

Stock Exchange Turnover

in Derivatives



Rise in turnover on structured products exchanges in November

Considerable growth in Discount and Bonus Certificates

STRUCTURED SECURITIES



DDV Classification System

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November | 2016

- The exchanges in Stuttgart and Frankfurt achieved a total turnover of EUR 3.8 billion in November.
- Leverage products experienced a 34.3 percent growth in exchange turnover and accounted for a share of the trading volume of 48.1 percent. This product category grew stronger than the total market.
- The trading volume of Bonus Certificates climbed by 47.0 percent and amounted to EUR 628.7 million.
- Turnover in investment products with indices as an underlying recorded a plus of 40.7 percent, to come in at EUR 1.1 billion.

Rise in turnover on structured products exchanges in November

Considerable growth in Discount and Bonus Certificates

Significant growth in trading in Structured Products on the exchanges in Stuttgart and Frankfurt was stimulated by developments on the capital markets in November 2016. Exchange turnover in structured products and leverage products totalled EUR 3.8 billion. This corresponded to a 31.5 percent increase compared with the previous month. At 473,587 the number of customer orders executed was 27.4 percent higher than the figure reported for October. The average order size rose by 3.3 percent and stood at EUR 8,117.

The trading volume in investment products totalled EUR 2.0 billion in November, up 29.0 percent on October. This product category made up 51.9 percent of the aggregate turnover. The exchanges in Stuttgart and Frankfurt executed 66,668 customer orders, representing an increase of 16.8 percent in comparison to the month before. The average order size was EUR 29,955 and thus 10.5 percent above the figure recorded for October.

Turnover from trading in leverage products grew by 34.3 percent. At EUR 1.8 billion, it was significantly above the previous month's level. Leverage products made up a 48.1 percent share of the aggregate turnover. The number of exe-

cuted customer orders increased by 1.7 percent to 406,919 in November. The average order size was EUR 4,540 – an increase of 3.9 percent compared with October.

New issues

Banks issued 77,020 new investment products and 240,583 new leverage products in the month of November. As a result, a total of 566,174 investment products and 818,699 leverage products were available at the exchanges in Stuttgart and Frankfurt.

Exchange turnover by product category

Investment products

Turnover in **Discount Certificates** increased significantly in November. At EUR 832.9 million, it gained 29.2 percent. The trading volume of **Bonus Certificates** also recorded above-average growth. It rose by 47.0 percent to EUR 628.7 million. Turnover in **Tracker Certificates** stood at EUR 261.0 million – 15.6 percent higher than in October. At EUR 154.0 million, turnover in **Reverse Convertibles** was up 25.3 percent on the previous month. The trading volume of **Express**

Certificates notched up 5.0 percent to stand at EUR 75.6 million. A turnover of EUR 8.7 million was generated with **Capital Protection Products with Coupon**, representing a 27.9 percent loss on the previous month. The volume traded in **Uncapped Capital Protection Certificates** edged down to EUR 14.4 million in November. This represented a decline of 12.5 percent. The trading volume of **Credit Linked Notes** fell from EUR 23.7 million in October to EUR 19.2 million in the month under review. **Outperformance and Capped Outperformance Certificates** gained 18.9 percent month on month and increased turnover to EUR 2.7 million. However, given their limited volume, they do not have a major impact on the overall market.

Leverage products

In comparison with the prior month, there was a boost in retail trading activities in leverage products. Turnover in **Warrants** rose by 29.2 percent to EUR 442.6 million. The trading volume for **Knock-Out Warrants** was 38.3 percent above the figure recorded for October. It stood at EUR 1.1 billion. A noticeable 26.6 percent increase was also registered for **Factor Certificates**; their volume amounted to EUR 258.7 million. ▶▶

Exchange turnover by underlying

Investment products

Turnover in investment products with **indices as an underlying** went up by 40.7 percent, taking it to EUR 1.1 billion. This corresponded to a 56.6 percent chunk of the aggregate turnover. A turnover of EUR 737.7 million was achieved with investment products with **equities as an underlying**, up 19.3 percent on the figure recorded for the previous month. Their share of the aggregate trading volume was 36.9 percent in November. Turnover in products with **commodities as an underlying** advanced by 7.8 percent to stand at EUR 79.7 million. They accounted for 4.0 percent of the total turnover. Trading in investment products with **interest rates as an underlying** edged down 16.9 percent and fell to EUR 23.4 million. This corresponded to a market share of 1.2 percent. Turnover of investment products with **investment funds as an underlying** totalled EUR 17.1 million – a 64.2 percent gain on October.

Leverage products

The trading volume reported for leverage products at the end of November stood at EUR 1.8 billion. Turnover in prod-

ucts with **indices as an underlying** climbed 35.6 percent, taking it to EUR 1.1 billion. They accounted for 61.1 percent of the total turnover. Products with **equities as an underlying** saw turnover growth of 25.7 percent and stood at EUR 516.5 million in the month under review. They therefore accounted for a market share of 28.0 percent. At EUR 124.6 million, turnover from leverage products with **commodities as an underlying** was up 62.9 percent. Their market share was 6.7 percent. The trading volume recorded for leverage products with **currencies as an underlying** came in at EUR 57.8 million and was 26.7 percent higher than in the previous month. They made up 3.1 percent of the total turnover.

Exchange turnover

Stuttgart Exchange scored a trading volume of EUR 2.3 billion in November. Its market share of the total turnover amounted to 60.6 percent. Boerse Stuttgart executed 262,943 customer orders.

Frankfurt Exchange recorded a trading volume of EUR 1.5 billion. It accounted for 39.4 percent of the aggregate exchange turnover and executed 210,644 customer orders. ■



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.

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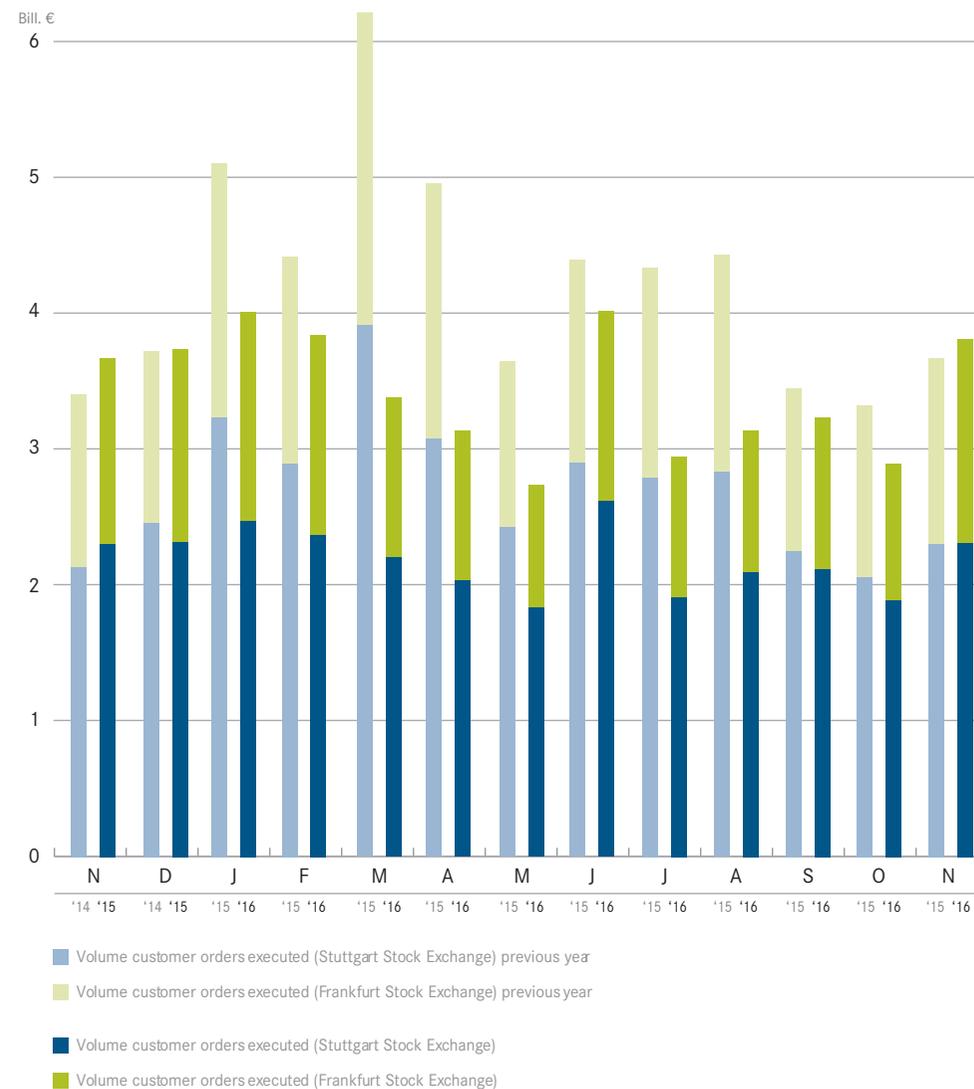
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Year Overview Stock Exchange Turnover November 2016

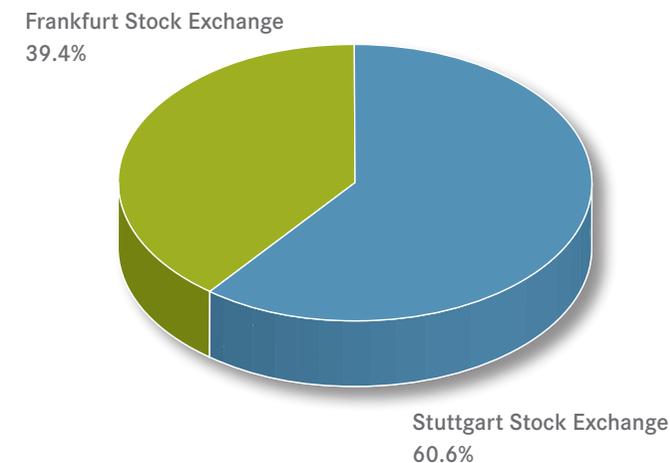
Month	Total		Stuttgart Stock Exchange		Frankfurt Stock Exchange	
	in T€	Number of orders	in T€	Number of orders	in T€	Number of orders
November 2015	3,678,726	459,520	2,310,106	261,625	1,368,620	197,895
December 2015	3,760,048	466,165	2,332,162	272,977	1,427,886	193,188
January 2016	4,000,451	509,024	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
August 2016	3,165,917	391,002	2,116,181	234,734	1,049,736	156,268
September 2016	3,265,298	395,186	2,139,617	233,212	1,125,681	161,974
October 2016	2,922,886	371,796	1,908,930	212,139	1,013,956	159,657
November 2016	3,844,342	473,587	2,327,843	262,943	1,516,499	210,644



Turnover volume by stock exchange November 2016

	Stuttgart Stock Exchange		Frankfurt Stock Exchange		Total	
	Volume	Share	Volume	Share	Volume	Share
Investment products with capital protection	8,997	0.4%	14,073	0.9%	23,070	0.6%
Investment products without capital protection	1,276,220	54.8%	697,744	46.0%	1,973,965	51.3%
Investment products total	1,285,217	55.2%	711,818	46.9%	1,997,035	51.9%
Leverage products without knock-out	604,943	26.0%	540,993	35.7%	1,145,936	29.8%
Leverage products with knock-out	437,683	18.8%	263,688	17.4%	701,371	18.2%
Leverage products total	1,042,626	44.8%	804,681	53.1%	1,847,307	48.1%
Total	2,327,843	100.0%	1,516,499	100.0%	3,844,342	100.0%

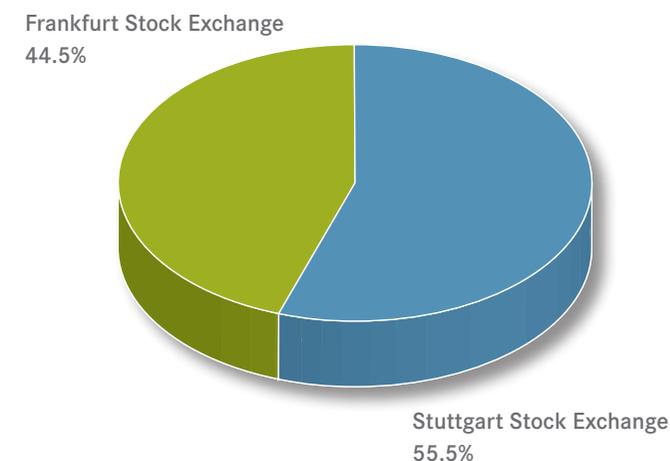
Turnover volume by stock exchange as a percentage



Number of customer orders by stock exchange November 2016

	Stuttgart Stock Exchange		Frankfurt Stock Exchange		Total	
	Number	Share	Number	Share	Number	Share
Investment products with capital protection	435	0.2%	948	0.5%	1,383	0.3%
Investment products without capital protection	43,291	16.5%	21,994	10.4%	65,285	13.8%
Investment products total	43,726	16.6%	22,942	10.9%	66,668	14.1%
Leverage products without knock-out	132,833	50.5%	119,376	56.7%	252,209	53.3%
Leverage products with knock-out	86,384	32.9%	68,326	32.4%	154,710	32.7%
Leverage products total	219,217	83.4%	187,702	89.1%	406,919	85.9%
Total	262,943	100.0%	210,644	100.0%	473,587	100.0%

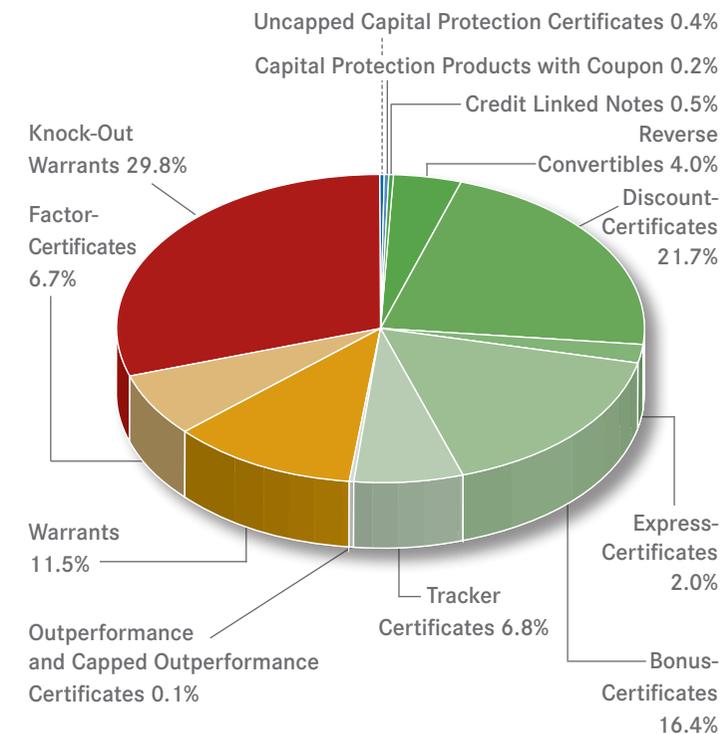
Number of customer orders by stock exchange as a percentage



Turnover by product category November 2016

Product categories	Change in comparison with previous month			Number of orders	Change in comparison with previous month		Change in comparison with previous month	
	Volume	Share	Share		Volume per order	Share	Volume	Share
	in T €	in %	in %		#	in %	in %	in T €
■ Uncapped Capital Protection Certificates	14,371	-12.5	0.4	795	3.9	0.2	18,076	-15.8
■ Capital Protection Products with Coupon	8,699	-27.9	0.2	588	-5.0	0.1	14,795	-24.1
■ Credit Linked Notes	19,213	-18.9	0.5	760	-21.7	0.2	25,280	3.6
■ Reverse Convertibles	153,967	25.3	4.0	8,864	21.3	1.9	17,370	3.3
■ Discount Certificates	832,854	29.2	21.7	19,439	21.5	4.1	42,844	6.3
■ Express Certificates	75,560	5.0	2.0	4,257	10.9	0.9	17,750	-5.3
■ Bonus Certificates	628,691	47.0	16.4	14,640	15.6	3.1	42,943	27.2
■ Tracker Certificates	260,990	15.6	6.8	17,126	15.9	3.6	15,239	-0.3
■ Outperformance and Capped Outperformance Certificates	2,691	18.9	0.1	199	35.4	0.0	13,521	-12.1
Investment products	1,997,035	29.0	51.9	66,668	16.8	14.1	29,955	10.5
■ Warrants	442,638	29.2	11.5	112,663	31.9	23.8	3,929	-2.0
■ Factor Certificates	258,733	26.6	6.7	42,047	43.0	8.9	6,153	-11.4
■ Knock-Out Warrants	1,145,936	38.3	29.8	252,209	26.2	53.3	4,544	9.6
Leverage products	1,847,307	34.3	48.1	406,919	29.3	85.9	4,540	3.9
Total	3,844,342	31.5	100.0	473,587	27.4	100.0	8,117	3.3

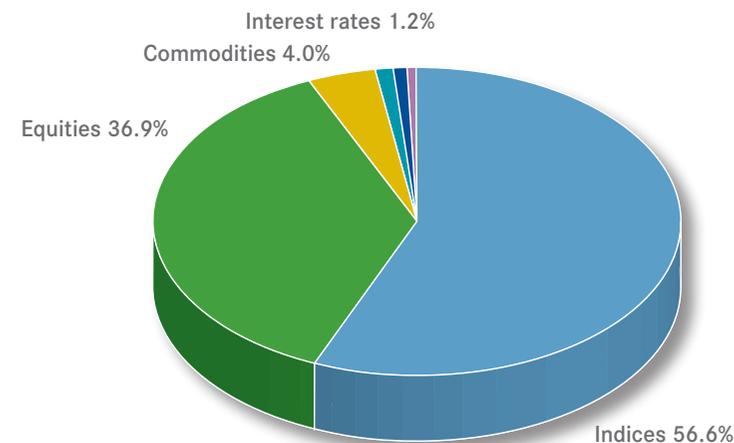
Share in total volume



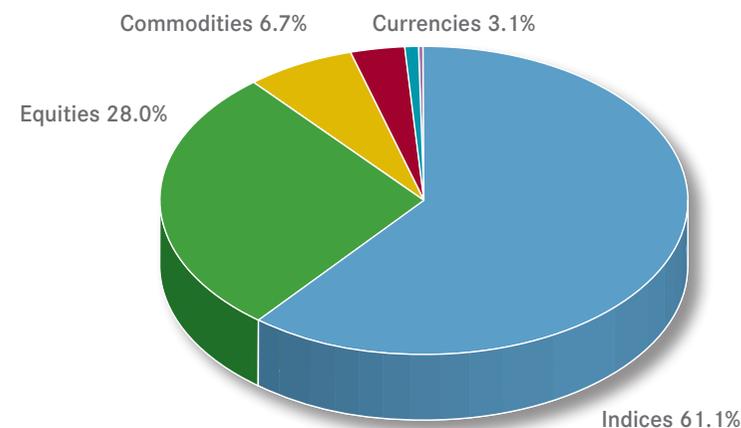
Turnover by underlying November 2016

Underlying	Volume	Change in comparison with previous month	Share
	in T €	in %	in %
Investment products			
Indices	1,130,719	40.7%	56.6%
Equities	737,687	19.3%	36.9%
Commodities	79,693	7.8%	4.0%
Currencies	272	6.8%	0.0%
Interest rates	23,385	-16.9%	1.2%
Investment funds	17,136	64.2%	0.9%
Other	8,143	-34.4%	0.4%
Investment products total	1,997,035	29.0%	100.0%
Leverage products			
Indices	1,127,879	35.6%	61.1%
Equities	516,505	25.7%	28.0%
Commodities	124,639	62.9%	6.7%
Currencies	57,788	26.7%	3.1%
Interest rates	19,133	110.2%	1.0%
Investment funds	0	0.0%	0.0%
Other	1,364	-10.9%	0.1%
Leverage products total	1,847,307	34.3%	100.0%
Total	3,844,342	31.5%	

Investment products by underlying



Leverage products by underlying



Number of new issues November 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	
August 2016	3		28	9,884	17,697	336	31,665	148	2	43,793	379	139,962	243,897	
September 2016	8		4	17,212	20,944	224	28,548	302	2	52,824	47	144,855	264,970	
October 2016	4		8	11,050	11,658	239	24,052	160	39	53,720	127	136,878	237,935	
November 2016	10		9	12,972	34,676	258	28,548	135	412	78,812	140	161,631	317,603	
1/16 - 11/16	107	6	331	114,214	190,649	2,881	372,739	2,135	1,001	579,155	1,395	1,692,681	2,957,294	
1/16 - 11/16	113		683,950							580,550		1,692,681		2,957,294
1/16 - 11/16			684,063									2,273,231		2,957,294

Total number of products November 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	
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
August 2016	1,631	199	1,458	97,593	183,486	5,440	273,314	7,993	971	431,963	4,942	345,375	1,354,365
September 2016	1,636	188	1,456	92,947	172,760	5,589	247,231	8,265	600	397,372	4,958	330,267	1,263,269
October 2016	1,595	181	1,411	98,790	177,512	5,681	256,722	8,339	629	419,873	5,058	348,164	1,323,955
November 2016	1,568	175	1,419	104,867	183,460	5,839	259,488	8,395	963	458,274	5,182	355,243	1,384,873
November 2016	1,743				564,431					458,274	5,182	355,243	1,384,873
					566,174						818,699		1,384,873

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-Mittelungen), 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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