

# The dynamic portfolio insurance alternative

Olivier Nolland from SG Asset Management Alternative Investments explains one way of making the most of returns and keeping the capital

**S**ociété Générale Asset Management Alternative Investments (SG AMAI) has developed a unique technique of managing all types of assets in order to offer dedicated products with specific constraints. This technique is called “dynamic portfolio insurance”.

Today, two types of structured products offering capital protection are available on the market: option-based portfolio insurance (OBPI) and constant proportion portfolio insurance (CPPI). For these formula-driven payoff products, current market conditions are not optimal to maximise the clients return:

**OBPI:** Equity volatility is at a historically low level today. If it makes sense for investors to buy volatility through OBPI products, the absolute low level of interest rates deteriorates the final indexation to risky assets.

**CPPI:** As with OBPI products, all the structuring parameters are fixed at the launch date. Given that CPPI products follow a systematic management process, it is only the historical volatility that will be charged to the client. Nevertheless, for any sharp increase in volatility until maturity, all the advantages of the tactical allocation between the risky and the non-risky assets will be lost.

In today's low interest rate environment, the secret of performance for capital-guaranteed structured products thus lies in the quality of both the structuring technique and the underlyings. To answer these challenges, SG AM AI has developed dynamic portfolio insurance (DPI), an evolution of CPPI technology.

The DPI strategy is a cushion management technique that quantifies the level of risk borne by the investment in the risky asset. It is structured as a guaranteed fund or note composed of both risky and non-risky assets. The risky assets could be equities, bonds, mutual funds, hedge

funds and derivatives instruments. The non-risky assets are generally money-market instruments.

The exposure to risk depends on the volatility, the liquidity, the returns and the result of the stress test performed on the risky asset. Other factors that are taken into account include the correlation with a benchmark and the current term structure of interest rate.

The allocation between the two asset classes (risky and non-risky) is actively and dynamically managed in order to maximise the expected

return of the fund within the constraints imposed by the guarantee. As such, exposure to the risky asset is increased on the upside and reduced on the downside, making way for an increase in investment of the non-risky asset. This technology allows the asset manager to take independent decisions on the optimal multiplier to apply to the asset allocation between risky and non-risky asset and the composition of the risk basket itself.

## Variable multiplier

Both quantitative and qualitative filters are used to determine the asset allocation multiplier.

Quantitative filters are mainly composed of tailor-made volatility monitoring tools, including implicit and historical volatility, and the determination of adequate ranges of adjustment of the multiplier in order to reduce structuring costs. Qualitative filters include the manager's forecast on the risk/return profile of the risky asset, which determines the optimal multiplier and is backed up by a management committee for each underlying asset.

A high multiplier enables the investor to benefit from market growth, but its adjustment remains expensive. A low multiplier will induce the opposite effect. The multiplier determination policy consists of under-



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weighting during high volatility periods and vice versa. Various volatility-related variables are used to adjust the multiplier, such as current, implicit, and historical volatility. The conclusions reached following the analysis of volatility can be amplified or minimised depending on macro-economic conditions.

At SG AM AI, the maximum multiplier is determined by the result of the stress test performed on the risky asset. The optimum multiplier depends on the return and volatility of the risky asset and also on the interest rates level. The adjustment of this multiplier depends on the risk aversion bound to the profile of the guaranteed product.

### Active allocation

DPI methodology allows us not to have a static portfolio from launch date to maturity. When a fund underperforms the industry, the asset manager has the opportunity to substitute the non-performing fund by a better performing fund.

The added value of the DPI technique lies in 4 points:

- optimising the multiplier according to market expectations;
- adapting the multiplier to the intrinsic quality of the underlying;
- active allocation among the components of the risky asset; and
- offering structured products when options on specific type of underlying are nonexistent.

The aim of variable parameters in the DPI process is to permanently optimise the management parameters following specific risk department constraints: the more the liquidity of the underlying improves, or the level of maximum drawdown decreases, the more the risk department increases the maximum and optimal multiplier. The maximum and optimal multiplier can be reviewed on a monthly basis.

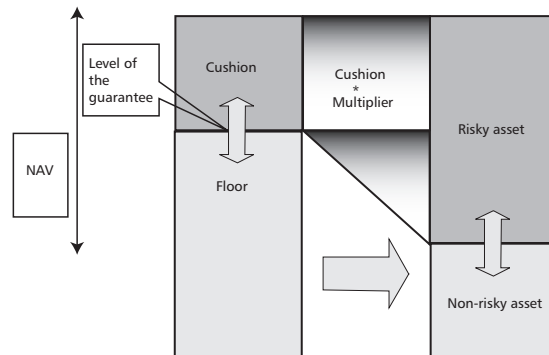
Last, but not the least, is the minimisation of the selling cost. As there are no options and only liquid assets (as long as we respect the fund notice), there is no extra cost, and prices are transparent for the client.

The search for absolute return has led to selection both from the emerging market and hedge funds universe. In that sense, SG AM AI has become a sizeable provider of guaranteed products on these asset classes. Despite the attractive return such assets offer, high indexation could only be achieved through CPPI and DPI techniques.

For example, SG AM AI has designed ADF Dynamic 2010 to benefit from the high returns of the hedge funds industry. This EMTN, leveraged on SGAM AI fund of hedge funds ADF, seeks to equal or outperform its underlying asset while offering a guarantee of capital at maturity.

SG AM AI has also designed High Dividend Target to be especially adapted to current market conditions. It allows the client to benefit from

### Active and dynamic management of the two assets



#### Definitions

NAV: Net asset value of the product

Floor: The minimum present value of the guaranteed NAV that is sufficient to provide the guaranteed capital at maturity

Cushion: NAV floor

Multiplier: Leverage applied to the cushion that determines exposure to the risky asset. The multiplier is adapted to the return, the volatility of the underlying and the risk free rate.

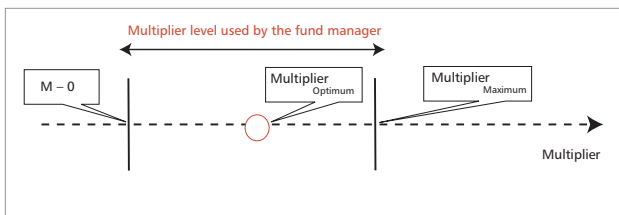
Risky asset exposure (%):  $(\text{Multiplier} \times \text{cushion}) / \text{NAV}$

the performances of 100 American companies selected for their regular and high dividends, while securing 100% of the initial capital at maturity. High Dividend Target enables the investor to combine capital gains with regular income via an annual coupon.

SG AM AI has just completed the launch of Akoya, a six-year investment (a French guaranteed FCP approved by the AMF) that makes the most of the two main equity investment strategies (equity value and equity growth fund) by combining them efficiently into a single model. With a diversified basket of funds optimised over its lifetime, Akoya associates the capacity of value funds to cushion market decline with the potential for rebound and appreciation of growth funds, while securing 100% of the initial net capital at maturity. Akoya relies on an exclusive technique of funds analysis. The initial allocation comprises 11 funds chosen for their performance potential and risk/return profile.

By associating growth and value strategies, Akoya seeks to optimise all market and business cycles. Investors, therefore, benefit in each market phase from the specific advantages and outperformance of each strategy. ●

### Multiplier



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