# Market Volume

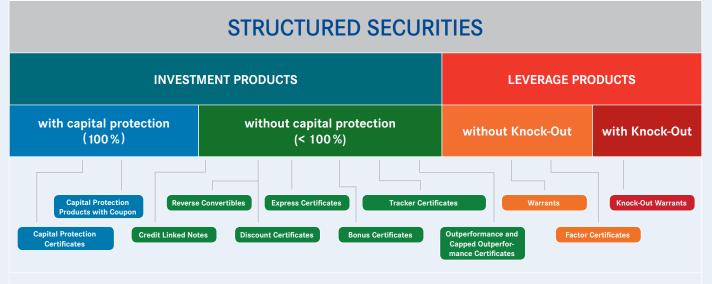
in Derivatives

\_\_\_\_\_



## Positive start to the year on the structured products market

Particularly strong demand for Bonus and Discount Certificates



## CONTENTS

| Market volume since January 2017                | 3 |
|---|---|
| Market volume by product class                  | 3 |
| Market volume by product category               | 4 |
| Change in the market volume by product category | 4 |
| Investment products by product category         | 4 |
| Leverage products by product category           | 4 |
| Market volume by underlying                     | 5 |
| Change in market volume by underlying           | 5 |
| Investment products by underlying               | 5 |
| Leverage products by underlying                 | 5 |
| Collection, validation and analysis methodology | 6 |
|   |   |

## **DDV Classification System**

## January I 2018

- In January, the total volume of the German structured products market rose to EUR 69.8 billion.
- Discount Certificates experienced above-average growth of 5.0 percent, taking their volume to EUR 4.6 billion.
- The market volume for leverage products jumped 15.7 percent to EUR 2.5 billion.
- Leverage products with equities as an underlying experienced growth of 20.8 percent. The volume invested in them climbed to EUR 1.6 billion.

## Positive start to the year on the structured products market

Particularly strong demand for Bonus and Discount Certificates

The outstanding volume of the German structured products market increased in January. Extrapolating the figures to all issuers puts the total volume of the German structured products market at EUR 69.8 billion in January 2018. This corresponds to growth of 1.2 percent or EUR 0.9 billion month on 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.

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

## Investment products by product category

The positive overall trend meant that demand increased on the previous month in most product categories. In particular, **Bonus Certificates** and **Discount Certificates** recorded above-average volume growth. The volume invested in Discount Certificates climbed to EUR 4.6 billion as a result. **Reverse Convertibles** and **Express Certificates** also performed well. **Capital Protection Products** bucked the trend by dwindling in popularity. 37.0 percent of the market volume was invested in **Capital Protection Products with Coupon** and **Uncapped Capital Protection Certificates** in January. **Credit Linked Notes** also registered another decline.

## Leverage products by product category

The market volume of leverage products rose sharply in the month under review, coming in at EUR 2.5 billion. Marked growth was seen in all product categories.

## Investment products by underlying

Despite some losses, structured products with interest rates as an underlying remained the most popular category in January. Their volume fell to EUR 22.2 billion. Investment products with equities as an underlying followed in second place. The volume invested in them totalled EUR 20.3 billion. Investment products with indices as an underlying also registered an upturn, having lost ground in the previous months. Interest in investment products with commodities as an underlying fell in January, taking their total to EUR 649.3 million. Investment products with investment funds as an underlying posted above-average growth of 5.2 percent, taking them to EUR 603.9 million.

## Leverage products by underlying

Marked increases were seen in the main classes of leverage product in the reporting month. The market volume of leverage products with **equities as an underlying** increased to EUR 1.6 billion, while the volume invested in leverage products with **indices as an underlying** rose to EUR 693.9 million. The market volume of leverage products with **commodities as an underly-ing** fell to EUR 155.8 million, bucking the general trend.



#### 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

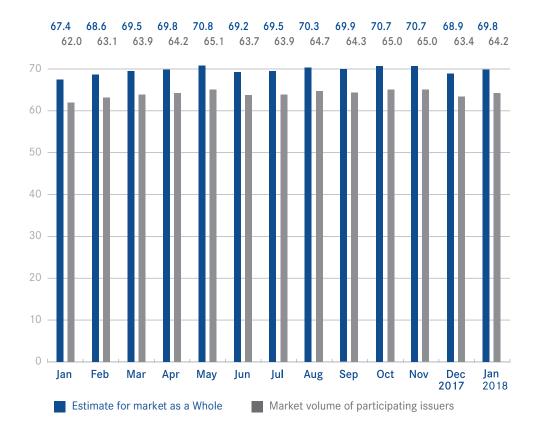
Office Berlin, Pariser Platz 3, 10117 Berlin, Germany Office Frankfurt a.M., Feldbergstr. 38, 60323 Frankfurt a.M., Germany

#### Your contact:

Alexander Heftrich, Media Relations Officer phone: +49 (0)69 244 33 03 70, mobile phone: +49 (0)160 805 30 34 heftrich@derivateverband.de

Under the heading Presse (Media) our website www.derivateverband.de provides not only our latest media releases but also audio and video recordings for reporting (presently only available on the German website).

## Market volume since January 2017



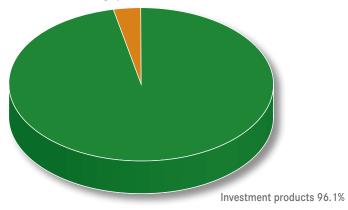
## Product classes

Market volume as at 31 January 2018

| oduct classes                                  | Market volume | Share  |  |
|--|---------------|--------|--|
|  | T€            | %      |  |
| Investment products with capital protection    | 22,847,903    | 37.1%  |  |
| Investment products without capital protection | 38,791,363    | 62.9%  |  |
| Total Investment products                      | 61,639,266    | 100.0% |  |
| Leverage products without Knock-Out            | 1,387,682     | 54.9%  |  |
| Leverage products without Knock-Out            | 1,142,225     | 45.1%  |  |
| Total Leverage products                        | 2,529,908     | 100.0% |  |
| Total Investment products                      | 61,639,266    | 96.1%  |  |
| Total Leverage products                        | 2,529,908     | 3.9%   |  |
| Total Derivatives                              | 64,169,174    | 100.0% |  |

## Product classes Market volume as at 31 January 2018

Leverage products 3.9%



## Market volume by product category as at 31 January 2018

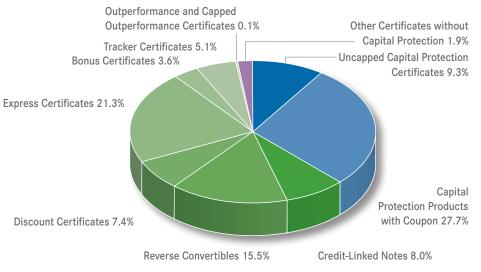
| Product categories                            | Market volume |               | Market volume<br>price-adjusted |        | Number of<br>Products |        |
|---|---------------|---------------|---------------------------------|--------|-----------------------|--------|
|   | T€            | in %          | T€                              | in %   | #                     | in %   |
| Uncapped Capital Protection Certificates      | 5,760,391     | 9.3%          | 5,759,797                       | 9.4%   | 1,608                 | 0.3%   |
| Capital Protection Products with Coupon       | 17,087,512    | 27.7%         | 17,179,267                      | 27.9%  | 3,162                 | 0.7%   |
| Credit-Linked Notes                           | 4,903,428     | 8.0%          | 4,910,268                       | 8.0%   | 2,347                 | 0.5%   |
| Reverse Convertibles                          | 9,571,900     | 15.5%         | 9,569,596                       | 15.5%  | 125,460               | 26.6%  |
| Discount Certificates                         | 4,588,782     | 7.4%          | 4,559,446                       | 7.4%   | 140,802               | 29.9%  |
| Express Certificates                          | 13,125,028    | 21.3%         | 13,059,446                      | 21.2%  | 11,270                | 2.4%   |
| Bonus Certificates                            | 2,210,019     | 3.6%          | 2,191,544                       | 3.6%   | 183,128               | 38.8%  |
| Tracker Certificates                          | 3,168,127     | 5.1%          | 3,152,807                       | 5.1%   | 1,464                 | 0.3%   |
| Outperformance and Capped                     | 65,836        | 0.1%          | 64,213                          | 0.1%   | 1,416                 | 0.3%   |
| Outperformance Certificates                   |               |               |                                 |        |                       |        |
| Other Certificates without Capital Protection | 1,158,243     | 1.9%          | 1,150,240                       | 1.9%   | 879                   | 0.2%   |
| Investment products total                     | 61,639,266    | <b>96.</b> 1% | 61,596,625                      | 96.5%  | 471,536               | 31.0%  |
| Warrants                                      | 966,522       | 38.2%         | 834,480                         | 37.0%  | 569,476               | 54.3%  |
| Factor Certificates                           | 421,160       | 16.6%         | 385,478                         | 17.1%  | 5,668                 | 0.5%   |
| Knock-Out Warrants                            | 1,142,225     | 45.1%         | 1,032,941                       | 45.8%  | 473,371               | 45.1%  |
| Leverage products total                       | 2,529,908     | 3.9%          | 2,252,899                       | 3.5%   | 1,048,515             | 69.0%  |
| Total   | 64,169,174    | 100.0%        | 63,849,524                      | 100.0% | 1,520,051             | 100.0% |

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

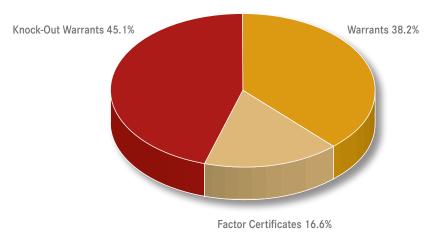
| Product categories                            | Change  |       | Change<br>price-adjusted |       | Price effect |  |
|---|---------|-------|--------------------------|-------|--------------|--|
|   | T€      | in %  | T€                       | in %  | in %         |  |
| Uncapped Capital Protection Certificates      | -73,189 | -1.3% | -73,782                  | -1.3% | 0.0%         |  |
| Capital Protection Products with Coupon       | -52,407 | -0.3% | 39,348                   | 0.2%  | -0.5%        |  |
| Credit-Linked Notes                           | -88,294 | -1.8% | -81,454                  | -1.6% | -0.1%        |  |
| Reverse Convertibles                          | 88,094  | 0.9%  | 85,790                   | 0.9%  | 0.0%         |  |
| Discount Certificates                         | 219,400 | 5.0%  | 190,064                  | 4.3%  | 0.7%         |  |
| Express Certificates                          | 221,228 | 1.7%  | 155,646                  | 1.2%  | 0.5%         |  |
| Bonus Certificates                            | 142,326 | 6.9%  | 123,851                  | 6.0%  | 0.9%         |  |
| Tracker Certificates                          | -59,636 | -1.8% | -74,956                  | -2.3% | 0.5%         |  |
| Outperformance and Capped                     | 4,296   | 7.0%  | 2,674                    | 4.3%  | 2.6%         |  |
| Outperformance Certificates                   |         |       |                          |       |              |  |
| Other Certificates without Capital Protection | 20,378  | 1.8%  | 12,375                   | 1.1%  | 0.7%         |  |
| Investment products total                     | 422,196 | 0.7%  | 379,555                  | 0.6%  | 0.1%         |  |
| Warrants                                      | 185,272 | 23.7% | 53,230                   | 6.8%  | 16.9%        |  |
| Factor Certificates                           | 35,509  | 9.2%  | -173                     | 0.0%  | 9.3%         |  |
| Knock-Out Warrants                            | 123,369 | 12.1% | 14,085                   | 1.4%  | 10.7%        |  |
| Leverage products total                       | 344,150 | 15.7% | 67,141                   | 3.1%  | 12.7%        |  |
| Total   | 766,346 | 1.2%  | 446,696                  | 0.7%  | 0.5%         |  |

## Investment products by product category





Leverage products by product category Market volume as at 31 January 2018

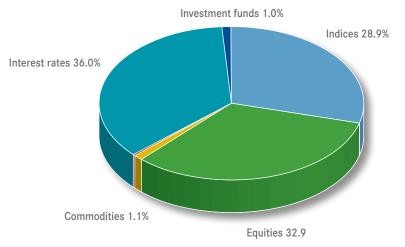


## Market volume by underlying asset as at 31 January 2018

| Underlying          | Mark       | Market volume |            | Market volume<br>price-adjusted <sup>*</sup> |           | Products |
|---------------------|------------|---------------|------------|--|-----------|----------|
|                     | T€         | %             | T€         | %  | #         | %        |
| Investment products |            |               |            |  |           |          |
| Indices             | 17,814,998 | 28.9%         | 17,683,275 | 28.7%  | 107,633   | 22.8%    |
| Equities            | 20,277,996 | 32.9%         | 20,230,787 | 32.8%  | 355,849   | 75.5%    |
| Commodities         | 649,339    | 1.1%          | 643,143    | 1.0%   | 2,270     | 0.5%     |
| Currencies          | 92,436     | 0.1%          | 133,571    | 0.2%   | 18        | 0.0%     |
| Interest rates      | 22,200,583 | 36.0%         | 22,300,526 | 36.2%  | 5,565     | 1.2%     |
| Investment funds    | 603,914    | 1.0%          | 605,323    | 1.0%   | 201       | 0.0%     |
|                     | 61,639,266 | 96.1%         | 61,596,625 | 96.5%  | 471,536   | 31.0%    |
| Leverage products   |            |               |            |  |           |          |
| Indices             | 693,860    | 27.4%         | 645,875    | 28.7%  | 226,467   | 21.6%    |
| Equities            | 1,586,220  | 62.7%         | 1,367,113  | 60.7%  | 709,154   | 67.6%    |
| Commodities         | 155,769    | 6.2%          | 148,991    | 6.6%   | 49,648    | 4.7%     |
| Currencies          | 55,712     | 2.2%          | 58,587     | 2.6%   | 57,054    | 5.4%     |
| Interest rates      | 38,348     | 1.5%          | 32,333     | 1.4%   | 6,192     | 0.6%     |
| Investment funds    | 0          | 0.0%          | 0          | 0.0%   | 0         | 0.0%     |
|                     | 2,529,908  | 3.9%          | 2,252,899  | 3.5%   | 1,048,515 | 69.0%    |
| Total               | 64,169,174 | 100.0%        | 63,849,524 | 100.0%                                       | 1,520,051 | 100.0%   |

\*Market volume adjusted for price changes = quantity outstanding as at 31 January 2018 x price as at 31 December 2017

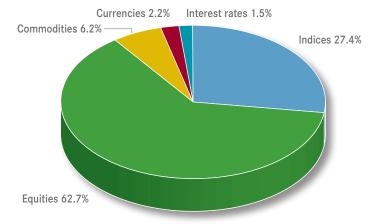
## Investment products by underlying asset Market volume as at 31 January 2018



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

| Underlying          |          | Change | pric    | Price effect |        |
|---------------------|----------|--------|---------|--------------|--------|
| _                   | T€       | %      | T€      | %            | %      |
| Investment products |          |        |         |              |        |
| Indices             | 250,855  | 1.4%   | 119,133 | 0.7%         | 0.7%   |
| Equities            | 382,155  | 1.9%   | 334,945 | 1.7%         | 0.2%   |
| Commodities         | -27,045  | -4.0%  | -33,240 | -4.9%        | 0.9%   |
| Currencies          | -54,513  | -37.1% | -13,378 | -9.1%        | -28.0% |
| Interest rates      | -159,133 | -0.7%  | -59,190 | -0.3%        | -0.4%  |
| Investment funds    | 29,876   | 5.2%   | 31,285  | 5.4%         | -0.2%  |
|                     | 422,196  | 0.7%   | 379,555 | 0.6%         | 0.1%   |
| Leverage products   |          |        |         |              |        |
| Indices             | 77,510   | 12.6%  | 29,524  | 4.8%         | 7.8%   |
| Equities            | 272,713  | 20.8%  | 53,607  | 4.1%         | 16.7%  |
| Commodities         | -10,153  | -6.1%  | -16,930 | -10.2%       | 4.1%   |
| Currencies          | -579     | -1.0%  | 2,296   | 4.1%         | -5.1%  |
| Interest rates      | 4,659    | 13.8%  | -1,355  | -4.0%        | 17.9%  |
| Investment funds    | 0        | n. a.  | 0       | n. a.        | #WERT  |
|                     | 344,150  | 15.7%  | 67,141  | 3.1%         | 12.7%  |
| Total               | 766,346  | 1.2%   | 446,696 | 0.7%         | 0.5%   |

## Leverage products by underlying asset Market volume as at 31 January 2018



### 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).

#### 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 onsite 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.

#### Copyright

These statistics may not be copied, used or quoted without reference to the source text (Deutscher Derivate Verband: The German Derivatives Market, January 2018).