

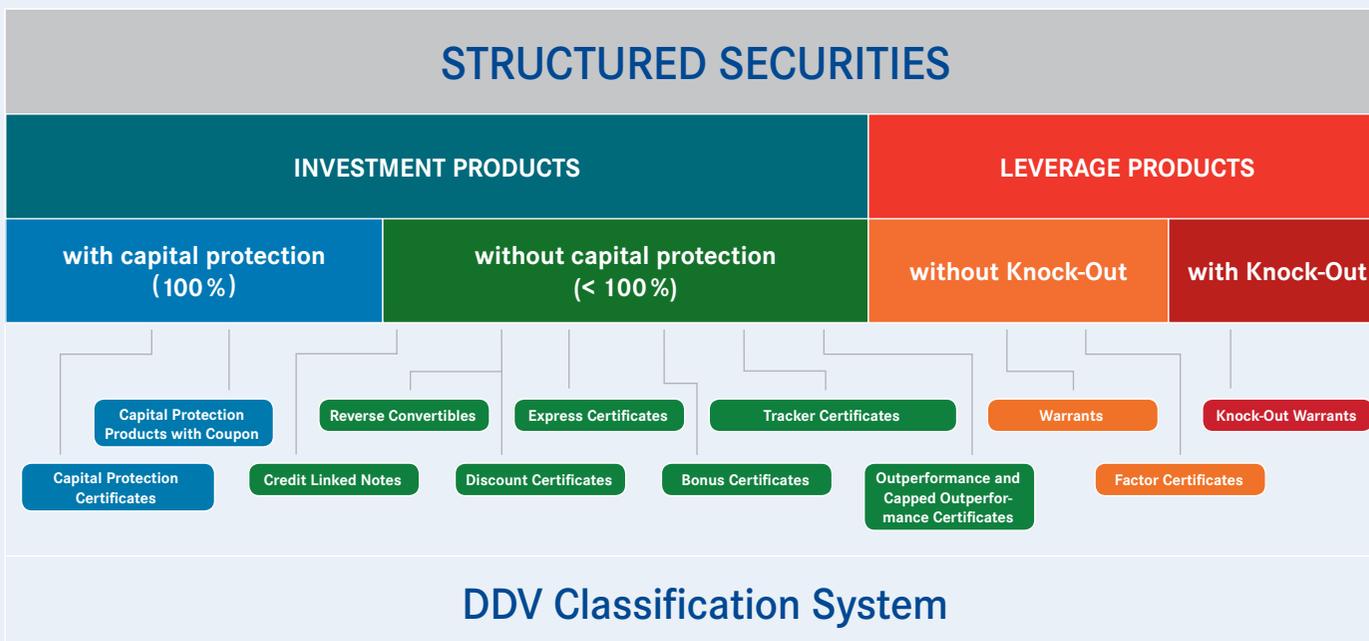
Market Volume

in Derivatives

Structured products market continues to grow

Express Certificates and Bonus Certificates in particularly high demand

STRUCTURED SECURITIES



CONTENTS

Market volume since April 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

April | 2017

- The total volume of the German structured products market rose to EUR 69.8 billion in April.
- Particularly strong growth was recorded in Express Certificates, where the volume was up 4.2 percent at EUR 12.0 billion.
- At 3.0 percent, the growth in leverage products was stronger than in the market as a whole.
- Investment products with equities as an underlying recorded growth of 2.8 percent. The volume invested in this type of product was EUR 19.7 billion.

Structured products market continues to grow

Express Certificates and Bonus Certificates in particularly high demand

The outstanding volume of the German structured products market has risen again. When the figures are extrapolated to all issuers, the total volume of the German structured products market in April 2017 works out at EUR 69.8 billion. This represents growth of 0.6 percent, or EUR 0.3 billion, compared with the previous month. 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). There was no change in the ratio of investment products to leverage products compared with the previous month.

Investment products by product category

The strong demand for **Express Certificates** and **Reverse Convertibles** continued into the beginning of the second quarter. The combined volume invested in these two types of product in April was almost EUR 22.0 billion. The upward trend in **Bonus Certificates** that began at the start of the year also continued. A market volume of EUR 2.5 billion was recorded for this type of product. The volume of **Credit Linked Notes** and **Tracker Certificates** fell in April, contrary to the overall upward trend. The level of investment in **Capital Protection Products** also declined. Altogether 36.0 percent of the market volume was invested in **Capital Protection Products with Coupon** and **Uncapped Capital Protection Certificates** in April.

Leverage products by product category

Following a decline in March, the market volume of **leverage products** rose to almost EUR 2.0 billion in April. Growth was recorded in Warrants and Knock-Out Warrants, while the volume invested in Factor Certificates was down on the previous month.

Investment products by underlying

Investment products with **interest rates as an underlying** remained the most popular category in April, although their volume fell again slightly to EUR 21.7 billion. In second place, thanks to significant gains, were investment products with **equities as an underlying**, with an invested volume of EUR 19.7 billion. However, investment products with **indices as an underlying** saw a decline. The volume of investment products with **commodities as an underlying** fell to EUR 774.2 million in April, following growth in the previous months.

Leverage products by underlying

The dominant classes of underlying assets for leverage products saw significant growth in April. 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** rose to EUR 620.3 million. The market volume of leverage products with **commodities as an underlying** shrank considerably to EUR 180.5 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

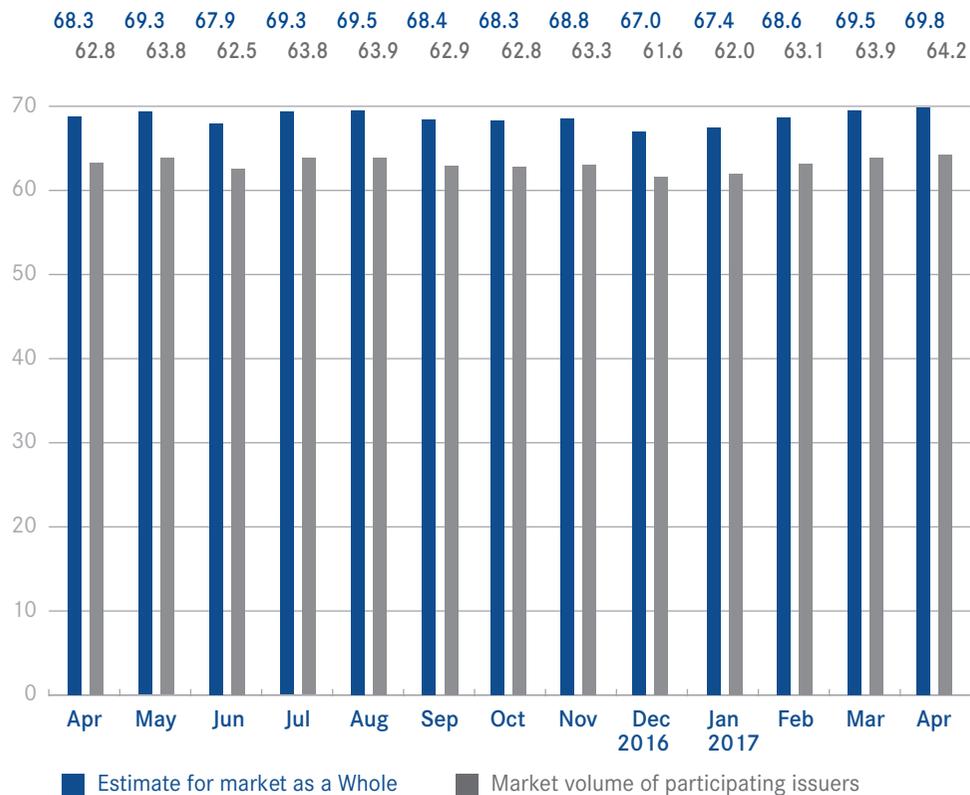
Office Berlin, Pariser Platz 3, 10117 Berlin, Germany
Office Frankfurt a.M., Feldbergstr. 38, 60323 Frankfurt a.M., Germany

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 April 2016



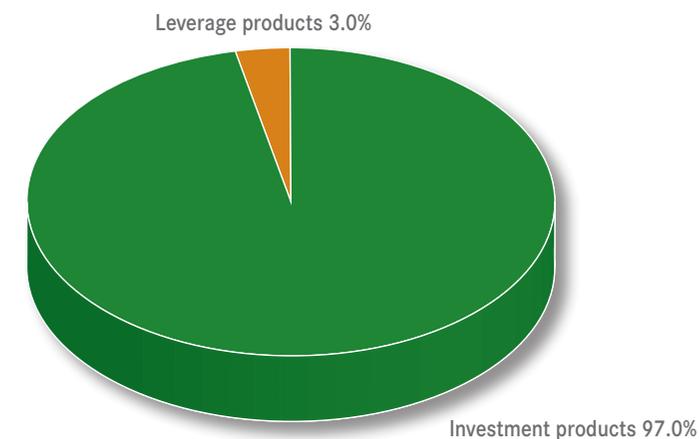
Product classes

Market volume as at 30 April 2017

Product classes	Market volume	Share
	T€	%
Investment products with capital protection	22,418,032	36.0%
Investment products without capital protection	39,871,715	64.0%
Total Investment products	62,289,748	100.0%
Leverage products without Knock-Out	1,066,594	54.5%
Leverage products with Knock-Out	892,127	45.5%
Total Leverage products	1,958,720	100.0%
Total Investment products	62,289,748	97.0%
Total Leverage products	1,958,720	3.0%
Total Derivatives	64,248,468	100.0%

Product classes

Market volume as at 30 April 2017

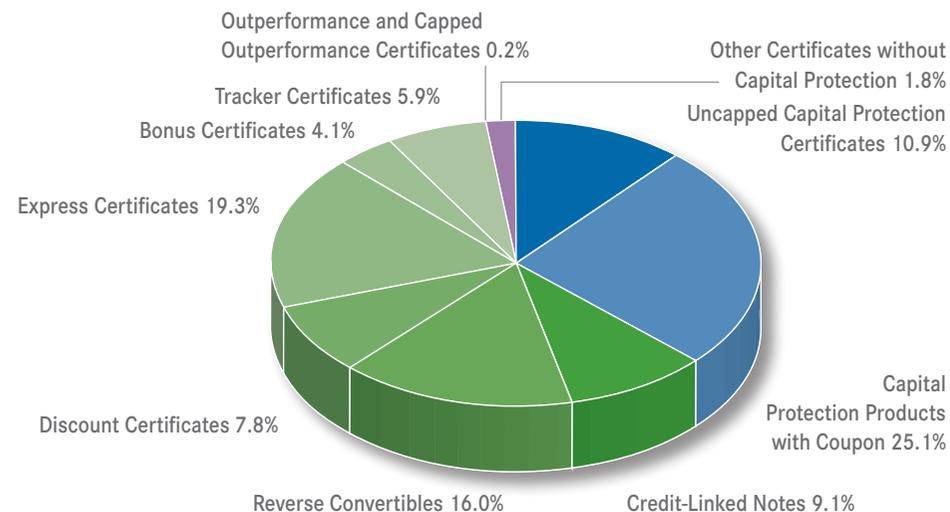


Market volume by product category as at 30 April 2017

Product categories	Market volume		Market volume price-adjusted		Number of Products	
	T€	in %	T€	in %	#	in %
■ Uncapped Capital Protection Certificates	6,787,968	10.9%	6,776,318	10.9%	1,906	0.4%
■ Capital Protection Products with Coupon	15,630,065	25.1%	15,652,243	25.2%	2,657	0.5%
■ Credit-Linked Notes	5,664,189	9.1%	5,658,164	9.1%	2,320	0.4%
■ Reverse Convertibles	9,951,842	16.0%	9,934,355	16.0%	121,451	23.4%
■ Discount Certificates	4,838,891	7.8%	4,815,193	7.7%	160,095	30.9%
■ Express Certificates	12,015,044	19.3%	11,931,248	19.2%	10,248	2.0%
■ Bonus Certificates	2,548,495	4.1%	2,523,430	4.1%	215,560	41.6%
■ Tracker Certificates	3,645,730	5.9%	3,643,724	5.9%	1,663	0.3%
■ Outperformance and Capped Outperformance Certificates	95,623	0.2%	94,077	0.2%	1,638	0.3%
■ Other Certificates without Capital Protection	1,111,902	1.8%	1,107,728	1.8%	853	0.2%
Investment products total	62,289,748	97.0%	62,136,481	96.9%	518,391	39.0%
■ Warrants	714,171	36.5%	751,231	37.4%	459,572	56.6%
■ Factor Certificates	352,422	18.0%	368,433	18.3%	4,636	0.6%
■ Knock-Out Warrants	892,127	45.5%	889,022	44.3%	347,525	42.8%
Leverage products total	1,958,720	3.0%	2,008,686	3.1%	811,733	61.0%
Total	64,248,468	100.0%	64,145,167	100.0%	1,330,124	100.0%

Investment products by product category

Market volume as at 30 April 2017

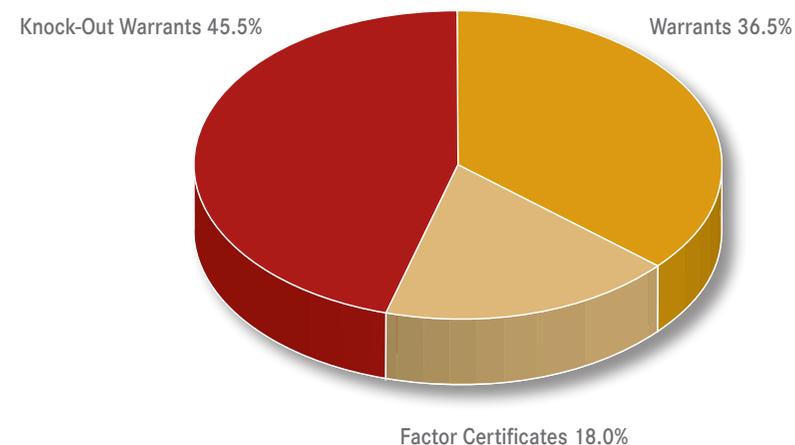


Change in market volume by product category in comparison with previous month

Product categories	Change		Change price-adjusted		Price effect	
	T€	in %	T€	in %		in %
■ Uncapped Capital Protection Certificates	-139,490	-2.0%	-151,139	-2.2%		0.2%
■ Capital Protection Products with Coupon	18,053	0.1%	40,232	0.3%		-0.1%
■ Credit-Linked Notes	-73,174	-1.3%	-79,198	-1.4%		0.1%
■ Reverse Convertibles	244,384	2.5%	226,898	2.3%		0.2%
■ Discount Certificates	3,767	0.1%	-19,931	-0.4%		0.5%
■ Express Certificates	480,690	4.2%	396,894	3.4%		0.7%
■ Bonus Certificates	86,732	3.5%	61,667	2.5%		1.0%
■ Tracker Certificates	-307,763	-7.8%	-309,769	-7.8%		0.1%
■ Outperformance and Capped Outperformance Certificates	11,732	14.0%	10,186	12.1%		1.8%
■ Other Certificates without Capital Protection	8,516	0.8%	4,341	0.4%		0.4%
Investment products total	333,447	0.5%	180,181	0.3%		0.2%
■ Warrants	11,071	1.6%	48,130	6.8%		-5.3%
■ Factor Certificates	-9,974	-2.8%	6,036	1.7%		-4.4%
■ Knock-Out Warrants	58,992	7.1%	55,888	6.7%		0.4%
Leverage products total	60,088	3.2%	110,054	5.8%		-2.6%
Total	393,535	0.6%	290,235	0.5%		0.2%

Leverage products by product category

Market volume as at 30 April 2017



Market volume by underlying asset as at 30 April 2017

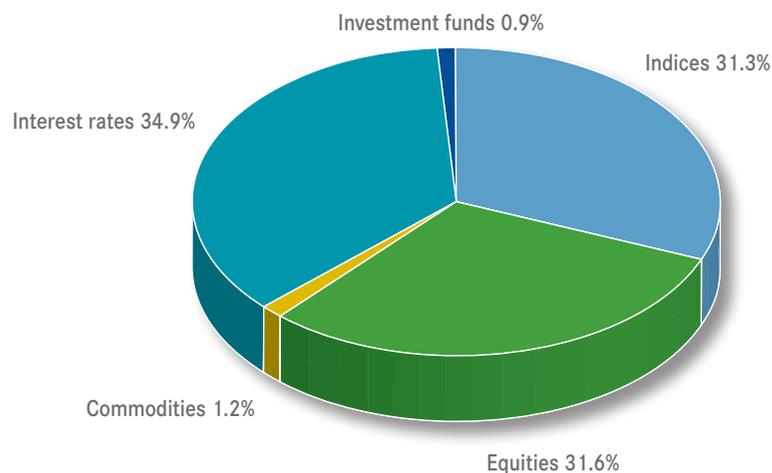
Underlying	Market volume		Market volume price-adjusted*		Number of Products	
	T€	%	T€	%	#	%
Investment products						
Indices	19,523,206	31.3%	19,430,548	31.3%	130,410	25.2%
Equities	19,673,799	31.6%	19,579,253	31.5%	380,428	73.4%
Commodities	774,219	1.2%	797,768	1.3%	2,272	0.4%
Currencies	25,173	0.0%	23,912	0.0%	46	0.0%
Interest rates	21,726,819	34.9%	21,743,197	35.0%	5,065	1.0%
Investment funds	566,531	0.9%	561,804	0.9%	170	0.0%
	62,289,748	97.0%	62,136,481	96.9%	518,391	39.0%
Leverage products						
Indices	620,272	31.7%	650,703	32.4%	185,611	22.9%
Equities	1,065,118	54.4%	1,048,659	52.2%	535,516	66.0%
Commodities	180,471	9.2%	208,187	10.4%	43,256	5.3%
Currencies	52,629	2.7%	58,265	2.9%	43,485	5.4%
Interest rates	40,207	2.1%	42,849	2.1%	3,857	0.5%
Investment funds	22	0.0%	22	0.0%	8	0.0%
	1,958,720	3.0%	2,008,686	3.1%	811,733	61.0%
Total	64,248,468	100.0%	64,145,167	100.0%	1,330,124	100.0%

*Market volume adjusted for price changes = quantity outstanding as at 30 April 2017 x price as at 31 March 2017

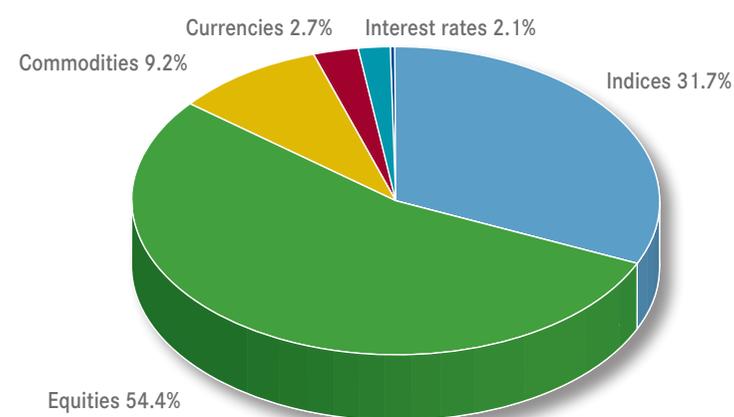
Change in the market volume by underlying asset in comparison with previous month

Underlying	Change		Change price-adjusted		Price effect
	T€	%	T€	%	
Investment products					
Indices	-80,403	-0.4%	-173,062	-0.9%	0.5%
Equities	534,895	2.8%	440,348	2.3%	0.5%
Commodities	-18,956	-2.4%	4,593	0.6%	-3.0%
Currencies	-7,822	-23.7%	-9,083	-27.5%	3.8%
Interest rates	-105,036	-0.5%	-88,658	-0.4%	-0.1%
Investment funds	10,769	1.9%	6,042	1.1%	0.9%
	333,447	0.5%	180,181	0.3%	0.2%
Leverage products					
Indices	33,852	5.8%	64,283	11.0%	-5.2%
Equities	47,787	4.7%	31,328	3.1%	1.6%
Commodities	-14,154	-7.3%	13,562	7.0%	-14.2%
Currencies	-4,722	-8.2%	914	1.6%	-9.8%
Interest rates	-2,675	-6.2%	-33	-0.1%	-6.2%
Investment funds	0	0.0%	0	0.0%	0.0%
	60,088	3.2%	110,054	5.8%	-2.6%
Total	393,535	0.6%	290,235	0.5%	0.2%

Investment products by underlying asset Market volume as at 30 April 2017



Leverage products by underlying asset Market volume as at 30 April 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, April 2017).