

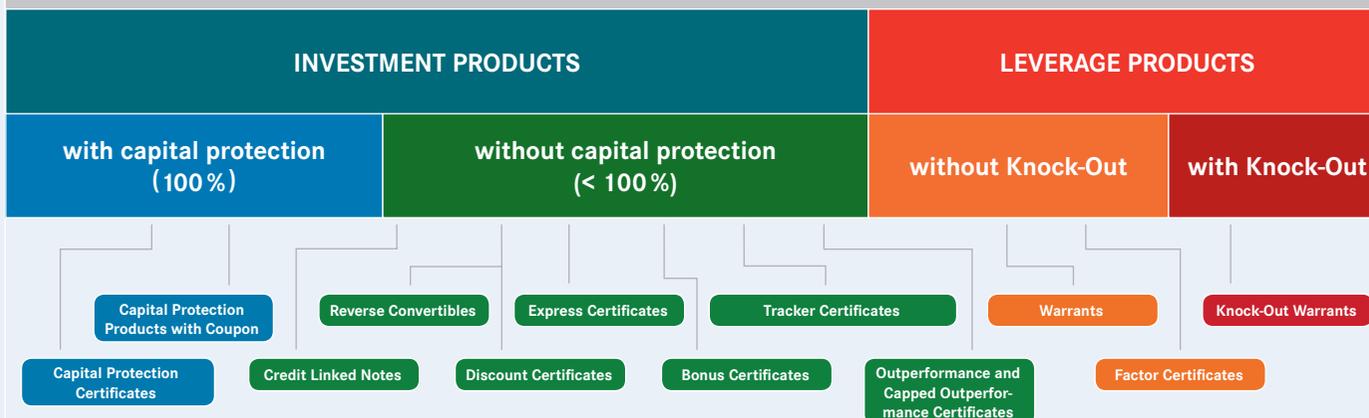
Market Volume

in Derivatives

Continued growth in structured products market

Bonus Certificates and Discount Certificates in particularly high demand

STRUCTURED SECURITIES



DDV Classification System

CONTENTS

Market volume since August 2016	3
Market volume by product class	3
Market volume by product category	4
Change in the market volume by product category	4
Investment products by product category	4
Leverage products by product category	4
Market volume by underlying	5
Change in market volume by underlying	5
Investment products by underlying	5
Leverage products by underlying	5
Collection, validation and analysis methodology	6

August | 2017

- The total volume of the German structured products market rose to EUR 70.3 billion in August.
- Bonus Certificates recorded a particularly large increase of 6.4 percent, which brought their volume to EUR 2.5 billion.
- The market volume of leverage products rose by 3.7 percent to EUR 1.9 billion.
- Leverage products with indices as an underlying recorded growth of 6.6 percent. The volume invested in these products amounted to EUR 560.7 million.

Continued growth in structured products market

Bonus Certificates and Discount Certificates in particularly high demand

The outstanding volume of the German structured products market increased again in August. When the figures are extrapolated to all issuers, the total volume of the German structured products market works out at EUR 70.3 billion in August 2017. This represents month-on-month growth of 1.3 percent, or EUR 0.8 billion. These trends are shown by the latest set of the figures collected each month from 15 banks by the European Derivatives Group (EDG) on behalf of the German Derivatives Association (Deutscher Derivate Verband, DDV). The ratio of investment products to leverage products shifted slightly in favour of leverage products.

Investment products by product category

The overall upward trend meant there was an increase in demand in most product categories compared with the previous month. **Bonus Certificates** and **Discount Certificates** recorded particularly strong growth in volumes. The volume invested in Discount Certificates rose to EUR 5.1 billion. The marked upward trend in **Express Certificates** since the start of the year continued in August. The market volume in this category was EUR 12.5 billion. Slight growth was also recorded in **Reverse Convertibles**. Contrary to the general trend, a decline was recorded in **Capital Protection Products**. Altogether 36.1 percent of the market volume in August was invested in **Capital Protection Products with Coupon** and **Uncapped Capital Protection Certificates**. **Credit Linked Notes** also recorded a decline again.

Leverage products by product category

At EUR 1.9 billion, the market volume of leverage products was up significantly in August. Growth was recorded in the **Warrants** and **Knock-Out Warrants** category, while the volume invested in **Factor Certificates** was down.

Investment products by underlying

Investment products with **interest rates as an underlying** remained the most popular category in August. Their volume rose slightly to EUR 22.1 billion. Investment products with **equities as an underlying** came second. The volume invested in these products was EUR 20.2 billion. Investment products with **indices as an underlying** also recorded an increase, after a fall-off in the previous months. Investment products with **commodities as an underlying** fell to EUR 788.8 million in August. Investment products with **currencies as an underlying** saw particularly strong growth of 28.6 percent, which brought their volume to EUR 56.2 million.

Leverage products by underlying

The month of August saw significant increases in the dominant classes of underlying for leverage products. The market volume of leverage products with **equities as an underlying** rose to EUR 1.1 billion, while the volume invested in leverage products with **indices as an underlying** went up to EUR 560.7 million. The market volume of leverage products with **commodities as an underlying** also rose significantly to EUR 187.2 million. ■



Deutscher Derivate Verband (DDV)

Deutscher Derivate Verband (DDV), the German Derivatives Association, is the industry representative body for the leading issuers of derivative securities in Germany, who represent more than 90 percent of the German structured products market: BayernLB, BNP Paribas, Citigroup, Commerzbank, Deka-Bank, Deutsche Bank, DZ BANK, Goldman Sachs, Helaba, HSBC Trinkaus, HypoVereinsbank, LBBW, Société Générale, UBS and Vontobel. Furthermore, the Association's work is supported by fourteen sponsoring members, which include the Stuttgart and Frankfurt Exchanges, Baader Bank, the direct banks comdirect bank, Consorsbank, DAB Bank, flatex, ING-DiBa and S Broker, as well as finance portals and other service providers.

www.derivateverband.de

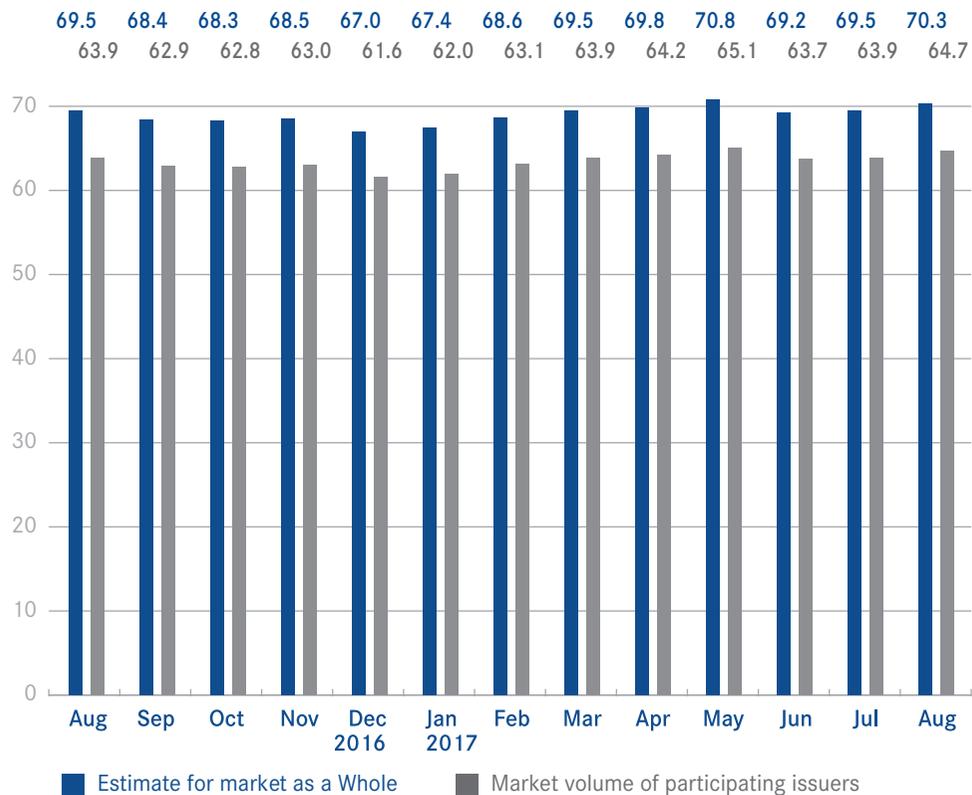
Office Berlin, Pariser Platz 3, 10117 Berlin, Germany
Office Frankfurt a.M., Feldbergstr. 38, 60323 Frankfurt a.M., Germany

Your contact:

Alexander Heftrich, Media Relations Officer
phone: +49 (0)69 244 33 03 70, mobile phone: +49 (0)160 805 30 34
heftrich@derivateverband.de

Under the heading Presse (Media) our website www.derivateverband.de provides not only our latest media releases but also audio and video recordings for reporting (presently only available on the German website).

Market volume since August 2016



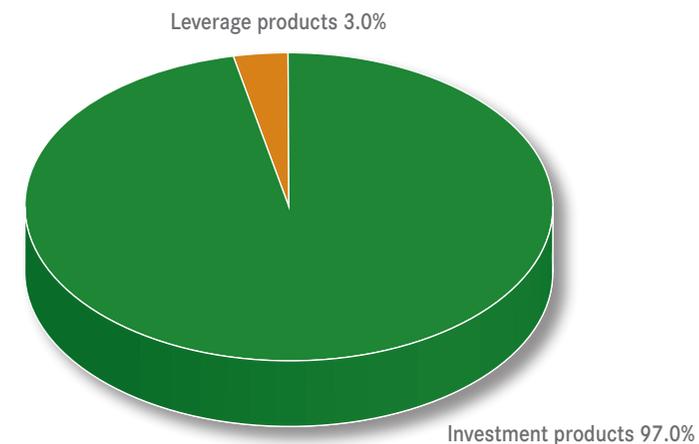
Product classes

Market volume as at 31 August 2017

Product classes	Market volume	Share
	T€	%
Investment products with capital protection	22,658,286	36.1%
Investment products without capital protection	40,073,403	63.9%
Total Investment products	62,731,689	100.0%
Leverage products without Knock-Out	1,025,157	53.0%
Leverage products with Knock-Out	909,357	47.0%
Total Leverage products	1,934,514	100.0%
Total Investment products	62,731,689	97.0%
Total Leverage products	1,934,514	3.0%
Total Derivatives	64,666,203	100.0%

Product classes

Market volume as at 31 August 2017

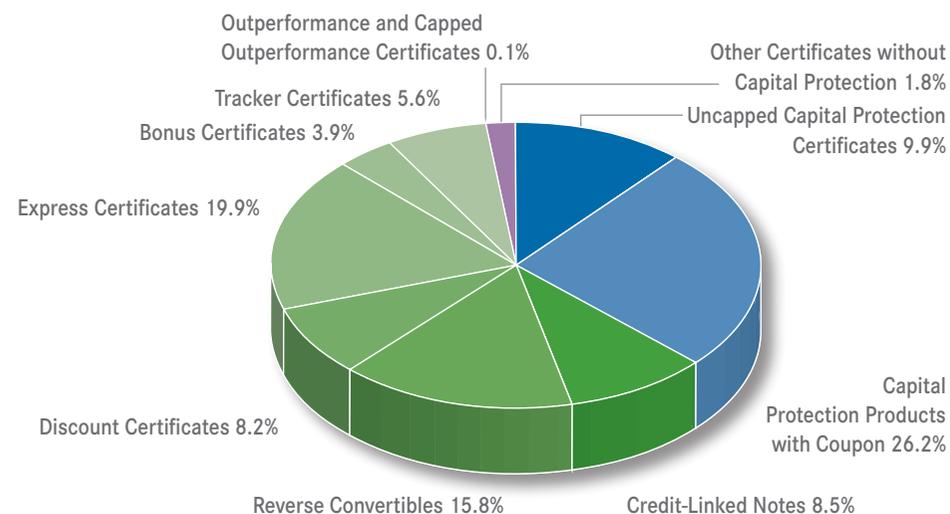


Market volume by product category as at 31 August 2017

Product categories	Market volume		Market volume price-adjusted		Number of Products	
	T€	in %	T€	in %	#	in %
■ Uncapped Capital Protection Certificates	6,203,911	9.9%	6,186,769	9.9%	1,744	0.3%
■ Capital Protection Products with Coupon	16,454,375	26.2%	16,410,076	26.2%	2,867	0.5%
■ Credit-Linked Notes	5,321,421	8.5%	5,324,293	8.5%	2,342	0.4%
■ Reverse Convertibles	9,935,202	15.8%	9,975,458	15.9%	135,654	24.8%
■ Discount Certificates	5,143,156	8.2%	5,147,699	8.2%	160,563	29.4%
■ Express Certificates	12,490,671	19.9%	12,503,422	19.9%	10,716	2.0%
■ Bonus Certificates	2,464,011	3.9%	2,462,775	3.9%	229,074	41.9%
■ Tracker Certificates	3,499,301	5.6%	3,481,518	5.6%	1,547	0.3%
■ Outperformance and Capped Outperformance Certificates	88,228	0.1%	88,884	0.1%	1,285	0.2%
■ Other Certificates without Capital Protection	1,131,412	1.8%	1,130,290	1.8%	873	0.2%
Investment products total	62,731,689	97.0%	62,711,184	97.0%	546,665	36.0%
■ Warrants	690,979	35.7%	714,745	36.4%	537,818	55.3%
■ Factor Certificates	334,178	17.3%	347,535	17.7%	5,089	0.5%
■ Knock-Out Warrants	909,357	47.0%	903,937	46.0%	429,434	44.2%
Leverage products total	1,934,514	3.0%	1,966,217	3.0%	972,341	64.0%
Total	64,666,203	100.0%	64,677,401	100.0%	1,519,006	100.0%

Investment products by product category

Market volume as at 31 August 2017

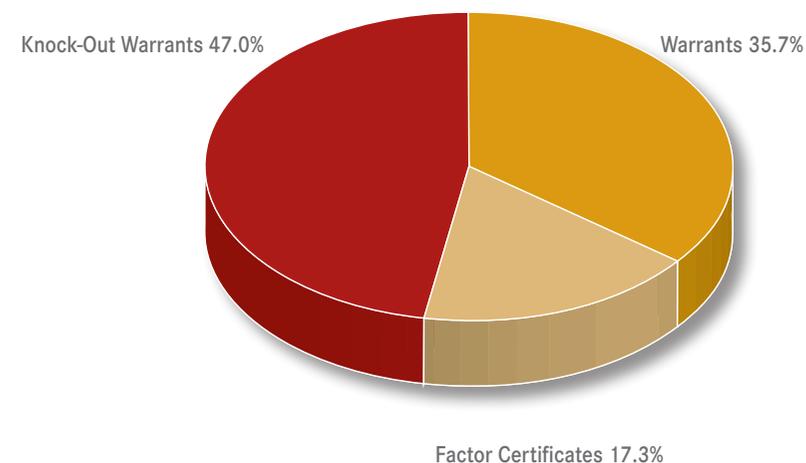


Change in market volume by product category in comparison with previous month

Product categories	Change		Change price-adjusted		Price effect	
	T€	in %	T€	in %	in %	
■ Uncapped Capital Protection Certificates	-161,093	-2.5%	-178,235	-2.8%		0.3%
■ Capital Protection Products with Coupon	248,180	1.5%	203,880	1.3%		0.3%
■ Credit-Linked Notes	-95,449	-1.8%	-92,577	-1.7%		-0.1%
■ Reverse Convertibles	69,082	0.7%	109,337	1.1%		-0.4%
■ Discount Certificates	235,204	4.8%	239,747	4.9%		-0.1%
■ Express Certificates	284,212	2.3%	296,962	2.4%		-0.1%
■ Bonus Certificates	147,836	6.4%	146,601	6.3%		0.1%
■ Tracker Certificates	-11,831	-0.3%	-29,614	-0.8%		0.5%
■ Outperformance and Capped Outperformance Certificates	3,125	3.7%	3,781	4.4%		-0.8%
■ Other Certificates without Capital Protection	23,767	2.1%	22,645	2.0%		0.1%
Investment products total	743,032	1.2%	722,527	1.2%		0.0%
■ Warrants	20,501	3.1%	44,268	6.6%		-3.5%
■ Factor Certificates	-5,052	-1.5%	8,304	2.4%		-3.9%
■ Knock-Out Warrants	54,227	6.3%	48,807	5.7%		0.6%
Leverage products total	69,677	3.7%	101,380	5.4%		-1.7%
Total	812,708	1.3%	823,906	1.3%		0.0%

Leverage products by product category

Market volume as at 31 August 2017



Market volume by underlying asset as at 31 August 2017

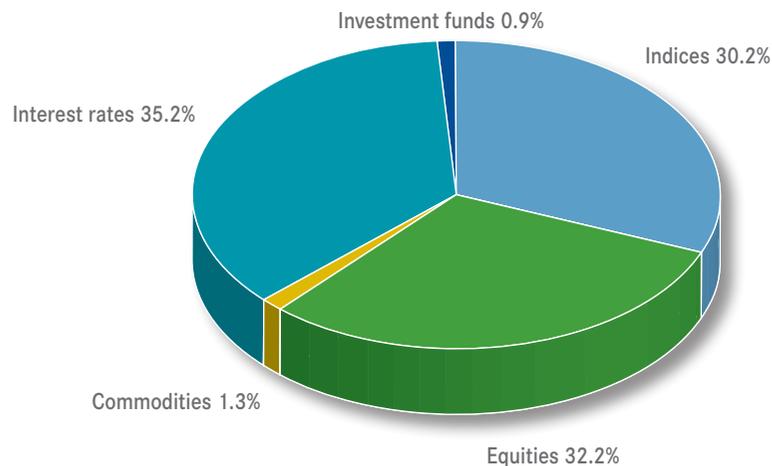
Underlying	Market volume		Market volume price-adjusted*		Number of Products	
	T€	%	T€	%	#	%
Investment products						
Indices	18,974,465	30.2%	18,984,480	30.3%	124,351	22.7%
Equities	20,214,167	32.2%	20,246,158	32.3%	414,503	75.8%
Commodities	788,848	1.3%	778,300	1.2%	2,305	0.4%
Currencies	56,228	0.1%	46,149	0.1%	37	0.0%
Interest rates	22,103,894	35.2%	22,060,328	35.2%	5,283	1.0%
Investment funds	594,087	0.9%	595,770	1.0%	186	0.0%
	62,731,689	97.0%	62,711,184	97.0%	546,665	36.0%
Leverage products						
Indices	560,717	29.0%	584,004	29.7%	218,673	22.5%
Equities	1,100,454	56.9%	1,102,959	56.1%	644,676	66.3%
Commodities	187,230	9.7%	180,076	9.2%	48,338	5.0%
Currencies	50,908	2.6%	51,529	2.6%	55,671	5.7%
Interest rates	35,183	1.8%	47,626	2.4%	4,975	0.5%
Investment funds	23	0.0%	23	0.0%	8	0.0%
	1,934,514	3.0%	1,966,217	3.0%	972,341	64.0%
Total	64,666,203	100.0%	64,677,401	100.0%	1,519,006	100.0%

*Market volume adjusted for price changes = quantity outstanding as at 31 August 2017 x price as at 31 July 2017

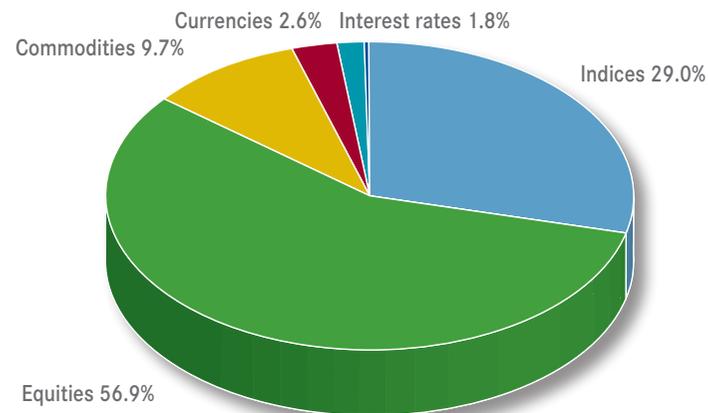
Change in the market volume by underlying asset in comparison with previous month

Underlying	Change		Change price-adjusted		Price effect
	T€	%	T€	%	
Investment products					
Indices	329,546	1.8%	339,561	1.8%	-0.1%
Equities	273,391	1.4%	305,382	1.5%	-0.2%
Commodities	-10,155	-1.3%	-20,704	-2.6%	1.3%
Currencies	12,497	28.6%	2,418	5.5%	23.0%
Interest rates	118,109	0.5%	74,543	0.3%	0.2%
Investment funds	19,644	3.4%	21,328	3.7%	-0.3%
	743,032	1.2%	722,527	1.2%	0.0%
Leverage products					
Indices	34,960	6.6%	58,248	11.1%	-4.4%
Equities	20,083	1.9%	22,588	2.1%	-0.2%
Commodities	10,859	6.2%	3,705	2.1%	4.1%
Currencies	5,678	12.6%	6,299	13.9%	-1.4%
Interest rates	-1,904	-5.1%	10,540	28.4%	-33.6%
Investment funds	0	1.7%	0	0.0%	1.7%
	69,677	3.7%	101,380	5.4%	-1.7%
Total	812,708	1.3%	823,906	1.3%	0.0%

Investment products by underlying asset Market volume as at 31 August 2017



Leverage products by underlying asset Market volume as at 31 August 2017



Collection, validation and analysis methodology

1. Calculation of the market volume

In calculating the outstanding volume, the first step is to establish the market volume for an individual issue by multiplying the quantity outstanding by the market price on the last trading day of the month under review. The total market volume is calculated by adding the individual values. The price-adjusted figure is obtained by valuing the outstanding quantities at the market prices on the last trading day of the previous month. Newly launched products are valued at the price on the last trading day in the month under review.

2. Calculation of the turnover

Turnover is calculated at the relevant exercise price by aggregating the individual trades per issue and period and then adding them up. Purchases and sales are included at their relevant absolute amounts. The only turnover recorded is that relating to end customers. Also, issues are not classified as turnover until their value dates. By contrast, repayments are not included in the turnover figures, since they do not constitute actual trades. This means that there is a natural outflow of funds at the maturity date of the products, although this is offset by new issues if investors continue to invest in these investment classes. This turnover calculation can lead to inflows of funds in one investment class in one month that exceed the turnover recorded for that month in terms of their amounts. Also, large price fluctuations can lead to a change in the market volume that exceeds the turnover amount in terms of its amount.

3. Definition of the retail products covered

The collection and analysis process covers market volume and turnover in retail products that are publicly offered and listed on at least one German stock exchange in the relevant survey period. Private placements, institutional transactions and white-label trading are not covered. The possibility that parts of an issue may be bought by institutional investors, for instance through the stock exchange, cannot be ruled out.

4. DDV classification system (Derivatives League)

The product classification system used is based on DDV's Derivatives League concept. Investment products include Uncapped Capital Protection Certificates, Capital Protection Products with Coupon, Reverse Convertibles, Discount Certificates, Express Certificates, Bonus Certificates, Tracker Certificates, Outperformance and Capped Outperformance Certificates, as well as other investment products without capital protection. Leverage products comprise Warrants and Knock-Out Warrants. (For further details please refer to http://www.derivateverband.de/DE/MediaLibrary/Document/ddv_klassifizierung_final.pdf).

5. Differentiation by investment class

Retail products are differentiated by the investment class of the underlying. All products with an equity component are included among the equity-based investment or leverage products. Products with a purely bond-based underlying (e.g. index certificates based on the German REX bond index, capital protected certificates based on the EURIBOR Euro Interbank Offered Rate) are included in the investment class of bonds. The currencies and commodities investment class comprises products based on goods, commodities and currencies. Hedge fund products are also shown separately.

6. Collection of the data

Each month, the issuers provide the relevant data in a specified scope and format from their internal systems (trading, risk management and pricing systems etc.). The mandatory information comprises ISIN, product type, asset class of the underlying, product category, turnover, market volume, quantity outstanding, maturity date of the products, product name, issue date, issue volume (quantity issued). The optional information includes details of the underlying, the knock-out thresholds, market prices and listings on German stock exchanges.

7. Monitoring of compliance with the self-commitment

Compliance with the code of conduct is monitored by means of on-site and off-site inspection of data and systems. Random sampling and targeted requests for selected information are backed up by cross-checking of data using stock exchange data, information services and the websites of issuers. In particular, the data are reconciled on a regular basis in cooperation with Boerse Stuttgart, with the main focus on stock exchange listing, the categorisation of products and the substantiation of figures for turnover and outstanding volumes.

DISCLAIMER

EDG AG regularly checks the methods and analyses on which this interpretation is based. However, it does not guarantee the correctness of the analyses. By signing up to the voluntary agreement, the issuers have agreed to ensure the correctness of the transaction data provided by them, and on which the analysis is based. However, EDG AG cannot guarantee the correctness or the completeness of the data from the issuers.

Copyright

These statistics may not be copied, used or quoted without reference to the source text (Deutscher Derivate Verband: The German Derivatives Market, August 2017).