



## RISK MEASUREMENT SCIENCE AND PORTFOLIO STABILITY

Of the advantages that hedge funds bring to a portfolio, diversification and risk control are the most valuable. A scientific approach to risk diversification maximises that value

Iternative investments are distinguished from traditional investments by their regulatory structure. They are normally non-regulated. This endows them with flexibility in investment strategies as well as lower levels of disclosure and high minimum investment requirements. Generally, the minimum investment is around  $\notin$  25,000.

Poor performance of traditional asset classes has prompted many investors to turn to alternative investment strategies. The idea is to balance their



'While past performance is not necessarily indicative of future results, and hedge funds have at times been at the centre of market turmoil, an allocation to alternative investments can improve a portfolio's ability to preserve capital and increase wealth' Gian Luigi Pedemonte, TradingLab portfolios and increase returns in a variety of market conditions. Hedge funds are the natural investment to look to in this context, as the basic concept behind them is the provision of stable non-correlated returns.

More specifically, they are seeking strategies that will improve the overall return on their portfolios without exposing them to undue risk. Indeed, one of the main characteristics of hedge funds is that their performance is not dependent on a bull market environment.

While past performance is not necessarily indicative of future results, and hedge funds have at times been at the centre of market turmoil, an allocation to alternative investments can improve a portfolio's ability to preserve capital and increase wealth. This is especially so if the investment is through a low risk vehicle, such as capital guaranteed bonds.

The top selling points of hedge funds are diversification and risk control. Hedge funds provide diversification by investing in niche areas, such as commodities, and by shorting stocks. The latter is crucial because short selling is something that traditional funds are restricted by law from doing.

## NON-CORRELATED

Alternative investment managers have in many cases outperformed their conventional, market-dependent counterparts. It is worth mentioning though, that Chart 1 does not include the cost of liquidity (traditionally lower for stocks) and any performance fee or other commissions.

In order to achieve the objective of providing noncorrelated performance with low volatility, alternative investment strategies tend to be highly specialised. Often, they take offsetting positions in closely related financial instruments with the aim of exploiting disparities in pricing relationships. Sub-strategies include fixed income arbitrage and convertible bond arbitrage (the so-called market neutral/arbitrage strategies) or trying to capitalise on market mis-pricings related to a specific event, such as a merger, restructuring or bankruptcy (known as event strategies).

# EVALUATION

Risk diversification in the portfolio can be achieved by applying a scientific approach to risk measurement. Ideally, there should be a thorough assessment of the

#### 40

### JULY-AUGUST 2003



level of risk of each single asset when added to the portfolio. This can only begin once the investor's attitude to risk has been established. A risk evaluation questionnaire should be filled in with the investor.

The next step is establish an objective comparison between the risk associated with a specific financial portfolio and the investor's level of risk tolerance.

# THE KILOVAR

TradingLab has designed and developed a simple and intuitive risk measurement unit called the Kilovar, in order to allow investors to find the risk level most suitable for them.

This indicator shows the risk associated with any type of investment – shares, bonds, funds, covered warrants and so on. See Chart 2.

Each risk profile relates to a Kilovar range of values. The Kilovar value may vary in range from o to 1000. The higher the Kilovar value, the higher the risk.

For example, in the period between January-August 2002, the level of risk calculated by Kilovar for virtually risk-free gilts was, on average, equal to nine. Meanwhile, the Kilovar for 10-year gilts was, on average, equal to 12. For a well-diversified portfolio of British stocks it was

'Each risk profile relates to a Kilovar range of values. The Kilovar value may vary in range from o to 1000. The higher the Kilovar value, the higher the risk' between 35 and 45, while a portfolio that would replicate the Nasdaq100 had, for the same period of time, a Kilovar with values between 70 and 85.

Kilovar values are calculated using sophisticated evaluation methods based on the same techniques typically used to evaluate market risks within particular financial portfolios.

The calculation methods are based on historic simulation. This means that the level of risk of each product is obtained by calculating the historical series of returns and subsequent analysis of any losses. The Kilovar is a dynamic measure: it is recalculated daily in order to reflect the market's fluctuations and is objective because it relies only on market data without any manipulation.

It is a statistical measurement, and it may therefore occur, in rare cases, that effective levels of risk correspond to a higher class of risk.

An important feature of the Kilovar is that it uses a common denominator for investments of widely different types and/or investments linked to markets with varying degrees of volatility. This allows investors to choose the most appropriate investment.

The Kilovar takes into account the effect of diversification, but it should be remembered that the Kilovar of a portfolio is not simply the average of the kilovar of each instrument in that portfolio.

An instrument such as the Kilovar should be combined with the type of risk assessment questionnaire mentioned above. The result of such a questionnaire enables investors to find their personal risk profile. They can then be divided into various categories, such as "risk averse, "cautious", "balanced", "dynamic" or "aggressive".

These classifications allow investors to be matched to a Kilovar level, in line with their own investment style, so that they can adjust the composition of the portfolio whenever the limit is breached.

**41** 

#### PUM JULY-AUGUST 2003



TradingLab's offices in Milan

'The Kilovar uses a common denominator for investments of widely different types and/or investments linked to markets with varying degrees of volatility. This allows investors to choose the most appropriate investment'

KILOVAR: the tool for measuring risk						
	PORTFOLIO RISK LEVELS					
$(\mathbf{KV})$	oKV	3KV	10KV	20KV	45KV	1.000KV
xx	1	1	11		11	1
KILOVAR'	RISK ADVERSE	CAUTIOUS	BALANCED	DYNAMIC	AGGRESSI	VE

One way of enhancing the selling process is to construct a risk-measurement tool such as KILOVAR, which is offered by TradingLab. KILOVAR evaluates the risk of any financial asset assuming a value from o to 1000.

Following the logic of the speedometer, the higher the risk, the higher the KILOVAR measure. A sample of several thousand clients was used to establish five classes of risk, into which clients can be sorted after answering a questionnaire.

The KILOVAR can be used to communicate both the level of risk of a structured product and to evaluate the clients attitude towards risk. If adding a certain financial asset to the client's account did not change his or her class of risk, the investment could be carried out, otherwise it would be abandoned.

#### **))** CORPORATE STATEMENT

TradingLab is one of four "founding partners" of the official UK FSA-regulated covered warrant market, which opened for trading on the LSE on October 28, 2002. As the investment bank of UniCredito Italiano (Moody's Aa3, S&P AA-), by far the leading bank in terms of market cap for Italy, TradingLab benefits from the banking group's sound financial backing and full guarantee. TradingLab intermediated over €5.6bn in covered warrants for 2002, ranking as the number two issuer in Europe.

## TRADINGLAB®

#### Contacts:

- Gian Luigi Pedemonte, senior vice-president, market management Europe; Tel: +39 02 729 291
- Email: gianluigi.pedemonte@tradinglab.com
- Lucas Newbill, market manager UK
- Tel. +39 02 72929287; Email: lucas.newbill@tradinglab.com
- Website: www.tradinglab.co.uk