

Autocallable  
structured notes -  
involving the  
knowledge of exotic  
options and por...



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Autocallable Structured s Autocallable structured s are generally considered as normal term, non-principal protected s issued mostly in the denomination of \$1000. These notes are created generally to replicate the performance of any particular index, basket of stocks or any other underlying assets. The main attraction for the investor is that it has the potential to offer high yield over the investments made by the investors. The built in feature of this autocallable note is the fact it can be called with the condition of underlying asset price over and above initial level (ABN AMRO, 2006). With reference to the term sheet, the issued autocallable structured notes however are principal protected which is a significant deviation in the structure of the security since it was originally issued. One issue which is more prominent since the launch of this type of security is its pricing. Pricing models have now proposed a new approach to the pricing of autocallable structured note by incorporating stochastic volatility by taking on the correlation between the interest and equity.

Due to the high return offered by these structured notes owing to their inherent structure as they tend to increase in value when markets go down as well as when markets are rising. The reason for the issuance of these investment securities during Oct/November 2007 was because of the fact that due to credit crunch in the financial sector at International Level and resulting volatility in the equity markets resulted in creating opportunities for the investors to engineer instruments which provide a confirmed high return coupled with principal protection. This fact can also be corroborated in the sense that the overall credit crunch in western financial institutions resulted in upward surge in the interest rates hence necessitating a raise in the required rate of return by the investors in the equity markets also. Since <https://assignbuster.com/autocallable-structured-notes-involving-the-knowledge-of-exotic-options-and-portfolio-replicating-skills/>

these structured notes are structured in a way that they either go in tandem with some benchmarking rates like LIBOR thus any fluctuation in benchmarking rates also push the returns on these instruments in more favorable position for the investors. Apart from that autocallables are considered as yield enhancement strategies.

Trading units and size of the issue do not seem to be having any implications on the risk return profile of the investor however it must also be noted that the underlying currency of the asset may have some implications on the value since any changes in the interest rates will have impact on the exchange rates and this may result in the impairment in the real rate of returns for the investor.

Apart from that since the term sheet suggest that the autocallables can be triggered in the year 1, 2 &3 therefore the issuer has to maintain the desired level of liquidity in order to meet the higher chances of redemption. This not only also necessitates the management of the liquidity by the issuer but also has to manage the prepayment risk associated with paying the notes before their maturity.

In order to generate various payoffs from the autocallables, there are various strategies through which this can be achieved. One method is to take on a range bound view of the underlying by creating a zero coupon bond, a short put and a long series of binary calls. In this situation if the underlying is above the trigger level in the year before maturity. The investor receives a coupon equal to the number of years multiplied by the initial coupon level or principal level. Apart from that, a barrier autocallable payoff can also be created moving in correlation with the underlying and the barrier.

A linear replication of the asset portfolio can be a good approximation. With <https://assignbuster.com/autocallable-structured-notes-involving-the-knowledge-of-exotic-options-and-portfolio-replicating-skills/>

underlying basket or different variations of the underlying assets, a linear approximation can be achieved through piecewise linear replication using calls and puts. This can be achieved as:

$$\text{Max} [(w_1S_1 + \dots + W_nS_n) - K, 0]$$

The above payoff therefore depends upon the weightage of individual indexes in the portfolio assuming all three underlying indexes are replicated in the portfolio.

#### References

1) LaSalle Bonds (ABN AMRO) , 2006, 'Autocallable notes" retrieved Jan 22, 2008 from [http://www.lasallebonds.com/structured\\_products/autocallable\\_notes.html](http://www.lasallebonds.com/structured_products/autocallable_notes.html)