

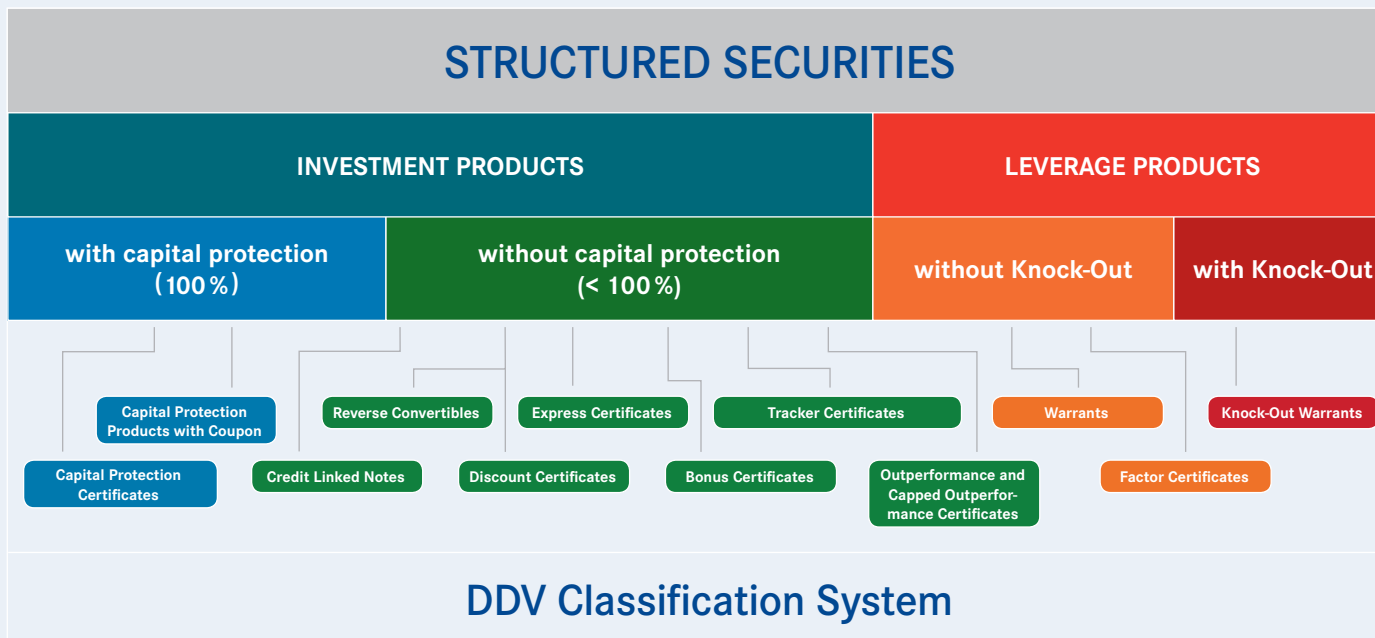
# Market Volume

in Derivatives

## Strong demand for Discount Certificates

German structured products market at EUR 67.9 billion in January

### STRUCTURED SECURITIES



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## January | 2016

- At the beginning of the year, the total volume of the German structured products market stood at EUR 67.9 billion.
- Both Discount and Bonus Certificates registered growth and generated together a market volume of EUR 7.2 billion.
- The market volume of leverage products fell to EUR 1.4 billion in January.
- Leverage products with commodities as an underlying gained 5.8 percent to stand at EUR 127.8 million.

## Strong demand for Discount Certificates

German structured products market at EUR 67.9 billion in January

The outstanding volume of the German structured products market fell in January 2016. In particular, the negative market environment was responsible for the slight decrease. Bucking the overall negative trend, Discount Certificates registered significant growth.

Overall, the market volume fell by a slight 1.0 percent or EUR 657.4 billion 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 operating on the market puts the **total volume of the German structured products market at EUR 67.9 billion at the end of January 2016.**

Compared with the previous month, the **ratio of investment products to leverage products** shifted in favour of investment products. They made up 97.7 percent of the total market share. Leverage products had a market share of 2.3 percent.

### Investment products by product category

The volume of **Capital Protection Products** decreased again in the month under review. However, the decline was less marked than in the previous months. The market volume

of **Capital Protection Products with Coupon** decreased 0.9 percent to EUR 19.6 billion. This corresponded to a 32.1 percent share of the investment products market. **Uncapped Capital Protection Certificates** registered a moderate decrease of 0.4 percent, taking their volume to EUR 9.4 billion. This represented 15.4 percent of the investment products market. A total of 47.5 percent of the market volume was invested in these two product categories in January.

At EUR 7.9 billion, the market volume of **Reverse Convertibles** remained at the previous month's level. They accounted for 13.0 percent of the market.

**Express Certificates** fell by 2.2 percent to come in at EUR 6.0 billion. Their share was 9.8 percent in January.

The market volume of **Credit Linked Notes** was down 0.2 percent on December at EUR 5.7 billion. They accounted for a share of 9.3 percent of the volume.

**Discount Certificates** bucked the overall negative trend and registered growth of 5.9 percent to stand at EUR 4.9 billion. They held an 8.0 percent share of the market.

The market volume for **Tracker Certificates** lost 3.8 percent to stand at EUR 4.2 billion. Their share of the investment products segment decreased to 6.9 percent.

**Bonus Certificates** increased by 1.5 percent and generated market volume of EUR 2.3 billion in January. This corresponded to a 3.7 percent share of the total market.

**Outperformance and Capped Outperformance Certificates** dropped 3.5 percent taking their volume to EUR 101.6 million. However, as they accounted for just 0.2 percent of the total investment products volume, this category had scarcely any impact on the overall trend.

The volume of **other Yield Enhancement Products** decreased 1.4 percent to EUR 1.1 billion. They accounted for a 1.7 percent share of the market volume.

### Leverage products by product category

The market volume of **leverage products** lost a substantial 22.3 percent to stand at EUR 1.4 billion in January.

The volume invested in **Knock-Out Warrants** dwindled by 30.4 percent in comparison with the previous month, taking it to EUR 499.1 million. The share of Knock-Out Warrants in the leverage products market was 34.5 percent.

**Warrants** recorded a loss of 15.7 percent to come in at EUR 616.7 million. Their market share stood at 42.7 percent.



The volume invested in **Factor Certificates** fell 20.2 percent to EUR 330.0 million. This category accounted for 22.8 percent of the leverage products market.

## Investment products by underlying

Despite registering losses, structured products with **interest rates as an underlying** remained the most popular category. Their volume amounted to EUR 26.6 billion, down 0.7 percent. This took their share of the total market volume to 43.6 percent.

Investment products with **equities as an underlying** followed in second place. Their volume dropped by 3.5 percent, taking it to EUR 16.6 billion. This corresponded to 27.3 percent of the total volume.

Investment products with **indices as an underlying** were the third most popular investment category. Their share of the total volume grew by 3.4 percent to EUR 16.3 billion. This corresponded to a 26.7 percent share.

Following at a considerable distance behind the other asset classes were investment products with **commodities as an underlying**. Their outstanding volume recorded 1.9 percent growth to come in at EUR 804.4 million in January. Commodities accounted for a 1.3 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 638.5 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 plummeted 13.8 percent to EUR 33.9 million in the reporting month.

## Leverage products by underlying

The market volume of leverage products with **equities as an underlying** charted a 28.7 percent decrease. It amounted to EUR 727.9 billion. These instruments made up 50.3 percent of the total leverage products volume.

Leverage products with **indices as underlying** experienced significant reductions. Their market volume shrank by 19.5 percent to EUR 494.1 million. This corresponded to a 34.2 percent share of the total volume.

Lagging some way behind leverage products based on equities and indices were those with **commodities as an underlying**. Their volume was up 5.8 percent to EUR 127.8 million. They accounted for an 8.8 percent share of the market volume.

The market volume of leverage products with **currencies as an underlying** lost 1.3 percent to stand at EUR 74.3 million. This corresponded to a 5.1 percent share of the aggregate volume.

The market volume of leverage products with **interest rates as an underlying** decreased by 29.3 percent and amounted to EUR 21.7 million in January. Because they accounted for only 1.5 percent of the total volume, their impact on the general trend was not significant, however. ■



## Deutscher Derivate Verband (DDV)

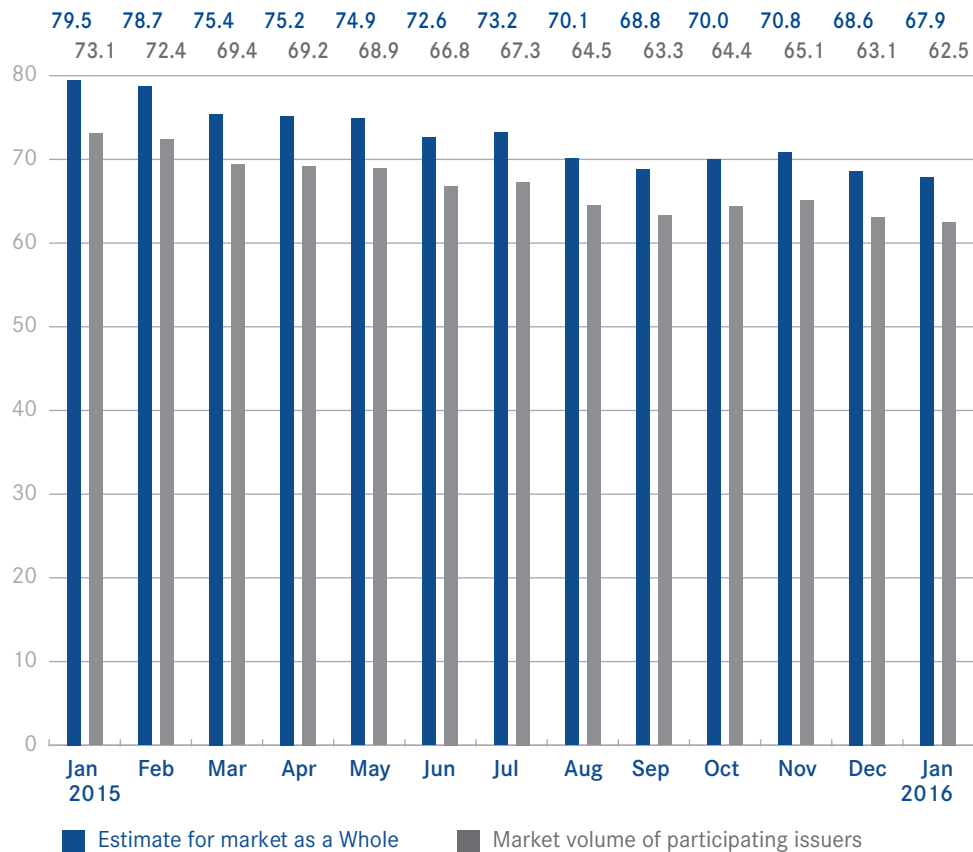
Deutscher Derivate Verband (DDV), the German Derivatives Association, is the industry representative body for the 15 leading issuers of derivatives in Germany: BayernLB, BNP Paribas, Citigroup, Commerzbank, DekaBank, Deutsche Bank, DZ BANK, Goldman Sachs, Helaba, HSBC Trinkaus, HypoVereinsbank, LBBW, 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 January 2015



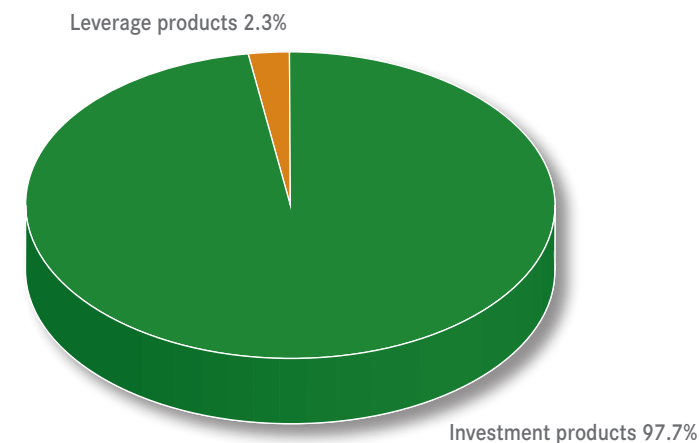
## Product classes

Market volume as at 31 January 2016

Product classes	Market volume	Share
	T€	%
Investment products with capital protection	28,980,394	47.5%
Investment products without capital protection	32,024,171	52.5%
<b>Total Investment products</b>	<b>61,004,565</b>	<b>100.0%</b>
Leverage products without Knock-Out	1,115,834	77.2%
Leverage products with Knock-Out	329,996	22.8%
<b>Total Leverage products</b>	<b>1,445,830</b>	<b>100.0%</b>
<b>Total Investment products</b>	<b>61,004,565</b>	<b>97.7%</b>
<b>Total Leverage products</b>	<b>1,445,830</b>	<b>2.3%</b>
<b>Total Derivatives</b>	<b>62,450,395</b>	<b>100.0%</b>

## Product classes

Market volume as at 31 January 2016

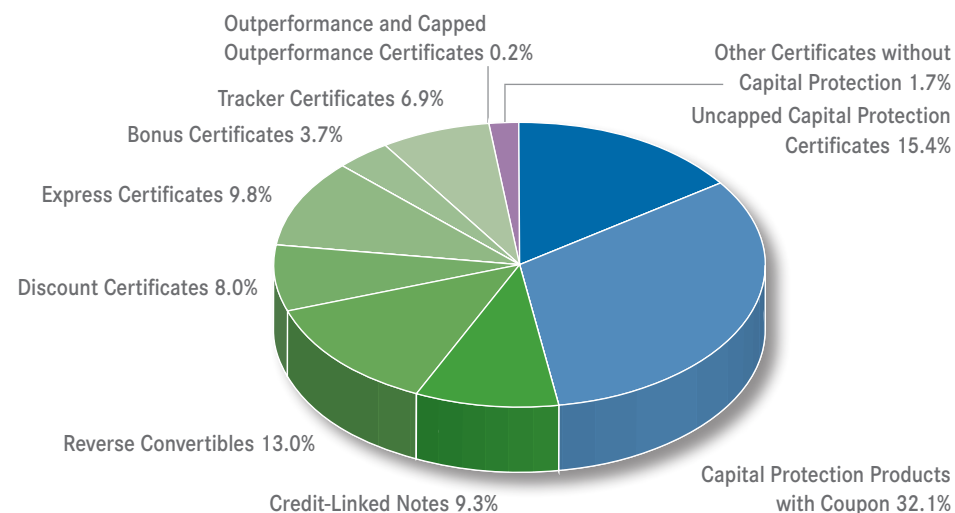


## Market volume by product category as at 31 January 2016

Product categories	Market volume		Market volume price-adjusted		Number of Products	
	T€	in %	T€	in %	#	in %
■ Uncapped Capital Protection Certificates	9,367,626	15.4%	9,340,053	14.9%	2,582	0.5%
■ Capital Protection Products with Coupon	19,612,768	32.1%	19,584,626	31.3%	2,145	0.4%
■ Credit-Linked Notes	5,664,092	9.3%	5,689,696	9.1%	2,032	0.4%
■ Reverse Convertibles	7,909,727	13.0%	8,408,204	13.4%	99,893	19.1%
■ Discount Certificates	4,869,302	8.0%	5,044,519	8.1%	179,635	34.3%
■ Express Certificates	5,968,844	9.8%	6,468,139	10.3%	7,288	1.4%
■ Bonus Certificates	2,259,202	3.7%	2,373,810	3.8%	224,936	43.0%
■ Tracker Certificates	4,191,830	6.9%	4,487,746	7.2%	1,888	0.4%
■ Outperformance and Capped Outperformance Certificates	101,581	0.2%	112,041	0.2%	1,163	0.2%
■ Other Certificates without Capital Protection	1,059,593	1.7%	1,084,593	1.7%	2,119	0.4%
<b>Investment products total</b>	<b>61,004,565</b>	<b>97.7%</b>	<b>62,593,426</b>	<b>96.9%</b>	<b>523,681</b>	<b>42.0%</b>
■ Warrants	616,742	42.7%	888,213	44.0%	367,950	50.9%
■ Factor Certificates	329,996	22.8%	515,050	25.5%	3,794	0.5%
■ Knock-Out Warrants	499,092	34.5%	617,685	30.6%	351,169	48.6%
<b>Leverage products total</b>	<b>1,445,830</b>	<b>2.3%</b>	<b>2,020,948</b>	<b>3.1%</b>	<b>722,913</b>	<b>58.0%</b>
<b>Total</b>	<b>62,450,395</b>	<b>100.0%</b>	<b>64,614,374</b>	<b>100.0%</b>	<b>1,246,594</b>	<b>100.0%</b>

## Investment products by product category

Market volume as at 31 January 2016

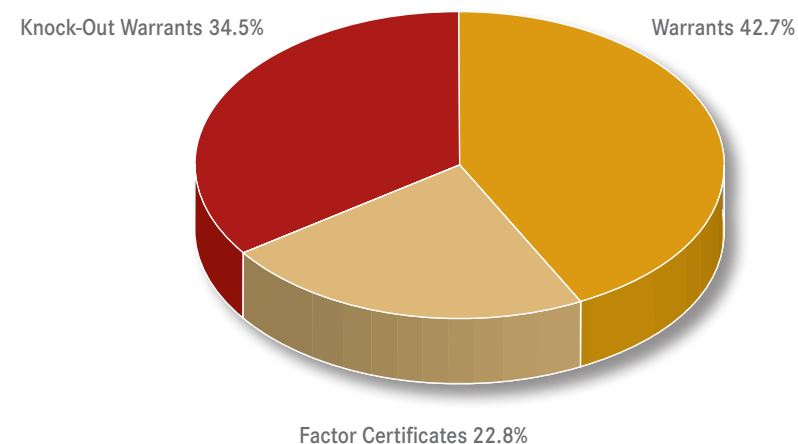


## Change in market volume by product category in comparison with previous month

Product categories	Change		Change price-adjusted		Price effect
	T€	in %	T€	in %	
■ Uncapped Capital Protection Certificates	-41,752	-0.4%	-69,326	-0.7%	0.3%
■ Capital Protection Products with Coupon	-181,737	-0.9%	-209,879	-1.1%	0.1%
■ Credit-Linked Notes	-10,393	-0.2%	15,211	0.3%	-0.5%
■ Reverse Convertibles	3,609	0.0%	502,086	6.4%	-6.3%
■ Discount Certificates	269,485	5.9%	444,702	9.7%	-3.8%
■ Express Certificates	-131,991	-2.2%	367,304	6.0%	-8.2%
■ Bonus Certificates	34,371	1.5%	148,979	6.7%	-5.2%
■ Tracker Certificates	-164,518	-3.8%	131,397	3.0%	-6.8%
■ Outperformance and Capped Outperformance Certificates	-3,730	-3.5%	6,730	6.4%	-9.9%
■ Other Certificates without Capital Protection	-14,668	-1.4%	10,331	1.0%	-2.3%
<b>Investment products total</b>	<b>-241,325</b>	<b>-0.4%</b>	<b>1,347,535</b>	<b>2.2%</b>	<b>-2.6%</b>
■ Warrants	-115,133	-15.7%	156,338	21.4%	-37.1%
■ Factor Certificates	-83,356	-20.2%	101,698	24.6%	-44.8%
■ Knock-Out Warrants	-217,567	-30.4%	-98,974	-13.8%	-16.5%
<b>Leverage products total</b>	<b>-416,056</b>	<b>-22.3%</b>	<b>159,062</b>	<b>8.5%</b>	<b>-30.9%</b>
<b>Total</b>	<b>-657,381</b>	<b>-1.0%</b>	<b>1,506,597</b>	<b>2.4%</b>	<b>-3.4%</b>

## Leverage products by product category

Market volume as at 31 January 2016



## Market volume by underlying asset as at 31 January 2016

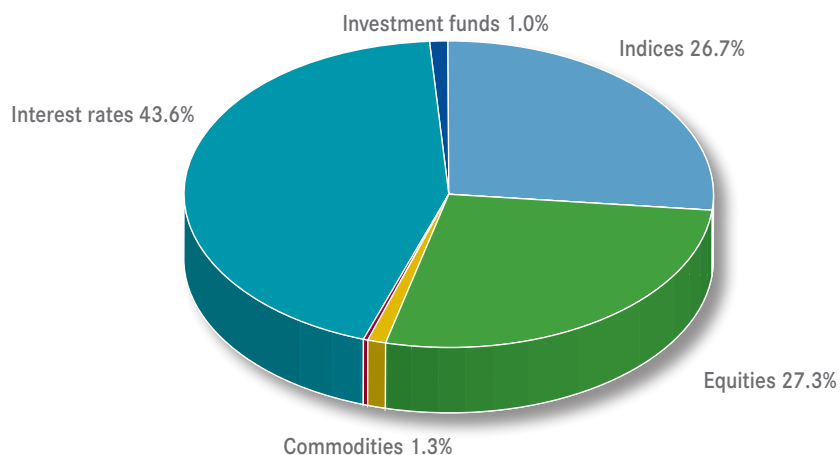
Underlying	Market volume		Market volume price-adjusted*		Number of Products	
	T€	%	T€	%	#	%
<b>Investment products</b>						
Indices	16,270,667	26.7%	16,776,829	26.8%	120,994	23.1%
Equities	16,646,882	27.3%	17,673,705	28.2%	396,260	75.7%
Commodities	804,363	1.3%	822,211	1.3%	1,875	0.4%
Currencies	33,859	0.1%	33,638	0.1%	62	0.0%
Interest rates	26,610,265	43.6%	26,607,892	42.5%	4,378	0.8%
Investment funds	638,529	1.0%	679,150	1.1%	112	0.0%
	<b>61,004,565</b>	<b>97.7%</b>	<b>62,593,426</b>	<b>96.9%</b>	<b>523,681</b>	<b>42.0%</b>
<b>Leverage products</b>						
Indices	494,079	34.2%	733,045	36.3%	192,193	26.6%
Equities	727,908	50.3%	1,030,318	51.0%	465,254	64.4%
Commodities	127,756	8.8%	147,705	7.3%	32,938	4.6%
Currencies	74,338	5.1%	73,051	3.6%	29,456	4.1%
Interest rates	21,723	1.5%	36,803	1.8%	3,062	0.4%
Investment funds	26	0.0%	26	0.0%	10	0.0%
	<b>1,445,830</b>	<b>2.3%</b>	<b>2,020,948</b>	<b>3.1%</b>	<b>722,913</b>	<b>58.0%</b>
<b>Total</b>	<b>62,450,395</b>	<b>100.0%</b>	<b>64,614,374</b>	<b>100.0%</b>	<b>1,246,594</b>	<b>100.0%</b>

\*Market volume adjusted for price changes = quantity outstanding as at 31 January 2016 x price as at 31 December 2015

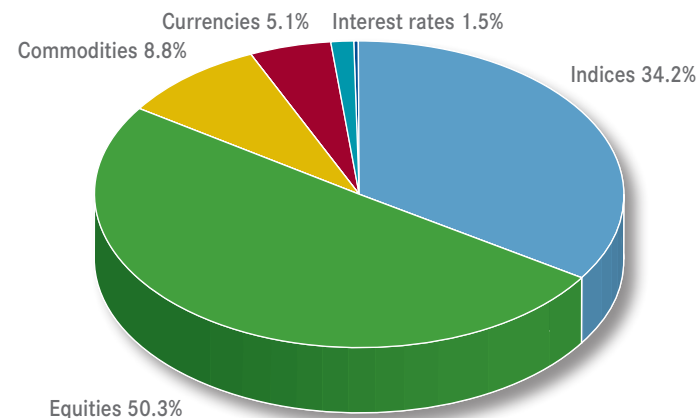
## Change in the market volume by underlying asset in comparison with previous month

Underlying	Change		Change price-adjusted		Price effect
	T€	%	T€	%	
<b>Investment products</b>					
Indices	533,411	3.4%	1,039,573	6.6%	-3.2%
Equities	-598,797	-3.5%	428,027	2.5%	-6.0%
Commodities	14,619	1.9%	32,467	4.1%	-2.3%
Currencies	-5,403	-13.8%	-5,624	-14.3%	0.6%
Interest rates	-196,445	-0.7%	-198,818	-0.7%	0.0%
Investment funds	11,289	1.8%	51,911	8.3%	-6.5%
	<b>-241,325</b>	<b>-0.4%</b>	<b>1,347,535</b>	<b>2.2%</b>	<b>-2.6%</b>
<b>Leverage products</b>					
Indices	-119,556	-19.5%	119,410	19.5%	-38.9%
Equities	-293,562	-28.7%	8,848	0.9%	-29.6%
Commodities	7,020	5.8%	26,969	22.3%	-16.5%
Currencies	-945	-1.3%	-2,232	-3.0%	1.7%
Interest rates	-9,014	-29.3%	6,067	19.7%	-49.1%
Investment funds	0	0.0%	0	0.0%	0.0%
	<b>-416,056</b>	<b>-22.3%</b>	<b>159,062</b>	<b>8.5%</b>	<b>-30.9%</b>
<b>Total</b>	<b>-657,381</b>	<b>-1.0%</b>	<b>1,506,597</b>	<b>2.4%</b>	<b>-3.4%</b>

### Investment products by underlying asset Market volume as at 31 January 2016



### Leverage products by underlying asset Market volume as at 31 January 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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