

# PRICING OF A COMPLEX OTC BALANCE DERIVATIVE

All dummy numbers & graphs for illustrative purposes only

## Client Situation

- Client: Belgian or international insurance group having an OTC derivative on its balance sheet
- Client asked Reacfin to set up a stable process to quarterly fairly price this derivative depending on its main risk drivers.
- The Value at Risk of the price should also be assessed.

Assets	Liabilities
25m ZZZ shares (EUR 19 m on 31 Dec 2010)	DERIV2 (nominal: EUR 20 billion) (EUR 1 873 million on 31 Dec 2010)
Conversion premium (EUR 1250 m)	
APK (EUR 1 873 m – EUR 1250 m – EUR 19 m = EUR 604 m on 31 Dec 2010)	

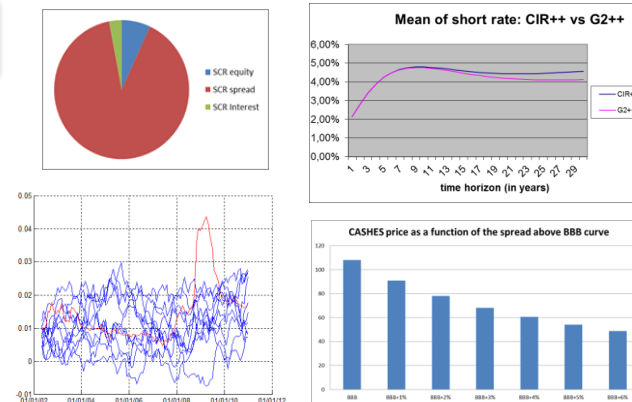
## Reacfin Contribution

- Implementation of a market consistent valuation of the product using a quantitative model including risk neutral economic scenarios generator (calibration and generation) of several market variables and a pricing tool.
- Documentation of the methodology
- Recurrent pricing reports (including Value-at-Risk)
- Sensitivity analysis

<b>Risk-free rates</b>	Yield curve on 31 December 2010 (mid-swap rates)
<b>Initial ZZZ share price</b>	€ 9.5
<b>Own share price volatility</b>	26%
<b>Own dividend yield</b>	6.3%
<b>Initial DERIV2 price</b>	61.5%
<b>Spreads (AA and BBB)</b>	Based on relevant curves on 31 December 2010 (AA and BBB rated instruments)
<b>Discount rate:</b>	
• <b>Own payments</b>	Projected risk-free rate + 415 bps
• <b>Counterparty payments</b>	Risk-free rate + AA spread

## Issues

- Understanding the complexity of the product and all the embedded options to identify the main underlying risk drivers
- Some underlyings of the derivative are themselves derivative products
- Several options to look at the product and to model it



## Results & Benefits

- Recurrent valuation of the product and its Value at Risk
- Better assessment of the valuation and the risk related to the product
- Balance sheet compliant valuation