

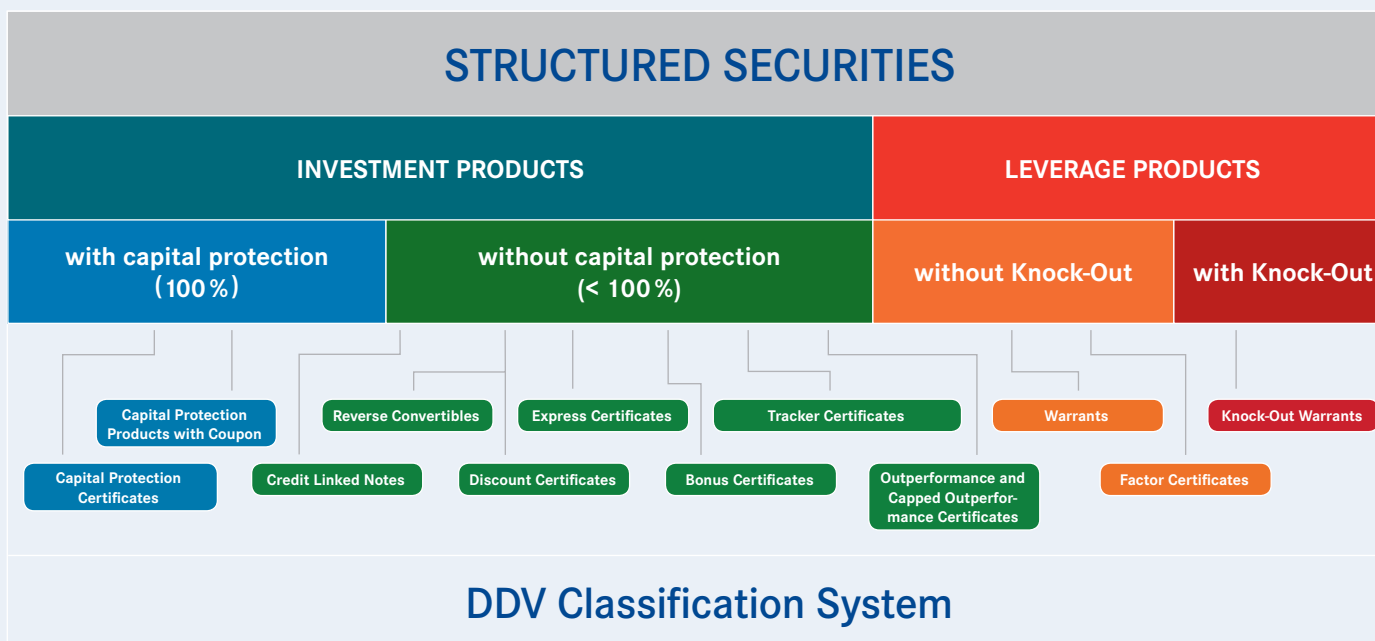
# Market Volume

in Derivatives

## German structured products market at EUR 72.0 billion

Leverage products in higher demand

### STRUCTURED SECURITIES



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## March | 2019

- At the end of the first quarter, the volume of the German structured products market totalled EUR 72.0 billion.
- The volume invested in leverage products rose to EUR 1.8 billion.
- Tracker Certificates recorded a slight increase to EUR 2.7 billion.
- Growth of 9.4 percent was reported for leverage products with equities as an underlying. The volume invested in these instruments climbed to EUR 1.2 billion.

## German structured products market at EUR 72.0 billion

### Leverage products in higher demand

The outstanding volume of the German structured products market was slightly lower at the end of the first quarter. Extrapolating the figures to all issuers puts the total volume of the German structured products market at EUR 72.0 billion in March 2019, which corresponds to a decline of 0.9 percent or almost EUR 0.6 billion month on month. However, compared to March 2018, the total volume rose by 3.6 percent or EUR 2.5 billion month on month. These trends are shown by the latest figures collected each month from 16 banks by the European Derivatives Group (EDG AG) on behalf of Deutscher Derivate Verband (DDV), the German Derivatives Association.

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

### Investment products by product category

**Tracker Certificates** recorded growth, bucking the general downward trend experienced by most other product categories. Especially volumes of **Reverse Convertibles** and **Discount Certificates** declined markedly. Thus capital invested in Reverse Convertibles fell to EUR 8.0 billion. The market volume of **Bonus Securities** decreased noticeably, and also **Capital Protection Products offering full capital protection** were less popular with investors. In total, 39.1 percent of the market volume was invested in **Capital Protection Products with Coupon** and **Uncapped Capital Protection Certificates** in March 2019.

### Leverage products by product category

Contrary to the trend for investment products, the market volume of **leverage products** rose and stood at EUR 1.8 billion in March. There were losses in all product categories, with the strongest drop seen for **Warrants**.

### Investment products by underlying

Structured products with **interest rates as an underlying** were the most in-demand category in March as well. After a slight decrease in the previous month, their volume fell again and stood at EUR 24.3 billion. Investment products with **indices as an underlying** followed in second place. The volume invested in them rose to EUR 19.9 billion, whereas investment products with **equities as an underlying** suffered a downturn. The volume invested in investment products with **funds as an underlying** went up to EUR 878.0 million, while investment products with **currencies as an underlying** found less appeal with investors and shifted down to just EUR 502.1 million.

### Leverage products by underlying

The dominant classes of underlying assets for leverage products showed a mixed picture in March. While the market volume of leverage products with **equities as an underlying** rose significantly to EUR 1.2 billion, the volume invested in leverage products with **indices as an underlying** dropped to EUR 465.0 million. Leverage products with **commodities** or **interest rates as an underlying** were less in demand, whereas the volume invested in leverage products with **currencies as an underlying** rose to EUR 36.2 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, DekaBank, Deutsche Bank, DZ BANK, Goldman Sachs, Helaba, HSBC Trinkaus, HypoVereinsbank, LBBW, Morgan Stanley, 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](http://www.derivateverband.de)

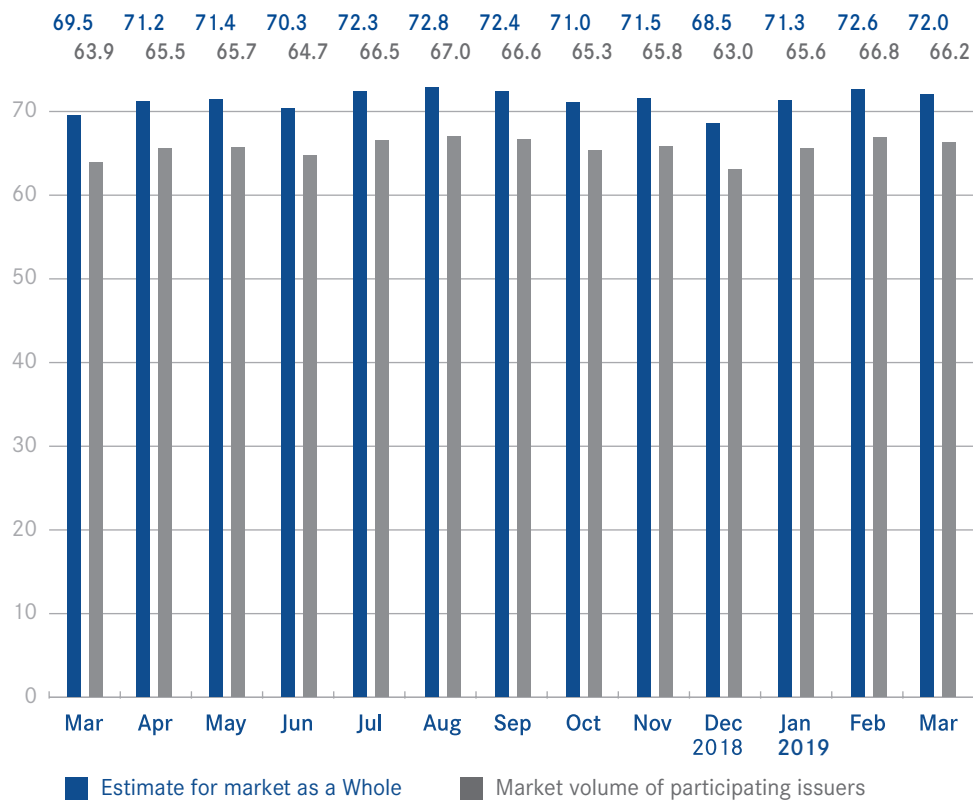
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## Market volume since March 2018



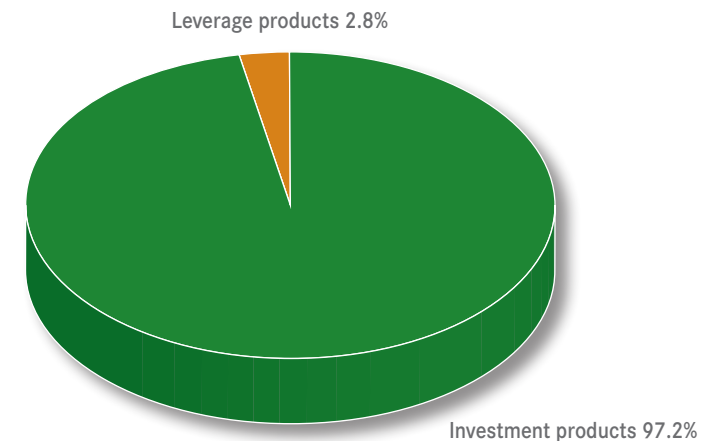
## Product classes

Market volume as at 31 March 2019

Product classes	Market volume	Share
	T€	%
Investment products with capital protection	25,147,449	39.1%
Investment products without capital protection	39,200,232	60.9%
<b>Total Investment products</b>	<b>64,347,681</b>	<b>100.0%</b>
Leverage products without Knock-Out	1,045,919	56.6%
Leverage products with Knock-Out	803,239	43.4%
<b>Total Leverage products</b>	<b>1,849,158</b>	<b>100.0%</b>
<b>Total Investment products</b>	<b>64,347,681</b>	<b>97.2%</b>
<b>Total Leverage products</b>	<b>1,849,158</b>	<b>2.8%</b>
<b>Total Derivatives</b>	<b>66,196,839</b>	<b>100.0%</b>

## Product classes

Market volume as at 31 March 2019

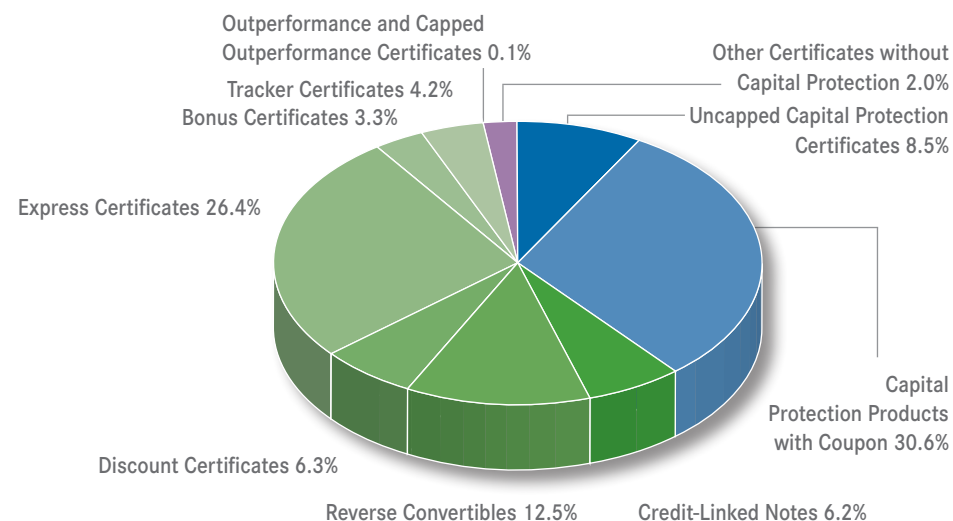


## Market volume by product category as at 31 March 2019

Product categories	Market volume		Market volume price-adjusted		Number of Products	
	T€	in %	T€	in %	#	in %
■ Uncapped Capital Protection Certificates	5,443,777	8.5%	5,406,718	8.4%	1,432	0.3%
■ Capital Protection Products with Coupon	19,703,672	30.6%	19,558,189	30.4%	4,106	0.8%
■ Credit-Linked Notes	4,007,041	6.2%	3,998,517	6.2%	2,481	0.5%
■ Reverse Convertibles	8,015,744	12.5%	8,125,345	12.6%	116,753	22.6%
■ Discount Certificates	4,054,654	6.3%	4,054,426	6.3%	190,281	36.9%
■ Express Certificates	16,959,520	26.4%	17,099,821	26.6%	15,295	3.0%
■ Bonus Certificates	2,118,821	3.3%	2,106,663	3.3%	182,637	35.4%
■ Tracker Certificates	2,713,783	4.2%	2,676,968	4.2%	1,323	0.3%
■ Outperformance and Capped Outperformance Certificates	49,870	0.1%	48,941	0.1%	746	0.1%
■ Other Certificates without Capital Protection	1,280,800	2.0%	1,273,527	2.0%	1,109	0.2%
<b>Investment products total</b>	<b>64,347,681</b>	<b>97.2%</b>	<b>64,349,115</b>	<b>97.2%</b>	<b>516,163</b>	<b>30.5%</b>
■ Warrants	742,098	40.1%	752,413	40.8%	625,872	53.1%
■ Factor Certificates	303,821	16.4%	325,839	17.6%	27,978	2.4%
■ Knock-Out Warrants	803,239	43.4%	768,007	41.6%	524,554	44.5%
<b>Leverage products total</b>	<b>1,849,158</b>	<b>2.8%</b>	<b>1,846,259</b>	<b>2.8%</b>	<b>1,178,404</b>	<b>69.5%</b>
<b>Total</b>	<b>66,196,839</b>	<b>100.0%</b>	<b>66,195,374</b>	<b>100.0%</b>	<b>1,694,567</b>	<b>100.0%</b>

## Investment products by product category

Market volume as at 31 March 2019

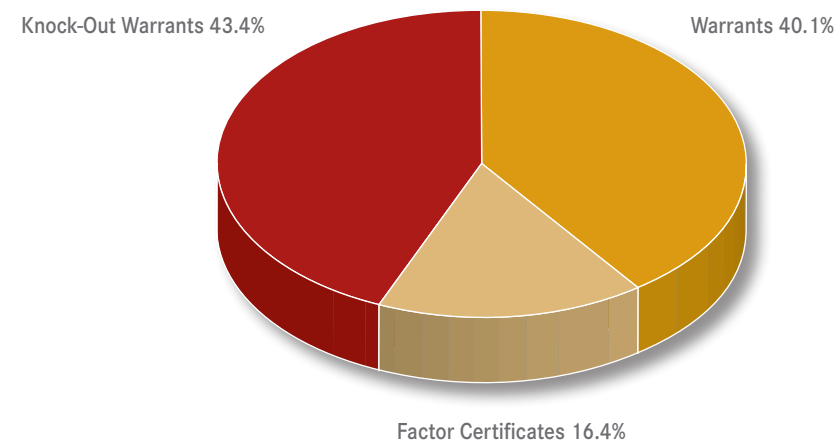


## Change in market volume by product category in comparison with previous month

Product categories	Change		Change price-adjusted		Price effect	
	T€	in %	T€	in %	in %	
■ Uncapped Capital Protection Certificates	-86,418	-1.6%	-123,476	-2.2%	0.7%	
■ Capital Protection Products with Coupon	-55,658	-0.3%	-201,142	-1.0%	0.7%	
■ Credit-Linked Notes	-39,162	-1.0%	-47,686	-1.2%	0.2%	
■ Reverse Convertibles	-299,361	-3.6%	-189,760	-2.3%	-1.3%	
■ Discount Certificates	-192,126	-4.5%	-192,354	-4.5%	0.0%	
■ Express Certificates	44,937	0.3%	185,239	1.1%	-0.8%	
■ Bonus Certificates	-129,060	-5.7%	-141,219	-6.3%	0.5%	
■ Tracker Certificates	49,123	1.8%	12,308	0.5%	1.4%	
■ Outperformance and Capped Outperformance Certificates	-3,973	-7.4%	-4,902	-9.1%	1.7%	
■ Other Certificates without Capital Protection	23,825	1.9%	16,553	1.3%	0.6%	
<b>Investment products total</b>	<b>-687,874</b>	<b>-1.1%</b>	<b>-686,439</b>	<b>-1.1%</b>	<b>0.0%</b>	
■ Warrants	38,404	5.5%	48,719	6.9%	-1.5%	
■ Factor Certificates	11,114	3.8%	33,132	11.3%	-7.5%	
■ Knock-Out Warrants	31,114	4.0%	-4,118	-0.5%	4.6%	
<b>Leverage products total</b>	<b>80,632</b>	<b>4.6%</b>	<b>77,734</b>	<b>4.4%</b>	<b>0.2%</b>	
<b>Total</b>	<b>-607,241</b>	<b>-0.9%</b>	<b>-608,706</b>	<b>-0.9%</b>	<b>0.0%</b>	

## Leverage products by product category

Market volume as at 31 March 2019



## Market volume by underlying asset as at 31 March 2019

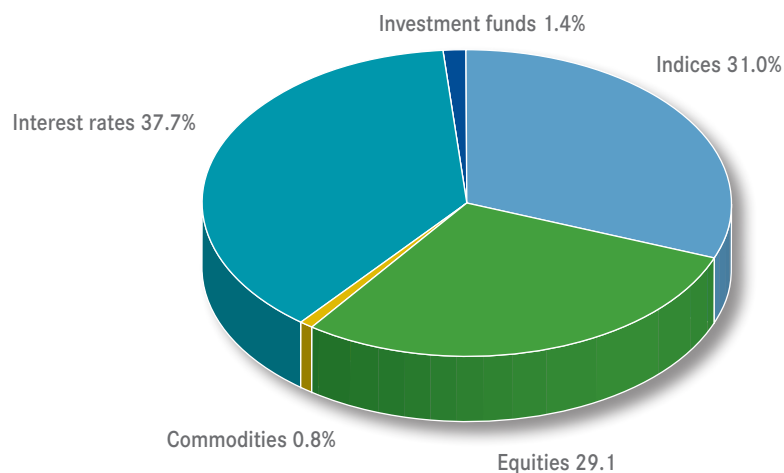
Underlying	Market volume		Market volume price-adjusted*		Number of Products	
	T€	%	T€	%	#	%
<b>Investment products</b>						
Indices	19,940,005	31.0%	19,788,339	30.8%	109,777	21.3%
Equities	18,720,337	29.1%	19,039,015	29.6%	396,683	76.9%
Commodities	502,077	0.8%	500,507	0.8%	2,721	0.5%
Currencies	38,862	0.1%	36,020	0.1%	12	0.0%
Interest rates	24,268,382	37.7%	24,113,630	37.5%	6,701	1.3%
Investment funds	878,017	1.4%	871,605	1.4%	269	0.1%
	<b>64,347,681</b>	<b>97.2%</b>	<b>64,349,115</b>	<b>97.2%</b>	<b>516,163</b>	<b>30.5%</b>
<b>Leverage products</b>						
Indices	464,955	25.1%	485,164	26.3%	274,427	23.3%
Equities	1,214,042	65.7%	1,170,965	63.4%	766,587	65.1%
Commodities	121,569	6.6%	136,959	7.4%	62,373	5.3%
Currencies	36,241	2.0%	35,911	1.9%	65,482	5.6%
Interest rates	12,352	0.7%	17,260	0.9%	9,535	0.8%
Investment funds	0	0.0%	0	0.0%	0	0.0%
	<b>1,849,158</b>	<b>2.8%</b>	<b>1,846,259</b>	<b>2.8%</b>	<b>1,178,404</b>	<b>69.5%</b>
<b>Total</b>	<b>66,196,839</b>	<b>100.0%</b>	<b>66,195,374</b>	<b>100.0%</b>	<b>1,694,567</b>	<b>100.0%</b>

\*Market volume adjusted for price changes = quantity outstanding as at 31 March 2019 x price as at 28 February 2019

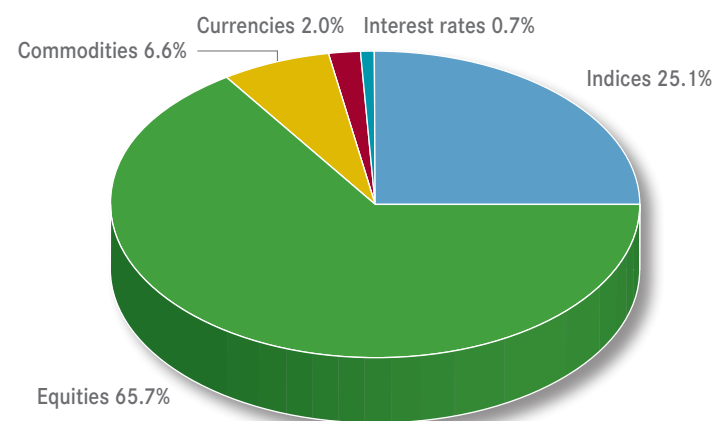
## Change in the market volume by underlying asset in comparison with previous month

Underlying	Change		Change price-adjusted		Price effect
	T€	%	T€	%	
<b>Investment products</b>					
Indices	147,044	0.7%	-4,622	0.0%	0.8%
Equities	-668,527	-3.4%	-349,850	-1.8%	-1.6%
Commodities	-5,560	-1.1%	-7,130	-1.4%	0.3%
Currencies	2,996	8.4%	153	0.4%	7.9%
Interest rates	-179,694	-0.7%	-334,445	-1.4%	0.6%
Investment funds	15,867	1.8%	9,455	1.1%	0.7%
	<b>-687,874</b>	<b>-1.1%</b>	<b>-686,439</b>	<b>-1.1%</b>	<b>0.0%</b>
<b>Leverage products</b>					
Indices	-11,146	-2.3%	9,064	1.9%	-4.2%
Equities	104,769	9.4%	61,693	5.6%	3.9%
Commodities	-9,971	-7.6%	5,420	4.1%	-11.7%
Currencies	812	2.3%	482	1.4%	0.9%
Interest rates	-3,832	-23.7%	1,076	6.6%	-30.3%
Investment funds	0	n. a.	0	n. a.	n. a.
	<b>80,632</b>	<b>4.6%</b>	<b>77,734</b>	<b>4.4%</b>	<b>0.2%</b>
<b>Total</b>	<b>-607,241</b>	<b>-0.9%</b>	<b>-608,706</b>	<b>-0.9%</b>	<b>0.0%</b>

### Investment products by underlying asset Market volume as at 31 March 2019



### Leverage products by underlying asset Market volume as at 31 March 2019



## 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](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.

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