

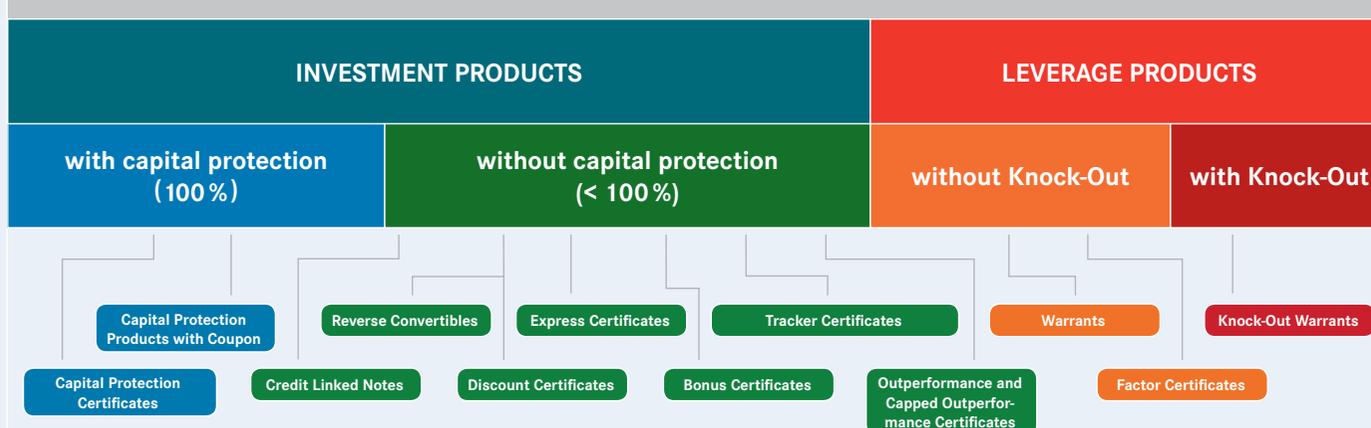
# Market Volume

in Derivatives

## Continuing growth on the structured securities market in August

Bonus Certificates and Express Certificates record larger gains

### STRUCTURED SECURITIES



### DDV Classification System

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## August | 2016

- The total volume of the German structured products market increased to EUR 69.5 billion in August.
- Bonus Certificates, Express Certificates and Reverse Convertibles registered an above-average growth in the investment products category.
- The total market share of leverage products remained unchanged. They accounted for 2.6 percent of the market volume. Investment products made up 97.4 percent.
- Structured products offering full capital protection remained the most popular investment category. Uncapped Capital Protection Certificates and Capital Protection Products with Coupon accounted for over 40 percent of the total investment volume.

# Continuing growth on the structured securities market in August

## Bonus Certificates and Express Certificates record larger gains

The outstanding volume of the German structured products market continued to rise slightly in the reporting month after the growth registered in July. In total, the market volume increased by 0.2 percent or EUR 120.3 million month on month. This trend is 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. Extrapolating these figures to all issuers puts the **total volume of the German structured products market at EUR 69.5 billion at the end of August 2016.**

The **ratio of investment products to leverage products** remained unchanged at 97.4 percent to 2.6 percent.

### Investment products by product category

The volume of **Capital Protection Products offering full capital protection** fell in the month under review. The market volume of Uncapped Capital Protection Certificates fell by 3.4 percent to EUR 7.6 billion, corresponding to 12.3 percent of the market a whole. Capital Protection Products with Coupon also lost 1.1 percent to take their volume to EUR 17.5 billion. This figure corresponded to a 28.1 percent share of the investment products market. As such, 40.4 percent of the investment products had full capital protection in August.

**Express Certificates** upped 2.6 percent to stand at EUR 8.8 billion in total. Their share of the market was 14.1 percent in August.

The market volume of **Reverse Convertibles** rose by 2.4 percent to EUR 8.7 billion. This corresponded to a market share of 14.0 percent.

The market volume of **Credit Linked Notes** increased by 0.6 percent to come in at EUR 6.3 billion. They accounted for a share of 10.1 percent of the total volume.

With an outstanding volume of EUR 5.6 billion, **Discount Certificates** lost 0.6 percent on the previous month and held a 9.0 percent chunk of the total market.

The market volume of **Tracker Certificates** was up by 0.2 percent to stand at EUR 3.9 billion. Their share of the investment products segment accounted for 6.3 percent of the aggregate market volume.

The volume invested in **Bonus Certificates** amounted to EUR 2.6 billion in August – an increase of 4.7 percent. This corresponded to a 4.2 percent share of the total market.

The market volume for **Outperformance and Capped Outperformance Certificates** registered a plus of 0.7

percent and came in at EUR 81.4 million. Their market share remained unchanged at 0.1 percent.

The volume of **other Yield Enhancement Products** increased by 2.8 percent to EUR 1.1 billion. They accounted for a 1.8 percent share of the market volume.

### Leverage products by product category

The market volume of **leverage products** dropped 0.5 percent to stand at EUR 1.7 billion in August.

Contrary to this market trend, the volume of **Knock-Out Warrants** increased. It rose by 2.8 percent, taking it to EUR 668.7 million. The share of Knock-Out Warrants in the leverage products market was 40.4 percent.

**Warrants** lost 1.9 percent to come in at EUR 640.2 million. This category's share in the market amounted to 38.7 percent.

There was also a decline in the volume invested in **Factor Certificates** in August. Their volume fell by 3.8 percent and stood at EUR 345.2 million. The product category accounted for 20.9 percent of the leverage products market.



## Investment products by underlying

Despite a further decline by 1.1 percent, products with **interest rates as an underlying** remained the most popular category. Their volume fell to EUR 24.5 billion in August. Their share of the market stood at 39.3 percent.

Investment products with **equities as an underlying** followed in second place. Their volume rose by 0.6 percent, taking it to EUR 18.6 billion. This corresponded to 29.9 percent of the total volume.

Following close behind in third place were investment products with **equities as an underlying**. Their share of the total volume went up by 1.6 percent and amounted to EUR 18.0 billion. This represented 28.9 percent of the total market.

Investment products with **commodities as an underlying** followed at a considerable distance behind the other underlying asset classes. Their volume decreased by 2.3 percent to stand at EUR 805.1 million in August. Commodities represented a 1.3 percent share of the market.

At 0.6 percent, the share of investment products with **investment funds as an underlying** was even lower. Their volume came in at EUR 387.1 million.

With a share of 0.04 percent, investment products with **currencies as an underlying** were fairly insignificant in relation to the overall development. The volume invested in them was EUR 24.5 million in the reporting month.

## Leverage products by underlying

The market volume of leverage products with **equities as an underlying** edged up a slight 0.3 percent and stood at EUR 874.4 million. These instruments made up 52.9 percent of the total leverage products volume reported for August.

The second largest category remained leverage products with **indices as an underlying**. Their volume went up by 1.6 percent and amounted to EUR 518.2 million by the end of August. This corresponded to a 31.3 percent share of the aggregate volume.

Lagging some way behind leverage products based on equities and indices were those with **commodities as an underlying**. Their volume decreased by 11.5 percent on the previous month and totalled EUR 191.2 million. They accounted for an 11.6 percent share of the market volume.

The market volume of leverage products with **currencies as an underlying** rose by 10.6 percent to stand at EUR 51.3 million. This corresponded to a 3.1 percent share of the market.

At EUR 19.0 million, the volume of leverage products with **interest rates as an underlying** charted a 6.4 percent increase in August. They accounted for a market share of 1.2 percent. ■



### 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](http://www.derivateverband.de)

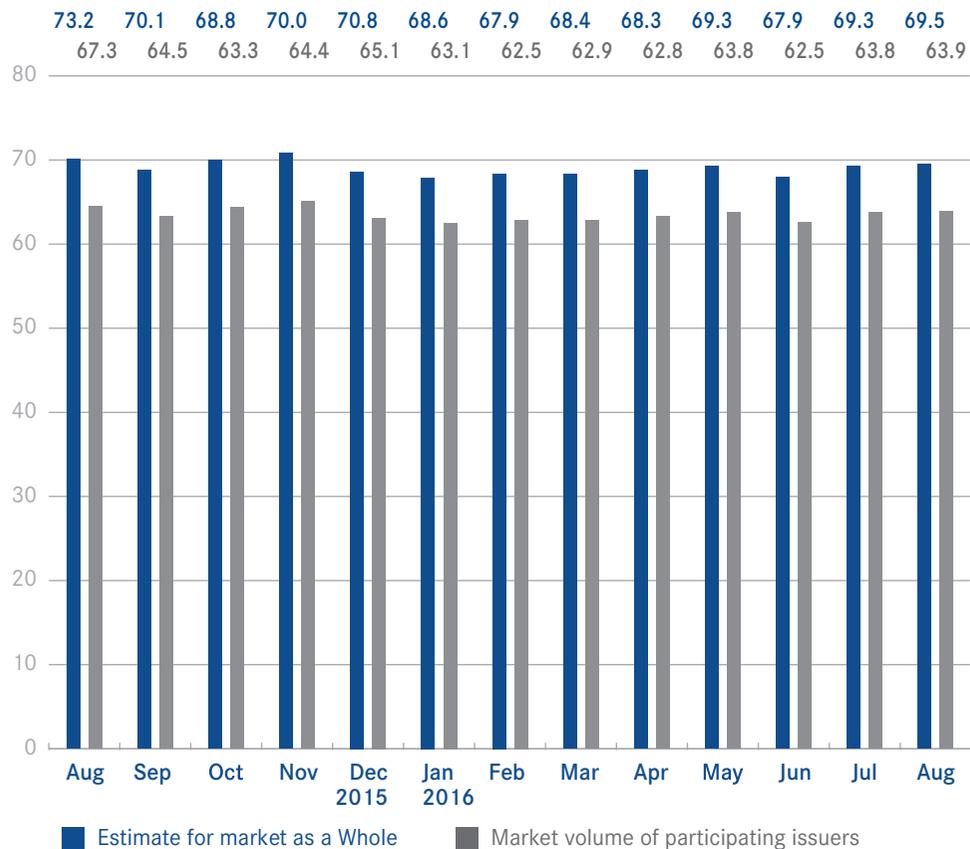
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## Market volume since August 2015



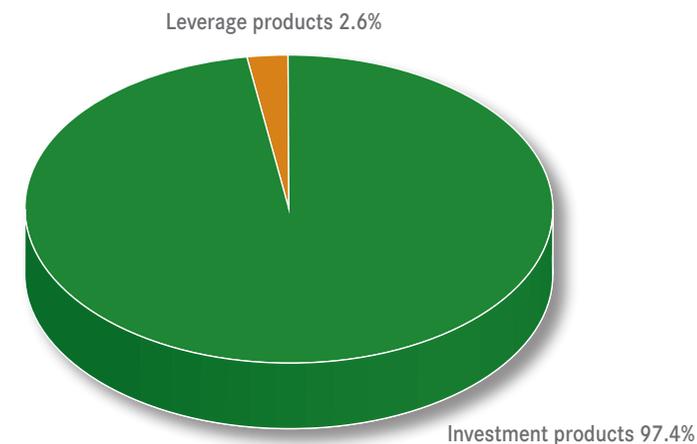
## Product classes

Market volume as at 31 August 2016

Product classes	Market volume	Share
	T€	%
Investment products with capital protection	25,138,541	40.4%
Investment products without capital protection	37,119,070	59.6%
<b>Total Investment products</b>	<b>62,257,611</b>	<b>100.0%</b>
Leverage products without Knock-Out	985,378	59.6%
Leverage products with Knock-Out	668,709	40.4%
<b>Total Leverage products</b>	<b>1,654,087</b>	<b>100.0%</b>
<b>Total Investment products</b>	<b>62,257,611</b>	<b>97.4%</b>
<b>Total Leverage products</b>	<b>1,654,087</b>	<b>2.6%</b>
<b>Total Derivatives</b>	<b>63,911,698</b>	<b>100.0%</b>

## Product classes

Market volume as at 31 August 2016

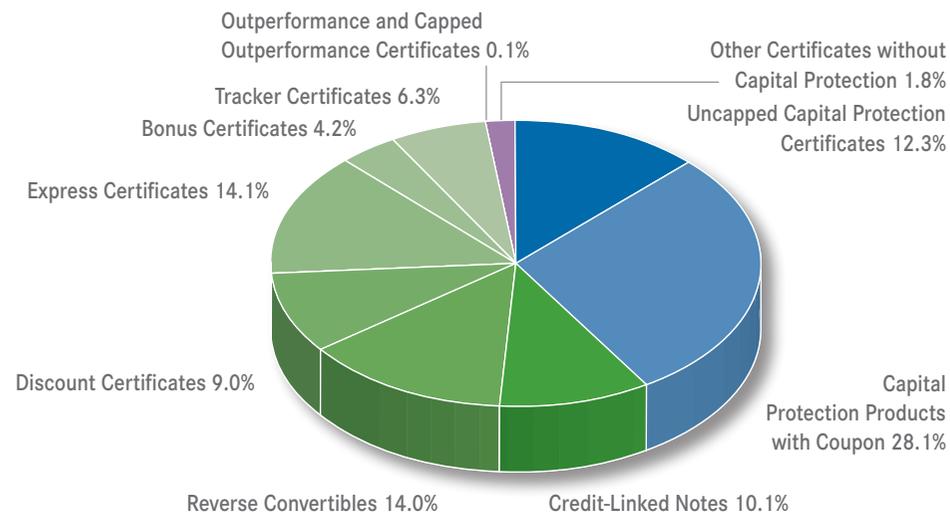


## Market volume by product category as at 31 August 2016

Product categories	Market volume		Market volume price-adjusted		Number of Products	
	T€	in %	T€	in %	#	in %
■ Uncapped Capital Protection Certificates	7,633,409	12.3%	7,630,152	12.3%	2.204	0.4%
■ Capital Protection Products with Coupon	17,505,132	28.1%	17,520,647	28.2%	2.400	0.5%
■ Credit-Linked Notes	6,310,075	10.1%	6,293,252	10.1%	2.443	0.5%
■ Reverse Convertibles	8,712,580	14.0%	8,671,606	14.0%	96.976	19.0%
■ Discount Certificates	5,589,805	9.0%	5,528,339	8.9%	164.967	32.3%
■ Express Certificates	8,777,594	14.1%	8,710,775	14.0%	9.261	1.8%
■ Bonus Certificates	2,605,303	4.2%	2,583,691	4.2%	228.666	44.8%
■ Tracker Certificates	3,930,262	6.3%	3,900,392	6.3%	1.878	0.4%
■ Outperformance and Capped Outperformance Certificates	81,381	0.1%	80,237	0.1%	883	0.2%
■ Other Certificates without Capital Protection	1,112,070	1.8%	1,105,740	1.8%	909	0.2%
<b>Investment products total</b>	<b>62,257,611</b>	<b>97.4%</b>	<b>62,024,832</b>	<b>97.2%</b>	<b>510.587</b>	<b>40.8%</b>
■ Warrants	640,204	38.7%	689,487	39.1%	393.421	53.1%
■ Factor Certificates	345,173	20.9%	384,459	21.8%	3.858	0.5%
■ Knock-Out Warrants	668,709	40.4%	688,971	39.1%	344.115	46.4%
<b>Leverage products total</b>	<b>1,654,087</b>	<b>2.6%</b>	<b>1,762,918</b>	<b>2.8%</b>	<b>741.394</b>	<b>59.2%</b>
<b>Total</b>	<b>63,911,698</b>	<b>100.0%</b>	<b>63,787,750</b>	<b>100.0%</b>	<b>1.251.981</b>	<b>100.0%</b>

## Investment products by product category

Market volume as at 31 August 2016

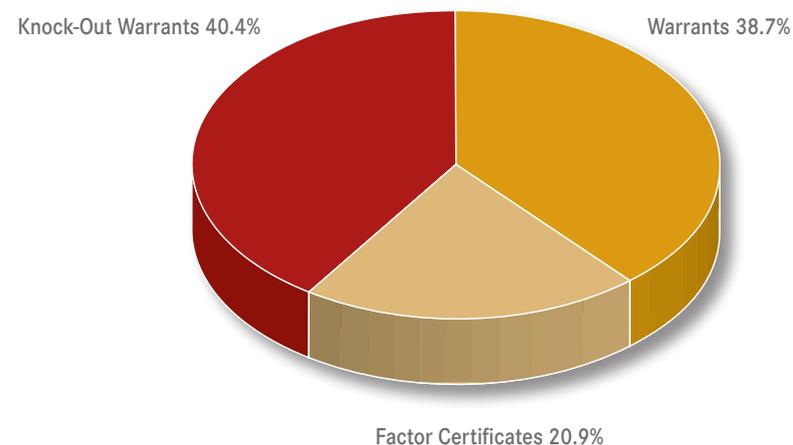


## Change in market volume by product category in comparison with previous month

Product categories	Change		Change price-adjusted		Price effect	
	T€	in %	T€	in %	T€	in %
■ Uncapped Capital Protection Certificates	-267,710	-3.4%	-270,967	-3.4%		0.0%
■ Capital Protection Products with Coupon	-186,060	-1.1%	-170,545	-1.0%		-0.1%
■ Credit-Linked Notes	36,776	0.6%	19,953	0.3%		0.3%
■ Reverse Convertibles	206,217	2.4%	165,243	1.9%		0.5%
■ Discount Certificates	-34,920	-0.6%	-96,386	-1.7%		1.1%
■ Express Certificates	2,18,357	2.6%	151,539	1.8%		0.8%
■ Bonus Certificates	117,365	4.7%	95,753	3.8%		0.9%
■ Tracker Certificates	6,817	0.2%	-23,052	-0.6%		0.8%
■ Outperformance and Capped Outperformance Certificates	603	0.7%	-541	-0.7%		1.4%
■ Other Certificates without Capital Protection	30,479	2.8%	24,150	2.2%		0.6%
<b>Investment products total</b>	<b>127,923</b>	<b>0.2%</b>	<b>-104,856</b>	<b>-0.2%</b>		<b>0.4%</b>
■ Warrants	-12,147	-1.9%	37,135	5.7%		-7.6%
■ Factor Certificates	-13,810	-3.8%	25,476	7.1%		-10.9%
■ Knock-Out Warrants	18,370	2.8%	38,633	5.9%		-3.1%
<b>Leverage products total</b>	<b>-7,587</b>	<b>-0.5%</b>	<b>101,244</b>	<b>6.1%</b>		<b>-6.5%</b>
<b>Total</b>	<b>120,336</b>	<b>0.2%</b>	<b>-3,612</b>	<b>0.0%</b>		<b>0.2%</b>

## Leverage products by product category

Market volume as at 31 August 2016



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

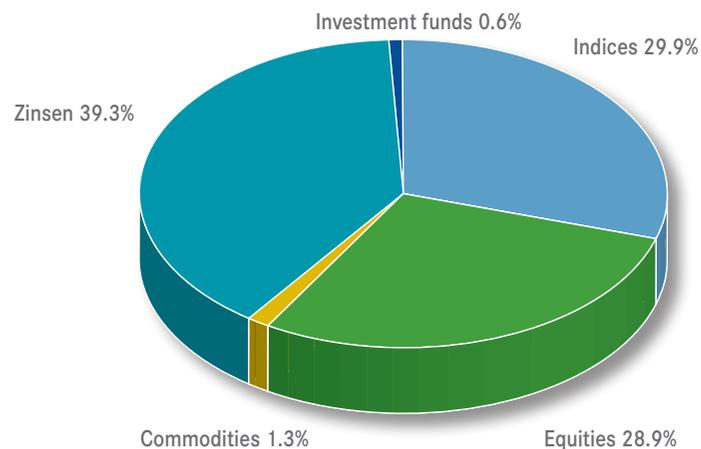
Underlying	Market volume		Market volume price-adjusted*		Number of Products	
	T€	%	T€	%	#	%
<b>Investment products</b>						
Indices	18,591,753	29.9%	18,488,479	29.8%	125,050	24.5%
Equities	17,987,999	28.9%	17,863,906	28.8%	378,354	74.1%
Commodities	805,072	1.3%	799,913	1.3%	2,067	0.4%
Currencies	24,475	0.0%	24,422	0.0%	31	0.0%
Interest rates	24,461,188	39.3%	24,458,572	39.4%	4,974	1.0%
Investment funds	387,124	0.6%	389,539	0.6%	111	0.0%
	<b>62,257,611</b>	<b>97.4%</b>	<b>62,024,832</b>	<b>97.2%</b>	<b>510,587</b>	<b>40.8%</b>
<b>Leverage products</b>						
Indices	518,201	31.3%	551,687	31.3%	181,496	24.5%
Equities	874,388	52.9%	895,855	50.8%	484,556	65.4%
Commodities	191,191	11.6%	245,421	13.9%	37,558	5.1%
Currencies	51,251	3.1%	51,235	2.9%	34,863	4.7%
Interest rates	19,035	1.2%	18,699	1.1%	2,913	0.4%
Investment funds	21	0.0%	21	0.0%	8	0.0%
	<b>1,654,087</b>	<b>2.6%</b>	<b>1,762,918</b>	<b>2.8%</b>	<b>741,394</b>	<b>59.2%</b>
<b>Total</b>	<b>63,911,698</b>	<b>100.0%</b>	<b>63,787,750</b>	<b>100.0%</b>	<b>1,251,981</b>	<b>100.0%</b>

\*Market volume adjusted for price changes = quantity outstanding as at 31 August 2016 x price as at 31 July 2016

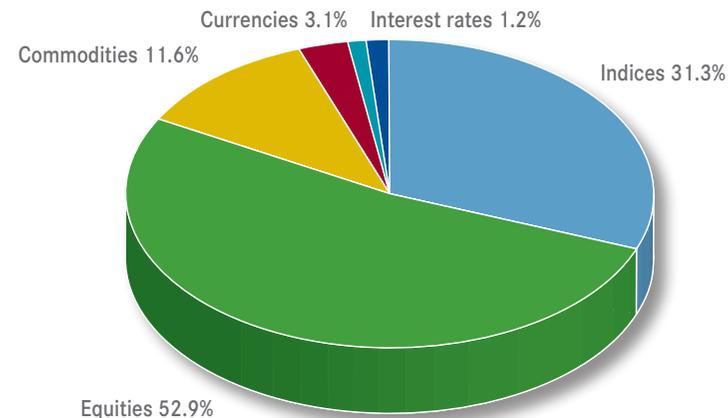
## Change in the market volume by underlying asset in comparison with previous month

Underlying	Change		Change price-adjusted		Price effect
	T€	%	T€	%	
<b>Investment products</b>					
Indices	112,858	0.6%	9,585	0.1%	0.6%
Equities	281,222	1.6%	157,128	0.9%	0.7%
Commodities	-18,782	-2.3%	-23,940	-2.9%	0.6%
Currencies	-377	-1.5%	-429	-1.7%	0.2%
Interest rates	-260,733	-1.1%	-263,349	-1.1%	0.0%
Investment funds	13,735	3.7%	16,150	4.3%	-0.6%
	<b>127,923</b>	<b>0.2%</b>	<b>-104,856</b>	<b>-0.2%</b>	<b>0.4%</b>
<b>Leverage products</b>					
Indices	8,221	1.6%	41,707	8.2%	-6.6%
Equities	3,016	0.3%	24,484	2.8%	-2.5%
Commodities	-24,890	-11.5%	29,340	13.6%	-25.1%
Currencies	4,917	10.6%	4,901	10.6%	0.0%
Interest rates	1,149	6.4%	813	4.5%	1.9%
Investment funds	0	0.0%	0	0.0%	0.0%
	<b>-7,587</b>	<b>-0.5%</b>	<b>101,244</b>	<b>6.1%</b>	<b>-6.5%</b>
<b>Total</b>	<b>120,336</b>	<b>0.2%</b>	<b>-3,612</b>	<b>0.0%</b>	<b>0.2%</b>

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



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

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