

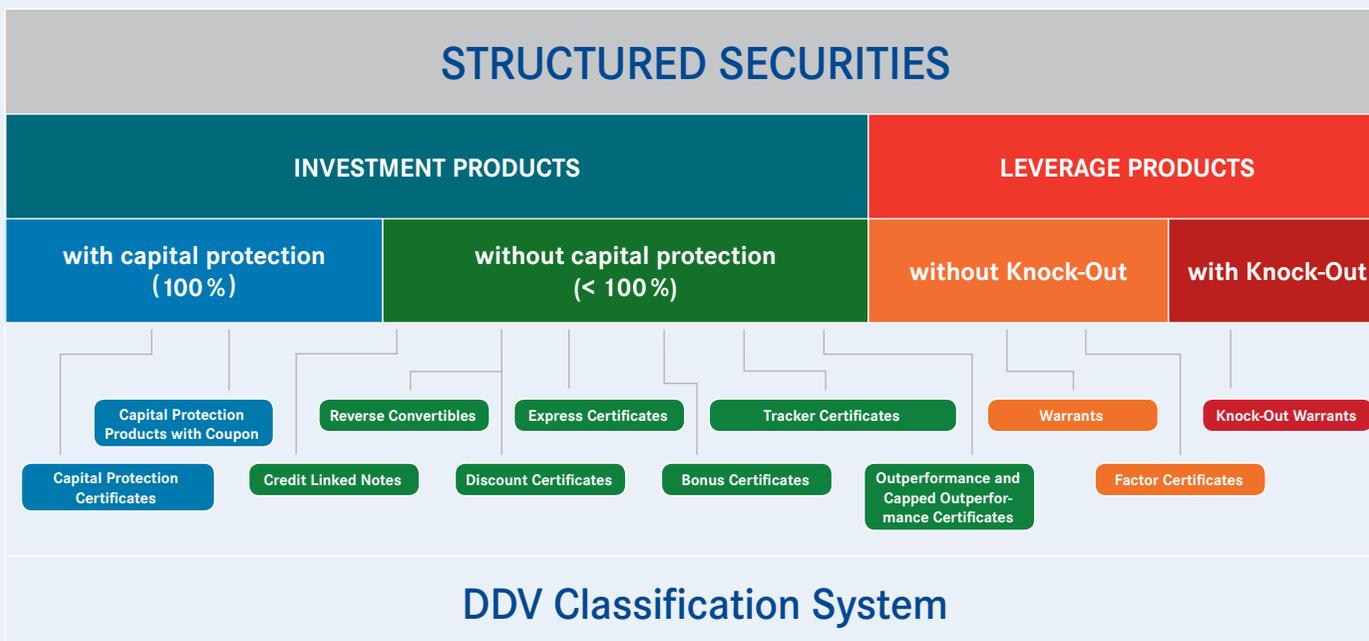
# Market Volume

in Derivatives

## Structured securities are becoming more popular

Discount and Bonus Certificates in particularly high demand

### STRUCTURED SECURITIES



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## February | 2016

- In February, the total volume of the German structured products market rose to EUR 68.4 billion.
- Discount Certificates experienced above-average growth of 7.6 percent. Their market volume stood at EUR 5.2 billion.
- Investment products with indices as an underlying increased by 3.3 percent to EUR 16.8 billion.
- The market volume of leverage products with commodities as an underlying gained a significant 21.3 percent to stand at EUR 155.0 million.

## Structured securities are becoming more popular

### Discount and Bonus Certificates in particularly high demand

The outstanding volume of the German structured products market increased in February 2016. Bucking the overall negative market environment, there was growth in almost all product categories. In particular, Discount and Bonus Certificates registered above-average growth.

Overall, the market volume increased by 0.8 percent or EUR 520.7 million compared with the previous 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 Deutscher Derivate Verband (DDV), the German Derivatives Association. Extrapolating these figures to all issuers puts the **total volume of the German structured products market** at **EUR 68.4 billion** at the end of February 2016.

The **ratio of investment products to leverage products** remained unchanged. Investment products accounted for 97.7 percent of the total market volume. Leverage products made up 2.3 percent of the total market share.

#### Investment products by product category

Bucking the generally positive market trend, the volume of **Capital Protection Products** decreased in the month under review. Compared with the previous month, the market volume of Capital Protection Products with Coupon fell by

2.1 percent to EUR 19.2 billion. This corresponded to a 31.2 percent share of the investment products market. Uncapped Capital Protection Certificates registered a slight minus of 0.7 percent, taking their volume to EUR 9.3 billion. This represented 15.1 percent of the investment products market. A total of 46.3 percent of the market volume was invested in these two product categories in February.

**Reverse Convertibles** increased their volume by 1.3 percent to EUR 8.0 billion. This accounted for a 13.0 percent market share.

**Express Certificates** also recorded growth. They gained 2.7 percent to come in at EUR 6.1 billion. Their share was 10.0 percent in February.

The market volume of **Credit Linked Notes** increased a significant 5.3 percent to EUR 6.0 billion. They accounted for a share of 9.7 percent of the volume.

**Discount Certificates** registered a marked increase of 7.6 percent to stand at EUR 5.2 billion – a share of 8.5 percent.

The market volume recorded for **Tracker Certificates** went down 0.3 percent to stand at EUR 4.2 billion. Their share of the investment products segment accounted for 6.8 percent.

**Bonus Certificates** also experienced a growth in volume in February. Their market volume rose to EUR 2.4 billion, an increase of 4.3 percent on January. This corresponded to a 3.8 percent share of the total market.

**Outperformance and Capped Outperformance Certificates** lost 17.2 percent taking their volume to EUR 84.1 million. However, as they accounted for just 0.1 percent of the total investment products volume, this category had scarcely any impact on the overall trend.

The volume of **other Yield Enhancement Products** rose by 1.1 percent to EUR 1.1 billion. They enjoyed a 1.7 percent share of the market.

#### Leverage products by product category

The market volume of **leverage products** dropped by 1.2 percent to stand at EUR 1.4 billion in February.

The volume invested in **Knock-Out Warrants** fell by 3.0 percent in comparison with the previous month, taking it to EUR 484.0 million. The share of Knock-Out Warrants in the leverage products market was 33.9 percent.

**Warrants** gained a slight 1.3 percent to come in at EUR 624.7 million. Their market share stood at 43.7 percent. ►►

The volume invested in **Factor Certificates** decreased by 3.1 percent to EUR 319.6 million. This category accounted for 22.4 percent of the leverage products market.

## Investment products by underlying

Despite registering some losses, structured products with **interest rates as an underlying** remained the most popular category. Their volume went down by 0.4 percent to EUR 26.5 billion mainly due to the decrease in Capital Protection Products with Coupon. This took their share to 43.1 percent.

Investment products with **indices as an underlying** followed in second place. Their volume grew by 3.3 percent, taking it to EUR 16.8 billion. This corresponded to 27.3 percent of the total volume.

Products with **equities as an underlying** were the third most popular investment category. Their share of the total volume grew slightly to EUR 16.7 billion - a 0.5 percent increase. This represented 27.2 percent of the market.

Following at a considerable distance behind the other asset classes were investment products with **commodities as an underlying**. Their outstanding volume increased by 4.2 percent to stand at EUR 838.1 million in February. Commodities accounted for a 1.4 percent share of the total volume.

As in the previous month, investment products with **investment funds as an underlying** made up a 1.0 percent share. Their volume came in at EUR 632.8 million.

Investment products with **currencies as an underlying** were fairly insignificant in relation to the general trend with a share of 0.1 percent. The volume invested in them rose by 0.6 percent to EUR 34.1 million in the reporting month.

## Leverage products by underlying

The market volume of leverage products with **equities as an underlying** lost 2.5 percent and amounted to EUR 709.7 million. These instruments made up 49.7 percent of the total leverage products volume.

Leverage products with **indices as an underlying** dwindled by 3.6 percent and fell to EUR 476.2 million. This corresponded to a 33.3 percent share of the total volume.

Lagging some way behind, leverage products with **commodities as an underlying** gained 21.3 percent on the previous month and came in at EUR 155.0 million. Their market share was 10.8 percent.

The market volume of leverage products with **currencies as an underlying** fell by 8.4 percent to stand at EUR 68.1 million. This corresponded to a 4.8 percent share of the total volume.

Leverage products with **interest rates as an underlying** lost 11.1 percent in February and dropped to EUR 19.3 million. Because they accounted for only 1.4 percent of the volume, their impact on the general trend was not significant, however. ■



## Deutscher Derivate Verband (DDV)

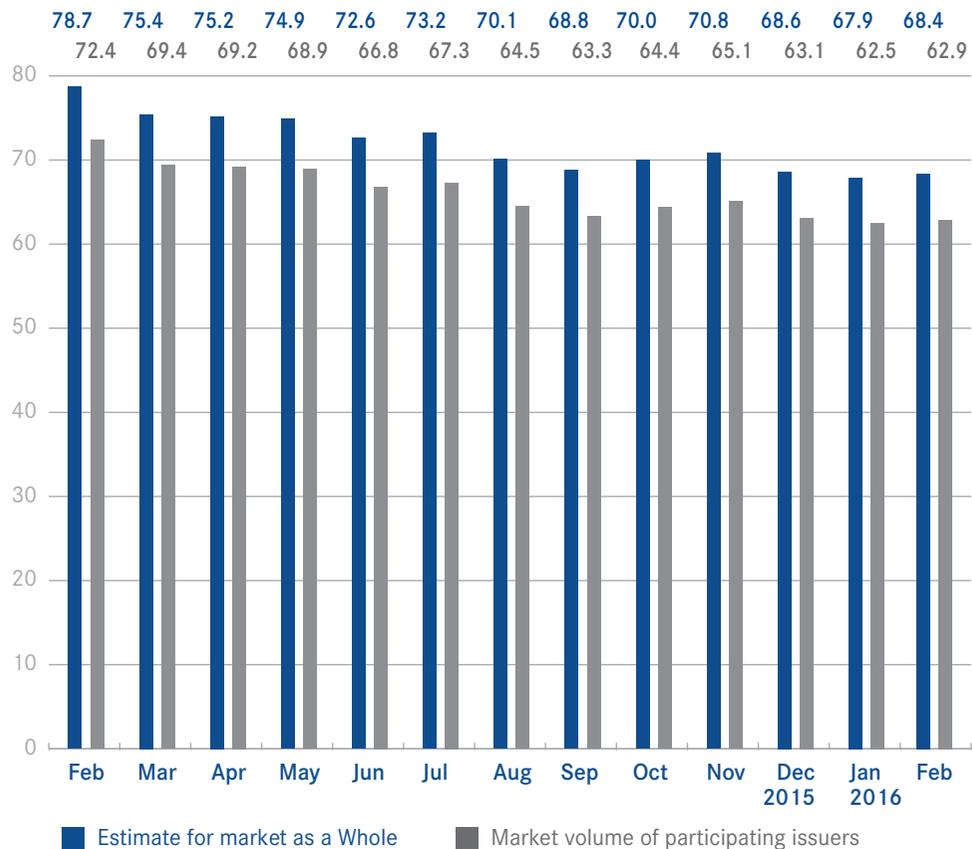
Deutscher Derivate Verband (DDV), the German Derivatives Association, is the industry representative body for the 15 leading issuers of derivatives in Germany: BayernLB, BNP Paribas, Citigroup, Commerzbank, DekaBank, Deutsche Bank, DZ BANK, Goldman Sachs, Helaba, HSBC Trinkaus, HypoVereinsbank, LBBW, Société Générale, UBS and Vontobel. The Association's work is supported by ten sponsoring members, which include the Stuttgart and Frankfurt am Main stock exchanges, finance portals and service providers.

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## Market volume since February 2015



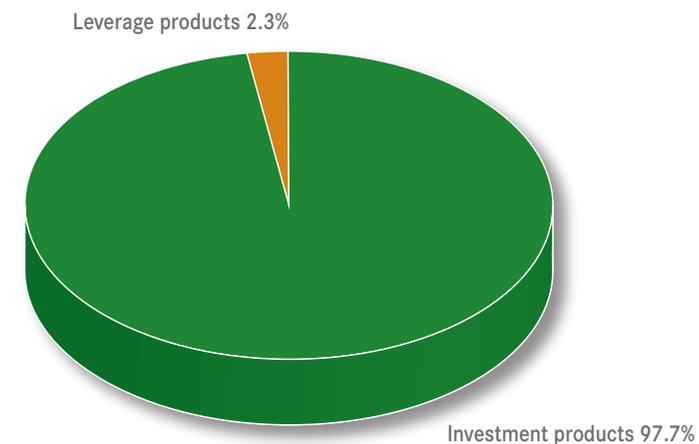
## Product classes

Market volume as at 29 February 2016

Product classes	Market volume	Share
	T€	%
Investment products with capital protection	28,507,995	46.3%
Investment products without capital protection	33,034,797	53.7%
<b>Total Investment products</b>	<b>61,542,791</b>	<b>100.0%</b>
Leverage products without Knock-Out	944,348	66.1%
Leverage products with Knock-Out	483,955	33.9%
<b>Total Leverage products</b>	<b>1,428,304</b>	<b>100.0%</b>
<b>Total Investment products</b>	<b>61,542,791</b>	<b>97.7%</b>
<b>Total Leverage products</b>	<b>1,428,304</b>	<b>2.3%</b>
<b>Total Derivatives</b>	<b>62,971,095</b>	<b>100.0%</b>

## Product classes

Market volume as at 29 February 2016

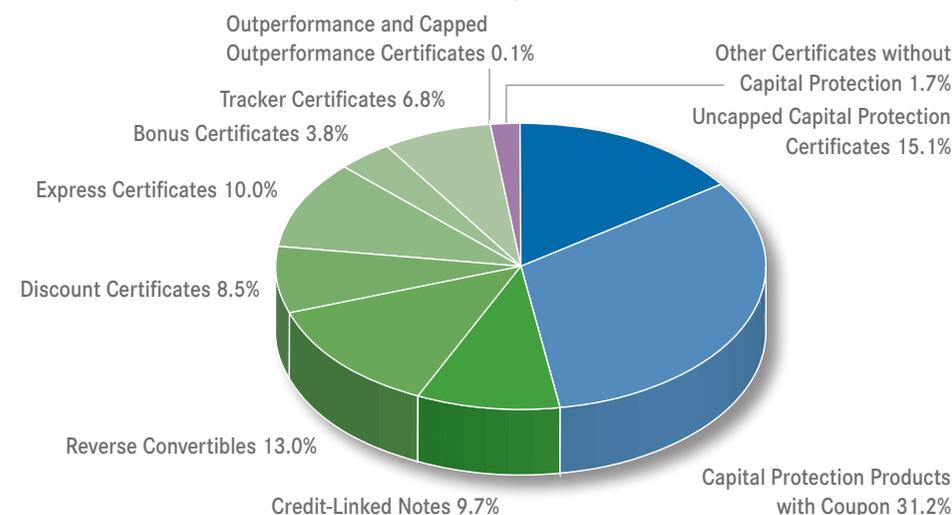


## Market volume by product category as at 29 February 2016

Product categories	Market volume		Market volume price-adjusted		Number of Products	
	T€	in %	T€	in %	#	in %
■ Uncapped Capital Protection Certificates	9,301,518	15.1%	9,300,327	15.0%	2,546	0.5%
■ Capital Protection Products with Coupon	19,206,476	31.2%	19,215,053	31.0%	2,270	0.4%
■ Credit-Linked Notes	5,965,483	9.7%	5,957,310	9.6%	2,137	0.4%
■ Reverse Convertibles	8,011,264	13.0%	8,154,010	13.2%	104,202	19.5%
■ Discount Certificates	5,237,255	8.5%	5,293,200	8.5%	185,432	34.8%
■ Express Certificates	6,131,606	10.0%	6,271,406	10.1%	7,580	1.4%
■ Bonus Certificates	2,356,108	3.8%	2,409,155	3.9%	224,098	42.0%
■ Tracker Certificates	4,177,218	6.8%	4,228,690	6.8%	1,900	0.4%
■ Outperformance and Capped Outperformance Certificates	84,090	0.1%	88,581	0.1%	1,075	0.2%
■ Other Certificates without Capital Protection	1,071,771	1.7%	1,082,672	1.7%	2,133	0.4%
<b>Investment products total</b>	<b>61,542,791</b>	<b>97.7%</b>	<b>62,000,405</b>	<b>97.5%</b>	<b>533,373</b>	<b>41.7%</b>
■ Warrants	624,743	43.7%	681,309	43.1%	380,745	51.1%
■ Factor Certificates	319,605	22.4%	402,087	25.5%	3,693	0.5%
■ Knock-Out Warrants	483,955	33.9%	495,874	31.4%	360,690	48.4%
<b>Leverage products total</b>	<b>1,428,304</b>	<b>2.3%</b>	<b>1,579,270</b>	<b>2.5%</b>	<b>745,128</b>	<b>58.3%</b>
<b>Total</b>	<b>62,971,095</b>	<b>100.0%</b>	<b>63,579,674</b>	<b>100.0%</b>	<b>1,278,501</b>	<b>100.0%</b>

## Investment products by product category

Market volume as at 29 February 2016

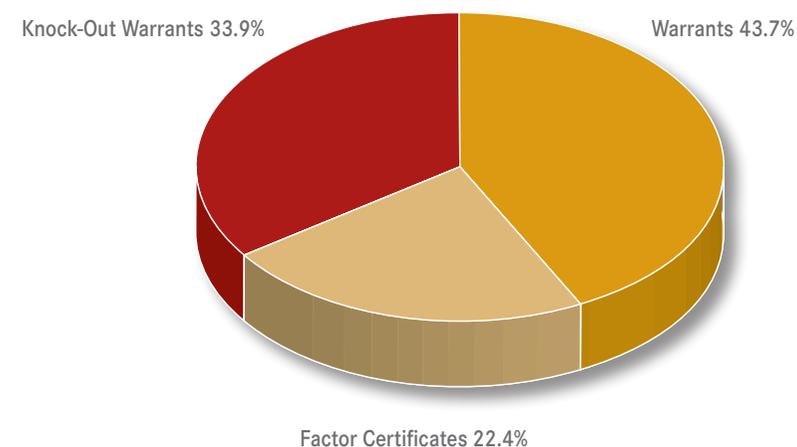


## Change in market volume by product category in comparison with previous month

Product categories	Change		Change price-adjusted		Price effect
	T€	in %	T€	in %	
■ Uncapped Capital Protection Certificates	-66,107	-0.7%	-67,299	-0.7%	0.0%
■ Capital Protection Products with Coupon	-406,292	-2.1%	-397,716	-2.0%	0.0%
■ Credit-Linked Notes	301,392	5.3%	293,218	5.2%	0.1%
■ Reverse Convertibles	101,537	1.3%	244,283	3.1%	-1.8%
■ Discount Certificates	367,954	7.6%	423,898	8.7%	-1.1%
■ Express Certificates	162,762	2.7%	302,562	5.1%	-2.3%
■ Bonus Certificates	96,906	4.3%	149,953	6.6%	-2.3%
■ Tracker Certificates	-14,612	-0.3%	36,860	0.9%	-1.2%
■ Outperformance and Capped Outperformance Certificates	-17,490	-17.2%	-13,000	-12.8%	-4.4%
■ Other Certificates without Capital Protection	12,178	1.1%	23,079	2.2%	-1.0%
<b>Investment products total</b>	<b>538,226</b>	<b>0.9%</b>	<b>995,840</b>	<b>1.6%</b>	<b>-0.8%</b>
■ Warrants	8,001	1.3%	64,567	10.5%	-9.2%
■ Factor Certificates	-10,391	-3.1%	72,091	21.8%	-25.0%
■ Knock-Out Warrants	-15,137	-3.0%	-3,218	-0.6%	-2.4%
<b>Leverage products total</b>	<b>-17,527</b>	<b>-1.2%</b>	<b>133,440</b>	<b>9.2%</b>	<b>-10.4%</b>
<b>Total</b>	<b>520,700</b>	<b>0.8%</b>	<b>1,129,279</b>	<b>1.8%</b>	<b>-1.0%</b>

## Leverage products by product category

Market volume as at 29 February 2016



## Market volume by underlying asset as at 29 February 2016

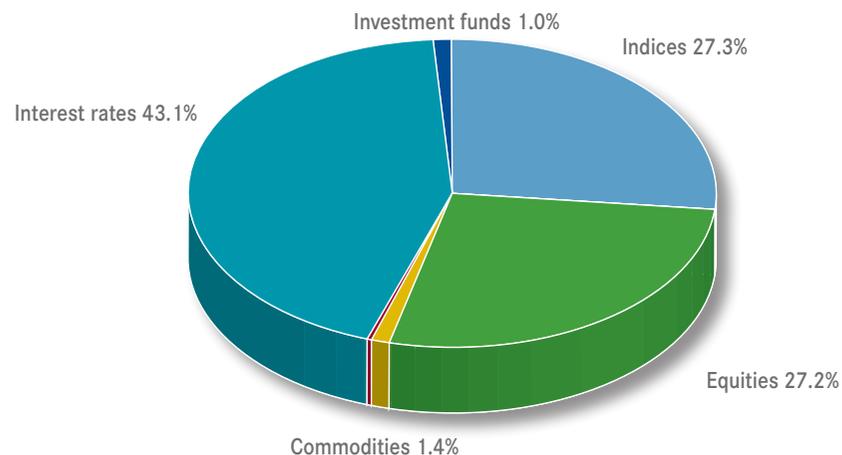
Underlying	Market volume		Market volume price-adjusted*		Number of Products	
	T€	%	T€	%	#	%
<b>Investment products</b>						
Indices	16,808,940	27.3%	17,032,275	27.5%	125,072	23.4%
Equities	16,723,933	27.2%	16,979,480	27.4%	401,191	75.2%
Commodities	838,132	1.4%	814,701	1.3%	2,337	0.4%
Currencies	34,061	0.1%	33,673	0.1%	62	0.0%
Interest rates	26,504,880	43.1%	26,507,231	42.8%	4,602	0.9%
Investment funds	632,845	1.0%	633,044	1.0%	109	0.0%
	<b>61,542,791</b>	<b>97.7%</b>	<b>62,000,405</b>	<b>97.5%</b>	<b>533,373</b>	<b>41.7%</b>
<b>Leverage products</b>						
Indices	476,200	33.3%	551,624	34.9%	195,422	26.2%
Equities	709,713	49.7%	766,394	48.5%	479,295	64.3%
Commodities	154,971	10.8%	165,338	10.5%	35,700	4.8%
Currencies	68,074	4.8%	70,498	4.5%	31,404	4.2%
Interest rates	19,321	1.4%	25,390	1.6%	3,297	0.4%
Investment funds	26	0.0%	26	0.0%	10	0.0%
	<b>1,428,304</b>	<b>2.3%</b>	<b>1,579,270</b>	<b>2.5%</b>	<b>745,128</b>	<b>58.3%</b>
<b>Total</b>	<b>62,971,095</b>	<b>100.0%</b>	<b>63,579,674</b>	<b>100.0%</b>	<b>1,278,501</b>	<b>100.0%</b>

\*Market volume adjusted for price changes = quantity outstanding as at 29 February 2016 x price as at 31 January 2016

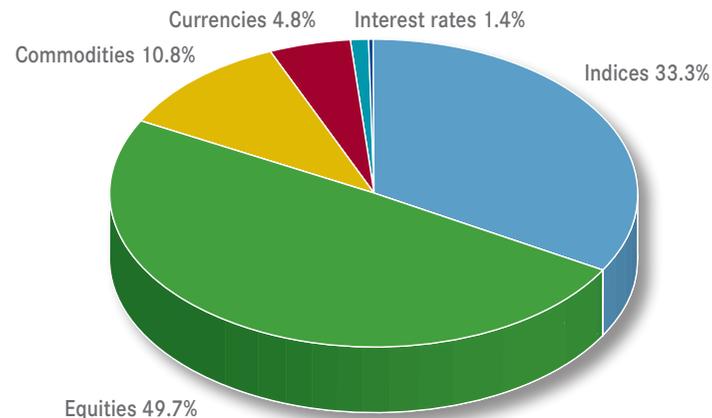
## Change in the market volume by underlying asset in comparison with previous month

Underlying	Change		Change price-adjusted		Price effect
	T€	%	T€	%	
<b>Investment products</b>					
Indices	538,273	3.3%	761,608	4.7%	-1.4%
Equities	77,051	0.5%	332,599	2.0%	-1.5%
Commodities	33,769	4.2%	10,339	1.3%	2.9%
Currencies	202	0.6%	-186	-0.5%	1.1%
Interest rates	-105,385	-0.4%	-103,034	-0.4%	0.0%
Investment funds	-5,684	-0.9%	-5,485	-0.9%	0.0%
	<b>538,226</b>	<b>0.9%</b>	<b>995,840</b>	<b>1.6%</b>	<b>-0.8%</b>
<b>Leverage products</b>					
Indices	-17,879	-3.6%	57,545	11.6%	-15.3%
Equities	-18,196	-2.5%	38,486	5.3%	-7.8%
Commodities	27,215	21.3%	37,582	29.4%	-8.1%
Currencies	-6,265	-8.4%	-3,840	-5.2%	-3.3%
Interest rates	-2,402	-11.1%	3,667	16.9%	-27.9%
Investment funds	0	0.0%	0	0.0%	0.0%
	<b>-17,527</b>	<b>-1.2%</b>	<b>133,440</b>	<b>9.2%</b>	<b>-10.4%</b>
<b>Total</b>	<b>520,700</b>	<b>0.8%</b>	<b>1,129,279</b>	<b>1.8%</b>	<b>-1.0%</b>

## Investment products by underlying asset Market volume as at 29 February 2016



## Leverage products by underlying asset Market volume as at 29 February 2016



## 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.

### 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.

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