

Stock Exchange Turnover

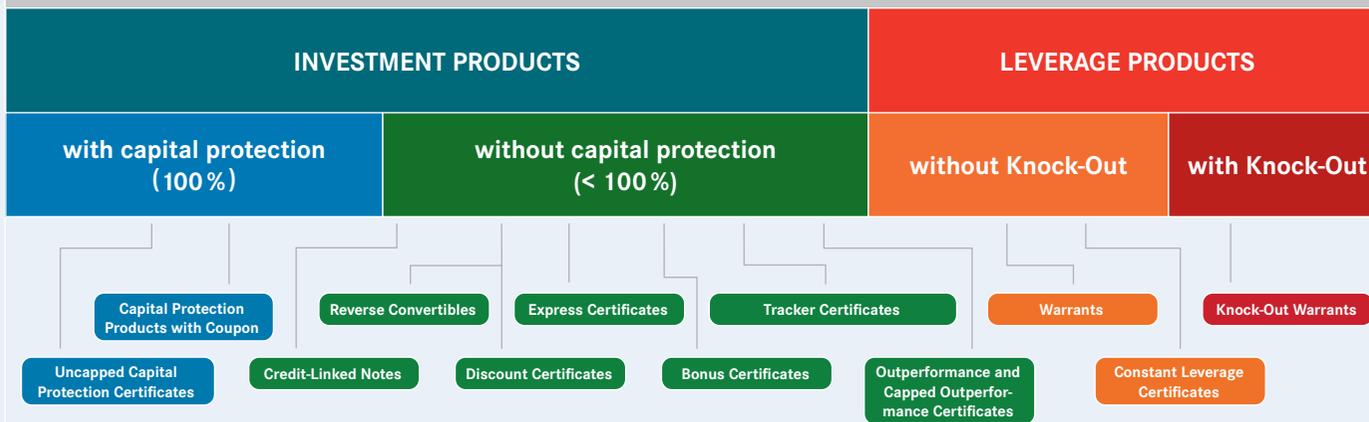
of Structured Products



A full 53 percent increase in turnover

Leverage products in particular demand during stock exchange slump

STRUCTURED PRODUCTS



DDV Product Classification System

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March | 2020

- In March, the order volume for structured products on the Stuttgart and Frankfurt stock exchanges increased by 53.1 percent on the previous month, pushing up turnover to EUR 8.5 billion.
- At the end of the month, investors could choose between a total of 371,340 investment products and 997,592 leverage products.
- Leverage products with indices as an underlying were actively traded during the stock market slump. Client orders totalling EUR 4.4 billion represented a 175.2 percent increase in this underlying asset class.
- Indices were also popular with investment products, although growth was somewhat more moderate here at 24.7 percent.

A full 53 percent increase in turnover

Leverage products in particular demand during stock exchange slump

While stock exchanges around the world plunged in March, turnover in structured products shot up by more than half compared with the previous month. The March order volume of EUR 8.5 billion represented a 53.1 percent increase on February. The number of client orders rose by 48.5 percent to 1,223,674, and the average order value of EUR 6,939 was slightly higher than in the previous month (EUR 6,733).

Leverage products dominated trading with an increase in volume of 79.9 percent to just under EUR 6.2 billion. The share of the leverage segment in the total exchange turnover for structured products jumped by 10.8 percentage points to 72.8 percent.

New issuances

The volatile market movements in March also led to an increase in issuances. Overall, the number of new issuances of structured products rose by 74.7 percent. The 81,941 new investment products issued represented an increase

of 55.1 percent, while 636,918 leverage products were launched in order to keep supply up in a rapidly fluctuating market, representing a 77.6 percent increase. At the end of March, the product range of the Stuttgart and Frankfurt stock exchanges comprised some 371,340 investment products and 997,592 leverage products.

Stock exchange turnover by product category

Investment products

Turnover in investment products increased by 9.4 percent to EUR 2.3 billion. Among the high-volume categories, **Tracker Certificates** and **Bonus Certificates** demonstrated particularly dynamic growth of 31.1 percent and 14.7 percent respectively. Trading activities in **Outperformance and Capped Outperformance Certificates** (up 371.8 percent), **Credit-Linked Notes** (up 159.3 percent), and **Capital Protection Products with Coupon** (up 50.7 percent) increased by even more. However, the share of these categories in total stock exchange turnover for structured products remained low at 0.1 to 0.4 percent.

Leverage products

Knock-Out Products were in particular demand in the volatile market conditions, experiencing a 93.5 percent increase in trading volume to almost EUR 3.6 billion. **Warrants** also benefited from the dynamic growth in the leverage segment, increasing in turnover by 71.1 percent to around EUR 1.8 billion. Trading in **Constant Leverage Certificates** rose less rapidly, increasing by 50.3 percent to EUR 795.4 million.

Stock exchange turnover by underlying

Investment products

In view of the general slump in the stock exchange, investor interest turned towards indices, while individual equities were somewhat ignored. Accordingly, the trading volume of investment products with **indices as an underlying asset** increased by 24.7 percent to over EUR 1.4 billion in March, corresponding to a market share of 61.9 percent (up from 54.3 percent in the previous month). In contrast, the trading volume of investment products with **equities as an underlying asset** fell by 22.4 percent to EUR 587.4 million, ▶▶

decreasing the market share to 25.5 percent. Trading activities were once again particularly dynamic for investment products with **commodities as an underlying asset**, which reached a volume of EUR 119.5 million, corresponding to month-on-month growth of 71.6 percent and increasing their market share to 5.2 percent. Investment products with **interest rates as an underlying asset** managed to increase a full 115.4 percent, although the turnover of EUR 9.0 million represented a market share of only 0.4 percent.

Leverage products

The increased focus on indices was reflected in leverage products even more clearly than in the investment segment. The trading volume of leverage products with **indices as an underlying asset** shot up 175.2 percent on the previous month to over EUR 4.4 billion, increasing their market share of leverage products by 24.7 percentage points to 71.5 percent. At the same time, the turnover in leverage products with **equities as an underlying asset** fell by 15.9 percent to around EUR 1.1 billion, decreasing their share to 18.4

percent (down from the previous month's 39.3 percent). Leverage products with **currencies as an underlying asset** also demonstrated well-above-average growth, increasing in order volume by 132.4 percent to EUR 93.4 million, which corresponded to a market share of 1.5 percent.

Stock exchange turnover by stock exchange

In March, the Stuttgart Stock Exchange recorded a turnover volume of EUR 5.27 billion, representing a slightly below average month-on-month increase of 44.0 percent. In consequence, the Stuttgart market share fell to 62.1 percent (from 66.0 percent in the previous month). The stock exchange in Frankfurt took greater advantage of the volatile markets and recorded a volume increase of 70.7 percent, boosting turnover to EUR 3.22 billion and increasing its market share to 37.9 percent (up on 34.0 percent for the previous month). Some 42.2 percent of the 1,223,674 client orders were executed in Frankfurt, and 57.8 percent in Stuttgart. ■



Deutscher Derivate Verband (DDV)

Deutscher Derivate Verband (DDV), the German Derivatives Association, is the industry representative body for the leading issuers of structured products in Germany, who represent more than 90 percent of the German structured products market: BayernLB, BNP Paribas, Citigroup, Commerzbank, DekaBank, Deutsche Bank, DZ BANK, Goldman Sachs, Helaba, HSBC Trinkaus, HypoVereinsbank, LBBW, Morgan Stanley, Société Générale, UBS, and Vontobel. Furthermore, the Association's work is supported by 17 sponsoring members, which include the Stuttgart and Frankfurt Exchanges, Baader Bank, the direct banks comdirect bank, Consorsbank, DKB, flatex, ING-DiBa, maxblue and S Broker, as well as finance portals and other service providers.

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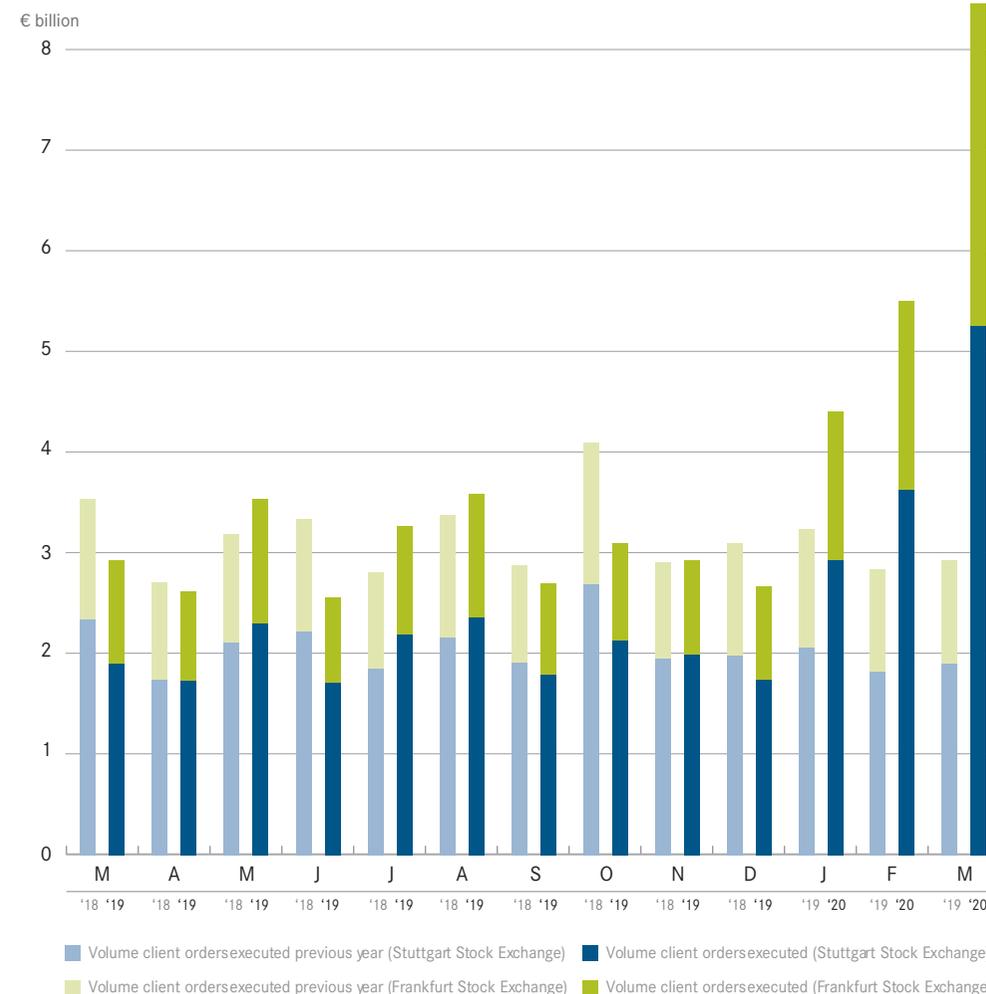
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Year overview of stock exchange turnover March 2020

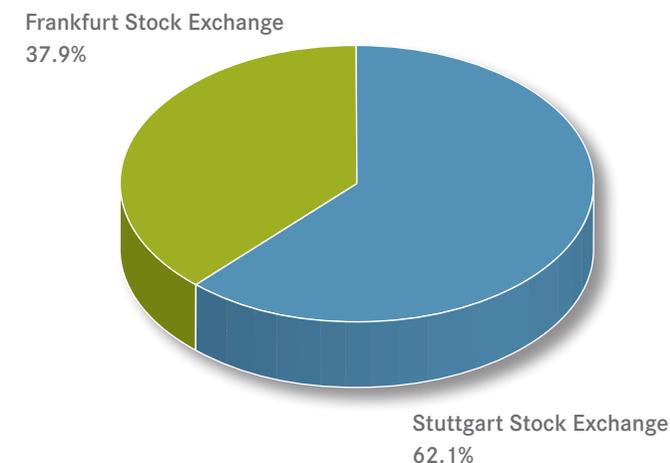
Month	Total		Stuttgart Stock Exchange		Frankfurt Stock Exchange	
	€ ,000	Number of orders	€ ,000	Number of orders	€ ,000	Number of orders
March 2019	2,949,541	458,939	1,922,316	272,742	1,027,225	186,197
April 2019	2,642,565	402,971	1,744,403	239,227	898,162	163,744
May 2019	3,566,034	542,082	2,321,421	318,674	1,244,613	223,408
June 2019	2,586,710	389,507	1,731,429	232,172	855,281	157,335
July 2019	3,294,982	467,216	2,209,454	281,254	1,085,528	185,962
August 2019	3,613,860	536,836	2,379,928	321,639	1,233,932	215,197
September 2019	2,717,978	435,174	1,811,068	262,935	906,909	172,239
October 2019	3,120,751	449,610	2,148,200	270,420	972,551	179,190
November 2019	2,922,247	414,695	1,993,863	254,580	928,384	160,115
December 2019	2,693,714	381,611	1,753,094	229,209	940,621	152,402
January 2020	4,437,980	681,076	2,955,496	412,114	1,482,485	268,962
February 2020	5,546,838	823,841	3,660,026	498,531	1,886,813	325,310
March 2020	8,491,148	1,223,674	5,269,646	707,421	3,221,502	516,253



Turnover volume by stock exchange March 2020

	Stuttgart Stock Exchange		Frankfurt Stock Exchange		Total	
	Volume (€ ,000)	Share	Volume (€ ,000)	Share	Volume (€ ,000)	Share
Investment products with capital protection	11,134	0.2%	14,097	0.4%	25,232	0.3%
Investment products without capital protection	1,526,273	29.0%	755,139	23.4%	2,281,412	26.9%
Investment products total	1,537,407	29.2%	769,237	23.9%	2,306,644	27.2%
Leverage products without Knock-Out	2,144,538	40.7%	1,427,802	44.3%	3,572,340	42.1%
Leverage products with Knock-Out	1,587,700	30.1%	1,024,464	31.8%	2,612,164	30.8%
Leverage products total	3,732,239	70.8%	2,452,266	76.1%	6,184,504	72.8%
Total	5,269,646	100.0%	3,221,502	100.0%	8,491,148	100.0%

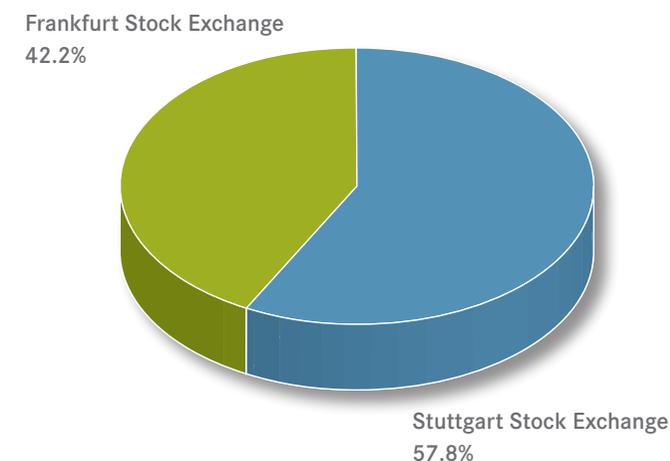
Turnover volume by stock exchange in percent



Number of client orders by stock exchange March 2020

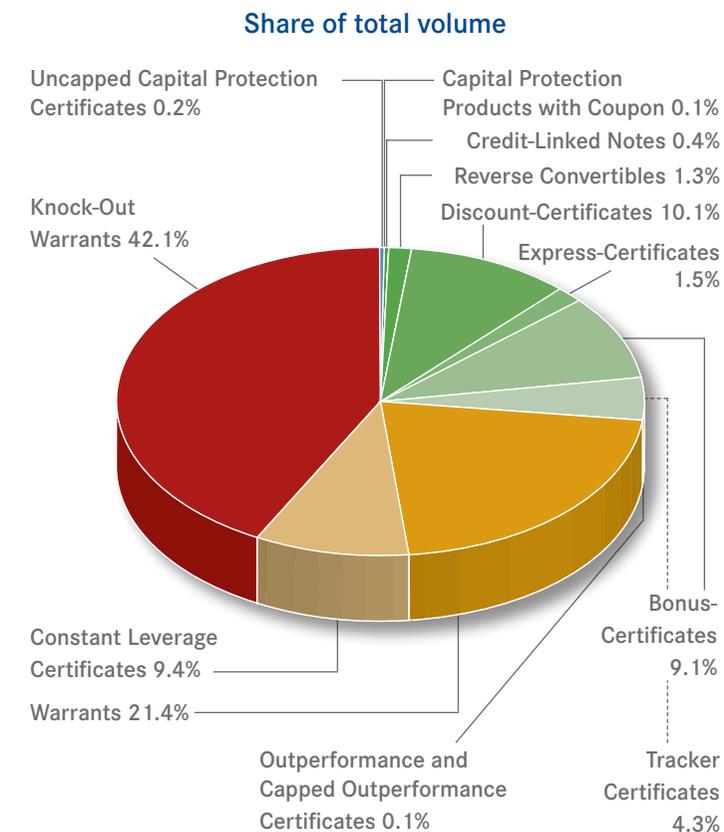
	Stuttgart Stock Exchange		Frankfurt Stock Exchange		Total	
	Number	Share	Number	Share	Number	Share
Investment products with capital protection	523	0.1%	390	0.1%	913	0.1%
Investment products without capital protection	55,909	7.9%	32,718	6.3%	88,627	7.2%
Investment products total	56,432	8.0%	33,108	6.4%	89,540	7.3%
Leverage products without Knock-Out	330,840	46.8%	273,462	53.0%	604,302	49.4%
Leverage products with Knock-Out	320,149	45.3%	209,683	40.6%	529,832	43.3%
Leverage products total	650,989	92.0%	483,145	93.6%	1,134,134	92.7%
Total	707,421	100.0%	516,253	100.0%	1,223,674	100.0%

Number of client orders by stock exchange in percent



Turnover by product category March 2020

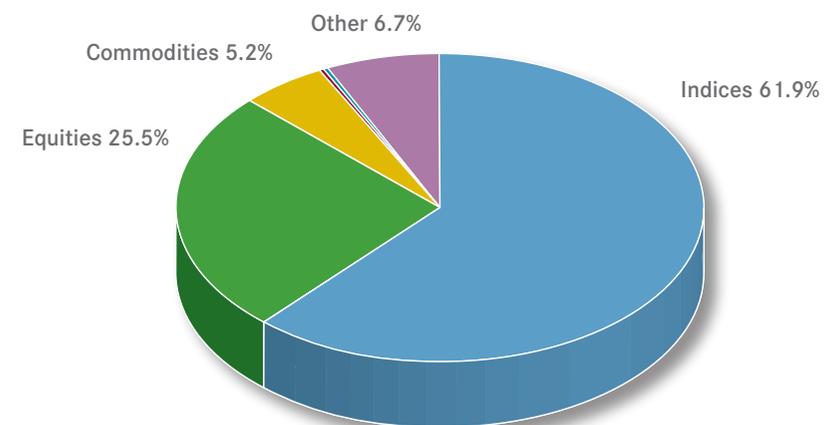
Product categories	Change on previous month			Number of orders	Change on previous month			Volume per order	Change on previous month	
	Volume	Share	Share		Volume	Share	Share		Volume	Share
	(€, 000)	in %	in %		#	in %	in %		(€, 000)	in %
■ Uncapped Capital Protection Certificates	16,190	-10.1	0.2	762	1.6	0.1	21,246	-11.5		
■ Capital Protection Products with Coupon	9,042	50.7	0.1	151	60.6	0.0	59,882	-6.2		
■ Credit-Linked Notes	34,677	159.3	0.4	1,228	139.8	0.1	28,239	8.1		
■ Reverse Convertibles	113,649	-14.4	1.3	5,273	-10.9	0.4	21,553	-3.9		
■ Discount Certificates	856,015	0.9	10.1	15,966	15.5	1.3	53,615	-12.6		
■ Express Certificates	130,394	-3.3	1.5	9,102	24.6	0.7	14,326	-22.4		
■ Bonus Certificates	772,823	14.7	9.1	18,572	21.1	1.5	41,612	-5.3		
■ Tracker Certificates	368,288	31.1	4.3	38,441	48.3	3.1	9,581	-11.6		
■ Outperformance and Capped Outperformance Certificates	5,566	371.8	0.1	45	80.0	0.0	123,678	162.1		
Investment products	2,306,644	9.4	27.2	89,540	28.5	7.3	25,761	-14.9		
■ Warrants	1,816,726	71.1	21.4	362,540	46.1	29.6	5,011	17.1		
■ Constant Leverage Certificates	795,439	50.3	9.4	167,292	70.3	13.7	4,755	-11.7		
■ Knock-Out Warrants	3,572,340	93.5	42.1	604,302	48.2	49.4	5,912	30.6		
Leverage products	6,184,504	79.9	72.8	1,134,134	50.4	92.7	5,453	19.6		
Total	8,491,148	53.1	100.0	1,223,674	48.5	100.0	6,939	3.1		



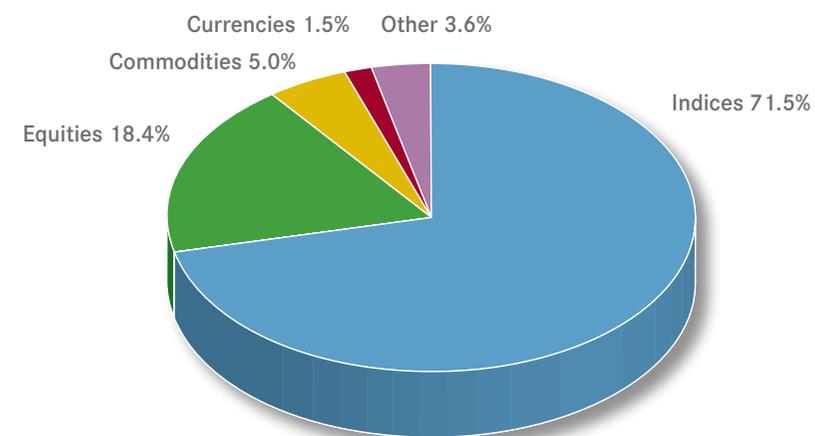
Stock exchange turnover volume by underlying March 2020

Underlying	Volume	Change on previous month	Share
	€ ,000	in %	in %
Investment products			
Indices	1,428,092	24.7%	61.9%
Equities	587,398	-22.4%	25.5%
Commodities	119,485	71.6%	5.2%
Currencies	6,359	-55.7%	0.3%
Interest rates	9,044	115.4%	0.4%
Investment funds	1,914	-63.4%	0.1%
Other	154,352	35.2%	6.7%
Investment products total	2,306,644	9.4%	100.0%
Leverage products			
Indices	4,422,528	175.2%	71.5%
Equities	1,135,413	-15.9%	18.4%
Commodities	311,442	9.2%	5.0%
Currencies	93,375	132.4%	1.5%
Interest rates	0	0%	0.0%
Investment funds	0	0%	0.0%
Other	221,747	42.7%	3.6%
Leverage products total	6,184,504	79.9%	100.0%
Total	8,491,148	53.1%	

Investment products by underlying



Leverage products by underlying



Number of new issuances March 2020

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	Constant Leverage Certificates	Knock-Out Warrants		
January 2020	1	1	15	9,670	19,791	448	32,574	116	1	110,291	3,246	269,091	445,245	
February 2020	3		27	10,230	10,762	474	31,193	138	1	82,466	5,751	270,467	411,512	
March 2020	5		15	13,897	26,682	495	40,768	76	3	164,716	13,372	458,830	718,859	
1/20 - 3/20	9	1	57	33,797	57,235	1,417	104,535	330	5	357,473	22,369	998,388	1,575,616	
1/20 - 3/20	10		197,376									379,842	998,388	1,575,616
1/20 - 3/20			197,386									1,378,230		1,575,616

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Total number of products March 2020

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	Constant Leverage Certificates	Knock-Out Warrants		
March 2019	1,027	34	1,668	108,282	210,793	9,000	201,443	10,597	698	650,360	31,012	537,442	1,762,356	
April 2019	1,027	35	1,646	113,856	219,750	9,088	222,847	10,648	886	675,083	32,078	568,384	1,855,328	
May 2019	1,024	33	1,696	120,007	228,148	9,406	229,858	10,813	842	687,705	33,918	571,314	1,894,764	
June 2019	1,012	32	1,711	105,914	202,668	9,462	201,338	10,847	759	624,048	35,930	576,858	1,770,579	
July 2019	1,012	33	1,679	108,631	205,317	9,608	218,337	10,959	762	643,667	39,688	611,951	1,851,644	
August 2019	996	35	1,692	109,343	210,133	9,841	218,892	10,901	693	661,594	44,406	600,086	1,868,612	
September 2019	966	34	1,707	99,047	198,175	9,834	211,584	11,000	635	605,214	52,705	582,822	1,773,723	
October 2019	952	34	1,672	96,297	204,097	9,898	226,935	10,929	611	621,910	57,554	600,543	1,831,432	
November 2019	936	33	1,696	98,441	206,859	9,843	227,420	11,067	980	623,684	60,289	617,096	1,858,344	
December 2019	929	31	1,705	90,192	185,046	9,679	206,534	11,012	1,209	535,650	62,175	553,143	1,657,305	
January 2020	915	31	1,671	94,039	186,794	9,661	221,210	11,078	1,209	569,776	63,992	562,171	1,722,547	
February 2020	899	30	1,697	88,771	171,763	9,560	215,465	11,184	1,095	551,168	67,327	482,609	1,601,568	
March 2020	891	30	1,709	76,428	155,538	9,900	114,546	11,203	1,095	533,475	64,225	399,892	1,368,932	
March 2020	921		370,419							597,700			399,892	1,368,932
			371,340							997,592			1,368,932	

Statistical methodology

The statistics cover the stock exchange turnover in structured products at the stock exchanges in Stuttgart (Börse Stuttgart) and Frankfurt (Börse Frankfurt Zertifikate). The turnover data are taken from Xitara. The number of client orders executed has been integrated into the statistics. The statistics cover all orders entered into the system by clients (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 trade made in error) 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 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 structured products have been classified according to the product classification system developed by Deutscher Derivate Verband (DDV).

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