

Market Volume

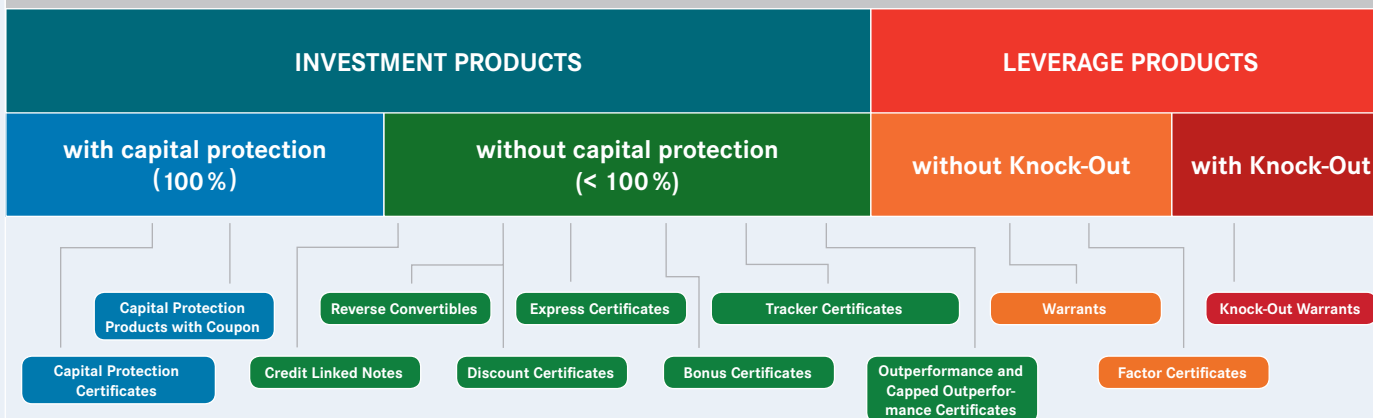
in Derivatives



German structured products market totals EUR 70.3 billion

Growth in Capital Protection Products with Coupon

STRUCTURED SECURITIES



DDV Classification System

CONTENTS

Market volume since June 2017	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

June | 2018

- In June, the total volume of the German structured products market fell to EUR 70.3 billion.
- With 7.9 percent, leverage products saw a sharper reduction than the overall market.
- Capital Protection Products with Coupon bucked the general trend, increasing by 2.6 percent to EUR 18.1 billion.
- Investment products with interest rates as an underlying recorded a rise of 1.9 percent to come in at EUR 22.8 billion.

German structured products market totals EUR 70.3 billion

Growth in Capital Protection Products with Coupon

The outstanding volume of the German structured products market fell at the end of the first half. Almost all product categories were affected by this decrease. Extrapolating the figures to all issuers puts the total volume of the German structured products market at EUR 70.3 billion at the end of June 2018. This corresponds to a loss of 1.4 percent or EUR 1.1 billion month on month. These trends are shown by the latest figures collected each month from 15 banks by the European Derivatives Group (EDG AG) on behalf of the German Derivatives Association (Deutscher Derivate Verband, DDV).

The ratio of investment products to leverage products shifted slightly in favour of investment products.

Investment products by product category

The negative overall trend meant that demand was down on the previous month in almost all product categories. **Discount Certificates** and **Reverse Convertibles** in particular experienced above-average reductions in volumes. The volume invested in Reverse Convertibles fell to EUR 9.3 billion as a result. The market volume for **Tracker Certificates** also decreased. **Capital Protection Products** bucked the trend by recording growth. 38.0 percent of the market volume was invested in **Capital Protection Products with Coupon** and **Uncapped Capital Protection Certificates** in June. The volume invested in **Outperformance/Capped Outperformance Certificates** also rose.

Leverage products by product category

After making gains in the previous months, the market volume of **Leverage Products** was down considerably at EUR 1.9 billion in June. Marked decreases were seen in all product categories, with the sharpest decline in **Knock-Out Warrants**.

Investment products by underlying

Structured products with **interest rates as an underlying** remained the most popular category in June. Having risen in the previous month, their volume increased again to EUR 22.8 billion. Despite some losses, investment products with **equities as an underlying** followed in second place. The volume invested in them totalled EUR 20.2 billion. Investment products with **indices as an underlying** also registered negative growth. Interest in investment products with **commodities as an underlying** fell again at the end of the first half, taking their total to EUR 562.2 million. The volume invested in investment products with **investment funds as an underlying** grew again, taking the total to EUR 703.6 million.

Leverage products by underlying

Marked losses were seen in the dominant classes of leverage products in June. The market volume of leverage products with **equities as an underlying** decreased to EUR 1.2 billion, while the volume invested in leverage products with **indices as an underlying** fell to EUR 487.8 million. The market volume of leverage products with **commodities** or **currency** as an underlying fell sharply as well. ■



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 seventeen 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

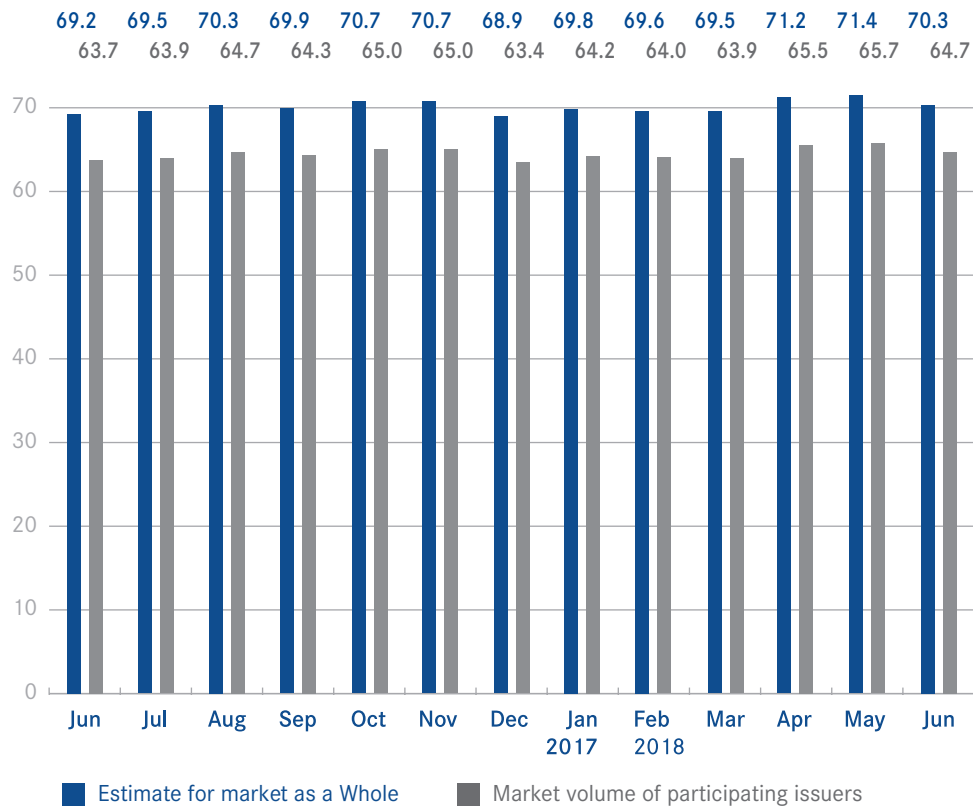
Office Berlin, Pariser Platz 3, 10117 Berlin, Germany
Office Frankfurt a.M., Feldbergstr. 38, 60323 Frankfurt a.M., Germany

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 June 2017



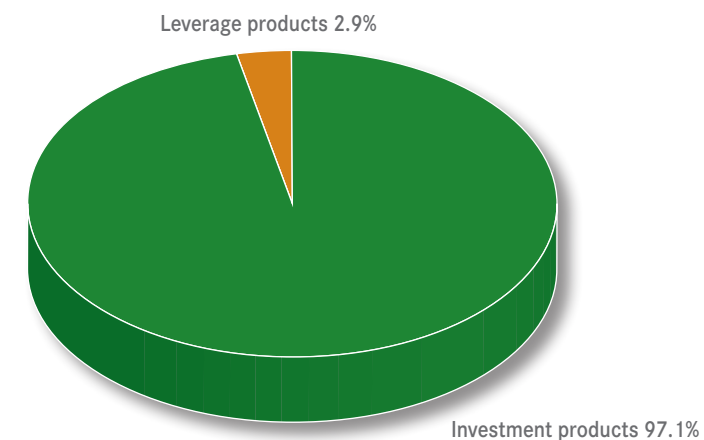
Product classes

Market volume as at 30 June 2018

Product classes	Market volume	Share
	T€	%
Investment products with capital protection	23,878,335	38.0%
Investment products without capital protection	38,966,760	62.0%
Total Investment products	62,845,095	100.0%
Leverage products without Knock-Out	1,125,203	59.1%
Leverage products with Knock-Out	777,897	40.9%
Total Leverage products	1,903,100	100.0%
Total Investment products	62,845,095	97.1%
Total Leverage products	1,903,100	2.9%
Total Derivatives	65,697,178	100.0%

Product classes

Market volume as at 30 June 2018

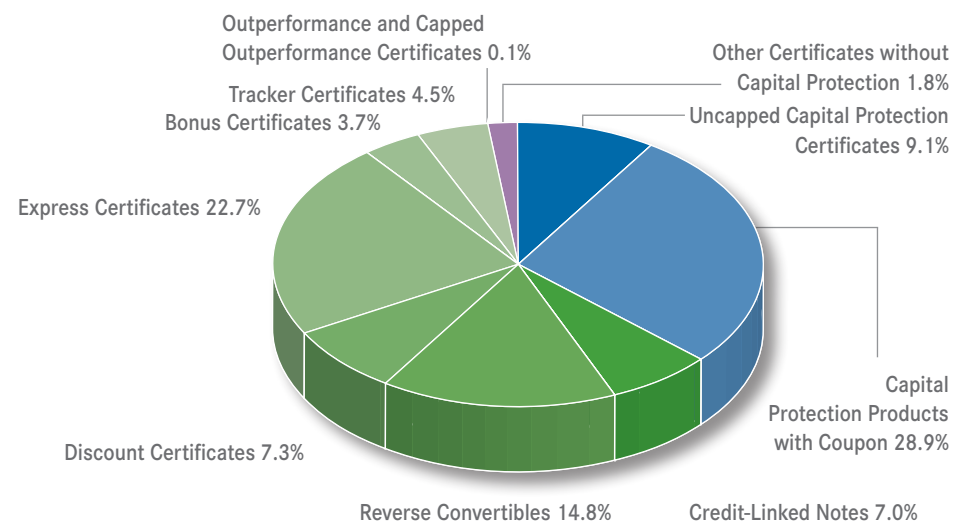


Market volume by product category as at 30 June 2018

Product categories	Market volume		Market volume price-adjusted		Number of Products	
	T€	in %	T€	in %	#	in %
■ Uncapped Capital Protection Certificates	5,730,704	9.1%	5,744,257	9.1%	1,574	0.3%
■ Capital Protection Products with Coupon	18,147,631	28.9%	18,124,911	28.6%	3,470	0.7%
■ Credit-Linked Notes	4,410,467	7.0%	4,424,368	7.0%	2,372	0.5%
■ Reverse Convertibles	9,303,036	14.8%	9,468,992	14.9%	124,250	26.6%
■ Discount Certificates	4,609,146	7.3%	4,647,953	7.3%	151,170	32.3%
■ Express Certificates	14,271,105	22.7%	14,533,545	22.9%	12,330	2.6%
■ Bonus Certificates	2,355,192	3.7%	2,364,256	3.7%	169,473	36.2%
■ Tracker Certificates	2,814,990	4.5%	2,865,756	4.5%	1,333	0.3%
■ Outperformance and Capped Outperformance Certificates	76,166	0.1%	77,001	0.1%	1,048	0.2%
■ Other Certificates without Capital Protection	1,126,657	1.8%	1,132,932	1.8%	949	0.2%
Investment products total	62,845,095	97.1%	63,383,971	96.8%	467,969	31.2%
■ Warrants	811,462	42.6%	860,579	41.5%	555,833	53.8%
■ Factor Certificates	313,741	16.5%	371,312	17.9%	7,133	0.7%
■ Knock-Out Warrants	777,897	40.9%	842,117	40.6%	470,092	45.5%
Leverage products total	1,903,100	2.9%	2,074,009	3.2%	1,033,058	68.8%
Total	64,748,195	100.0%	65,457,980	100.0%	1,501,027	100.0%

Investment products by product category

Market volume as at 30 June 2018

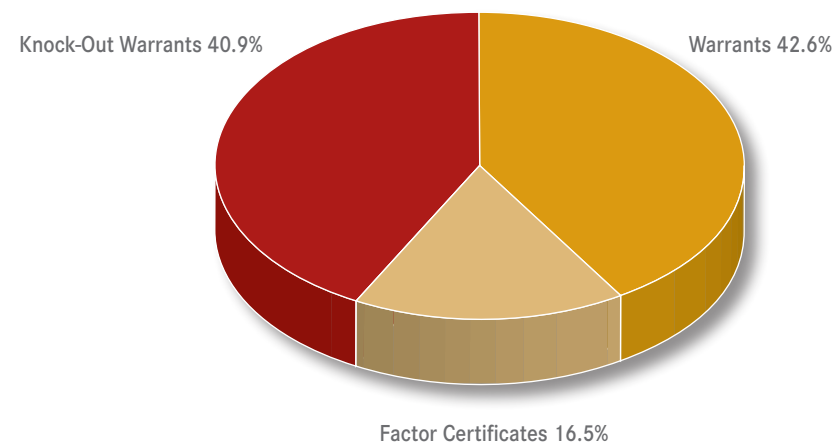


Change in market volume by product category in comparison with previous month

Product categories	Change		Change price-adjusted		Price effect	
	T€	in %	T€	in %	T€	in %
■ Uncapped Capital Protection Certificates	-19,689	-0.3%	-6,137	-0.1%		-0.2%
■ Capital Protection Products with Coupon	465,258	2.6%	442,538	2.5%		0.1%
■ Credit-Linked Notes	-48,485	-1.1%	-34,583	-0.8%		-0.3%
■ Reverse Convertibles	-527,434	-5.4%	-361,479	-3.7%		-1.7%
■ Discount Certificates	-365,330	-7.3%	-326,522	-6.6%		-0.8%
■ Express Certificates	-58,885	-0.4%	203,555	1.4%		-1.8%
■ Bonus Certificates	-102,558	-4.2%	-93,494	-3.8%		-0.4%
■ Tracker Certificates	-120,777	-4.1%	-70,011	-2.4%		-1.7%
■ Outperformance and Capped Outperformance Certificates	12,385	19.4%	13,219	20.7%		-1.3%
■ Other Certificates without Capital Protection	-19,897	-1.7%	-13,622	-1.2%		-0.5%
Investment products total	-785,413	-1.2%	-246,536	-0.4%		-0.8%
■ Warrants	-41,368	-4.9%	7,750	0.9%		-5.8%
■ Factor Certificates	-29,245	-8.5%	28,326	8.3%		-16.8%
■ Knock-Out Warrants	-92,957	-10.7%	-28,737	-3.3%		-7.4%
Leverage products total	-163,570	-7.9%	7,339	0.4%		-8.3%
Total	-948,983	-1.4%	-239,198	-0.4%		-1.1%

Leverage products by product category

Market volume as at 30 June 2018



Market volume by underlying asset as at 30 June 2018

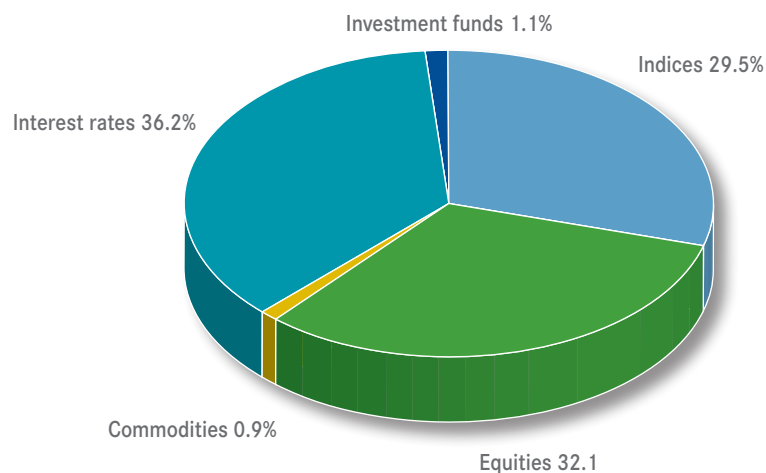
Underlying	Market volume		Market volume price-adjusted*		Number of Products	
	T€	%	T€	%	#	%
Investment products						
Indices	18,561,709	29.5%	18,611,765	29.4%	100,864	21.6%
Equities	20,170,887	32.1%	20,654,242	32.6%	358,747	76.7%
Commodities	562,181	0.9%	565,180	0.9%	2,199	0.5%
Currencies	66,789	0.1%	83,078	0.1%	19	0.0%
Interest rates	22,779,884	36.2%	22,771,468	35.9%	5,903	1.3%
Investment funds	703,644	1.1%	698,239	1.1%	237	0.1%
	62,845,095	97.1%	63,383,971	96.8%	467,969	31.2%
Leverage products						
Indices	487,787	25.6%	538,293	26.0%	251,911	24.4%
Equities	1,223,920	64.3%	1,308,433	63.1%	671,555	65.0%
Commodities	126,887	6.7%	158,041	7.6%	48,867	4.7%
Currencies	40,990	2.2%	43,622	2.1%	53,597	5.2%
Interest rates	23,516	1.2%	25,619	1.2%	7,128	0.7%
Investment funds	0	0.0%	0	0.0%	0	0.0%
	1,903,100	2.9%	2,074,009	3.2%	1,033,058	68.8%
Total	64,748,195	100.0%	65,457,980	100.0%	1,501,027	100.0%

*Market volume adjusted for price changes = quantity outstanding as at 30 June 2018 x price as at 31 May 2018

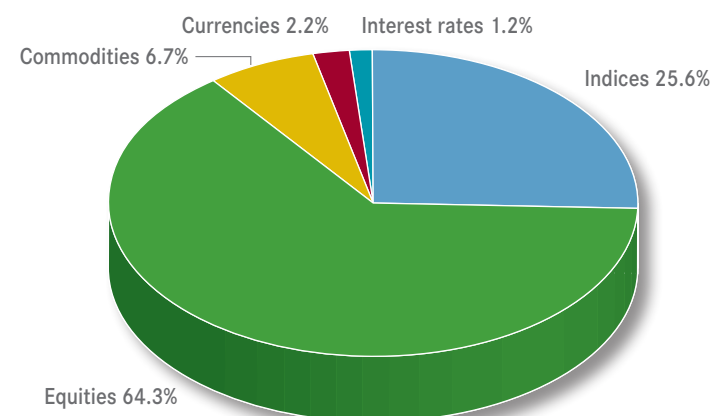
Change in the market volume by underlying asset in comparison with previous month

Underlying	Change		Change price-adjusted		Price effect
	T€	%	T€	%	
Investment products					
Indices	-137,349	-0.7%	-87,294	-0.5%	-0.3%
Equities	-1,040,901	-4.9%	-557,546	-2.6%	-2.3%
Commodities	-25,699	-4.4%	-22,701	-3.9%	-0.5%
Currencies	-15,806	-19.1%	482	0.6%	-19.7%
Interest rates	418,163	1.9%	409,747	1.8%	0.0%
Investment funds	16,180	2.4%	10,775	1.6%	0.8%
	-785,413	-1.2%	-246,536	-0.4%	-0.8%
Leverage products					
Indices	-25,030	-4.9%	25,476	5.0%	-9.8%
Equities	-104,742	-7.9%	-20,228	-1.5%	-6.4%
Commodities	-20,596	-14.0%	10,558	7.2%	-21.1%
Currencies	-10,081	-19.7%	-7,450	-14.6%	-5.2%
Interest rates	-3,120	-11.7%	-1,017	-3.8%	-7.9%
Investment funds	0	n. a.	0	n. a.	n. a.
	-163,570	-7.9%	7,339	0.4%	-8.3%
Total	-948,983	-1.4%	-239,198	-0.4%	-1.1%

Investment products by underlying asset Market volume as at 30 June 2018



Leverage products by underlying asset Market volume as at 30 June 2018



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, June 2018).