# Market Volume

in Derivatives



# Structured securities on the rise

In particularly high demand: Express Certificates and Reverse Convertibles

### 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** Warrants **Knock-Out Warrants** Products with Coup **Capital Protection** Factor Certificates **Credit Linked Notes Discount Certificates Bonus Certificates** Capped Outperformance Certificates **DDV Classification System**

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# May I 2016

- In May, the total volume of the German structured products market increased to EUR 69.3 billion.
- Express Certificates recorded above-average growth. Their market volume gained 6.5 percent and totalled EUR 7.5 billion.
- Investment products with equities as an underlying upped 4.1 percent to EUR 17.9 billion.
- The market volume of leverage products with indices as an underlying grew by 5.8 percent to EUR 827.2 million.

# Structured securities on the rise

In particularly high demand: Express Certificates and Reverse Convertibles

The outstanding volume of the German structured products market rose in May 2016. In particular, Express Certificates and Reverse Convertibles recorded above-average growth. Bucking the positive overall trend, the market volume of Capital Protection Products decreased further.

Overall, the market volume increased by 0.7 percent or EUR 457.4 million compared with the previous month. These trends are shown by the latest figures collected each month from 16 banks by the European Derivatives Group (EDG AG) on behalf of Deutscher Derivate Verband (DDV), the German Derivatives Association. Extrapolating these figures to all issuers puts the total volume of the German structured products market at EUR 69.3 billion at the end of May 2016.

The ratio of investment products to leverage products remained unchanged. Investment products accounted for 97.5 percent of the aggregate market volume. Leverage products made up 2.5 percent of the total market share.

# Investment products by product category

Contrary to the positive overall trend, the volume of Capital Protection Products fell in the month under review. Compared with the previous month, the market volume of Capital Protection Products with Coupon lost 3.8 percent to stand at EUR for 6.5 percent.

17.9 billion. The figure corresponded to a 28.7 percent share of the investment products market. Uncapped Capital Protection Certificates fell by 1.9 percent, taking their volume to EUR 8.5 billion. This represented 13.7 percent of the investment products market. A total of 42.4 percent of the market volume was invested in these two product categories in May.

The market volume of Reverse Convertibles grew by 5.1 percent to EUR 8.8 billion. Their market share stood at 14.2 percent.

Express Certificates also upped their volume. They increased by 6.5 percent to come in at EUR 7.5 billion. Their market share was 12.1 percent in May.

The market volume of Credit Linked Notes rose by a slight 2.1 percent and stood at EUR 6.3 billion. This accounted for 10.1 percent of the total volume.

Discount Certificates recorded a plus of 3.7 percent and ended the month at EUR 5.5 billion – a share of 8.9 percent.

The market volume registered for Tracker Certificates increased by 0.2 percent and totalled EUR 4.0 billion in May. Their share of the investment products segment accounted

Bonus Certificates also performed well in May. Their market volume was up 4.2 percent on April and came in at EUR 2.4 billion. This accounted for a 3.9 percent share of the market.

The market volume of Outperformance and Capped Outperformance Certificates upped 2.0 percent, taking their volume to EUR 95.8 million. However, as they accounted for just 0.2 percent of the total investment products volume, this category had scarcely any impact on the overall trend.

The volume of other Yield Enhancement Products dropped 0.1 percent to EUR 1.1 billion. This represented a 1.8 percent share of the aggregate volume.

# Leverage products by product category

The market volume of leverage products rose by 0.7 percent to stand at EUR 1.6 billion in May.

The volume invested in Knock-Out Warrants climbed 5.6 percent and amounted to EUR 602.6 million. The share of Knock-Out Warrants in the leverage products market was 37.8 percent.

Warrants lost 2.4 percent. At EUR 632.4 million, their share of the market was 39.7 percent.

Market Volume in Derivatives May I 2016

1.3 percent and came in at EUR 358.2 million. This category accounted for 22.5 percent of the leverage products market.

The volume invested in Factor Certificates decreased by With a share of 0.04 percent, investment products with currencies as an underlying were fairly insignificant in relation to the general trend. The volume invested in them registered a loss of 6.5 percent and ended at EUR 27.6 million in the month under review.































### Investment products by underlying

Despite registering some losses, structured products with interest rates as an underlying remained the most popular category. Their volume went down by 2.6 percent to EUR 25.3 billion in May. This took their market share to 40.6 percent.

Investment products with equities as an underlying followed in second place. Their volume grew by 4.1 percent, taking it to EUR 17.9 billion. This corresponded to 28.8 percent of the total volume.

Products with indices as an underlying were the third most popular investment category. Their share of the total volume went up by 2.4 percent and stood at EUR 17.7 billion. This represented 28.5 percent of the market.

Following at a considerable distance behind the other asset classes were investment products with commodities as an underlying. The outstanding volume fell by 0.4 percent to EUR 851.4 million in May. Their share was 1.4 percent of the total volume.

Investment products with investment funds as an underlying had a 0.6 percent share of the market. Their volume came in at EUR 376.9 million.

### Leverage products by underlying

The market volume of leverage products with equities as an underlying climbed by 5.8 percent to EUR 827.2 million. These instruments made up 51.9 percent of the total leverage products volume.

Leverage products with indices as an underlying dwindled by 2.4 percent to take their volume to EUR 523.2 million. This corresponded to a 32.8 percent share of the total volume.

Lagging some way behind were those with commodities as an underlying. They lost 9.6 percent on the previous month and came in at EUR 169.0 million. Their market share was 10.6 percent.

The market volume of leverage products with currencies as an underlying went down by 4.2 percent. Their market volume amounted to EUR 53.5 million and corresponded to a 3.4 percent share of the total volume.

Leverage products with interest rates as an underlying decreased by 3.3 percent in May and amounted to EUR 20.1 million. Because they accounted for only 1.3 percent of the aggregate volume, their impact on the general trend was not significant, however.

### **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, DekaBank, 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.

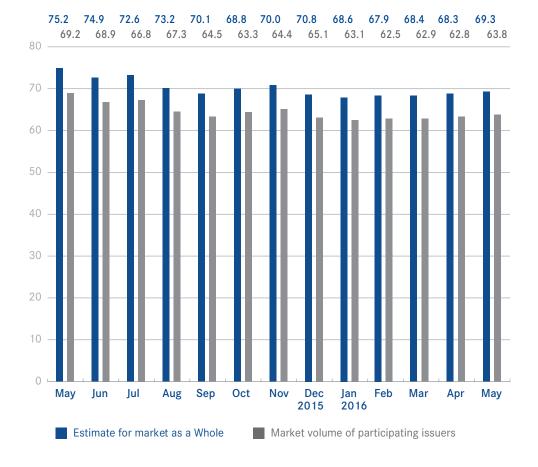
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# Market volume since May 2015



## **Product classes**

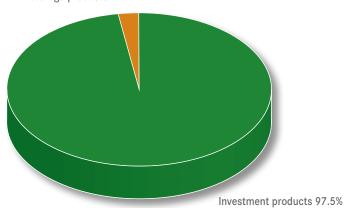
Market volume as at 31 May 2016

Product classes	Market volume	Share	
	T€	%	
Investment products with capital protection	26,362,652	42.4%	
Investment products without capital protection	35,805,984	57.6%	
■ Total Investment products	62,168,636	100.0%	
Leverage products without Knock-Out	990,550	62.2%	
Leverage products without Knock-Out	602,585	37.8%	
■ Total Leverage products	1,593,136	100.0%	
■ Total Investment products	62,168,636	97.5%	
■ Total Leverage products	1,593,136	2.5%	
Total Derivatives	63,761,772	100.0%	

# **Product classes**

Market volume as at 31 May 2016





# Market volume by product category as at 31 May 2016

Product categories	Market volume		Market volume price-adjusted		Number of Products	
	T€	in %	T€	in %	#	in %
Uncapped Capital Protection Certificates	8,501,710	13.7%	8,503,785	13.8%	2,372	0.4%
Capital Protection Products with Coupon	17,860,943	28.7%	17,827,884	28.9%	2,311	0.4%
Credit-Linked Notes	6,301,645	10.1%	6,293,114	10.2%	2,310	0.4%
Reverse Convertibles	8,820,320	14.2%	8,757,223	14.2%	102,424	19.3%
■ Discount Certificates	5,536,164	8.9%	5,445,097	8.8%	181,122	34.1%
Express Certificates	7,505,912	12.1%	7,378,377	12.0%	8,521	1.6%
Bonus Certificates	2,436,811	3.9%	2,380,559	3.9%	227,932	42.9%
■ Tracker Certificates	4,010,463	6.5%	3,929,066	6.4%	1,880	0.4%
Outperformance and Capped	95,778	0.2%	92,516	0.1%	926	0.2%
Outperformance Certificates						
Other Certificates without Capital Protection	1,098,891	1.8%	1,087,569	1.8%	942	0.2%
Investment products total	62,168,636	97.5%	61,695,190	97.3%	530,740	41.7%
Warrants	632,387	39.7%	705,886	41.6%	392,802	53.0%
Factor Certificates	358,163	22.5%	388,830	22.9%	3,677	0.5%
Knock-Out Warrants	602,585	37.8%	602,619	35.5%	344,185	46.5%
Leverage products total	1,593,136	2.5%	1,697,335	2.7%	740,664	58.3%
Total	63,761,772	100.0%	63,392,525	100.0%	1,271,404	100.0%

### Market volume as at 31 May 2016 **Outperformance and Capped** Other Certificates without Outperformance Certificates 0.2% Capital Protection 1.8% Tracker Certificates 6.5% **Uncapped Capital Protection** Bonus Certificates 3.9% Certificates 13.7% Express Certificates 12.1%

Investment products by product category

# Change in market volume by product category in comparison with previous month

Product categories	(	Change	Change price-adjusted		Price effect
	T€	in %	T€	in %	in %
Uncapped Capital Protection Certificates	-167,627	-1.9%	-165,552	-1.9%	0.0%
Capital Protection Products with Coupon	-708,534	-3.8%	-741,592	-4.0%	0.2%
■ Credit-Linked Notes	132,470	2.1%	123,939	2.0%	0.1%
Reverse Convertibles	424,065	5.1%	360,967	4.3%	0.8%
■ Discount Certificates	197,928	3.7%	106,861	2.0%	1.7%
Express Certificates	457,872	6.5%	330,338	4.7%	1.8%
Bonus Certificates	99,134	4.2%	42,882	1.8%	2.4%
Tracker Certificates	9,529	0.2%	-71,867	-1.8%	2.0%
Outperformance and Capped	1,866	2.0%	-1,396	-1.5%	3.5%
Outperformance Certificates					
Other Certificates without Capital Protection	-727	-0.1%	-12,049	-1.1%	1.0%
Investment products total	445,975	0.7%	-27,471	0.0%	0.8%
Warrants	-15,845	-2.4%	57,654	8.9%	-11.3%
Factor Certificates	-4,612	-1.3%	26,055	7.2%	-8.5%
Knock-Out Warrants	31,888	5.6%	31,921	5.6%	0.0%
Leverage products total	11,431	0.7%	115,630	7.3%	-6.6%
Total	457,407	0.7%	88,159	0.1%	0.6%

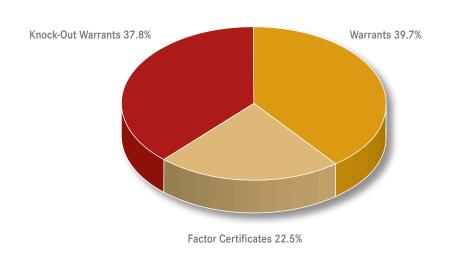
# Leverage products by product category

Credit-Linked Notes 10.1%

Market volume as at 31 May 2016

Discount Certificates 8.9%

Reverse Convertibles 14.2%



Capital

**Protection Products** 

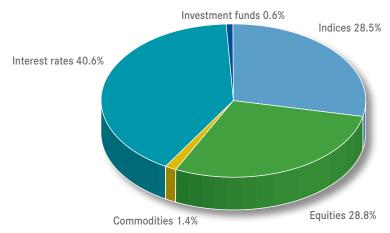
with Coupon 28.7%

# Market volume by underlying asset as at 31 May 2016

Underlying	Marke	Market volume		Market volume price-adjusted*		Products
	T€	%	T€	%	#	%
Investment products						
Indices	17,726,310	28.5%	17,475,445	28.3%	131,931	24.9%
Equities	17,915,642	28.8%	17,760,216	28.8%	391,237	73.7%
Commodities	851,414	1.4%	829,606	1.3%	2,634	0.5%
Currencies	27,644	0.0%	27,692	0.0%	35	0.0%
Interest rates	25,270,752	40.6%	25,227,390	40.9%	4,796	0.9%
Investment funds	376,874	0.6%	374,842	0.6%	107	0.0%
	62,168,636	97.5%	61,695,190	97.3%	530,740	41.7%
Leverage products						
Indices	523,249	32.8%	571,942	33.7%	183,503	24.8%
Equities	827,231	51.9%	832,580	49.1%	484,981	65.5%
Commodities	169,044	10.6%	215,530	12.7%	37,065	5.0%
Currencies	53,509	3.4%	52,953	3.1%	32,034	4.3%
Interest rates	20,077	1.3%	24,304	1.4%	3,071	0.4%
Investment funds	26	0.0%	26	0.0%	10	0.0%
	1,593,136	2.5%	1,697,335	2.7%	740,664	58.3%
Total	63,761,772	100.0%	63,392,525	100.0%	1,271,404	100.0%

<sup>\*</sup>Market volume adjusted for price changes = quantity outstanding as at 31 May 2016 x price as at 30 April 2016

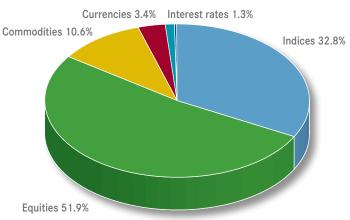
# Investment products by underlying asset Market volume as at 31 May 2016



# Change in the market volume by underlying asset in comparison with previous month

Underlying		Change	pric	Change e-adjusted	Price effect
	T€	%	T€	%	%
Investment products					
Indices	415,098	2.4%	164,233	0.9%	1.4%
Equities	699,353	4.1%	543,927	3.2%	0.9%
Commodities	-3,084	-0.4%	-24,892	-2.9%	2.6%
Currencies	-1,937	-6.5%	-1,890	-6.4%	-0.2%
Interest rates	-679,804	-2.6%	-723,166	-2.8%	0.2%
Investment funds	16,349	4.5%	14,317	4.0%	0.6%
	445,975	0.7%	-27,471	0.0%	0.8%
Leverage products					
Indices	-13,088	-2.4%	35,605	6.6%	-9.1%
Equities	45,393	5.8%	50,742	6.5%	-0.7%
Commodities	-17,862	-9.6%	28,624	15.3%	-24.9%
Currencies	-2,333	-4.2%	-2,889	-5.2%	1.0%
Interest rates	-679	-3.3%	3,549	17.1%	-20.4%
■ Investment funds	0	0.0%	0	0.0%	0.0%
	11,431	0.7%	115,630	7.3%	-6.6%
Total	457,407	0.7%	88,159	0.1%	0.6%

# Leverage products by underlying asset Market volume as at 31 May 2016



Market Volume in Derivatives May I 2016

### Collection, validation and analysis methodology

### 1. Calculation of the market volume

In calculating the outstanding volume, the first step is to establish the market volume for an individual issue by multiplying the quantity outstanding by the market price on the last trading day of the month under review. The total market volume is calculated by adding the individual values. The price-adjusted figure is obtained by valuing the outstanding quantities at the market prices on the last trading day of the previous month. Newly launched products are valued at the price on the last trading day in the month under review.

### 2. Calculation of the turnover

Turnover is calculated at the relevant exercise price by aggregating the individual trades per issue and period and then adding them up. Purchases and sales are included at their relevant absolute amounts. The only turnover recorded is that relating to end customers. Also, issues are not classified as turnover until their value dates. By contrast, repayments are not included in the turnover figures, since they do not constitute actual trades. This means that there is a natural outflow of funds at the maturity date of the products, although this is offset by new issues if investors continue to invest in these investment classes. This turnover calculation can lead to inflows of funds in one investment class in one month that exceed the turnover recorded for that month in terms of their amounts. Also, large price fluctuations can lead to a change in the market volume that exceeds the turnover amount in terms of its amount.

### 3. Definition of the retail products covered

The collection and analysis process covers market volume and turnover in retail products that are publicly offered and listed on at least one German stock exchange in the relevant survey period. Private placements, institutional transactions and white-label trading are not covered. The possibility that parts of an issue may be bought by institutional investors, for instance through the stock exchange, cannot be ruled out.

### 4. DDV classification system (Derivatives League)

The product classification system used is based on DDV's Derivatives League concept. Investment products include Uncapped Capital Protection Certificates, Capital Protection Products with Coupon, Reverse Convertibles, Discount Certificates, Express Certificates, Bonus Certificates, Tracker Certificates, Outperformance and Capped Outperformance Certificates, as well as other investment products without capital protection. Leverage products comprise Warrants and Knock-Out Warrants. (For further details please refer to http://www.derivateverband.de/DE/MediaLibrary/Document/ddv\_klassifizierung\_final.pdf).

#### 5. Differentiation by investment class

Retail products are differentiated by the investment class of the underlying. All products with an equity component are included among the equity-based investment or leverage products. Products with a purely bond-based underlying (e.g. index certificates based on the German REX bond index, capital protected certificates based on the EURIBOR Euro Interbank Offered Rate) are included in the investment class of bonds. The currencies and commodities investment class comprises products based on goods, commodities and currencies. Hedge fund products are also shown separately.

#### 6. Collection of the data

Each month, the issuers provide the relevant data in a specified scope and format from their internal systems (trading, risk management and pricing systems etc.). The mandatory information comprises ISIN, product type, asset class of the underlying, product category, turnover, market volume, quantity outstanding, maturity date of the products, product name, issue date, issue volume (quantity issued). The optional information includes details of the underlying, the knock-out thresholds, market prices and listings on German stock exchanges.

### 7. Monitoring of compliance with the self-commitment

Compliance with the code of conduct is monitored by means of onsite and off-site inspection of data and systems. Random sampling and targeted requests for selected information are backed up by cross-checking of data using stock exchange data, information services and the websites of issuers. In particular, the data are reconciled on a regular basis in cooperation with Boerse Stuttgart, with the main focus on stock exchange listing, the categorisation of products and the substantiation of figures for turnover and outstanding volumes.

### **DISCLAIMER**

EDG AG regularly checks the methods and analyses on which this interpretation is based. However, it does not guarantee the correctness of the analyses. By signing up to the voluntary agreement, the issuers have agreed to ensure the correctness of the transaction data provided by them, and on which the analysis is based. However, EDG AG cannot guarantee the correctness or the completeness of the data from the issuers.

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