

Market Volume

in Derivatives



Downturn in certificates market at end of year

Investment of almost 70 percent in Uncapped Capital Protection Certificates

According to figures collected each month from 16 banks by the European Derivatives Group (EDG) on behalf of Deutscher Derivate Verband (DDV), the German Derivatives Association, the volume of the German certificates market fell by 2.7 percent, or € 2.5 billion, in December. This was partly owing to the negative market environment, but the fact that many products matured at the end of the year also contributed significantly to the decline. Prices across all certificate types rose by 0.2 percent on average in December. Open interest was down by 3.0 percent, or € 2.7 billion, after adjustment for the rise in prices.

When the figures collected by EDG are extrapolated to all issuers, **the total volume of the German certificates market at the end of December** was **€ 98.7 billion**.

There was little change in the **ratio of investment certificates to leverage products** in December. Investment products accounted for 98.9 percent of the market volume, and leverage products for 1.1 percent.

Investment products by product category

Investment products with full Capital Protection were particularly popular among investors in December. This category accounted for significantly more than two thirds of the total investment volume, at 69.7 percent. Capital Protection Products with Coupon remained the dominant product category among investment products, with a share of 49.6 percent. The market volume was up 1.2 percent, or € 512 million. By contrast, the market volume of Un- ▶▶

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Market Volume December | 2011

- The market volume of investment certificates and leverage products fell by 2.7 percent, or € 2.5 billion, in December. The total volume of the German certificates market at the end of 2011 was € 98.7 billion.
- Leverage products had a very small impact on the market volume, at 1.1 percent, whereas investment certificates accounted for 98.9 percent.
- Certificates with full Capital Protection remained the dominant investment category. Their share in the total volume rose further to 69.7 percent in December.
- Interest rate securities were the dominant investment product, with a share of 54.3 percent, followed by indices at 23.0 percent. Indices were the most popular underlying for leverage products, at 38.3 percent.

capped Capital Protection Certificates fell by 2.5 percent, or € 450 million. Their market share remained at 20.1 percent.

The decline in **Reverse Convertibles** was even sharper. The market volume fell by 5.9 percent, or € 232 million. The share of Reverse Convertibles in the total volume of investment products was 4.2 percent.

A decline was also recorded in the volume of **Discount Certificates** outstanding in December. In this segment there was an especially large number of products maturing. The market volume of Discount Certificates fell by 19.6 percent, or € 1.3 billion. Discount certificates accounted for 6.0 percent of the total volume of investment products, compared with 7.3 percent in the previous month.

The largest product category without full Capital Protection in December was **Express Certificates**, which fell by 3.6 percent, or € 222 million. This product category has now overtaken the Discount Certificates category, as Express Certificates now constitute 6.7 percent of investment products, compared with 6.8 percent in the previous month.

The volume of **Bonus Certificates** outstanding continued to fall in December. The market volume fell sharply by 16.7 percent, or € 545 million. The share of Bonus Certificates in the total volume of investment products fell by 0.5 percentage points to 3.1 percent.

The market volume of **Tracker Certificates**, on the other hand, was up by 0.8 percent, or € 40 million. The share of this product category in the total volume of investment

certificates rose from 5.3 percent in November to 5.5 percent in December.

By contrast, there was a significant decline in the **Outperformance and Capped Outperformance Certificates** category, where the market volume was down by 9.1 percent, or € 10 million. However, owing to this category's small share of 0.1 percent in the total volume of investment products, this had no significant impact on the general trend.

Leverage products by product category

The volume of leverage products outstanding fell significantly in December, by 11.9 percent or € 134 million. However, because of their small market share of 1.1 percent this had little impact on open interest. Prices played an important part in the performance of leverage products. On average, prices fell by 22.7 percent so that, after the figures are adjusted to take this into account, there was growth of 10.8 percent, or € 121 million.

In the leverage products segment, there was a noticeable decline in the demand for **Warrants** in December. The market volume fell by 15.7 percent, or € 102 million. Warrants accounted for 55.1 percent of the total investment in leverage products.

Open interest in **Knock-Out Warrants** was also down. The market volume fell by 6.7 percent, or € 32 million. Knock-Out Warrants had a share of 44.9 percent in the total investment in leverage products. ▶▶

The following companies contributed to the market volume statistics:



Deutscher Derivate Verband (DDV)

Deutscher Derivate Verband (DDV), the German Derivatives Association, is the industry representative body for the 18 leading issuers of derivatives in Germany: Barclays, BNP Paribas, Citigroup, Commerzbank, Deutsche Bank, DZ BANK, Goldman Sachs, HSBC Trinkaus, HypoVereinsbank, J.P. Morgan, LBBW, MACQUARIE, Royal Bank of Scotland, Société Générale, UBS, Vontobel, WestLB and WGZ BANK. The Association's work is supported by ten sponsoring members, which include the Stuttgart and Frankfurt am Main stock exchanges, finance portals and service providers.

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Investment products by underlying

The trend in Capital Protection products with coupon was mirrored by the trend in investment products with **interest rates as an underlying**, which also increased further in volume. The market volume rose by 1.0 percent, or € 477 million, in December. At 0.8 percent, the price effect on interest rate products was relatively high, resulting in a net inflow of funds of 0.2 percent, or € 108 million. At 54.3 percent, investment certificates with interest rates as an underlying accounted for more than half of the volume invested.

Investment products with **indices as an underlying** were down 6.3 percent, or € 1.4 billion. The market share of products with indices as an underlying was 23.0 percent.

The losses among investment certificates with **equities as an underlying** were even more significant. The market volume fell by 7.4 percent, or € 1.4 billion. The share of these products in the total volume fell accordingly from 20.8 percent in November to 19.8 percent in December.

The outstanding volume of investment certificates with **investment funds as an underlying** grew very slightly by

0.7 percent, or € 9 million. The market share of these products was 1.4 percent.

By contrast, open interest in investment certificates with **commodities as an underlying** fell significantly by 7.6 percent, or € 107 million. However, prices in this investment class fell by 3.9 percent on average, so that after an adjustment to take into account the fall in prices the decline was much smaller, at 3.8 percent, or € 53 million. Commodity products retained their market share of 1.5 percent.

The market share of investment products with **currencies as an underlying** remained extremely small in December. The outstanding volume of currency products fell in December by 1.9 percent, or € 838,000.

Leverage products by underlying

The volume of leverage products outstanding was down for almost every category of underlying. Open interest in leverage products with **indices as an underlying** fell 5.7 percent, or € 23 million. Their share in the total volume of leverage products was 38.3 percent.

The market volume of leverage products with **equities as an underlying** also declined. They lost 6.5 percent, or € 25 million, in December. Their market share was 37.0 percent.

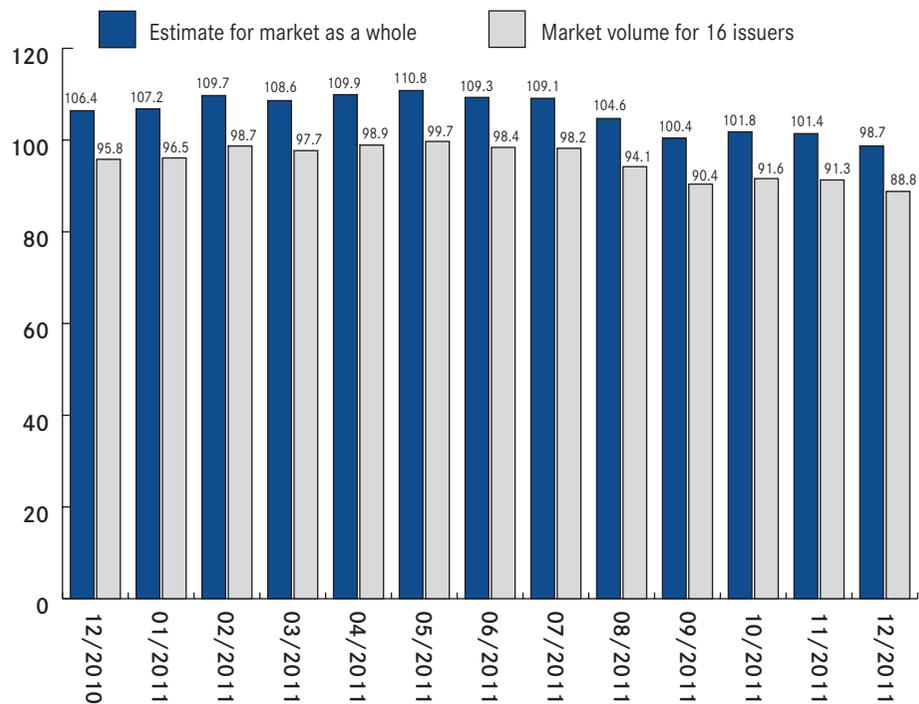
There was a significant decline in the outstanding volume of leverage products with **commodities as an underlying** in December. Open interest fell by 30.8 percent, or € 79 million. They suffered a correspondingly sharp fall in market share, from 22.7 percent in November to 17.8 percent in December.

Leverage products with **currencies as an underlying** lagged behind, with a share of 4.5 percent. Open interest in this investment class was down by 14 percent, or € 7 million.

The market volume of leverage products with **interest rates as an underlying** also fell in December, albeit only slightly. Open interest fell by 0.4 percent, or € 101 thousand, and the market share was 2.3 percent.

With a market share of 0.1 percent, leverage products with **investment funds as an underlying** constituted the smallest category. As a result, the increase in this category of 5.3 percent, or € 28,000, was hardly of any significance. ■

Market volume since December 2010



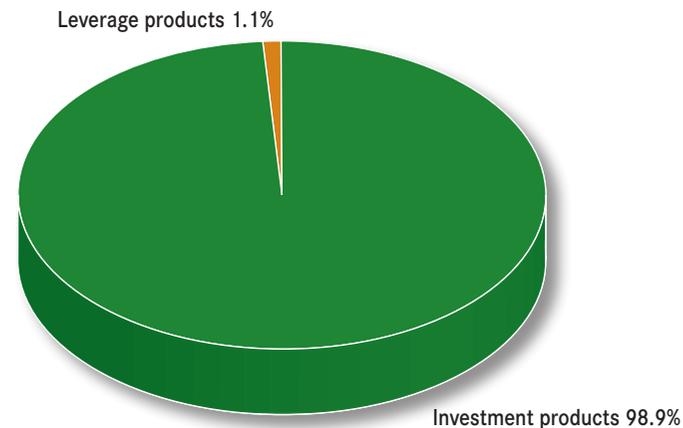
Product classes

Market volume as at 31 December 2011

Product class	Market volume	Share
	T€	%
Investment products	87,765,883	98.9%
Leverage products	990,290	1.1%
Total Derivatives	88,756,173	100.0%

Product classes

Market volume as at 31 December 2011

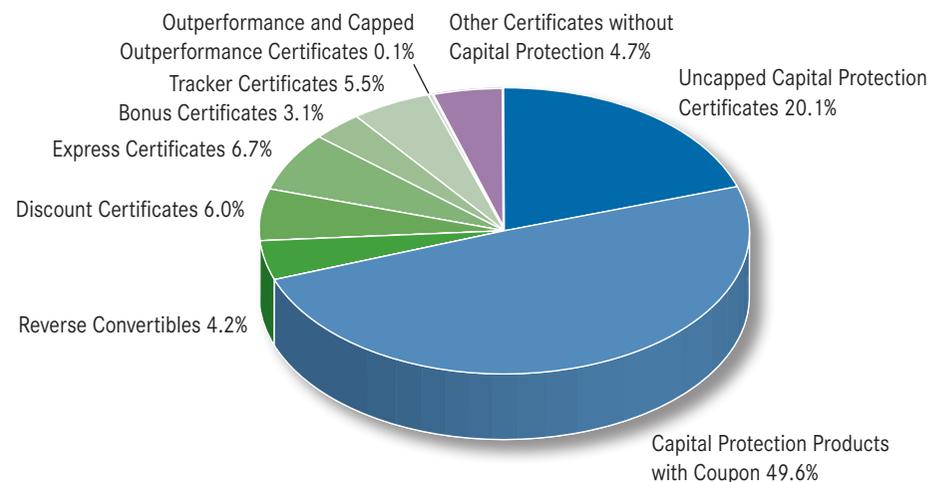


Market volume by product category as at 31.12.2011

Category	Market volume	Share
	T€	%
Uncapped Capital Protection Certificates	17,638,846	20.1%
Capital Protection Products with Coupon	43,513,924	49.6%
Reverse Convertibles	3,720,412	4.2%
Discount Certificates	5,279,799	6.0%
Express Certificates	5,883,578	6.7%
Bonus Certificates	2,713,879	3.1%
Tracker Certificates	4,800,319	5.5%
Outperformance and Capped Outperformance Certificates	103,220	0.1%
Other Certificates without Capital Protection	4,111,906	4.7%
Investment products total	87,765,883	98.9%
Warrants	546,112	55.1%
Knock-Out Warrants	444,178	44.9%
Leverage products total	990,290	1.1%
Total	88,756,173	100.0%

Investment products by product category

Market volume as at 31 December 2011

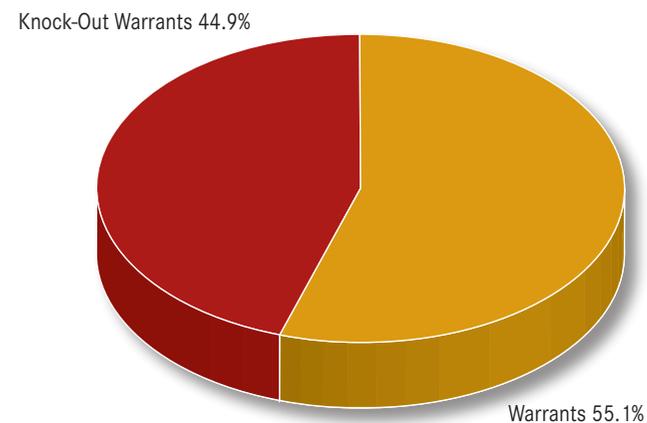


Change in market volume by product category as at 31.12.2011

Category	Market volume	Share
	T€	%
Uncapped Capital Protection Certificates	-450,220	-2.5%
Capital Protection Products with Coupon	512,158	1.2%
Reverse Convertibles	-232,032	-5.9%
Discount Certificates	-1,289,181	-19.6%
Express Certificates	-221,749	-3.6%
Bonus Certificates	-544,953	-16.7%
Tracker Certificates	39,549	0.8%
Outperformance and Capped Outperformance Certificates	-10,315	-9.1%
Other Certificates without Capital Protection	-176,592	-4.1%
Investment products total	-2,373,333	-2.6%
Warrants	-101,854	-15.7%
Knock-Out Warrants	-32,029	-6.7%
Leverage products total	-133,883	-11.9%
Total	-2,507,217	-2.7%

Leverage products by product category

Market volume as at 31 December 2011



Market volume by underlying asset as at 31.12.2011

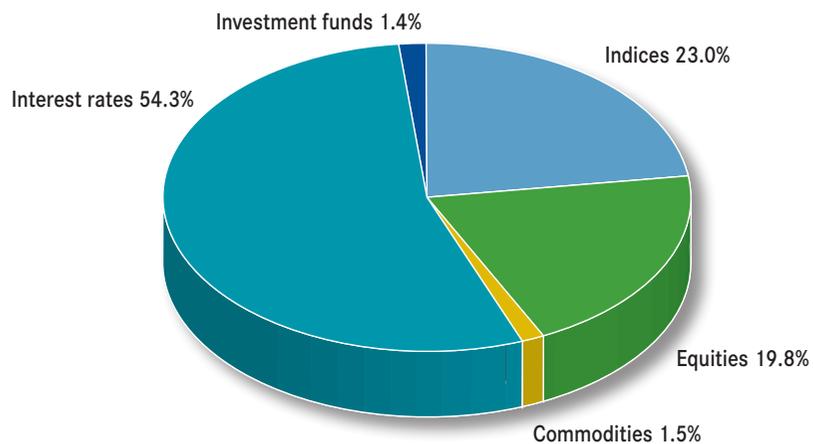
Underlying	Market volume		Market volume adjusted for price changes*		Number	
	T€	%	T€	%	#	%
Investment products						
Indices	20,194,045	23.0%	20,109,905	23.0%	63,720	23.7%
Equities	17,351,486	19.8%	17,283,304	19.8%	200,261	74.4%
Commodities	1,286,329	1.5%	1,340,317	1.5%	2,556	0.9%
Currencies	43,167	0.0%	42,661	0.0%	65	0.0%
Interest rates	47,670,548	54.3%	47,301,889	54.2%	2,473	0.9%
Investment funds	1,220,308	1.4%	1,218,427	1.4%	154	0.1%
Investment products total	87,765,883	98.9%	87,296,502	98.6%	269,229	46.2%
Leverage products						
Indices	379,240	38.3%	474,142	38.1%	84,665	27.0%
Equities	366,171	37.0%	422,767	33.9%	174,500	55.7%
Commodities	176,753	17.8%	249,272	20.0%	27,668	8.8%
Currencies	44,747	4.5%	55,719	4.5%	24,717	7.9%
Interest rates	22,832	2.3%	43,075	3.5%	1,615	0.5%
Investment funds	546	0.1%	542	0.0%	61	0.0%
Leverage products total	990,290	1.1%	1,245,516	1.4%	313,226	53.8%
Total	88,756,173	100.0%	88,542,019	100.0%	582,455	100.0%

*Market volume adjusted for price changes = quantity outstanding as at 31 December 2011 x price as at 30 November 2011

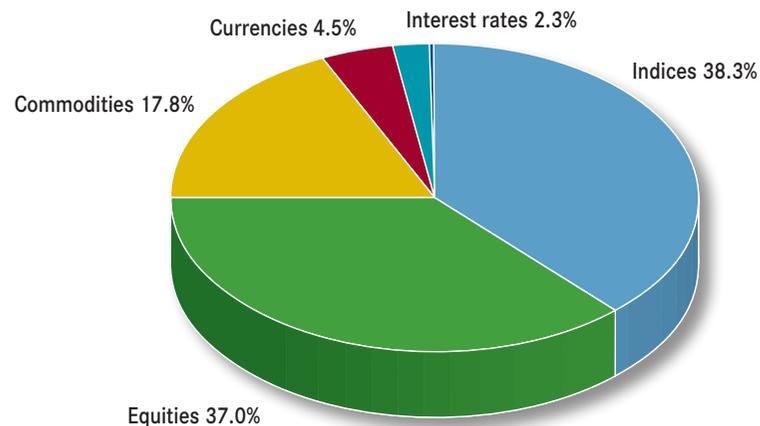
Change in the market volume by underlying asset as at 31.12.2011

Underlying	Change compared with previous month		Change compared with previous month adjusted for price changes		Price effect
	T€	%	T€	%	%
Investment products					
Indices	-1,356,481	-6.3%	-1,440,622	-6.7%	0.4%
Equities	-1,394,997	-7.4%	-1,463,179	-7.8%	0.4%
Commodities	-106,508	-7.6%	-52,520	-3.8%	-3.9%
Currencies	-838	-1.9%	-1,345	-3.1%	1.2%
Interest rates	476,964	1.0%	108,304	0.2%	0.8%
Investment funds	8,528	0.7%	6,647	0.5%	0.2%
Investment products total	-2,373,333	-2.6%	-2,842,714	-3.2%	0.5%
Leverage products					
Indices	-22,735	-5.7%	72,167	18.0%	-23.6%
Equities	-25,254	-6.5%	31,342	8.0%	-14.5%
Commodities	-78,565	-30.8%	-6,047	-2.4%	-28.4%
Currencies	-7,255	-14.0%	3,717	7.1%	-21.1%
Interest rates	-101	-0.4%	20,141	87.8%	-88.3%
Investment funds	28	5.3%	24	4.5%	0.8%
Leverage products total	-133,883	-11.9%	121,343	10.8%	-22.7%
Total	-2,507,217	-2.7%	-2,721,371	-3.0%	0.2%

Investment products by underlying asset Market volume as at 31 December 2011



Leverage products by underlying asset Market volume as at 31 December 2011



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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