

Stock Exchange Turnover

in Derivatives



Lower turnover on German structured products market due to seasonal effects

Exchanges record turnover of EUR 3.0 billion in July

STRUCTURED SECURITIES



DDV Classification System

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July | 2016

- Orders executed at the exchanges in Stuttgart and Frankfurt totalled EUR 3.0 billion in July 2016.
- Investors had 566,866 investment products and 755,199 leverage products to choose from at the end of July.
- Turnover generated from leverage products with commodities as an underlying was up 3.6 percent and stood at EUR 110.8 million.
- Transaction volume from investment products amounted to EUR 1.5 billion.

Lower turnover on German structured products market due to seasonal effects

Exchanges record turnover of EUR 3.0 billion in July

Trading in structured securities slowed down on the exchanges in Stuttgart and Frankfurt in July. Exchange turnover from trading in structured products and leverage products totalled almost EUR 3.0 billion, representing a 26.0 percent decrease on the prior month. The number of orders executed dropped 13.8 percent to 394,014 in July. The average order size amounted to was 14.1 percent lower than in June and stood at EUR 7,550.

The transaction volume generated from trading in investment products amounted to EUR 1.5 billion in July – down 30.7 percent compared with the figure registered in June. Trading in investment products made up 50.9 percent of the total turnover. The exchanges in Stuttgart and Frankfurt executed 60,396 customer orders in July, a 13.4 percent decline on the previous month's total. The average order size was EUR 25,050, and thus 20.0 percent lower than in June.

The turnover for leverage products was also down 20.4 percent compared with the figure recorded for the previous month. It stood at just under EUR 1.5 billion and accounted for 49.1 percent of the total transaction volume. In July,

13.9 percent less customer orders were executed, taking the number to 333,618. The average order size was EUR 4,382 – a 7.5 percent decrease compared with June.

New issues

Banks issued 61,545 new investment products and 213,372 new leverage products in July 2016. As a result, a total of 566,866 investment products and 755,199 leverage products were available at the exchanges in Stuttgart and Frankfurt.

Exchange turnover by product category

Investment products

Turnover in **Discount Certificates** plummeted by 41.1 percent in July, taking it to EUR 597.0 million. The trading volume of **Bonus Certificates** dropped 28.2 percent, to EUR 419.9 million. **Tracker Certificates** generated turnover of EUR 258.5 million – 8.3 percent lower than in June. **Reverse Convertibles** recorded turnover of EUR 126.9 million, a 21.7 percent decrease on the previous month. The

trading volume registered for **Express Certificates** dwindled by 29.4 percent to EUR 52.2 million in July. Turnover in **Capital Protection Products with Coupon** was down 29.8 percent to stand at EUR 14.0 million. The trading volume of **Uncapped Capital Protection Certificates** edged down to EUR 18.9 million, representing a decrease of 2.1 percent. Turnover in **Credit Linked Notes** rose by 23.1 percent and amounted to EUR 21.8 million in the reporting month. The **Outperformance and Capped Outperformance Certificates** market experienced a slump of 64.6 percent on the previous month. A total of EUR 3.7 million was invested in this product class. However, given the limited volume, they do not have a major impact on the overall market.

Leverage products

In comparison to the previous months, trading in leverage products by retail investors slowed down in July. Turnover in **Warrants** experienced a 26.8 percent drop to stand at EUR 373.8 million. The trading volume for **Knock-Out Warrants** lost 15.0 percent, to come in at EUR 865.8 million. At EUR 222.5 million, turnover in **Factor Certificates** was down by 27.6 percent. ▶▶

Exchange turnover by underlying

Investment products

Turnover generated from products with **indices as an underlying** dropped by 33.2 percent in July. The figure recorded totalled EUR 768.3 million, which accounted for 50.8 percent of the total volume. At EUR 628.2 million, the turnover from investment products with **equities as an underlying** was 29.9 percent lower than in the previous month. Their share of the total market volume was 41.5 percent in July. Turnover in products with **commodities as an underlying** went down to EUR 65.5 million, a decrease of 17.5 percent. They accounted for 4.3 percent of the total turnover. Trading in investment products with **interest rates as an underlying** registered a 9.3 percent increase. At EUR 27.3 million, they made up 1.8 percent of the market. Trading in products with **investment funds as an underlying** came in at EUR 11.6 million.

Leverage products

The market for leverage products suffered a downturn in turnover compared to the previous month. Turnover in products with **indices as an underlying** plummeted 27.8 percent to EUR 895.2 million. They accounted for 61.2 per-

cent of the total turnover. The trading volume of products with **equities as an underlying** recorded a 2.7 percent decline to EUR 412.8 million in July. They therefore accounted for 28.2 percent of the market. Turnover from **commodities as an underlying** was up 3.6 percent to stand at EUR 110.8 million. Their market share stood at 7.6 percent. At EUR 30.4 million, the trading volume for leverage products with **currencies as an underlying** was 31.7 percent lower than the figure for June. They made up 2.1 percent of the total volume. Leverage products with **interest rates as an underlying** generated turnover of EUR 11.8 million.

Exchange turnover

The exchange in Stuttgart recorded a transaction volume of EUR 1.9 billion in July. Its market share of the total turnover stood at 64.7 percent; 235,776 customer orders were executed.

Frankfurt's exchange executed 158,238 customer orders and registered a trading volume of EUR 1.0 billion. The figure accounted for 35.3 percent of the aggregate exchange turnover. ■



Deutscher Derivate Verband (DDV)

Deutscher Derivate Verband (DDV), the German Derivatives Association, is the industry representative body for the leading issuers of derivatives in Germany: BayernLB, BNP Paribas, Citigroup, Commerzbank, Deka-Bank, Deutsche Bank, DZ BANK, Goldman Sachs, Helaba, HSBC Trinkaus, HypoVereinsbank, LBBW, Société Générale, UBS and Vontobel. The Association's work is supported by 14 sponsoring members, which include the Stuttgart and Frankfurt am Main stock exchanges, finance portals and service providers.

Office Berlin, Pariser Platz 3, 10117 Berlin

Office Frankfurt a.M., Feldbergstr. 38, 60323 Frankfurt a.M.

Please address any queries to:

Alexander Heftrich, Press Secretary

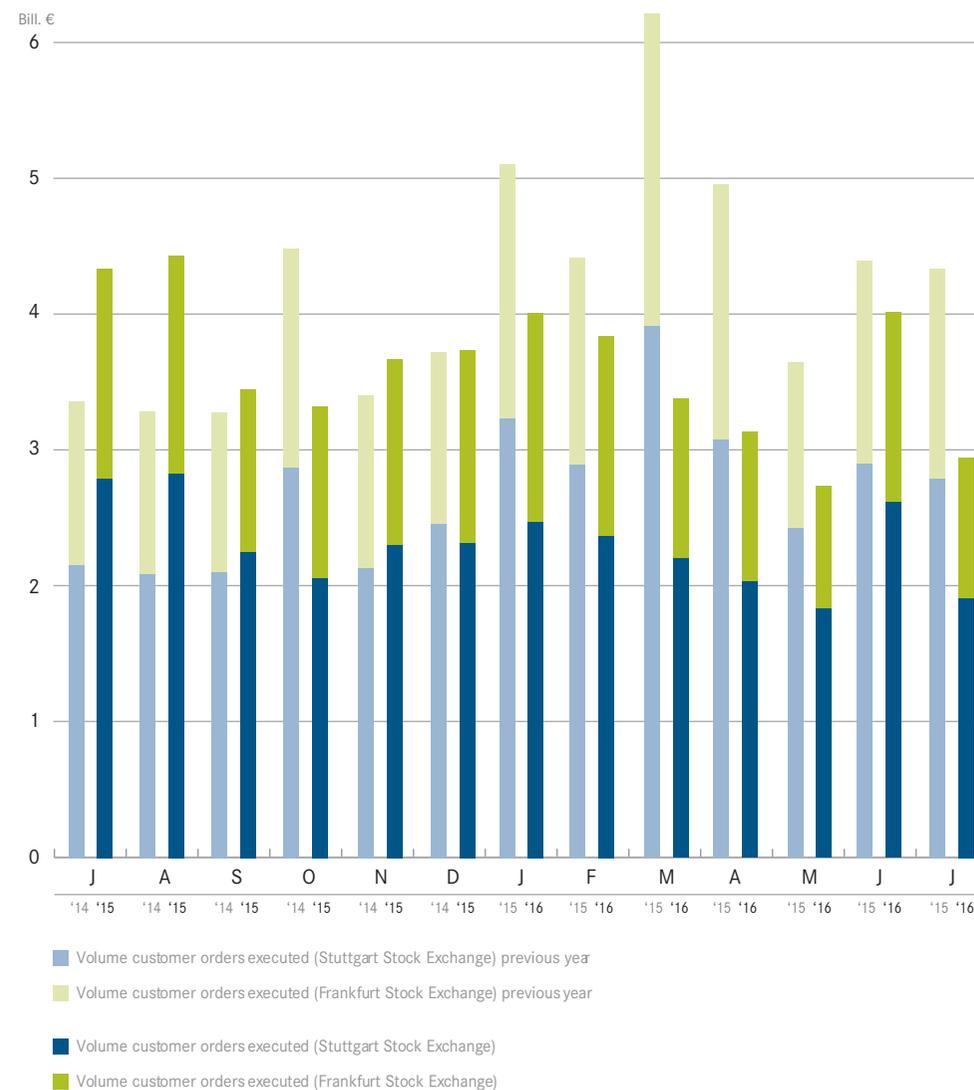
phone: +49 (69) 244 33 03 – 70

heftrich@derivateverband.de

www.derivateverband.de

Year Overview Stock Exchange Turnover July 2016

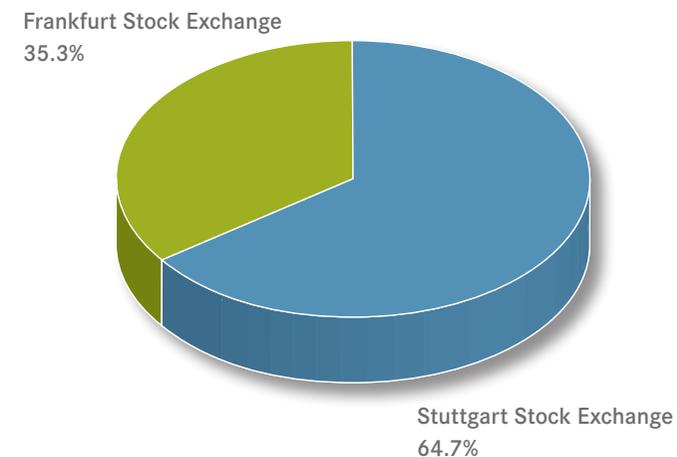
| Month | Total | | Stuttgart Stock Exchange | | Frankfurt Stock Exchange | |
|----------------|-----------|------------------|--------------------------|------------------|--------------------------|------------------|
| | in T€ | Number of orders | in T€ | Number of orders | in T€ | Number of orders |
| July 2015 | 4,353,309 | 494,917 | 2,803,565 | 308,119 | 1,549,744 | 186,798 |
| August 2015 | 4,457,674 | 548,006 | 2,845,386 | 336,654 | 1,612,287 | 211,352 |
| September 2015 | 3,472,628 | 457,033 | 2,261,766 | 272,419 | 1,210,862 | 184,614 |
| October 2015 | 3,341,149 | 446,548 | 2,068,678 | 253,748 | 1,272,471 | 192,800 |
| November 2015 | 3,678,726 | 459,520 | 2,310,106 | 261,625 | 1,368,620 | 197,895 |
| December 2015 | 3,760,048 | 466,165 | 2,332,162 | 272,977 | 1,427,886 | 193,188 |
| January 2016 | 4,000,451 | 509,024 | 2,464,126 | 305,966 | 1,536,325 | 203,058 |
| February 2016 | 3,850,981 | 504,998 | 2,378,673 | 305,901 | 1,472,308 | 199,097 |
| March 2016 | 3,379,659 | 443,979 | 2,200,445 | 267,798 | 1,179,214 | 176,181 |
| April 2016 | 3,139,046 | 423,401 | 2,031,717 | 251,537 | 1,107,329 | 171,864 |
| May 2016 | 2,753,359 | 361,591 | 1,850,179 | 219,614 | 903,180 | 141,977 |
| June 2016 | 4,021,008 | 457,267 | 2,623,690 | 278,213 | 1,397,317 | 179,054 |
| July 2016 | 2,974,922 | 394,014 | 1,925,547 | 235,776 | 1,049,375 | 158,238 |



Turnover volume by stock exchange July 2016

| | Stuttgart Stock Exchange | | Frankfurt Stock Exchange | | Total | |
|--|--------------------------|---------------|--------------------------|---------------|------------------|---------------|
| | Volume | Share | Volume | Share | Volume | Share |
| Investment products with capital protection | 9,865 | 0.5% | 23,074 | 2.2% | 32,940 | 1.1% |
| Investment products without capital protection | 984,201 | 51.1% | 495,756 | 47.2% | 1,479,957 | 49.7% |
| Investment products total | 994,066 | 51.6% | 518,830 | 49.4% | 1,512,896 | 50.9% |
| Leverage products without knock-out | 533,913 | 27.7% | 331,862 | 31.6% | 865,775 | 29.1% |
| Leverage products with knock-out | 397,567 | 20.6% | 198,683 | 18.9% | 596,250 | 20.0% |
| Leverage products total | 931,480 | 48.4% | 530,545 | 50.6% | 1,462,025 | 49.1% |
| Total | 1,925,547 | 100.0% | 1,049,375 | 100.0% | 2,974,922 | 100.0% |

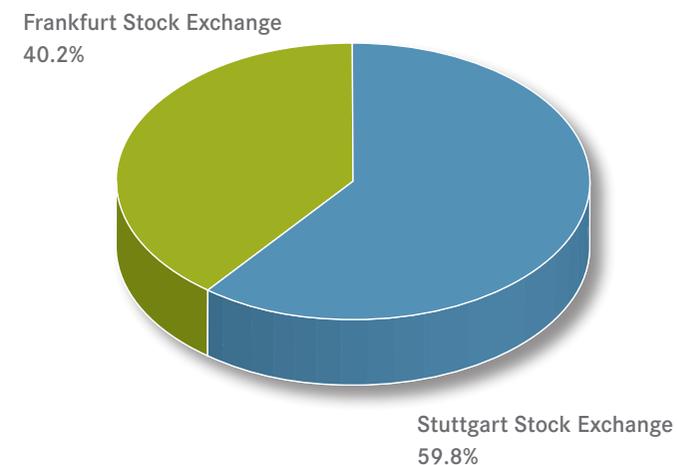
Turnover volume by stock exchange as a percentage



Number of customer orders by stock exchange July 2016

| | Stuttgart Stock Exchange | | Frankfurt Stock Exchange | | Total | |
|--|--------------------------|---------------|--------------------------|---------------|----------------|---------------|
| | Number | Share | Number | Share | Number | Share |
| Investment products with capital protection | 502 | 0.2% | 1,189 | 0.8% | 1,691 | 0.4% |
| Investment products without capital protection | 39,682 | 16.8% | 19,023 | 12.0% | 58,705 | 14.9% |
| Investment products total | 40,184 | 17.0% | 20,212 | 12.8% | 60,396 | 15.3% |
| Leverage products without knock-out | 122,387 | 51.9% | 88,128 | 55.7% | 210,515 | 53.4% |
| Leverage products with knock-out | 73,205 | 31.0% | 49,898 | 31.5% | 123,103 | 31.2% |
| Leverage products total | 195,592 | 83.0% | 138,026 | 87.2% | 333,618 | 84.7% |
| Total | 235,776 | 100.0% | 158,238 | 100.0% | 394,014 | 100.0% |

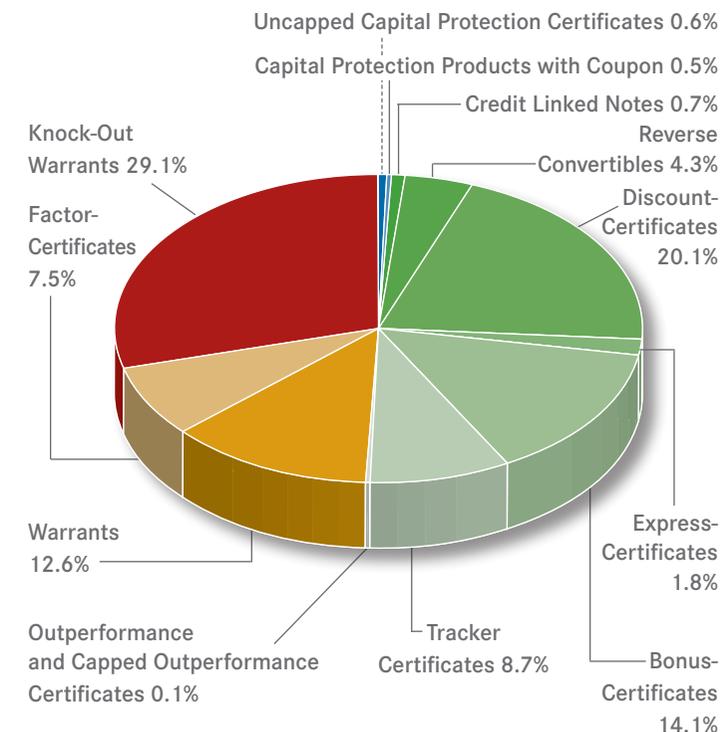
Number of customer orders by stock exchange as a percentage



Turnover by product category July 2016

| Product categories | Change in comparison with previous month | | | Number of orders | Change in comparison with previous month | | Volume per order | Change in comparison with previous month | |
|--|--|--------------|--------------|------------------|--|--------------|------------------|--|--------|
| | Volume | Share | Share | | in % | in % | | in T € | in % |
| | in T € | in % | in % | | # | in % | | in % | in T € |
| ■ Kapitalschutz-Zertifikate | 18,926 | -2.1 | 0.6 | 929 | 1.6 | 0.2 | 20,372 | -3.7 | |
| ■ Strukturierte Anleihen | 14,014 | -29.8 | 0.5 | 762 | -21.0 | 0.2 | 18,391 | -11.1 | |
| ■ Bonitätsanleihen | 21,756 | 23.1 | 0.7 | 886 | 11.6 | 0.2 | 24,555 | 10.3 | |
| ■ Aktienanleihen | 126,881 | -21.7 | 4.3 | 7,345 | -19.5 | 1.9 | 17,274 | -2.8 | |
| ■ Discount-Zertifikate | 596,995 | -41.1 | 20.1 | 17,685 | -12.9 | 4.5 | 33,757 | -32.4 | |
| ■ Express-Zertifikate | 52,225 | -29.4 | 1.8 | 3,009 | -28.3 | 0.8 | 17,356 | -1.6 | |
| ■ Bonus-Zertifikate | 419,905 | -28.2 | 14.1 | 12,379 | -20.9 | 3.1 | 33,921 | -9.2 | |
| ■ Index- und Partizipations-Zertifikate | 258,530 | -8.3 | 8.7 | 16,994 | -1.6 | 4.3 | 15,213 | -6.8 | |
| ■ Outperformance- und Sprint-Zertifikate | 3,667 | -64.6 | 0.1 | 407 | -25.6 | 0.1 | 9,009 | -52.5 | |
| Anlageprodukte gesamt | 1,512,896 | -30.7 | 50.9 | 60,396 | -13.4 | 15.3 | 25,050 | -20.0 | |
| ■ Optionsscheine | 373,754 | -26.8 | 12.6 | 84,848 | -21.3 | 21.5 | 4,405 | -7.0 | |
| ■ Faktor-Zertifikate | 222,496 | -27.6 | 7.5 | 38,255 | -25.6 | 9.7 | 5,816 | -2.6 | |
| ■ Knock-Out Produkte | 865,775 | -15.0 | 29.1 | 210,515 | -7.8 | 53.4 | 4,113 | -7.9 | |
| Hebelprodukte gesamt | 1,462,025 | -20.4 | 49.1 | 333,618 | -13.9 | 84.7 | 4,382 | -7.5 | |
| Gesamt | 2,974,922 | -26.0 | 100.0 | 394,014 | -13.8 | 100.0 | 7,550 | -14.1 | |

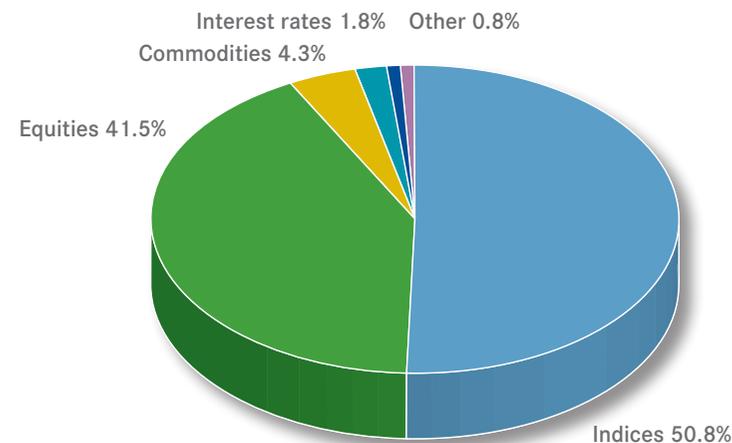
Share in total volume



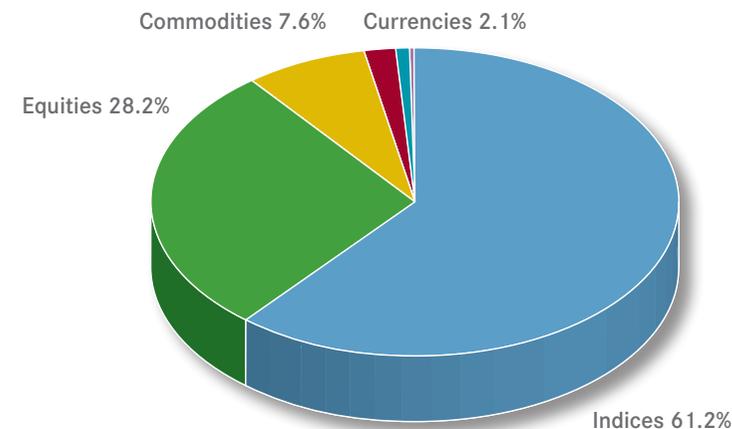
Turnover by underlying July 2016

| Underlying | Volume | Change in comparison with previous month | Share |
|----------------------------------|------------------|---|---------------|
| | in T € | in % | in % |
| Investment products | | | |
| Indices | 768,317 | -33.2% | 50.8% |
| Equities | 628,155 | -29.9% | 41.5% |
| Commodities | 65,475 | -17.5% | 4.3% |
| Currencies | 90 | 173.2% | 0.0% |
| Interest rates | 27,287 | 9.3% | 1.8% |
| Investment funds | 11,580 | -9.7% | 0.8% |
| Other | 11,994 | -41.3% | 0.8% |
| Investment products total | 1,512,896 | -30.7% | 100.0% |
| Leverage products | | | |
| Indices | 895,179 | -27.8% | 61.2% |
| Equities | 412,759 | -2.7% | 28.2% |
| Commodities | 110,777 | 3.6% | 7.6% |
| Currencies | 30,413 | -31.7% | 2.1% |
| Interest rates | 11,815 | -40.2% | 0.8% |
| Investment funds | 3 | -100.0% | 0.0% |
| Other | 1,078 | -17.6% | 0.1% |
| Leverage products total | 1,462,025 | -20.4% | 100.0% |
| Total | 2,974,922 | -26.0% | |

Investment products by underlying



Leverage products by underlying



Number of new issues July 2016

| Month | Investment products | | | | | | | | | Leverage products | | | Total |
|---------------|--|---|----------------------------|----------------------|-----------------------|----------------------|--------------------|----------------------|---|-------------------|---------------------|--------------------|-----------|
| | With capital protection | | Without capital protection | | | | | | | Without knock-out | | 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 | Outperformance and Capped Outperformance Certificates | Warrants | Factor Certificates | Knock-Out Warrants | |
| January 2016 | 8 | 3 | 26 | 12,200 | 18,854 | 227 | 38,667 | 145 | 147 | 64,220 | 64 | 181,439 | 316,000 |
| February 2016 | 16 | 1 | 44 | 10,779 | 15,556 | 290 | 45,012 | 174 | 7 | 43,815 | 37 | 188,242 | 303,973 |
| March 2016 | 14 | | 59 | 7,375 | 17,504 | 227 | 36,992 | 262 | 76 | 42,123 | 167 | 149,095 | 253,894 |
| April 2016 | 11 | 2 | 34 | 8,524 | 11,196 | 238 | 39,515 | 57 | 18 | 51,183 | 150 | 150,010 | 260,938 |
| May 2016 | 11 | | 45 | 7,242 | 14,213 | 333 | 24,304 | 290 | 20 | 47,576 | 34 | 141,227 | 235,295 |
| June 2016 | 12 | | 40 | 8,621 | 11,107 | 255 | 39,970 | 286 | 272 | 38,845 | 52 | 148,412 | 247,872 |
| July 2016 | 10 | | 34 | 8,355 | 17,244 | 254 | 35,466 | 176 | 6 | 62,244 | 198 | 150,930 | 274,917 |
| 1/16 - 7/16 | 82 | 6 | 282 | 63,096 | 105,674 | 1,824 | 259,926 | 1,390 | 546 | 350,006 | 702 | 1,109,355 | 1,892,889 |
| 1/16 - 7/16 | 88 | | 432,738 | | | | | | | 351,410 | | 1,109,355 | 1,892,889 |
| 1/16 - 7/16 | 432,826 | | | | | | | | | 1,460,765 | | | 1,892,889 |

Total number of products July 2016

| Month | Investment products | | | | | | | | | Leverage products | | | Total |
|------------------|--|---|----------------------------|----------------------|-----------------------|----------------------|--------------------|----------------------|---|-------------------|---------------------|--------------------|------------------|
| | With capital protection | | Without capital protection | | | | | | Without knock-out | | 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 | Outperformance and Capped Outperformance Certificates | Warrants | Factor Certificates | Knock-Out Warrants | |
| July 2015 | 2,192 | 355 | 1,111 | 96,953 | 190,673 | 3,125 | 284,845 | 6,160 | 997 | 415,296 | 3,788 | 349,614 | 1,355,109 |
| August 2015 | 2,184 | 349 | 1,131 | 99,761 | 194,764 | 3,281 | 286,761 | 6,377 | 1,044 | 424,779 | 3,828 | 338,148 | 1,362,407 |
| September 2015 | 2,155 | 339 | 1,158 | 99,416 | 188,931 | 3,437 | 270,227 | 6,498 | 1,114 | 398,259 | 3,870 | 333,222 | 1,308,626 |
| October 2015 | 2,128 | 332 | 1,172 | 104,423 | 199,663 | 3,462 | 290,725 | 6,648 | 1,241 | 408,054 | 3,953 | 341,211 | 1,363,012 |
| November 2015 | 2,103 | 321 | 1,200 | 109,974 | 212,369 | 3,537 | 289,932 | 6,721 | 1,331 | 422,198 | 4,018 | 349,851 | 1,403,555 |
| December 2015 | 2,044 | 306 | 1,217 | 98,669 | 200,644 | 3,778 | 267,914 | 6,937 | 1,139 | 376,118 | 4,104 | 329,398 | 1,292,268 |
| January 2016 | 2,007 | 290 | 1,232 | 103,970 | 212,831 | 3,950 | 269,598 | 7,024 | 1,186 | 406,527 | 4,148 | 333,062 | 1,345,825 |
| February 2016 | 1,970 | 278 | 1,275 | 109,059 | 219,620 | 4,201 | 265,187 | 7,116 | 1,192 | 419,667 | 4,142 | 342,516 | 1,376,223 |
| March 2016 | 1,855 | 262 | 1,327 | 100,437 | 206,820 | 4,388 | 254,273 | 7,302 | 1,122 | 381,976 | 4,241 | 326,710 | 1,290,713 |
| April 2016 | 1,810 | 254 | 1,340 | 105,842 | 208,969 | 4,583 | 274,969 | 7,304 | 1,044 | 411,280 | 4,365 | 333,276 | 1,355,036 |
| May 2016 | 1,782 | 242 | 1,385 | 103,763 | 208,062 | 4,850 | 276,680 | 7,528 | 1,064 | 433,951 | 4,363 | 344,750 | 1,388,420 |
| June 2016 | 1,734 | 230 | 1,418 | 92,185 | 178,414 | 5,052 | 248,923 | 7,756 | 974 | 383,272 | 4,403 | 305,620 | 1,229,981 |
| July 2016 | 1,670 | 217 | 1,430 | 93,217 | 188,371 | 5,246 | 267,845 | 7,899 | 971 | 418,569 | 4,578 | 332,052 | 1,322,065 |
| July 2016 | 1,887 | | | | | 564,979 | | | | 418,569 | 4,578 | 332,052 | 1,322,065 |
| | | | | | | 566,866 | | | | | 755,199 | | 1,322,065 |

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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