

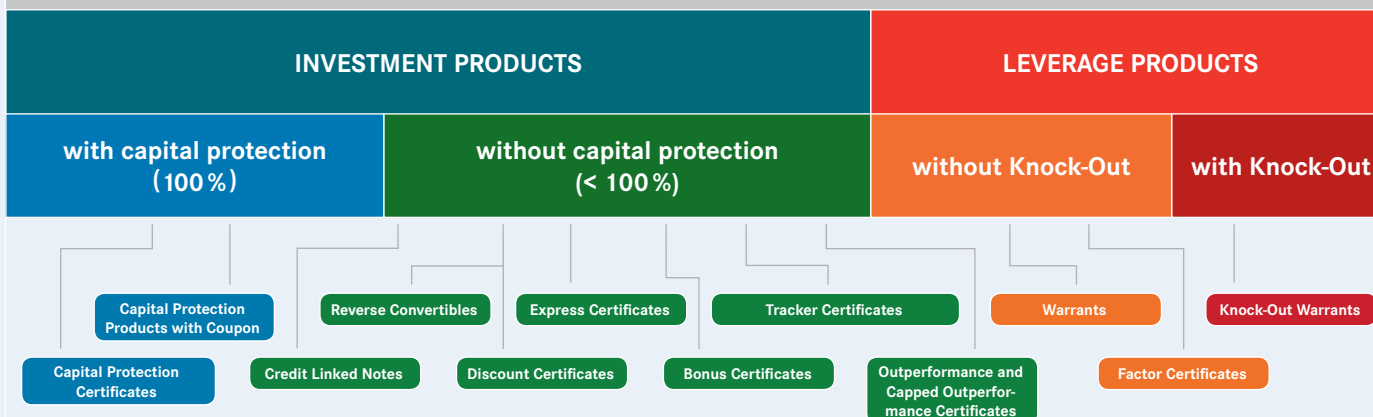
# Market Volume

in Derivatives

## German structured products market registers growth at the beginning of the year

Reverse Convertibles and Bonus Certificates are particularly sought after

### STRUCTURED SECURITIES



### DDV Classification System

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## January | 2017

- The total volume of the German structured products market rose to EUR 67.4 billion in January.
- The market volume of leverage products increased by 5.1 percent to EUR 1.7 billion.
- Reverse Convertibles experienced an above-average growth of 2.6 percent and stood at a volume of EUR 9.2 billion.
- Leverage products with commodities as an underlying registered a plus of 14.0 percent. The volume invested in them amounted to EUR 186.0 million.

## German structured products market registers growth at the beginning of the year

### Reverse Convertibles and Bonus Certificates are particularly sought after

The outstanding volume of the German structured products market increased in January 2017. Above-average growth was seen in both Reverse Convertibles and Bonus Certificates in particular. The volume of products offering full capital protection also registered a slight increase.

On the whole, the market volume increased slightly by 0.7 percent or EUR 447.9 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 the German Derivatives Association (Deutscher Derivate Verband, DDV). Extrapolating these figures to all issuers puts the **total volume of the German structured products market at EUR 67.4 billion in January 2017**.

The **ratio of investment products to leverage products** shifted in favour of leverage products. They accounted for 2.9 percent of the total market volume, while investment products made up 97.1 percent.

#### Investment products by product category

Contrary to the trend seen in the last months, the volume of **Capital Protection Products** charted growth. The market volume relating to Capital Protection Products with Coupon

rose by a slight 0.1 percent compared with the previous month, to EUR 15.8 billion. This corresponded to a 26.1 percent share of the investment products market. Uncapped Capital Protection Certificates recorded an increase of 0.6 percent to EUR 7.3 billion. They accounted for 12.0 percent of the investment products market. A total of 38.1 percent of the market volume was invested in these two product categories in January.

The volume of **Reverse Convertibles** grew by 2.6 percent to EUR 9.2 billion. This corresponded to a share of 15.3 percent.

**Express Certificates** gained 1.5 percent to come in at EUR 10.4 billion. Their share stood at 17.2 percent in January.

However, the market volume for **Credit Linked Notes** dropped by 2.4 percent to EUR 5.8 billion. They accounted for 9.6 percent of the total volume.

**Discount Certificates** registered a plus of 1.9 percent to stand at EUR 4.7 billion – a share of 7.8 percent.

The volume recorded for **Tracker Certificates** dwindled by 1.6 percent to EUR 3.8 billion. Their share of the investment products segment was 6.2 percent.

**Bonus Certificates** also experienced a volume increase in January. Their market volume stood at EUR 2.3 billion – up 2.5 percent compared with December. This corresponded to 3.8 percent of the aggregate volume.

The volume of **Outperformance and Capped Outperformance** Certificates rose by 2.6 percent to EUR 78.2 million. However, as it 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** fell by 1.9 percent to EUR 1.1 billion. Their share stood at 1.8 percent.

#### Leverage products by product category

The market volume of **Leverage Products** climbed by 5.1 percent and stood at EUR 1.8 billion in January.

The volume invested in **Knock-Out Warrants** increased by 5.8 percent to EUR 756.3 million. Their share of the leverage products segment was 42.3 percent.

**Warrants** saw a 4.9 percent upswing and stood at EUR 664.8 million. Their share totalled 37.2 percent.



The volume invested in **Factor Certificates** grew by 4.0 percent to EUR 365.5 million. This category accounted for a 20.5 percent share of the leverage products market.

## Investment products by underlying

Despite some losses, structured products with **interest rates as an underlying** remained the most popular category. Their volume fell by 0.7 percent to EUR 22.0 billion in January. This corresponded to 36.6 percent of the aggregate volume.

Investment products with **indices as an underlying** followed in second place. Their volume rose by 0.5 percent to EUR 18.8 billion and represented 31.1 percent of the total volume.

Investment products with **equities as an underlying** were the third most popular category of instruments. Their share of the total volume edged up by 2.3 percent, taking it to EUR 18.3 billion. This corresponded to a 30.3 percent share.

Following at a considerable distance behind the other classes were investment products with **commodities as an underlying**. Their outstanding volume fell by 1.3 percent in January and amounted to EUR 773.3 million. Commodities accounted for a share of 1.3 percent.

Investment products with **investment funds as an underlying** made up a 0.6 percent share. Their volume came in at EUR 387.7 million.

Investment products with **currencies as an underlying** were fairly insignificant in relation to the general trend with a share of 0.05 percent. The volume invested in them increased by 8.1 percent to EUR 27.9 million in the reporting month.

## Leverage products by underlying

The market volume of leverage products with **equities as an underlying** recorded a considerable 5.3 percent increase and stood at EUR 967.6 million. They made up 54.2 percent of the total leverage products volume.

The volume of leverage products with **indices as an underlying** grew by 1.1 percent, taking it to EUR 530.6 million. This corresponded to a 29.7 percent share.

Leverage products with **commodities as an underlying** followed at some distance behind the other classes. However their volume climbed by 14.0 percent month on month and stood at EUR 186.0 million. Their share was 10.4 percent.

The market volume of leverage products with **currencies as an underlying** dropped to EUR 56.3 million - down 3.7 percent. This corresponded to a share of 3.2 percent.

Leverage products with **interest rates as an underlying** jumped by 36.5 percent to EUR 46.1 million in January. Because they accounted for only 2.0 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 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)

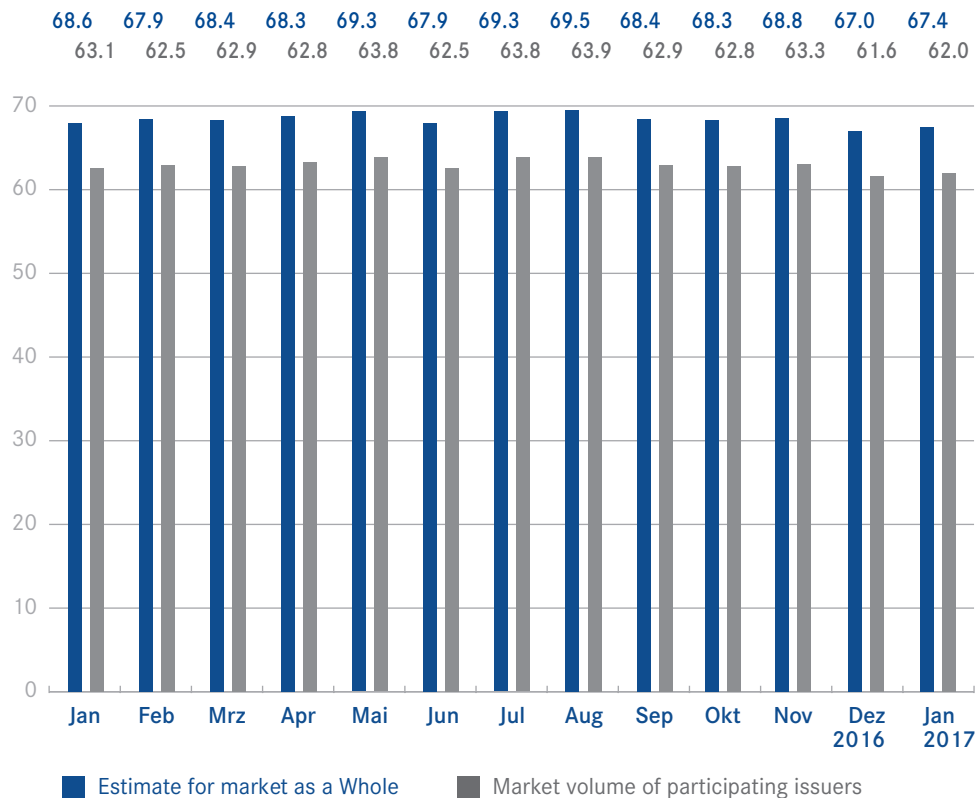
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## Market volume since January 2016



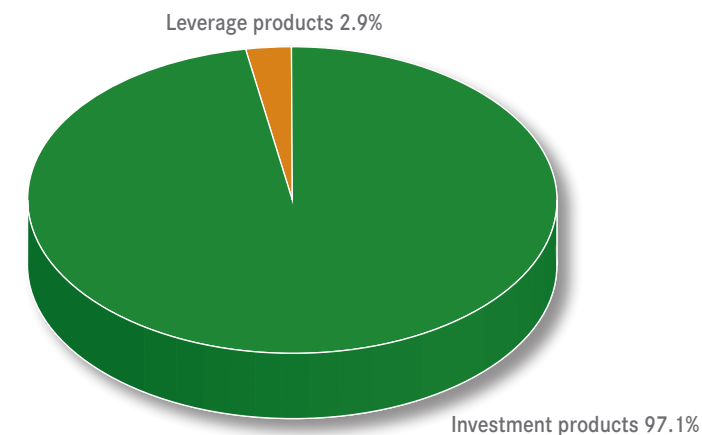
## Product classes

Market volume as at 31 January 2017

Product classes	Market volume	Share
	T€	%
Investment products with capital protection	23,016,419	38.2%
Investment products without capital protection	37,245,429	61.8%
<b>Total Investment products</b>	<b>60,261,849</b>	<b>100.0%</b>
Leverage products without Knock-Out	1,030,286	57.7%
Leverage products with Knock-Out	756,314	42.3%
<b>Total Leverage products</b>	<b>1,786,600</b>	<b>100.0%</b>
<b>Total Investment products</b>	<b>60,261,849</b>	<b>97.1%</b>
<b>Total Leverage products</b>	<b>1,786,600</b>	<b>2.9%</b>
<b>Total Derivatives</b>	<b>62,048,448</b>	<b>100.0%</b>

## Product classes

Market volume as at 31 January 2017

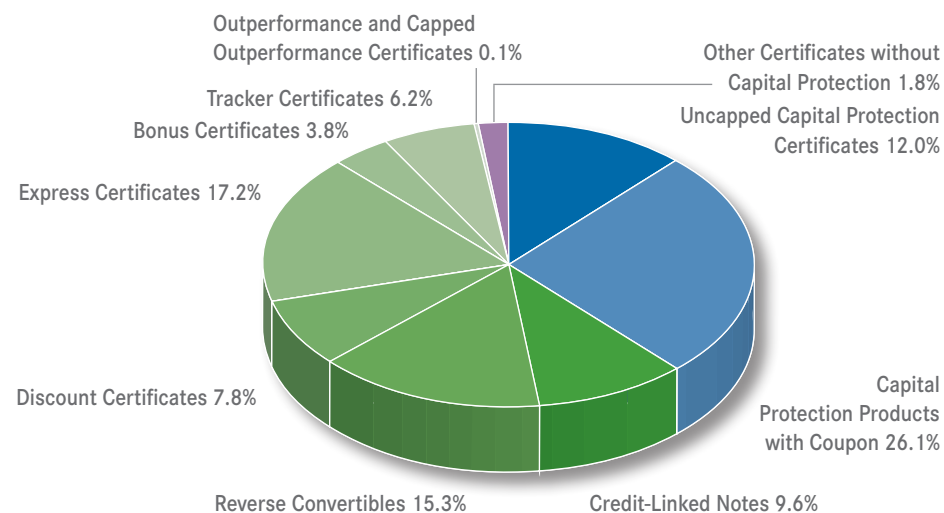


## Market volume by product category as at 31 January 2017

Product categories	Market volume		Market volume price-adjusted		Number of Products	
	T€	in %	T€	in %	#	in %
■ Uncapped Capital Protection Certificates	7,261,393	12.0%	7,297,954	12.1%	2,026	0.4%
■ Capital Protection Products with Coupon	15,755,026	26.1%	15,796,148	26.2%	2,520	0.5%
■ Credit-Linked Notes	5,776,308	9.6%	5,781,783	9.6%	2,334	0.5%
■ Reverse Convertibles	9,232,176	15.3%	9,253,420	15.3%	113,158	22.0%
■ Discount Certificates	4,672,484	7.8%	4,645,921	7.7%	160,142	31.2%
■ Express Certificates	10,351,002	17.2%	10,344,788	17.2%	9,950	1.9%
■ Bonus Certificates	2,305,131	3.8%	2,292,727	3.8%	219,623	42.8%
■ Tracker Certificates	3,760,917	6.2%	3,736,992	6.2%	1,713	0.3%
■ Outperformance and Capped Outperformance Certificates	78,211	0.1%	78,853	0.1%	1,420	0.3%
■ Other Certificates without Capital Protection	1,069,200	1.8%	1,075,857	1.8%	835	0.2%
<b>Investment products total</b>	<b>60,261,849</b>	<b>97.1%</b>	<b>60,304,443</b>	<b>97.1%</b>	<b>513,721</b>	<b>39.3%</b>
■ Warrants	664,809	37.2%	692,224	38.9%	436,987	55.2%
■ Factor Certificates	365,477	20.5%	360,128	20.3%	4,179	0.5%
■ Knock-Out Warrants	756,314	42.3%	725,170	40.8%	350,632	44.3%
<b>Leverage products total</b>	<b>1,786,600</b>	<b>2.9%</b>	<b>1,777,522</b>	<b>2.9%</b>	<b>791,798</b>	<b>60.7%</b>
<b>Total</b>	<b>62,048,448</b>	<b>100.0%</b>	<b>62,081,964</b>	<b>100.0%</b>	<b>1,305,519</b>	<b>100.0%</b>

## Investment products by product category

Market volume as at 31 January 2017

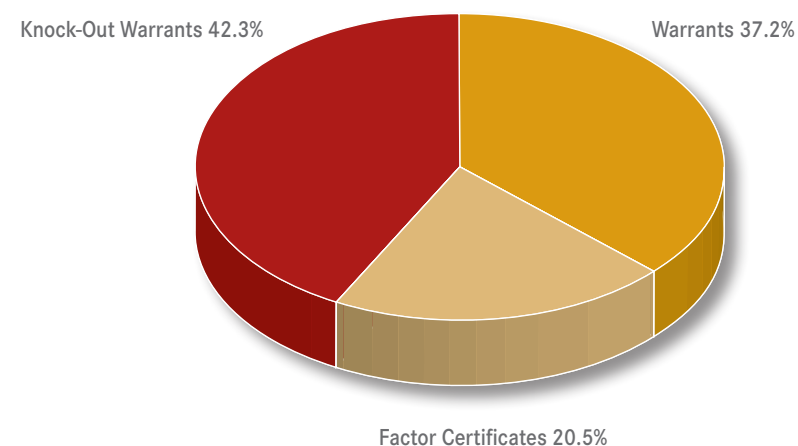


## Change in market volume by product category in comparison with previous month

Product categories	Change		Change price-adjusted		Price effect	
	T€	in %	T€	in %		in %
■ Uncapped Capital Protection Certificates	46,163	0.6%	82,723	1.1%		-0.5%
■ Capital Protection Products with Coupon	8,412	0.1%	49,533	0.3%		-0.3%
■ Credit-Linked Notes	-139,166	-2.4%	-133,691	-2.3%		-0.1%
■ Reverse Convertibles	229,774	2.6%	251,018	2.8%		-0.2%
■ Discount Certificates	86,158	1.9%	59,595	1.3%		0.6%
■ Express Certificates	154,567	1.5%	148,353	1.5%		0.1%
■ Bonus Certificates	56,656	2.5%	44,253	2.0%		0.6%
■ Tracker Certificates	-63,087	-1.6%	-87,012	-2.3%		0.6%
■ Outperformance and Capped Outperformance Certificates	2,016	2.6%	2,658	3.5%		-0.8%
■ Other Certificates without Capital Protection	-20,592	-1.9%	-13,934	-1.3%		-0.6%
<b>Investment products total</b>	<b>360,900</b>	<b>0.6%</b>	<b>403,494</b>	<b>0.7%</b>		<b>-0.1%</b>
■ Warrants	31,240	4.9%	58,655	9.3%		-4.3%
■ Factor Certificates	14,192	4.0%	8,843	2.5%		1.5%
■ Knock-Out Warrants	41,617	5.8%	10,473	1.5%		4.4%
<b>Leverage products total</b>	<b>87,049</b>	<b>5.1%</b>	<b>77,971</b>	<b>4.6%</b>		<b>0.5%</b>
<b>Total</b>	<b>447,949</b>	<b>0.7%</b>	<b>481,465</b>	<b>0.8%</b>		<b>-0.1%</b>

## Leverage products by product category

Market volume as at 31 January 2017



## Market volume by underlying asset as at 31 January 2017

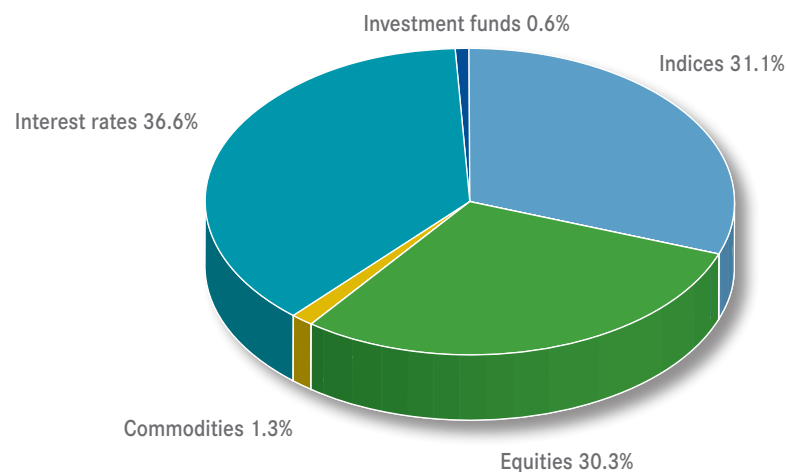
Underlying	Market volume		Market volume price-adjusted*		Number of Products	
	T€	%	T€	%	#	%
<b>Investment products</b>						
Indices	18,768,502	31.1%	18,772,032	31.1%	132,719	25.8%
Equities	18,259,094	30.3%	18,248,969	30.3%	373,540	72.7%
Commodities	773,312	1.3%	774,408	1.3%	2,348	0.5%
Currencies	27,865	0.0%	27,995	0.0%	19	0.0%
Interest rates	22,045,325	36.6%	22,093,424	36.6%	4,949	1.0%
Investment funds	387,749	0.6%	387,614	0.6%	146	0.0%
	<b>60,261,849</b>	<b>97.1%</b>	<b>60,304,443</b>	<b>97.1%</b>	<b>513,721</b>	<b>39.3%</b>
<b>Leverage products</b>						
Indices	530,614	29.7%	564,406	31.8%	185,367	23.4%
Equities	967,580	54.2%	930,051	52.3%	513,914	64.9%
Commodities	186,000	10.4%	173,822	9.8%	43,267	5.5%
Currencies	56,287	3.2%	66,593	3.7%	45,142	5.7%
Interest rates	46,097	2.6%	42,630	2.4%	4,100	0.5%
Investment funds	21	0.0%	21	0.0%	8	0.0%
	<b>1,786,600</b>	<b>2.9%</b>	<b>1,777,522</b>	<b>2.9%</b>	<b>791,798</b>	<b>60.7%</b>
<b>Total</b>	<b>62,048,448</b>	<b>100.0%</b>	<b>62,081,964</b>	<b>100.0%</b>	<b>1,305,519</b>	<b>100.0%</b>

\*Market volume adjusted for price changes = quantity outstanding as at 31 January 2017 x price as at 31 December 2016

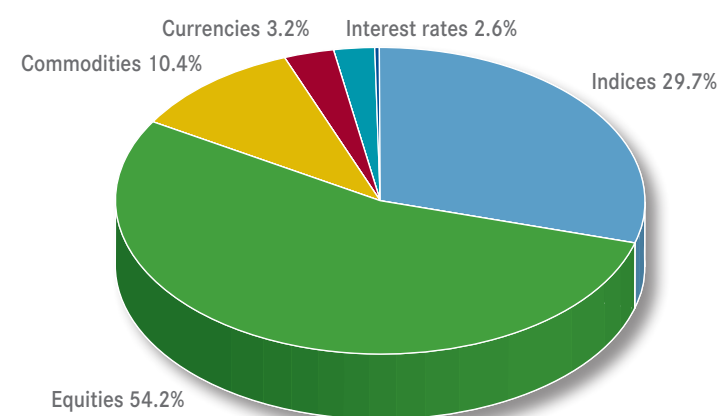
## Change in the market volume by underlying asset in comparison with previous month

Underlying	Change		Change price-adjusted		Price effect
	T€	%	T€	%	
<b>Investment products</b>					
Indices	101,805	0.5%	105,334	0.6%	0.0%
Equities	410,577	2.3%	400,452	2.2%	0.1%
Commodities	-10,051	-1.3%	-8,955	-1.1%	-0.1%
Currencies	2,086	8.1%	2,215	8.6%	-0.5%
Interest rates	-150,380	-0.7%	-102,281	-0.5%	-0.2%
Investment funds	6,864	1.8%	6,729	1.8%	0.0%
	<b>360,900</b>	<b>0.6%</b>	<b>403,494</b>	<b>0.7%</b>	<b>-0.1%</b>
<b>Leverage products</b>					
Indices	5,676	1.1%	39,469	7.5%	-6.4%
Equities	48,333	5.3%	10,803	1.2%	4.1%
Commodities	22,879	14.0%	10,700	6.6%	7.5%
Currencies	-2,167	-3.7%	8,139	13.9%	-17.6%
Interest rates	12,327	36.5%	8,860	26.2%	10.3%
Investment funds	0	0.0%	0	0.0%	0.0%
	<b>87,049</b>	<b>5.1%</b>	<b>77,971</b>	<b>4.6%</b>	<b>0.5%</b>
<b>Total</b>	<b>447,949</b>	<b>0.7%</b>	<b>481,465</b>	<b>0.8%</b>	<b>-0.1%</b>

### Investment products by underlying asset Market volume as at 31 January 2017



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