to Deutsche Börse

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