

Market Volume

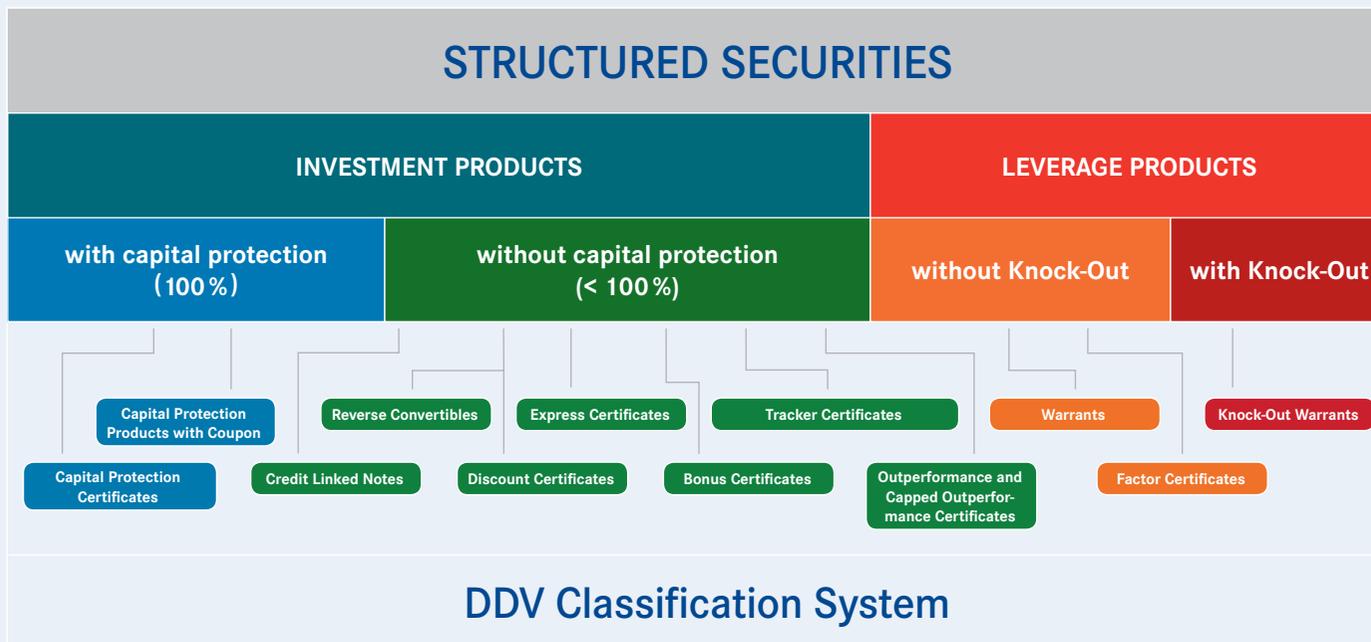
in Derivatives



German structured securities market generated turnover of EUR 68.6 billion

Nearly 48 percent of all investment products offer full capital protection

STRUCTURED SECURITIES



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December | 2015

- In December, the total volume of the German structured products market stood at EUR 68.6 billion. In particular the negative market environment had an adverse effect.
- The volume of Capital Protection Products registered losses. Capital Protection Products with Coupon and Uncapped Capital Protection Certificates accounted together for 47.7 percent of the total market volume.
- The market volume of leverage products fell to EUR 1.9 billion in December.
- Leverage products with interest rates as an underlying gained 25.5 percent to stand at EUR 30.7 million.

German structured securities market generated turnover of EUR 68.6 billion

Nearly 48 percent of all investment products offer full capital protection

The outstanding volume of the German structured products decreased in December 2015. In particular, the negative market environment was responsible for the losses in all product categories.

It should be taken into account that the data for the previous month was adjusted in the month under review owing to the late registration of products which it has not been possible to record up to now.

Overall, the market volume decreased by 5.2 percent or EUR 3.5 billion 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 operating on the market puts the **total volume of the German structured products market at EUR 68.6 billion at the end of December 2015.**

Compared with the previous month, the **ratio of investment products to leverage products** shifted in favour of investment products. They made up 97.0 percent of the total market share. Leverage products had a market share of 3.0 percent.

Investment products by product category

The volume of **Capital Protection Products** decreased again in the month under review. Compared with the previous

month, the market volume of **Capital Protection Products with Coupon** fell by 4.4 percent to EUR 19.8 billion. This corresponded to a 32.3 percent share of the investment products market. **Uncapped Capital Protection Certificates** registered a more moderate decrease of 3.2 percent, taking their volume to EUR 9.4 billion. This represented 15.4 percent of the investment products market. A total of 47.7 percent of the market volume was invested in these two product categories in December.

The market volume of **Reverse Convertibles** fell by 5.3 percent to EUR 7.9 billion. This corresponded to a market share of 12.9 percent.

Express Certificates lost 0.8 percent to come in at EUR 6.1 billion. Their share was 10.0 percent in December.

The market volume of **Credit Linked Notes** was 1.5 percent below the previous month's level at EUR 5.7 billion. They accounted for a share of 9.3 percent of the volume.

Discount Certificates lost 10.5 percent to stand at EUR 4.6 billion – a share of 7.5 percent.

The market volume for **Tracker Certificates** lost 4.2 percent to stand at EUR 4.4 billion. Their share of the investment products segment accounted for 7.1 percent.

Bonus Certificates suffered losses in December. Their market volume dropped to EUR 2.2 billion. This corresponded to a decrease of 18.8 percent on November and a 3.6 percent share of the total market.

Outperformance and Capped Outperformance Certificates plummeted 15.2 percent taking their volume to EUR 105.3 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** fell by 2.4 percent to EUR 1.1 billion. They accounted for a 1.8 percent share of the market volume.

Leverage products by product category

The market volume of **leverage products** lost a substantial 17.0 percent to stand at EUR 1.9 billion in December.

The volume invested in **Knock-Out Warrants** dwindled by 19.5 percent in comparison with the previous month, taking it to EUR 716.7 million. The share of Knock-Out Warrants in the leverage products market was 38.5 percent.

Warrants recorded a loss of 20.1 percent to come in at EUR 731.9 million. Their market share stood at 39.3 percent.



The volume invested in **Factor Certificates** fell to EUR 413.4 million, a decrease of 5.6 percent on the previous month. This category accounted for 22.2 percent of the leverage products market.

Investment products by underlying

Despite registering losses, structured products with **interest rates as an underlying** remained the most popular category. Their volume went down by 3.7 percent to EUR 26.8 billion mainly due to the decrease in Capital Protection Products with Coupon. This took their share to 43.8 percent.

Investment products with **equities as an underlying** followed in second place. Their volume dropped by 6.8 percent, taking it to EUR 17.2 billion. This corresponded to 28.2 percent of the total volume.

Investment products with **indices as an underlying** were the third most popular investment category. Their share of the total volume shrank by 4.5 percent to EUR 15.7 billion. This corresponded to a 25.7 percent share.

Following at a considerable distance behind the other asset classes were investment products with **commodities as an underlying**. Their outstanding volume dwindled by 7.6 percent to stand at EUR 789.7 million in December. Commodities accounted for a 1.3 percent share of the total volume.

As in the previous month, investment products with **investment funds as an underlying** made up a 1.0 percent share. Their volume came in at EUR 627.2 million.

Investment products with **currencies as an underlying** were fairly insignificant in relation to the general trend with a share of 0.1 percent. The volume invested in them fell by 2.8 percent to EUR 39.3 million in the reporting month.

Leverage products by underlying

The market volume of leverage products with **equities as an underlying** lost 15.6 percent and amounted to EUR 1.0 billion. These instruments made up 54.9 percent of the total leverage products volume.

Leverage products with **indices as underlying** experienced significant reductions. Their market volume shrank by 20.9 percent to EUR 613.6 million. This corresponded to a 33.0 percent share of the total volume.

Lagging some way behind leverage products based on equities and indices were those with **commodities as an underlying**. Their volume dwindled by 12.0 percent to come in at EUR 120.7 million. They accounted for a 6.5 percent share of the market volume.

The market volume of leverage products with **currencies as an underlying** dropped 21.7 percent to stand at EUR 75.3 million. This corresponded to a 4.0 percent share of the aggregate volume.

The market volume of leverage products with **interest rates as an underlying** gained 25.5 percent in December and increased to EUR 30.7 million. Because they accounted for only 1.7 percent of the volume, their impact on the general trend was not significant, however. ■



Deutscher Derivate Verband (DDV)

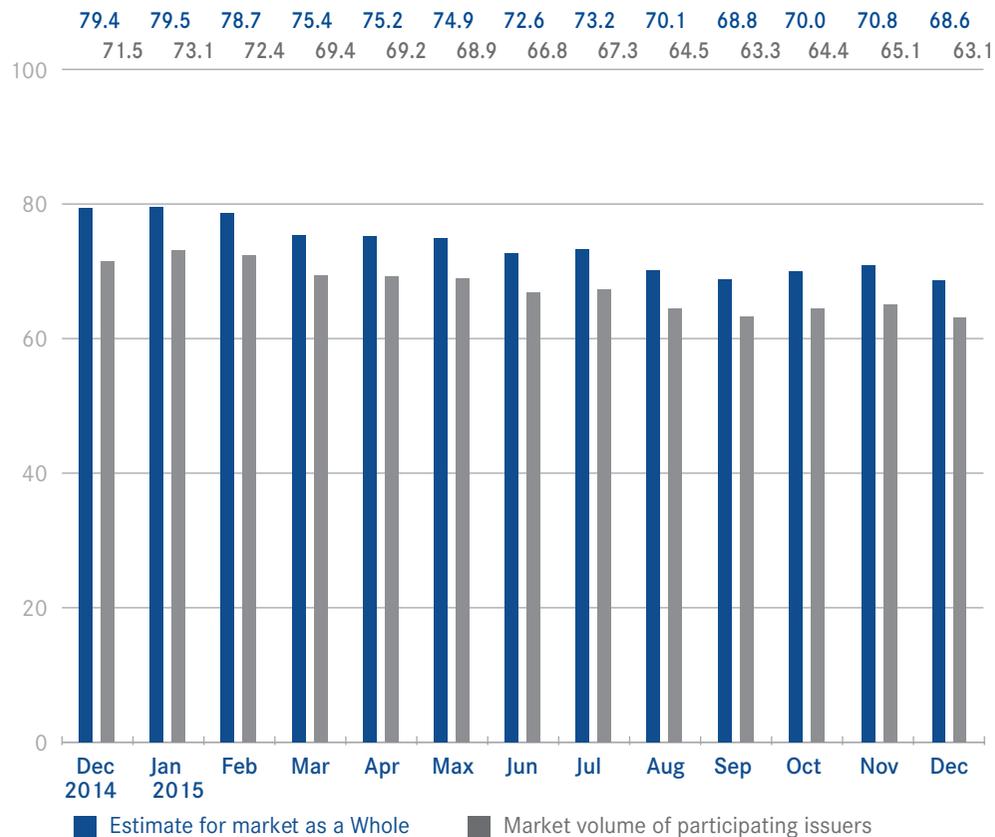
Deutscher Derivate Verband (DDV), the German Derivatives Association, is the industry representative body for the 16 leading issuers of derivatives in Germany: Barclays, BayernLB, BNP Paribas, Citigroup, Commerzbank, DekaBank, Deutsche Bank, DZ BANK, Goldman Sachs, Helaba, HSBC Trinkaus, HypoVereinsbank, LBBW, Société Générale, UBS and Vontobel. The Association's work is supported by nine sponsoring members, which include the Stuttgart and Frankfurt am Main stock exchanges, finance portals and service providers.

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Market volume since December 2014



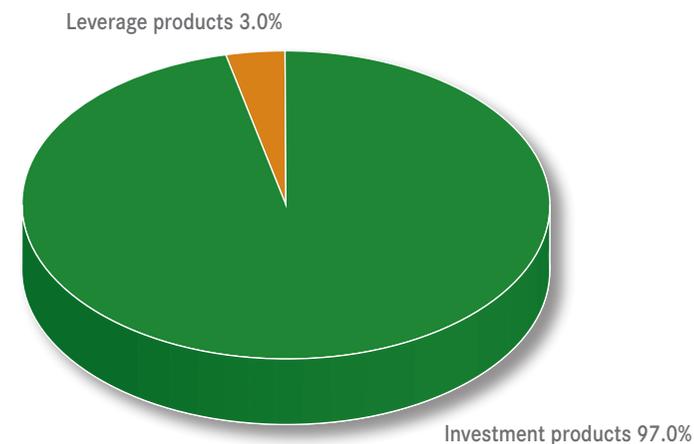
Product classes

Market volume as at 31 December 2015

Product classes	Market volume	Share
	T€	%
Investment products with capital protection	29,203,884	47.7%
Investment products without capital protection	32,042,007	52.3%
Total Investment products	61,245,890	100.0%
Leverage products without Knock-Out	1,145,227	61.5%
Leverage products with Knock-Out	716,659	38.5%
Total Leverage products	1,861,886	100.0%
Total Investment products	61,245,890	97.0%
Total Leverage products	1,861,886	3.0%
Total Derivatives	63,107,777	100.0%

Product classes

Market volume as at 31 December 2015

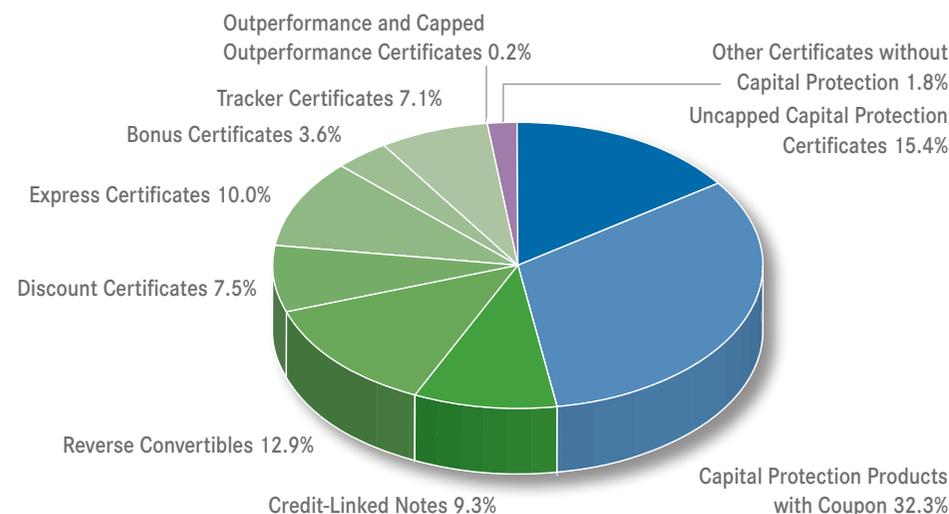


Market volume by product category as at 31 December 2015

Product categories	Market volume		Market volume price-adjusted		Number of Products	
	T€	in %	T€	in %	#	in %
■ Uncapped Capital Protection Certificates	9,409,378	15.4%	9,463,805	15.2%	2,636	0.5%
■ Capital Protection Products with Coupon	19,794,505	32.3%	19,808,606	31.9%	2,161	0.4%
■ Credit-Linked Notes	5,674,485	9.3%	5,756,827	9.3%	1,999	0.4%
■ Reverse Convertibles	7,906,119	12.9%	8,046,496	13.0%	99,197	18.8%
■ Discount Certificates	4,599,817	7.5%	4,662,867	7.5%	183,015	34.7%
■ Express Certificates	6,100,835	10.0%	6,274,317	10.1%	6,987	1.3%
■ Bonus Certificates	2,224,831	3.6%	2,270,651	3.7%	225,924	42.8%
■ Tracker Certificates	4,356,348	7.1%	4,581,093	7.4%	1,898	0.4%
■ Outperformance and Capped Outperformance Certificates	105,311	0.2%	111,565	0.2%	1,297	0.2%
■ Other Certificates without Capital Protection	1,074,262	1.8%	1,097,676	1.8%	2,139	0.4%
Investment products total	61,245,890	97.0%	62,073,902	96.2%	527,253	42.0%
■ Warrants	731,875	39.3%	1,000,187	41.3%	370,068	50.7%
■ Factor Certificates	413,352	22.2%	592,750	24.5%	3,665	0.5%
■ Knock-Out Warrants	716,659	38.5%	825,920	34.1%	355,632	48.8%
Leverage products total	1,861,886	3.0%	2,418,857	3.8%	729,365	58.0%
Total	63,107,777	100.0%	64,492,759	100.0%	1,256,618	100.0%

Investment products by product category

Market volume as at 31 December 2015

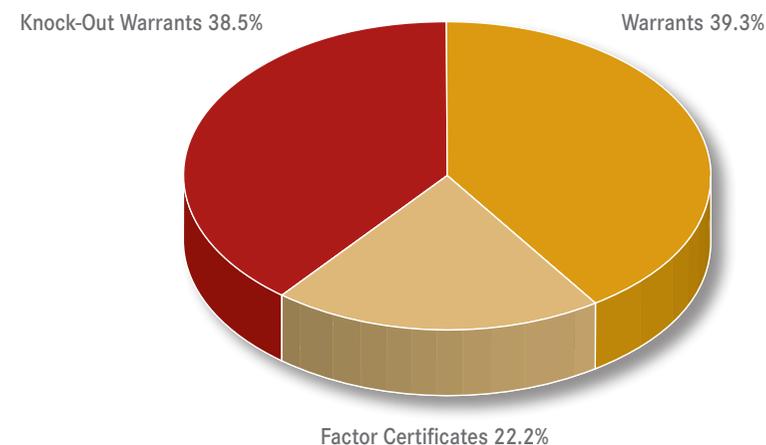


Change in market volume by product category in comparison with previous month

Product categories	Change		Change price-adjusted		Price effect
	T€	in %	T€	in %	in %
■ Uncapped Capital Protection Certificates	-311,797	-3.2%	-257,370	-2.6%	-0.6%
■ Capital Protection Products with Coupon	-913,096	-4.4%	-898,996	-4.3%	-0.1%
■ Credit-Linked Notes	-83,779	-1.5%	-1,437	0.0%	-1.4%
■ Reverse Convertibles	-440,712	-5.3%	-300,334	-3.6%	-1.7%
■ Discount Certificates	-536,796	-10.5%	-473,746	-9.2%	-1.2%
■ Express Certificates	-51,759	-0.8%	121,722	2.0%	-2.8%
■ Bonus Certificates	-515,714	-18.8%	-469,895	-17.1%	-1.7%
■ Tracker Certificates	-190,177	-4.2%	34,567	0.8%	-4.9%
■ Outperformance and Capped Outperformance Certificates	-18,930	-15.2%	-12,675	-10.2%	-5.0%
■ Other Certificates without Capital Protection	-26,706	-2.4%	-3,291	-0.3%	-2.1%
Investment products total	-3,089,466	-4.8%	-2,261,454	-3.5%	-1.3%
■ Warrants	-183,792	-20.1%	84,520	9.2%	-29.3%
■ Factor Certificates	-24,690	-5.6%	154,708	35.3%	-41.0%
■ Knock-Out Warrants	-173,858	-19.5%	-64,597	-7.3%	-12.3%
Leverage products total	-382,339	-17.0%	174,631	7.8%	-24.8%
Total	-3,471,805	-5.2%	-2,086,823	-3.1%	-2.1%

Leverage products by product category

Market volume as at 31 December 2015



Market volume by underlying asset as at 31 December 2015

Underlying	Market volume		Market volume price-adjusted*		Number of Products	
	T€	%	T€	%	#	%
Investment products						
Indices	15,737,257	25.7%	16,052,700	25.9%	118,245	22.4%
Equities	17,245,678	28.2%	17,567,569	28.3%	402,467	76.3%
Commodities	789,743	1.3%	860,288	1.4%	2,004	0.4%
Currencies	39,262	0.1%	40,109	0.1%	65	0.0%
Interest rates	26,806,710	43.8%	26,920,079	43.4%	4,368	0.8%
Investment funds	627,239	1.0%	633,157	1.0%	104	0.0%
Total	61,245,890	97.0%	62,073,902	96.2%	527,253	42.0%
Leverage products						
Indices	613,635	33.0%	908,352	37.6%	198,371	27.2%
Equities	1,021,470	54.9%	1,223,932	50.6%	462,480	63.4%
Commodities	120,735	6.5%	159,278	6.6%	33,337	4.6%
Currencies	75,283	4.0%	101,248	4.2%	32,042	4.4%
Interest rates	30,737	1.7%	26,019	1.1%	3,125	0.4%
Investment funds	26	0.0%	28	0.0%	10	0.0%
Total	1,861,886	3.0%	2,418,857	3.8%	729,365	58.0%
Total	63,107,777	100.0%	64,492,759	100.0%	1,256,618	100.0%

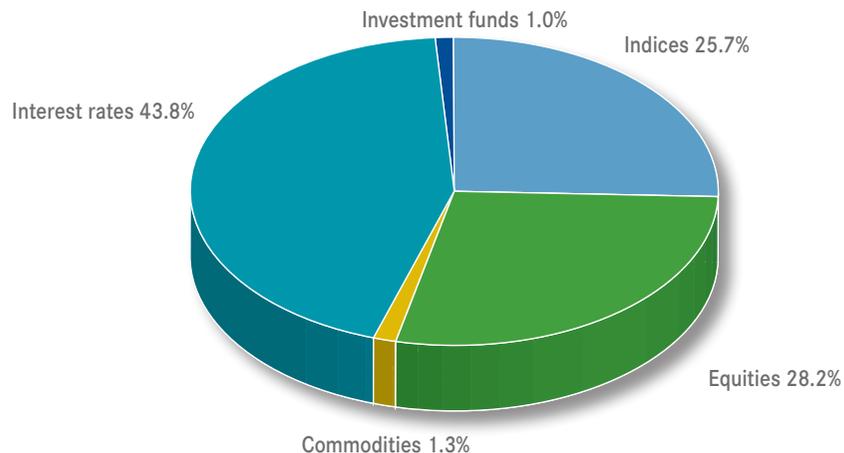
*Market volume adjusted for price changes = quantity outstanding as at 31 December 2015 x price as at 30 November 2015

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

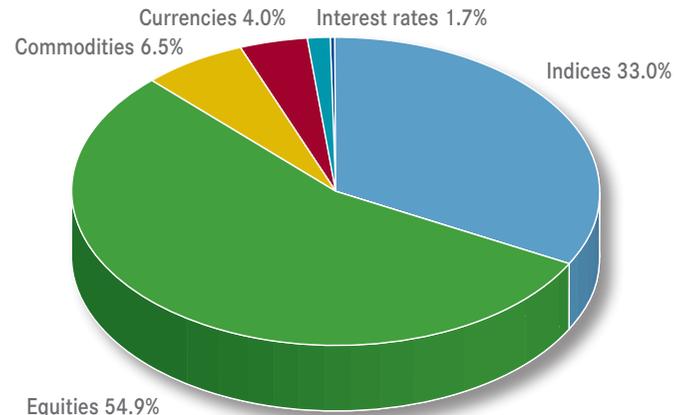
Underlying	Change		Change price-adjusted		Price effect
	T€	%	T€	%	
Investment products					
Indices	-735,459	-4.5%	-420,016	-2.5%	-1.9%
Equities	-1,252,467	-6.8%	-930,577	-5.0%	-1.7%
Commodities	-64,809	-7.6%	5,736	0.7%	-8.3%
Currencies	-1,142	-2.8%	-295	-0.7%	-2.1%
Interest rates	-1,017,703	-3.7%	-904,334	-3.3%	-0.4%
Investment funds	-17,887	-2.8%	-11,969	-1.9%	-0.9%
Total	-3,089,466	-4.8%	-2,261,454	-3.5%	-1.3%
Leverage products					
Indices	-162,185	-20.9%	132,532	17.1%	-38.0%
Equities	-189,036	-15.6%	13,426	1.1%	-16.7%
Commodities	-16,482	-12.0%	22,060	16.1%	-28.1%
Currencies	-20,879	-21.7%	5,086	5.3%	-27.0%
Interest rates	6,245	25.5%	1,528	6.2%	19.3%
Investment funds	-2	-7.9%	0	0.0%	-7.9%
Total	-382,339	-17.0%	174,631	7.8%	-24.8%
Total	-3,471,805	-5.2%	-2,086,823	-3.1%	-2.1%

*The data base of the previous month was adjusted in the reporting month. due to late registration of products. that previously could not be captured.

Investment products by underlying asset Market volume as at 31 December 2015



Leverage products by underlying asset Market volume as at 31 December 2015



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 on-site 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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