



Nordea 1 – Heracles Long/Short MI Fund

ISIN: LU0375726329 (BP-EUR) / LU0375726162 (BI-EUR)

A true absolute return fund

The Nordea 1 – Heracles Long/Short MI Fund strategy is based on taking long and short positions with a high degree of diversification. Indeed, it has exposure to equity, fixed income, foreign exchange and money market classes in a number of markets around the world.

The objective of the fund is to offer investors a positive return under any market conditions, **targeting a return (net of fees) of 200 – 400 bps above the Euribor 1M over a period of 12 months.**

The fund is a UCITS III product. In order to comply with regulations, and to benefit from maximum liquidity of underlying instruments, the fund achieves its exposure through use of **futures on indices**. Cash not employed as a margin requirement in the purchase of futures, is invested in money market instruments.

Futures are used in such a way to replicate option-like payoffs. This is achieved through a proprietary mathematical algorithm and internally-developed proprietary software. This technology has been developed and refined over 5 years, with the collaboration of some of the finest financial mathematicians and software engineers. This option-based model facilitates, in a cost efficient way, implementation of the features described below.

A perfectly liquid investment

The fund invests in futures and currency forwards, exchanged in regulated markets and presenting a high degree of liquidity. Furthermore, the investors can redeem their shares on every day in which the NAV is calculated. In summary, the fund constitutes **a totally liquid alternative to hedge funds**. Such hedge funds may bear heavy costs due to a lack of liquidity. This has become very visible during the latest credit and liquidity crunch.

A forecast-free quantitative model

Up to 50 strategies are run simultaneously taking long or short positions in 50 different international stock index futures, bond futures and/or currency forwards. These strategies profit from trends in asset prices. In this respect, the Heracles model is similar to trend-following strategies. However, there are a variety of differences: the quantitative model underlying Heracles is based on option pricing theory and hence does not make any assumptions about past prices containing information about future prices. This is in contrast to technical models such as trend-following strategies. Therefore, the Heracles model is not influenced by the data in any way.

In terms of practical implementation, the Heracles option-based strategy **generates procyclical and anticyclical investment behaviour** (which is illustrated on the following page), while technical models (trend-following) are pro-cyclical.

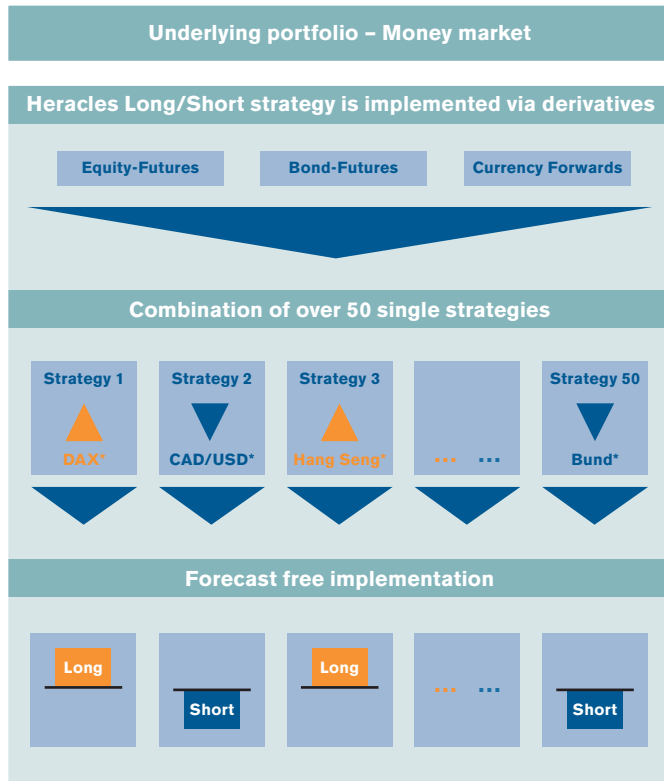
Finally, in technical models, the two steps of generating a signal (long or short) and the positioning sizing are two independent steps. In Heracles, the two steps are integrated, as the replication of the option directly leads to the asset exposures.

A limited drawdown risk

The Heracles strategy is not only diversified across asset classes but also across time. Specifically, each strategy has a 12-month horizon, and a new position in the strategy is launched at the beginning of each month. This means that, at any point in time, there are 50 times 12 long or short positions taken. **High diversification across asset classes, markets and time implies a limited drawdown risk.**

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Heracles Long/Short strategy



*Only exemplary. Not necessarily reflecting the current strategy mix.

A target return is explicitly incorporated into the model, whereby every strategy¹ has the same target return. When a position has met its target return, **profits are locked in** and the corresponding exposure is brought to zero. This further limits the drawdown risk considerably.

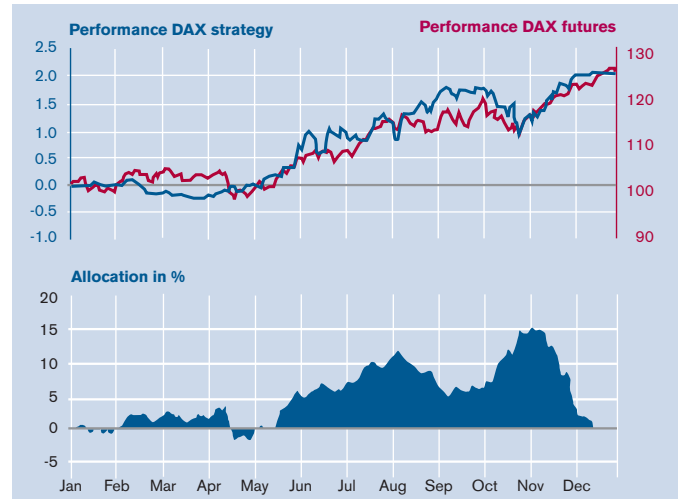
Risk and maximum loss are quantifiable ex-ante at any time. The expected volatility of the portfolio is around 6 to 8%.

Illustrations of exposure deriving from the application of strategies

In the following chart we illustrate how one position in the DAX strategy responds to changes in the performance of the DAX index futures. The target return for a single position shown in the examples below is for illustrative purposes only and does not correspond to the actual target.

¹ It should be noted that to each strategy is allocated an equal target return, i.e. 1/50th of the total target return. In turn, as one strategy is composed by 12 positions, one single position will have about 1/12th of the performance target allocated to one strategy.

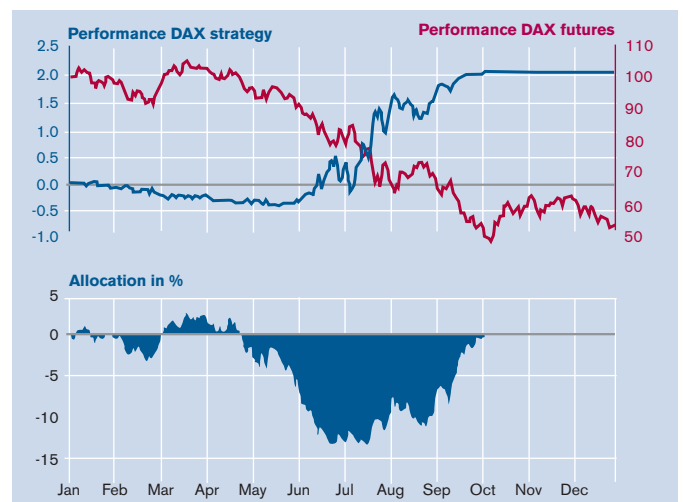
Single position simulation in a bull market environment (strategy DAX-futures 2005)



Source: Thomson Financial Datastream and Bloomberg, Metzler calculations based on historical data. Quoted performance data represent past returns which do not guarantee future results.

In the first months of the year, rising markets generate long positions, while declining markets result in short positions. In the second half of the year, the strategy shows an anticyclical behaviour (reducing long positions when prices are rising and vice versa), until the target return is reached.

Single position simulation in a bear market environment (strategy DAX-futures 2002)



Source: Thomson Financial Datastream and Bloomberg, Metzler calculations based on historical data. Quoted performance data represent past returns which do not guarantee future results.

The above chart repeats the analysis for the crash year 2002. Again, the strategy shows procyclical and anticyclical elements. In October 2002, the exposure is brought to zero, since the contribution of the strategy has reached the target return.

Back testing the model

Performance back test

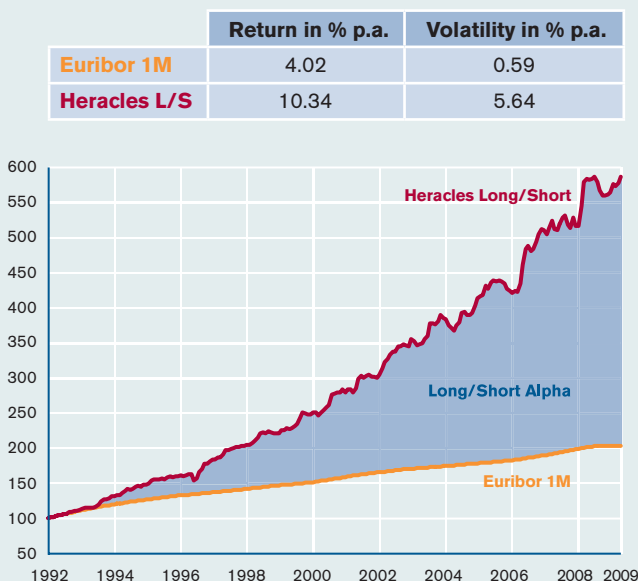
Below you will find the result of a back test in the model from 1992 to the end of 2009*. The back test takes into account the return from cash invested in money market instruments and alpha generated

through the strategy based on futures. Due to the forecast-free design of the quantitative model, the **back testing of the model is reliable**.

Over the period from January 1992 to December 2009, the strategy delivered an excess return of more than 6% over cash, with a volatility of around 6%.

Simulated and actual performances in % p.a. (in EUR)*

Performance			Year	Long/Short excess	Euribor 1M	Heracles Long/Short
	Return in % p.a.	Volatility in % p.a.	1992	2.19	10.00	12.19
Euribor 1M	4.02	0.59	1993	8.19	7.92	16.11
Heracles L/S	10.34	5.64	1994	7.64	5.57	13.21
			1995	3.10	4.66	7.76
			1996	8.48	3.40	11.88
			1997	10.17	3.30	13.48
			1998	6.52	3.58	10.09
			1999	10.31	2.91	13.22
			2000	6.47	4.26	10.73
			2001	4.68	4.48	9.16
			2002	10.00	3.38	13.38
			2003	7.40	2.42	9.82
			2004	1.94	2.10	4.04
			2005	9.52	2.16	11.68
			2006	7.17	2.93	10.11
			2007	1.47	4.24	5.69
			2008	9.67	4.44	14.11
			2009	-0.31	0.92	0.61
	Return p.a.			4.02		10.34
	Cumulative return			103.38		487.55



Sources: Thomson Reuters Datastream, Bloomberg, Metzler calculations.

Attractive drawdown characteristics compared to traditional assets

The magnitude of drawdowns in the back test* is around 6%. Drawdowns occurred in years like 2004 or 2006 where markets either develop sideward or are characterized by sharp short-term reversals. As mentioned above, the multi-dimensional diversification effectively limits drawdown.

The chart on the right shows a comparison of performance and drawdown in % for the period January 2002 – December 2009. The maximum drawdown was 6.53% (in 2004). The longest drawdown period was seven months, and it took four months for the portfolio to recover (in 2006).



**Including recovery
Source: Thomson Reuters Datastream and Bloomberg, Metzler calculations.

* For the period 1992 to March 11, 2008: historical simulation based on market data. The hypothetical performance is calculated under the assumption that the fund would have been managed according to the Heracles Long/Short strategy. The quoted performance is net of fees (1.2% management fee, 15% outperformance fee) and regardless of other charges (i.e. sales load). The simulation applies to investments in equity and bond futures based on historical exchange rates of the countries, in which the strategy invests. After the launch on March 12, 2008, calculations are based on actual data of the fund (net of fees). Past returns are not a guarantee, warranty or a liable indicator for future results.

	Heracles Long/Short	JPM GBI Global	MSCI World
Maximum drawdown	-6.53	-4.44	-56.70
Downside deviation p.a.	3.90	2.35	12.21
Longest profitless period (years)	0.92	1.33	9.33

