Stock Exchange Turnover



in Derivatives

Rising turnover on the structured products market

Sharp increase in Bonus Certificates

STRUCTURED SECURITIES INVESTMENT PRODUCTS LEVERAGE PRODUCTS with capital protection without capital protection without Knock-Out with Knock-Out (100%) (< 100%) Capital Protection **Reverse Convertibles Express Certificates Tracker Certificates Knock-Out Warrants** Products with Coupe Factor Certificates **Credit Linked Notes Discount Certificates Bonus Certificates** Capped Outperformance Certificates

DDV Classification System

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February I 2018

- The exchanges in Stuttgart and Frankfurt generated turnover of EUR 4.0 billion with investment and leverage products in February.
- Investors had a total of 554,106 investment products and 1,148,485 leverage products to choose from at the end of February.
- Turnover in Bonus Certificates rose by 34.8 percent to EUR 640.1 mil-
- Turnover growth of 51.2 percent took investment products with indices as an underlying to EUR 1.0 billion.

Rising turnover on the structured products market

Sharp increase in Bonus Certificates

Developments on the capital markets prompted a further increase in trading in structured products on the Stuttgart and Frankfurt Exchanges in February. Exchange turnover in structured and leverage products totalled EUR 4.0 billion. This corresponded to a month-on-month rise of 1.4 percent. The number of executed customer orders increased by 5.3 percent to 606,726. The average order size was EUR 6,558 - down 3.7 percent on one month earlier.

The trading volume for investment products came in at EUR 1.8 billion in February. This corresponded to 45.9 percent of the total turnover. The average order size was EUR 26,287.

Turnover in leverage products stood at EUR 2.2 billion in the reporting period, meaning that leverage products accounted for 54.1 percent of the total turnover. The average order size was EUR 4,006.

New issues

Banks issued 60, 182 new investment products and 322,555 leverage products in February. As a result, a total of 544,106 investment products and 1,148,485 leverage products were available at the Stuttgart and Frankfurt Exchanges.

Exchange turnover by product category

Investment products

Turnover rose in almost all product categories. In absolute terms, the most substantial turnover growth was seen in Bonus Certificates. Their turnover climbed to EUR 640.1 million in February. Trading in Express Certificates rose to EUR 119.5 million in the month under review. The exchangebased turnover for Capital Protection Products once again rose month on month to EUR 27.9 million in total. Turnover in Tracker Certificates bucked the general trend by falling to EUR 202.3 million. Trading in Reverse Convertibles was down in February as well.

Leverage products

Following a sharp rise in turnover in the previous month, most products made further gains in February. While turnover with Knock-Out Warrants fell to EUR 1.1 billion, trading in Warrants increased to EUR 683.8 million. Turnover from trading in Factor Certificates soared to EUR 330.1 million.

Exchange turnover by underlying

Investment products

The picture was mixed when it came to exchange turnover for the main underlyings in February. Trading in products with indices as an underlying increased markedly to EUR 1.0 billion, while turnover in products with equities as an underlying decreased to EUR 656.7 million. In total, products with these two underlyings accounted for 92.2 percent of the aggregate turnover figure. Turnover in products with commodities or currencies as an underlying was down in the month under review. Together, investment products with investment funds as an underlying and interest rates as an underlying accounted for a share of 1.0 percent in February.



Leverage products

Exchange-based turnover for the main underlyings developed differently. Turnover in products with indices as an underlying rose to almost EUR 1.2 billion, while products with equities as an underlying were down. Their turnover stood at EUR 808.6 million in February. In total, products with these two underlyings accounted for 91.5 percent of turnover. After recording gains in the previous month, turnover in products with commodities as an underlying fell to EUR 45.6 million. Turnover also decreased for leverage products with currencies as an underlying.

Exchange turnover

Stuttgart Exchange generated a turnover volume of EUR 2.5 billion in February. Its market share of the total turnover stood at 63.3 percent. Frankfurt Exchange recorded a trading volume of EUR 1.5 billion. It accounted for 36.7 percent of the total exchange turnover and 45.6 percent of customer orders, while Stuttgart Exchange handled 54.4 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 sixteen 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.

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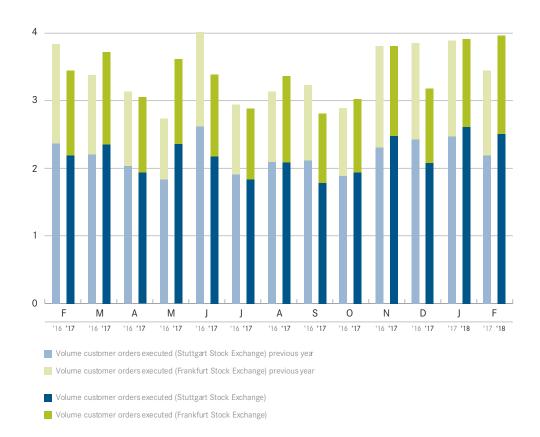
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Under the heading Presse (Media) our website www.derivateverband.de provides not only our latest media releases but also audio and video recordings for reporting (presently only available on the German website).

Year Overview Stock Exchange Turnover February 2018

| Month | | Total | Stuttgart Stoo | k Exchange | Frankfurt Stock Exchange | | | | |
|----------------|-----------|-----------|----------------|------------|--------------------------|-----------|--|--|--|
| | | Number of | | Number of | | Number of | | | |
| | in T€ | orders | in T€ | orders | in T€ | orders | | | |
| February 2017 | 3,479,234 | 437,876 | 2,214,075 | 238,716 | 1,265,159 | 199,160 | | | |
| March 2017 | 3,757,006 | 474,302 | 2,376,315 | 257,601 | 1,380,691 | 216,701 | | | |
| April 2017 | 3,073,798 | 361,755 | 1,951,579 | 203,176 | 1,122,220 | 158,579 | | | |
| May 2017 | 3,640,768 | 446,440 | 2,376,169 | 244,843 | 1,264,600 | 201,597 | | | |
| June 2017 | 3,421,454 | 453,382 | 2,196,531 | 243,120 | 1,224,923 | 210,262 | | | |
| July 2017 | 2,911,359 | 424,463 | 1,852,962 | 232,910 | 1,058,398 | 191,553 | | | |
| August 2017 | 3,361,404 | 485,230 | 2,085,003 | 264,830 | 1,276,401 | 220,400 | | | |
| September 2017 | 2,806,304 | 420,047 | 1,786,501 | 222,331 | 1,019,803 | 197,716 | | | |
| October 2017 | 3,013,092 | 444,144 | 1,936,767 | 239,074 | 1,076,324 | 205,070 | | | |
| November 2017 | 3,810,208 | 578,559 | 2,476,476 | 314,925 | 1,333,731 | 263,634 | | | |
| December 2017 | 3,178,408 | 443,457 | 2,083,628 | 247,558 | 1,094,780 | 195,899 | | | |
| January 2018 | 3,925,542 | 576,336 | 2,623,866 | 319,033 | 1,301,677 | 257,303 | | | |
| February 2018 | 3,978,912 | 606,726 | 2,519,290 | 330,209 | 1,459,622 | 276,517 | | | |





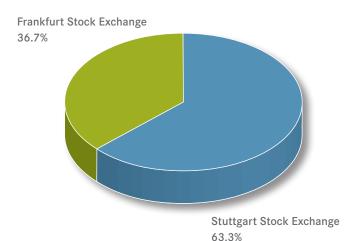
Turnover volume by stock exchange February 2018

| | Stuttgart Stock | Exchange | Frankfurt Stock | Exchange | | Total |
|--|-----------------|----------|-----------------|----------|-----------|--------|
| | Volume | Share | Volume | Share | Volume | Share |
| Investment products with capital protection | 12,265 | 0.5% | 15,663 | 1.1% | 27,928 | 0.7% |
| Investment products without capital protection | 1,189,874 | 47.2% | 608,900 | 41.7% | 1,798,774 | 45.2% |
| Investment products total | 1,202,139 | 47.7% | 624,563 | 42.8% | 1,826,703 | 45.9% |
| Leverage products without knock-out | 650,644 | 25.8% | 487,684 | 33.4% | 1,138,327 | 28.6% |
| Leverage products with knock-out | 666,507 | 26.5% | 347,375 | 23.8% | 1,013,882 | 25.5% |
| Leverage products total | 1,317,150 | 52.3% | 835,059 | 57.2% | 2,152,209 | 54.1% |
| Total | 2,519,290 | 100.0% | 1,459,622 | 100.0% | 3,978,912 | 100.0% |

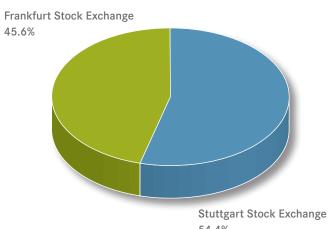
Number of customer orders by stock exchange February 2018

| | Stuttgart Stock | Exchange | Frankfurt Stock | Exchange | | Total | |
|--|-----------------|----------|-----------------|----------|---------|--------|--|
| | Number | Share | Number | Share | Number | Share | |
| Investment products with capital protection | 751 | 0.2% | 1,037 | 0.4% | 1,788 | 0.3% | |
| Investment products without capital protection | 43,834 | 13.3% | 23,869 | 8.6% | 67,703 | 11.2% | |
| Investment products total | 44,585 | 13.5% | 24,906 | 9.0% | 69,491 | 11.5% | |
| Leverage products without knock-out | 149,957 | 45.4% | 162,407 | 58.7% | 312,364 | 51.5% | |
| Leverage products with knock-out | 135,667 | 41.1% | 89,204 | 32.3% | 224,871 | 37.1% | |
| Leverage products total | 285,624 | 86.5% | 251,611 | 91.0% | 537,235 | 88.5% | |
| Total | 330,209 | 100.0% | 276,517 | 100.0% | 606,726 | 100.0% | |

Turnover volume by stock exchange as a percentage

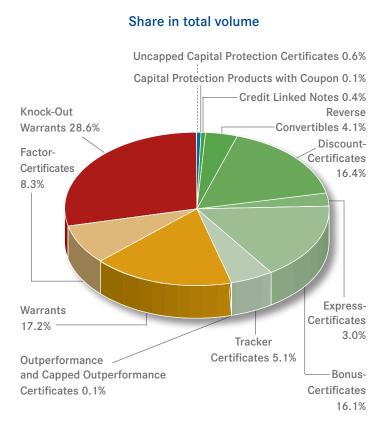


Number of customer orders by stock exchange as a percentage



Turnover by product category February 2018

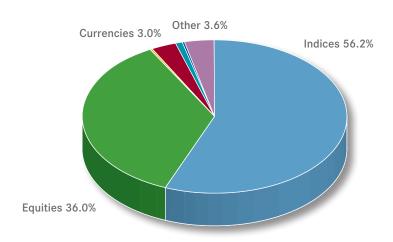
| Product categories | Volume | Change in comparison with previous month | Share | Number of orders | Change in comparison with previous month | Share | Volume per order | Change in comparison with previous month |
|---|-----------|---|-------|------------------|--|-------|---------------------|---|
| | in T € | in % | in % | # | in % | in % | in T € | in % |
| Uncapped Capital Protection Certificates | 22,230 | -3.9 | 0.6 | 1,092 | -12.0 | 0.2 | 20,357 | 9.2 |
| Capital Protection Products with Coupon | 5,698 | 26.9 | 0.1 | 696 | 60.0 | 0.1 | 8,187 | -20.7 |
| ■ Credit Linked Notes | 16,837 | 49.5 | 0.4 | 558 | 25.4 | 0.1 | 30,173 | 19.2 |
| Reverse Convertibles | 163,960 | -13.5 | 4.1 | 6,922 | -18.5 | 1.1 | 23,687 | 6.1 |
| ■ Discount Certificates | 653,874 | 1.5 | 16.4 | 15,806 | -10.9 | 2.6 | 41,369 | 13.9 |
| Express Certificates | 119,466 | 10.0 | 3.0 | 5,943 | 16.4 | 1.0 | 20,102 | -5.5 |
| Bonus Certificates | 640,083 | 34.8 | 16.1 | 13,819 | 2.0 | 2.3 | 46,319 | 32.1 |
| Tracker Certificates | 202,349 | -25.0 | 5.1 | 24,595 | -21.1 | 4.1 | 8,227 | -5.0 |
| Outperformance and Capped Outperformance Certificates | 2,207 | 52.5 | 0.1 | 60 | -16.7 | 0.0 | 36,776 | 83.0 |
| Investment products | 1,826,703 | 5.7 | 45.9 | 69,491 | -11.2 | 11.5 | 26,287 | 19.1 |
| Warrants | 683,763 | 3.0 | 17.2 | 167,368 | 6.6 | 27.6 | 4,085 | -3.4 |
| Factor Certificates | 330,119 | 8.6 | 8.3 | 57,503 | 18.4 | 9.5 | 5,741 | -8.2 |
| ■ Knock-Out Warrants | 1,138,327 | -7.5 | 28.6 | 312,364 | 6.8 | 51.5 | 3,644 | -13.4 |
| Leverage products | 2,152,209 | -2.1 | 54.1 | 537,235 | 7.9 | 88.5 | 4,006 | -9.2 |
| Total | 3,978,912 | 1.4 | 100.0 | 606,726 | 5.3 | 100.0 | 6,558 | -3.7 |



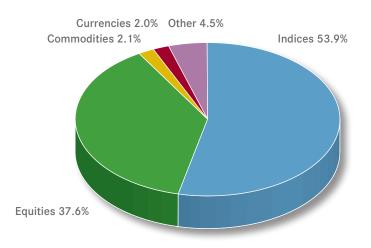
Turnover by underlying February 2018

| Underlying | | Change in comparison | | |
|---------------------------|-----------|----------------------|--------|--|
| | Volume | with previous month | Share | |
| | in T € | in % | in % | |
| nvestment products | | | | |
| Indices | 1,026,781 | 51.2% | 56.2% | |
| ■ Equities | 656,701 | -23.3% | 36.0% | |
| Commodities | 6,049 | -69.5% | 0.3% | |
| Currencies | 54,164 | -40.8% | 3.0% | |
| Interest rates | 16,373 | 58.1% | 0.9% | |
| Investment funds | 1,136 | -65.1% | 0.1% | |
| Other | 65,499 | -3.0% | 3.6% | |
| Investment products total | 1,826,703 | 5.7% | 100.0% | |
| _everage products | | | | |
| Indices | 1,159,113 | 16.6% | 53.9% | |
| Equities | 808,627 | -20.1% | 37.6% | |
| Commodities | 45,557 | -22.9% | 2.1% | |
| Currencies | 42,533 | -23.8% | 2.0% | |
| Interest rates | 248 | -66.7% | 0.0% | |
| Investment funds | 0 | 0% | 0.0% | |
| Other | 96,131 | 26.5% | 4.5% | |
| Leverage products total | 2,152,209 | -2.1% | 100.0% | |
| Total | 3,978,912 | 1.4% | | |

Investment products by underlying



Leverage products by underlying



Number of new issues February 2018

| Month | | | | Ir | nvestment prod | ducts | | | | L | .everage produ | cts | | | |
|---------------|---|--|---------------------------|-------------------------|--------------------------|-------------------------|-----------------------|-------------------------|---|----------|------------------------|-----------------------|---------|--|--|
| | With capital | protection | | | Wit | thout capital p | rotection | Wit otection know | | | | With knock-out | | | |
| | Uncapped Capital Protection Certificates | Capital Protection Products with Coupon | Credit Linked Notes | Reverse Convertibles | Discount Certificates | Express Certificates | Bonus Certificates | Tracker Certificates | | Warrants | Factor Certificates | Knock-Out Warrants | Total | | |
| January 2018 | 6 | | 21 | 10,245 | 16,415 | 369 | 23,889 | 130 | 4 | 63,352 | 296 | 224,655 | 339,382 | | |
| February 2018 | 9 | | 19 | 12,801 | 17,261 | 340 | 29,717 | 33 | 2 | 68,571 | 358 | 253,626 | 382,737 | | |
| 1/18 - 2/18 | 15 | | 40 | 23,046 | 33,676 | 709 | 53,606 | 163 | 6 | 131,923 | 654 | 478,281 | 722,119 | | |
| | | 15 | | | | 111,246 | | | | 1 | 32,577 | 478,281 | 722,119 | | |
| 1/18 - 2/18 | | | | | 111,261 | | | | | | 610,85 | 8 | 722,119 | | |

Total number of products February 2018

| Month | | | | I | nvestment pro | ducts | | | | Leverage products | | | | | | |
|-----------------|---|--|---------------------------|---------|--------------------------|-------------------------|-----------------------|-------------------------|--|------------------------|------------------------|-----------------------|-----------|--|--|--|
| | With capital | protection | | | Wi | thout capital p | rotection | | · | Without With knock-out | | | | | | |
| | Uncapped Capital Protection Certificates | Capital Protection Products with Coupon | Credit Linked Notes | | Discount Certificates | Express Certificates | Bonus Certificates | Tracker Certificates | Outperformance and Capped Outperformance Certificates | Warrants | Factor Certificates | Knock-Out Warrants | Total | | | |
| February 2017 | 1,453 | 153 | 1,408 | 121,579 | 190,192 | 5,544 | 256,027 | 8,791 | 1,478 | 495,664 | 8,836 | 358,619 | 1,449,744 | | | |
| March 2017 | 1,393 | 143 | 1,414 | 116,254 | 179,902 | 5,574 | 247,335 | 8,902 | 1,685 | 479,398 | 8,886 | 362,338 | 1,413,224 | | | |
| April 2017 | 1,352 | 137 | 1,416 | 115,138 | 184,384 | 5,636 | 251,119 | 9,052 | 1,629 | 508,820 | 9,353 | 372,441 | 1,460,477 | | | |
| May 2017 | 1,318 | 129 | 1,427 | 123,720 | 190,046 | 5,607 | 252,882 | 9,153 | 1,582 | 551,388 | 9,583 | 396,656 | 1,543,491 | | | |
| June 2017 | 1,285 | 118 | 1,449 | 118,897 | 172,643 | 5,483 | 228,607 | 9,204 | 1,341 | 525,563 | 10,962 | 383,370 | 1,458,922 | | | |
| July 2017 | 1,243 | 112 | 1,424 | 127,838 | 183,595 | 5,526 | 251,188 | 9,500 | 1,337 | 557,121 | 10,908 | 404,243 | 1,554,035 | | | |
| August 2017 | 1,195 | 108 | 1,444 | 129,322 | 183,128 | 5,492 | 258,542 | 9,600 | 1,351 | 592,107 | 10,904 | 430,955 | 1,624,148 | | | |
| September 2017 | 1,179 | 100 | 1,456 | 123,411 | 168,780 | 5,520 | 231,174 | 9,906 | 1,115 | 571,071 | 11,107 | 435,983 | 1,560,802 | | | |
| October 2017 | 1,167 | 94 | 1,421 | 120,849 | 169,748 | 5,538 | 241,717 | 9,981 | 1,035 | 628,012 | 11,186 | 455,640 | 1,646,388 | | | |
| November 2017 | 1,136 | 92 | 1,466 | 121,683 | 171,478 | 5,537 | 233,565 | 10,017 | 1,037 | 651,209 | 12,063 | 474,974 | 1,684,257 | | | |
| December 2017 | 1,105 | 86 | 1,491 | 114,254 | 157,301 | 5,559 | 208,924 | 10,083 | 1,393 | 613,239 | 12,562 | 454,492 | 1,580,489 | | | |
| January 2018 | 1,080 | 82 | 1,491 | 119,423 | 164,173 | 5,591 | 215,058 | 10,139 | 1,396 | 620,671 | 12,817 | 491,634 | 1,643,555 | | | |
| February 2018 | 1,107 | 42 | 1,509 | 124,874 | 172,299 | 5,656 | 227,170 | 10,118 | 1,331 | 628,698 | 13,044 | 506,743 | 1,692,591 | | | |
| F-h | 1 | ,149 | | | | 542,957 | , | | | 628,698 | 13,044 | 506,743 | 1,692,591 | | | |
| February 2018 - | | | | | 544,106 | | | | | | 1,148,485 | | 1,692,591 | | | |

The statistics include the turnover in derivatives at the stock exchanges in Stuttgart (EUWAX) and Frankfurt (Börse Frankfurt Zertifikate). The turnover figures are taken from Xetra and XONTRO (Xontro Order). The number of customer orders executed was integrated into the EUWAX statistics. The statistics cover all orders entered into the system by customers (not issuers or market makers) and executed by price determination. Issuers' market making activities (provision of liquidity for own securities) are not taken into account. Orders routed via an order flow provider offering an intermediary service are only counted once. Each partial execution of an order counts as an order. Later corrections made in stock exchange systems (e.g. a cancellation following a mistrade) are not taken into account. The securities are allocated using securities master data from WM Gruppe (Wertpapier-Mitteilungen), the German numbering agent and provider of securities information, as well as the securities master data from boerse-stuttgart AG. This allows the best possible classification of the turnover data by stock exchange, product group and issuer. From January 2010, the derivatives are classified according to the product classification developed by Deutscher Derivate Verband (DDV).

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