

The impact of volatility on pricing



There are two key determinants in pricing structured products, the underlying interest rate that drives the investment and the price of the options that are bought and/or sold to deliver the returns offered. The interest rate is the easy bit and depends on prevailing market rates (LIBOR/EURIBOR etc.) plus or minus something to take account of the level of risk involved with a particular institution – for example a German State Bond may pay a little less than EURIBOR because investors have the security of a very safe country, whereas a Greek Bank would have to pay a lot more than EURIBOR to compensate investors for the high chance of losing capital if the bank defaults.

The option prices are determined by the prevailing interest rates and dividend yield on equities (as this is often foregone) but the biggest influencing factor is the volatility of the underlying investment. If an investor wanted exposure to the growth in the value of an index that was very well diversified and went up steadily, the cost of the option (a call option) wouldn't be too high because the option seller has a good idea of what to expect. Similarly, if someone wanted to protect themselves against an index falling (put option) the cost wouldn't be too high if the index looked unlikely to fall by much. The opposite is true where volatility is higher because the rise or fall in the index could be very big and cost the option writer a lot to cover.

With autocalls, investors are effectively selling put options (the capital at risk if 50% barrier breached) to raise extra cash to boost the return (buying call options). The put option price is more affected by the volatility so as markets calm down, there is less cash to spend on the upside and, even though the cost of the call options has dropped a bit too, this means the returns will be less attractive to investors; the good news is, there should be more certainty of them receiving the returns. When volatility is higher, there is less certainty of receiving the pay-outs and so the coupons are higher to compensate for this.

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