

Stock Exchange Turnover

in Derivatives



Exchange turnover totals EUR 3.2 billion at year-end

Significant growth in Tracker Certificates

STRUCTURED SECURITIES



DDV Classification System

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December | 2017

- The exchanges in Stuttgart and Frankfurt generated turnover of EUR 3.2 billion with investment and leverage products in December.
- Investors had a total of 500,196 investment certificates and 1,080,293 leverage products to choose from at the end of December.
- Turnover in Tracker Certificates grew by 26.0 percent to EUR 407.2 million, bucking the general trend.
- Investment products with currencies as an underlying registered sharp turnover growth of 123.0 percent to EUR 251.5 million.

Exchange turnover totals EUR 3.2 billion at year-end

Significant growth in Tracker Certificates

Trading in structured products was more restrained on the exchanges in Stuttgart and Frankfurt at the end of the year. Exchange turnover in structured and leverage products totalled EUR 3.2 billion. This corresponded to a month-on-month decrease of 16.6 percent. The number of executed customer orders fell by 23.4 percent to 443,457. By contrast, the average order size was EUR 7,167 – up 8.8 percent on the previous month.

The trading volume for investment products came in at EUR 1.6 billion in December. This corresponded to 51.3 percent of the total turnover. The average order size was EUR 18,724. Turnover in leverage products stood at just under EUR 1.6 billion in the period under review, meaning that leverage products accounted for 48.7 percent of the total turnover. The average order size was EUR 4,345.

New issues

Banks issued 34,285 new investment products and 209,795 leverage products in December. As a result, a

total of 500,196 investment products and 1,080,293 leverage products were available at the Stuttgart and Frankfurt Exchanges.

Exchange turnover by product category

Investment products

Following an increase in November, the turnover in most product categories went down in the month under review. In particular, **Reverse Convertibles** and **Bonus Certificates** registered clear losses in absolute terms. Turnover in Reverse Convertibles dropped to EUR 143.1 million in December, for instance, while trading in Bonus Certificates came in at EUR 335.8 million at the end of the calendar year. **Tracker Certificates** registered brisk trading, thereby bucking the general trend. Their turnover rose to EUR 407.2 million. Trading in **Credit Linked Notes** also increased to EUR 12.9 million. The exchange-based turnover for **Capital Protection Products** edged up again in December to EUR 20.6 million in total.

Leverage products

Following a sharp rise in turnover in the previous month, a fall in turnover was seen across all product categories in December. Turnover in **Warrants** decreased to EUR 391.4 million. Trading in **Knock-Out Warrants** dropped to EUR 928.7 million, while **Factor Certificates** recorded trading turnover of EUR 228.5 million.

Exchange turnover by underlying

Investment products

Trading in products with **indices as an underlying** and **equities as an underlying** was down. Products with these two underlyings accounted for 79.3 percent of turnover. Among investment products, equities were the most popular underlying, accounting for a 41.8 percent share. Products with **commodities as an underlying** saw a further fall in turnover. By contrast, trading activity in products with **currencies as an underlying** increased, taking their market share to 15.4 percent. Turnover in investment products with **investment funds as an underlying** also decreased, but it rose considerably for those with **interest rates as an underlying**. ▶▶

Leverage products

Exchange turnover for almost all underlyings was down month on month. Nevertheless, products with **indices as an underlying** and **equities as an underlying** together made up 91.4 percent of turnover. Among leverage products, indices were the most popular underlying, accounting for a 54.4 percent share. Together, leverage products with **commodities as an underlying** and **currencies as an underlying** made up a market share of 4.9 percent in December.

Exchange turnover

Stuttgart Exchange generated a turnover volume of EUR 2.1 billion in December. Its market share of the total turnover stood at 65.6 percent. Frankfurt Exchange recorded a trading volume of EUR 1.1 billion. It accounted for 34.4 percent of the total exchange turnover and 44.2 percent of customer orders, while Stuttgart Exchange handled 55.8 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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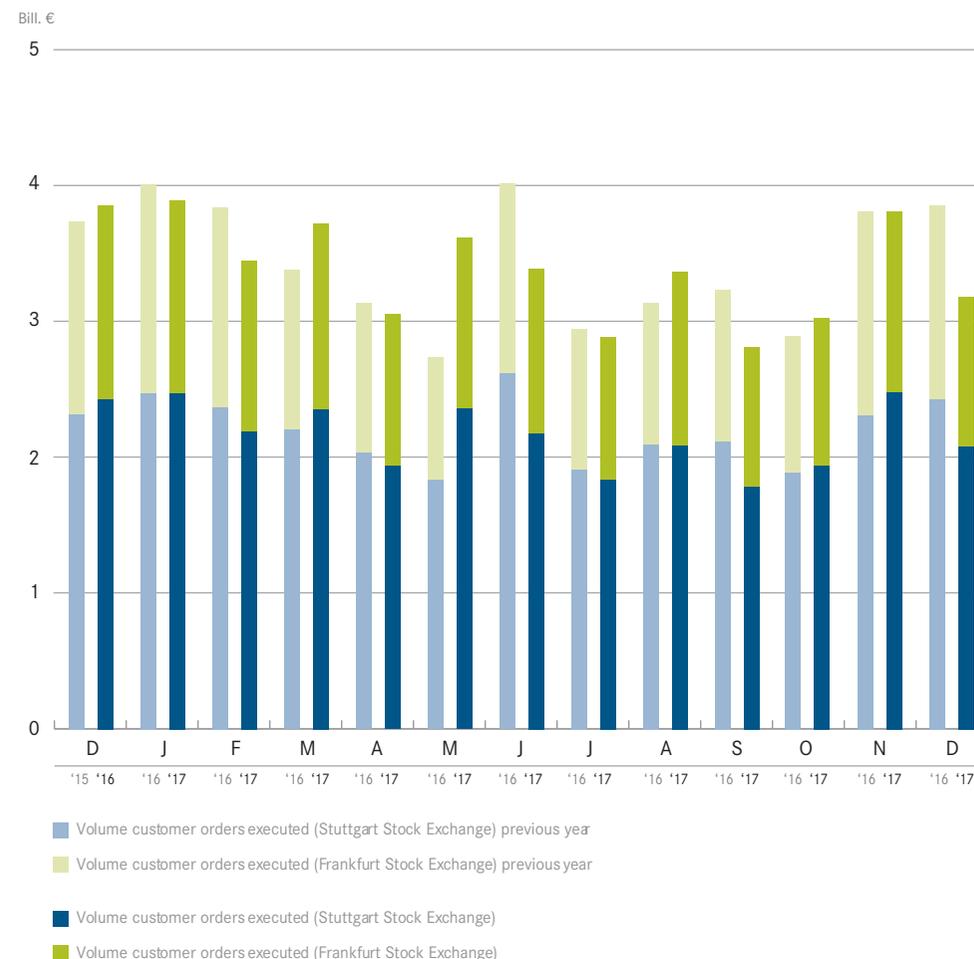
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Year Overview Stock Exchange Turnover December 2017

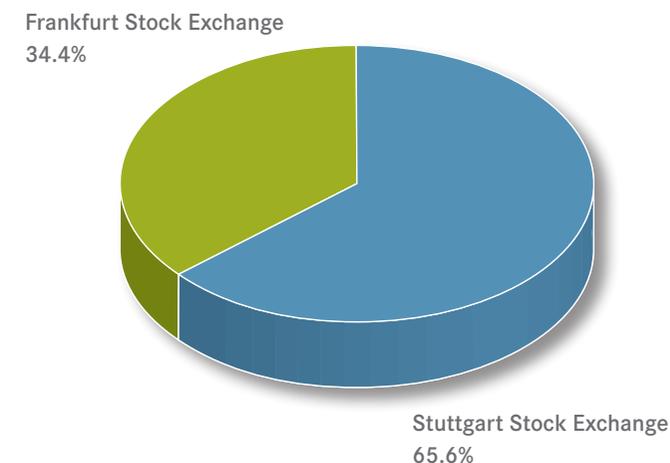
Month	Total		Stuttgart Stock Exchange		Frankfurt Stock Exchange	
	in T€	Number of orders	in T€	Number of orders	in T€	Number of orders
December 2016	3,893,990	417,756	2,450,053	227,392	1,443,937	190,364
Januayr 2017	3,925,127	464,407	2,497,422	253,889	1,427,706	210,518
February 2017	3,479,234	437,876	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



Turnover volume by stock exchange December 2017

	Stuttgart Stock Exchange		Frankfurt Stock Exchange		Total	
	Volume	Share	Volume	Share	Volume	Share
Investment products with capital protection	9,431	0.5%	11,154	1.0%	20,585	0.6%
Investment products without capital protection	1,091,315	52.4%	517,876	47.3%	1,609,191	50.6%
Investment products total	1,100,746	52.8%	529,030	48.3%	1,629,776	51.3%
Leverage products without knock-out	565,593	27.1%	363,152	33.2%	928,745	29.2%
Leverage products with knock-out	417,289	20.0%	202,598	18.5%	619,887	19.5%
Leverage products total	982,882	47.2%	565,750	51.7%	1,548,632	48.7%
Total	2,083,628	100.0%	1,094,780	100.0%	3,178,408	100.0%

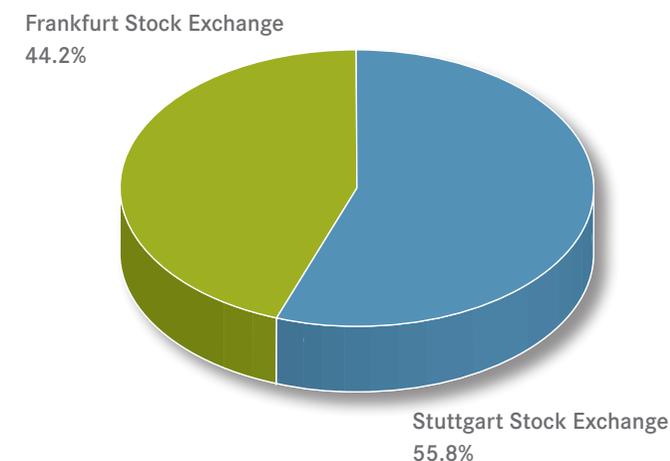
Turnover volume by stock exchange as a percentage



Number of customer orders by stock exchange December 2017

	Stuttgart Stock Exchange		Frankfurt Stock Exchange		Total	
	Number	Share	Number	Share	Number	Share
Investment products with capital protection	353	0.1%	415	0.2%	768	0.2%
Investment products without capital protection	50,087	20.2%	36,187	18.5%	86,274	19.5%
Investment products total	50,440	20.4%	36,602	18.7%	87,042	19.6%
Leverage products without knock-out	109,549	44.3%	105,436	53.8%	214,985	48.5%
Leverage products with knock-out	87,569	35.4%	53,861	27.5%	141,430	31.9%
Leverage products total	197,118	79.6%	159,297	81.3%	356,415	80.4%
Total	247,558	100.0%	195,899	100.0%	443,457	100.0%

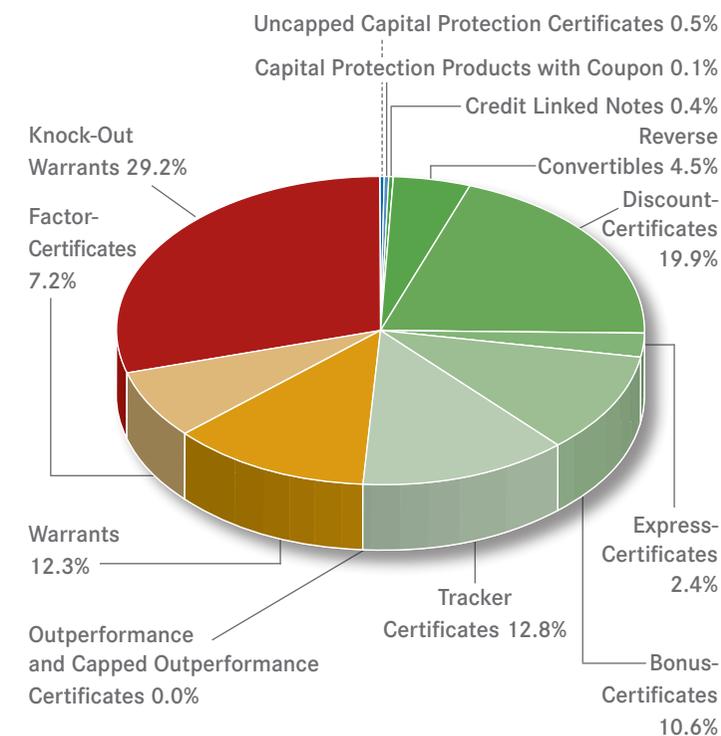
Number of customer orders by stock exchange as a percentage



Turnover by product category December 2017

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	16,550	5.8	0.5	576	-20.3	0.1	28,732	32.8
■ Capital Protection Products with Coupon	4,035	21.9	0.1	192	1.6	0.0	21,016	20.0
■ Credit Linked Notes	12,889	55.1	0.4	479	32.3	0.1	26,907	17.2
■ Reverse Convertibles	143,122	-22.9	4.5	7,510	-11.8	1.7	19,058	-12.6
■ Discount Certificates	632,822	-3.3	19.9	16,554	-11.6	3.7	38,228	9.3
■ Express Certificates	76,787	-35.0	2.4	4,218	-28.0	1.0	18,205	-9.7
■ Bonus Certificates	335,772	-30.0	10.6	9,945	-32.5	2.2	33,763	3.7
■ Tracker Certificates	407,234	26.0	12.8	47,535	31.9	10.7	8,567	-4.5
■ Outperformance and Capped Outperformance Certificates	565	-68.9	0.0	33	-50.7	0.0	17,123	-36.9
Investment products	1,629,776	-9.0	51.3	87,042	2.1	19.6	18,724	-10.9
■ Warrants	391,430	-29.9	12.3	102,777	-27.4	23.2	3,809	-3.4
■ Factor Certificates	228,458	-18.9	7.2	38,653	-22.1	8.7	5,910	4.1
■ Knock-Out Warrants	928,745	-21.3	29.2	214,985	-28.8	48.5	4,320	10.6
Leverage products	1,548,632	-23.3	48.7	356,415	-27.8	80.4	4,345	6.1
Total	3,178,408	-16.6	100.0	443,457	-23.4	100.0	7,167	8.8

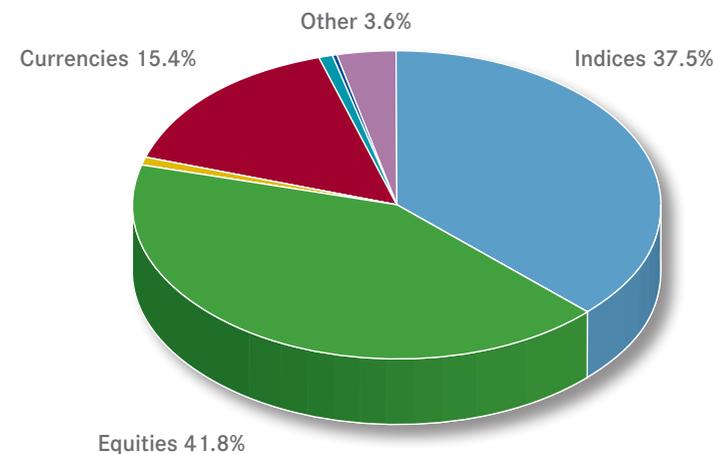
Share in total volume



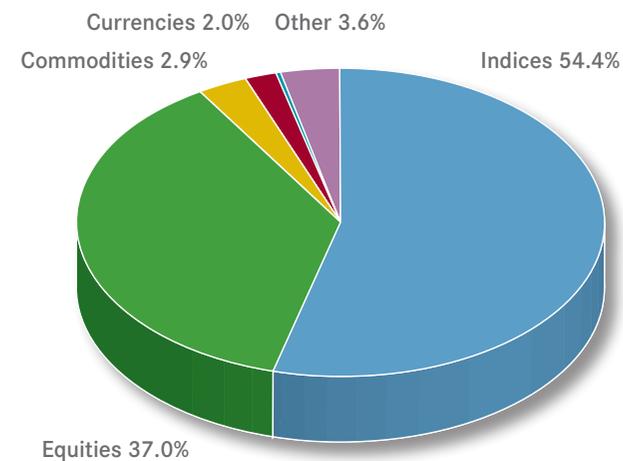
Turnover by underlying December 2017

Underlying	Volume	Change in comparison with previous month	Share
	in T €	in %	in %
Investment products			
Indices	611,035	-20.8%	37.5%
Equities	681,414	-16.6%	41.8%
Commodities	12,962	-65.5%	0.8%
Currencies	251,469	123.0%	15.4%
Interest rates	13,494	54.9%	0.8%
Investment funds	1,149	-76.9%	0.1%
Other	58,252	53.9%	3.6%
Investment products total	1,629,776	-9.0%	100.0%
Leverage products			
Indices	841,962	-11.6%	54.4%
Equities	572,585	-38.2%	37.0%
Commodities	45,520	-34.4%	2.9%
Currencies	30,474	-32.1%	2.0%
Interest rates	2,497	-68.1%	0.2%
Investment funds	2	-100.0%	0.0%
Other	55,592	200.5%	3.6%
Leverage products total	1,548,632	-23.3%	100.0%
Total	3,178,408	-16.6%	

Investment products by underlying



Leverage products by underlying



Number of new issues December 2017

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 2017	7		2	15,438	22,256	254	24,131	133		61,867	507	156,913	281,508
February 2017	7		1	14,125	14,565	282	26,837	390	52	61,844	3,377	119,679	241,159
March 2017	8		7	10,676	18,926	377	34,587	222	294	67,495	254	188,667	321,513
April 2017	7		18	7,394	10,607	305	18,625	205	40	60,865	534	149,348	247,948
May 2017	7		14	13,835	13,921	359	21,777	225	54	77,097	298	160,953	288,540
June 2017	5		24	12,417	14,618	369	26,845	149	29	61,159	1,386	157,600	274,601
July 2017	4		25	14,709	17,730	409	35,538	339		68,994	120	166,694	304,562
August 2017	5		21	11,032	9,185	451	25,204	169	16	70,405	60	192,478	309,026
September 2017	4		15	7,969	13,087	414	20,060	342	1	70,531	256	171,882	284,561
October 2017	10		8	10,232	11,186	396	28,430	164	2	98,487	122	176,122	325,159
November 2017	7		45	10,540	17,147	387	24,379	115	3	85,726	951	219,081	358,381
December 2017	7		26	6,625	11,404	391	15,031	221	580	50,199	560	159,036	244,080
1/17 - 12/17	78	0	206	134,992	174,632	4,394	301,444	2,674	1,071	834,669	8,425	2,018,453	3,481,038
1/17 - 12/17	78		619,413							843,094		2,018,453	3,481,038
			619,491							2,861,547		3,481,038	

Total number of products December 2017

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	
December 2016	1,528	164	1,421	101,351	171,253	5,759	244,505	8,431	1,434	449,896	5,686	339,791	1,331,219
January 2017	1,494	159	1,407	111,872	186,198	5,619	256,801	8,463	1,429	472,839	5,620	352,164	1,404,065
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
December 2017	1,191						499,005			613,239	12,562	454,492	1,580,489
							500,196				1,080,293		1,580,489

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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