ASSET MANAGEMENT, PERFORMANCE, REPORTING

RISK ATTRIBUTION

MÉTHODOLOGY

Octobre 2009

DISCLAIMER

This document is the result of the « risk attribution » working group of the Club AMPERE (Asset Management Performance & REporting)

The workshop brought together experts and professionals of the measurement of performance and risk from asset management companies, members of the Club AMPERE.

The workshop took place from October 2007 to November 2008.

Neither participants nor the establishments to which they belong assumes any legal liability or responsibility for the consequences which could result from erroneous interpretation or a misuse of any information disclosed in this document..

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1 INTRODUCTION: SCOPE OF WORK AND APPROACH

1.1 BACKGROUND

Club AMPERE was created following an assessment shared by many asset management firms. Client reporting production is becoming increasingly complex for two main reasons:

Firstly, an increase of specialized institutional mandates and consequently an increase in the number of different fund management processes by asset management companies is putting strong pressure on client reporting activities to deliver different formats within shortened production runs.

Secondly, requests from investors for increased transparency following the expansion of investment universe. Calls for new, relevant and universally acknowledged methodologies such as the ones defined for performance attribution or presentation standards recommended by investors' professional bodies (in France, Association Française des Trésoriers d'Entreprise et Association Française des Investisseurs Institutionnels).

This increased sophistication is not fully perceived within industry. Financial reporting remains poorly understood and is often considered by young graduates (and some Human Resources in some companies) as a temporary assignment or a prerequisite for accessing more prestigious functions.

In this context, several asset management companies have decided to initiate a working group and a permanent representation of the financial reporting function, officially launched on October 2007: Club AMPERE (for Asset Management, Performance and Reporting).

Club AMPERE aims to address three main objectives:

- Exchange feedback (methodologies, information technologies, project management issues), define common answers to common concerns and stand as a driving and negotiating force clearly identified by the various suppliers of the reporting industry.
- Develop methodologies adapted to the new asset management processes and investment universes and acting as reference standards.
- Represent the client reporting industry as a professional body in order to promote the emergence of an adapted course of study and to harmonize relations with partners.

The work of the club include plenary sessions, thematic meetings and workshops, the latter encompassing the definition of analysis and calculation methodologies.

1.2 PARTICIPANTS

The task force brings together practitioners of thirteen French asset management companies equipped with a production structure and internal expertise:

- ALLIANZ GLOBAL INVESTORS France
- AVIVA GESTION D'ACTIFS
- AXA IM
- BNP PARIBAS AM
- COVEA FINANCE
- CREDIT AGRICOLE AM
- CPR AM
- DEXIA ASSET MANAGEMENT
- EDMOND DE ROTHSCHILD AM
- GROUPAMA AM
- LA BANQUE POSTALE AM
- NATIXIS AM
- SOCIETE GENERALE AM

The consulting firm Solving Efeso provides operational work support like work monitoring, secretarial work and work coordination.

1.3 RISK ATTRIBUTION WORKSHOP

1.3.1 CONTEXT

Performance measurement teams in the asset management industry have fiercely invested over the last ten years on methods and tools to report to their clients on investment performance. It would be wrong to consider performance analysis as a trivial activity, especially on the fixed income side. However, since the publication of GRAP I & II (Groupe de recherche en Attribution de Performance), most conceptual elements and standards are available in the marketplace.

At the same time, investors and consequently managers have focused their concern on risk issues. Firstly on a strategic point of view: what is the volatility acceptable for the investor for a given level of performance?

Secondly, the development of asset management delegations moved the debate into the field of tactical allocation: strategic allocation being defined through a benchmark, what is the level of risk the investor is willing to grant to his asset manager to capture additional performance?

Accordingly, in recent years client reports were supplemented by a growing number of "external" indicators to identify the concepts of absolute and relative risk: volatility, Sharpe ratio, tracking error, semi-variance, maximum draw-down ... However, there is currently no commonly used methodology for identifying risk factors that contribute to these absolute or relative risk levels and making them available to customers.

Aware of this lag, Club AMPERE made this issue a priority research topic since its inception and set up a think tank in autumn 2007 that led to the publication of this statement of conclusions for the general public.

1.3.2 OBJECTIVES

The objective of the workshop is to provide a general framework for risk attribution based on the measurement of absolute risk represented by volatility and relative risk represented by the tracking error.

The approach aims to answer two typical questions:

- How can the investor (the manager, respectively) build up his portfolio ex ante to cope with a threshold of absolute or relative risk that he has (has been, respectively) established?
- What tools can the manager use to explain to investors why the level of risk measured ex post is different than the one expected, especially, but not only, when it has exceeded the target defined ex ante?

Accordingly, the objectives of the workshop are twofold:

- Define a method for breaking down absolute and relative risk (volatility and tracking error) in a process based on successive decisions of allocation and stock selection for diversified portfolios
- Define a methodology for reconciling ex ante and ex post measurements, allowing in particular breaking down ex post / ex ante variation between management decisions' impacts on the one hand and impact of changing market conditions and correlations on the other hand.

1.3.3 WORKING ASSUMPTIONS

The suggested approach is developed in a multi-currency environment, but can easily be reduced to a single currency one.

The investment process is a classical equities / balanced management process, by far the most frequently described in management reports to date.

By extension, the workshop has decided to integrate the dimension of a multi-management process in order to highlight the manager's impact of chosen vehicles within a large asset class. There again, the approach can easily be reduced to a direct investment process.

The investment process is therefore divided into two steps:

- Asset allocation by asset classes, each of them being represented by a reference index and its weighting;
- Selection of investment vehicles associated with each class. For technical or tactical reasons, the reference index of each target fund (e.g. a local index, "value" index…) may differ from the sub-index representing the asset class in the benchmark (e.g. the local sub-index of a global supplier).

For easier interpretation and consistency, results, will be broken down in a similar manner as in the Brinson performance attribution model:

- "Asset allocation" effect;
- "Multi-management" effect: impact of divergence between target fund's reference index and its asset class sub index;
- "Selection" effect: part of the performance generated by the chosen structure of the target fund manager relative to its reference index.
- "Currency" effect;
- "Alpha / market synchronization" effect: impact of synchronization between alpha generation and indexes' performance; analysis of this effect can detect bullish or bearish bias within alpha generation.

1.3.4 ORGANIZATION OF THE WORKING GROUP

1.3.4.1 PARTICIPANTS

The work was based on the methodological contributions of the following experts and professionals :

- Jean-François DARRICAU, independent expert
- Franck IBALOT, Reporting Manager, Performance and Risk, Covea Finance
- Mahfoudj KAMARA, Senior Performance Analyst, AXA Investment Managers
- Pascal MARNAY, Risk Manager, Groupama AM
- Eléna PETIT, Reporting Manager, Allianz GI France
- Laurence Raby, Head of Performance Measurement, Credit Agricole Asset Management

1.3.4.2 WORKSHOP ORGANIZATION

Punctuated by monthly meetings, the workshop followed a three steps agenda:

1. Definition of a methodology for ex ante risk analysis
2. Definition of a methodology for ex post risk analysis
3. Finalizing the model:
    - Extension to a multi-currency portfolio
    - Definition of a methodology of ex ante and ex post measures reconciliation
    - Reliability tests on several sets of data from real cases;
    - Comparison with alternative methods

Each step was driven by independent contributions of the participants, from which the comparison of results from accuracy and reliability standpoints led to the choice of a reference methodology.

Once stabilized, the methodology has been sent to all club AMPERE members for a replay of tests and verification by experts within each company (team of quantitative research, risk, ...)

1.3.5 LIMITATIONS

Fixed-income management process is not handled in this document, but could be processed using a similar logic.

2 RISK ATTRIBUTION MODEL

2.1 NOTATIONS

For a single period of calculation, we will set up our notations as follows:

Portfolio		Reference	
Pbase i	*Return of fund i in portfolio's base currency*	*BFi*	*Return of reference index for fund i*
Pi	*Return of fund i*		
Si	*Weight of the asset class i in the porfolio*		
α_i	*Alpha of the fund i*		

Benchmark	
BPi	*Return of asset class i corresponding reference index within global benchmark*
Wi	*Weight of the asset class i in the benchmark*

Currency	
Di	*Return of asset class i currency relatively to portfolio's base currency*

For the manager of the vehicle invested to represent asset class i in the benchmark universe, the return can be expressed, denominated in its base currency, as the sum of fund index return and fund alpha:

$$P_i = BF_i + \alpha_i$$

If we consider a divergence M between fund index return BF and asset class reference index in portfolio's benchmark BP, return of fund i is, in its base currency, expressed as follows:

$$\begin{aligned} P_i &= BP_i + M_i + \alpha_i \\ M_i &= BF_i - BP_i \end{aligned}$$

Fund's return will now be denominated in global portfolio's base currency as:

$$Pbase_i = (1 + BP_i + M_i + \alpha_i) \times (1 + D_i) - 1$$

From this point, all returns are expressed as "local" funds' returns combined with appropriate exchange rates' returns.

Currency effect can be easily neutralized if the analysis has to be conducted in portfolio base currency, as it is a common practice in equity markets. In other cases, local returns can be easily replaced by hedged returns and currency effects will be corrected with hedging costs.

2.2 REMINDER

2.2.1.1 VOLATILITY AND VARIANCE

Considering the relationship between volatility (respectively tracking error) and variance, it is easier to work on the variance, then come back to volatility (resp. tracking error) using the square root of the annualized variance.

Each of the variables presented in paragraph 2.1 will now be presented in a vectorial form, to take into account all values within the considered period. Notations below are complemented with a single underline to stress the fact that it is no longer a scalar, but a historical reported value.

2.2.1.2 COVARIANCE MATRICES

In this example, covariances are handled with two types of matrices:

- The covariance matrix involving only one component of performance ($\overline{D}$, $\overline{M}$ $\overline{BP}$ or $\overline{\alpha}$). In this case, the covariance matrix is symmetric (Cov($\overline{M_i}$; $\overline{M_j}$)=Cov($\overline{M_j}$; $\overline{M_i}$)) and with positive diagonal (Cov($\overline{M_i}$; $\overline{M_i}$)=Var($\overline{M_i}$))

- The matrices that cross 2 different components ($\overline{BP} + \overline{M}$ and $\overline{\alpha}$ for instance).
    - In this case there is no reason why this matrix ought to be symmetrical: $\text{cov}(\overline{BP_i} + \overline{M_i}; \overline{\alpha_j}) \neq \text{cov}(\overline{\alpha_i}; \overline{BP_j} + \overline{M_j})$.
    - Similarly, the diagonal, which no longer refers to variance, has no reason to be positive.

Caveat: the calculation of covariances can lead to bias in the results mainly due to the instability of covariance matrices and the use of smoothing functions. These matrices may be replaced by other matrices considered more appropriate by the users of the method.

2.3 RISK ATTRIBUTION MODEL

2.3.1 RISK ATTRIBUTION

When building a multi-class, multi-currency, multi-manager portfolio and choosing the allocated weights to each part, it is necessary to filter precisely the constituent components of volatility (or the tracking error) to ensure (as much as possible) you will comply with the accepted level of risk by investor.

We will therefore base our approach on a historic, considered representative, describing the variability and levels of correlation observed between the returns of asset classes, exchange rates, levels of aggressiveness of investment managers and the likelihood they synchronize their generation of alpha. For completeness, we must introduce the spread between the index of selected funds that are used as funds' references and the index of corresponding classes within global benchmark definition.

2.3.1.1 BREAKDOWN OF RETURN VOLATILITY

On any given period of time, the overall performance of the portfolio invested at level *Si* in each asset class through funds i, will be:

$$\mathrm{Re}turn(Portfolio) = \sum_i S_i \times Pbase_i = \sum_i S_i \times ((1 + BP_i + M_i + \alpha_i) \times (1 + D_i) - 1)$$

Or:

$$\mathrm{Re}turn(Portfolio) = \sum_i S_i \times (BP_i + M_i + \alpha_i) + \sum_i S_i \times D_i \times (1 + BP_i + M_i + \alpha_i))$$

"local" fund return Currency effect

To deal with volatility, we will now look at a succession of adjacent elementary periods. Considering an ex ante practice, the weights *Si* will be treated as constant over time and will vary as follows, at the frequency chosen for the calculation step, "only" the $\overline{BP_i}$, $\overline{M_i}$, $\overline{\alpha_i}$ and $\overline{D_i}$.

The calculation of the volatility or tracking error of return is easier when computing the variance that allows keeping additive components. Finally, volatility is obtained by taking the square root of this decomposed variance.

$$Volatility\_total = \sqrt{Variance(\mathrm{Re}turn)} = \sqrt{Variance(\sum_i components_i)}$$

We will therefore start breaking down the variance of return.

The variance of the return of a portfolio P is defined by:

$$Var(\overline{P}) = Var(\sum_i S_i \times \overline{Pbase_i}) = Var(\sum_i S_i \times (\overline{BP_i} + \overline{M_i} + \overline{\alpha_i} + \overline{D_i} \times (1 + \overline{BP_i} + \overline{M_i} + \overline{\alpha_i})))$$

The result of the calculation is a significant number of components details of which are provided in the appendix.

The working group has decided to end up with only five items.

Item (1) represents the proportion of variance generated by the different markets:

- The market itself (variance). If this component is high, this means that the volatility of market is high.
- The markets between them (covariance). If this component is highly positive, this means that different markets are significantly correlated and generally operate in the same direction. If this component is highly negative, this means that the various markets are also correlated but generally move in opposite directions.

$$(1)\sum_i S_i^2 \times Var(\overline{BP_i}) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{BP_i}, \overline{BP_j})$$

Component (2) deals with effects of multi-management. There are two possible situations :

- Either the portfolio is not a multi-management portfolio and this component is null.
- Or we are in a multi-management environment and the more reference indexes (*BFi*) are "distant" from indexes of the fund asset classes i (*BPi*), the more this component would be significant.

$$(2)\sum_i S_i^2 \times Var(\overline{M_i}) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{M_i}, \overline{M_j})$$

Component (3) reflects the variance that results from the stability of the managers in their alpha release (this component is close to zero if the generation of alpha is stable over time) and covariance which comes from the more or less strong synchronization of the generation of alpha (close to zero if the management style of managers is different)

$$(3)\sum_i S_i^2 \times Var(\overline{\alpha_i}) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{\alpha_i}, \overline{\alpha_j})$$

Component (4) provides the variance due to changes in the currency over the given period of time:

- It-self (variance)
- Between the various currencies (covariance)

$$(4)\sum_i S_i^2 \times Var(D_i) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(D_i, D_j)$$

Component (5), is all the more impacted by a strong relationship between the alpha generated by the manager and its benchmark index (*BFi*): the effect of beta in some way since *BPi* + *Mi* is nothing else than *BFi*, fund i's benchmark.

$$(5)2\times\sum_i S_i^2 \times Co\,\mathrm{var}(\overline{BP_i} + \overline{M_i}, \overline{\alpha_i}) + 2\times\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{BP_i} + \overline{M_i}, \overline{\alpha_j})$$

The ultimate components of the variance will finally result in a sixth component which contains all the cross-covariances (see Appendix 1 of the document for detailed calculations).

2.3.1.2 TRACKING ERROR BREAK-DOWN

On a given period of time, the return of the overall benchmark invested up to a percentage *Wi* in each i considered asset class, will be:

$$\mathrm{Re}turn(Benchmark) = \sum_i W_i \times (BP_i + D_i \times (1 + BP_i))$$

Based on portfolio return as expressed in 2.3.1.1, the difference with benchmark return will look like this:

$$Outperformance = \mathrm{Re}turn(Portfolio) - \mathrm{Re}turn(Benchmark)$$

$$Outperformance = \sum_i S_i \times (BP_i + M_i + \alpha_i + D_i \times (1 + BP_i + M_i + \alpha_i)) - \sum_i W_i \times (BP_i + D_i \times (1 + BP_i))$$

$$Outperformance = \sum_i S_i \times (M_i + \alpha_i + D_i \times (M_i + \alpha_i)) + \sum_i (S_i - W_i) \times (BP_i + D_i \times (1 + BP_i))$$

Selection effect Allocation effect

We find successively the sum of selection effects (multi-management and pure alphas) and the overall allocation effect.

The tracking error break-down reveals the degree of risk due to allocation choices, from the one resulting from management choices in the selected funds and from a remainder mix of the two aspects.

The working group has identified six relatively pure components.

Component (1) returns the relative risk (tracking error) generated by the market choices (allocation). The higher it is the more risk comes from allocation bets.

$$(1)\sum_i (S_i - W_i)^2 \times Var(\overline{BP_i}) + 2\sum_{i \neq j} (S_i - W_i) \times (S_j - W_j) \times Co\,\mathrm{var}(\overline{BP_i}, \overline{BP_j})$$

Components (2) and (3), already described for the volatility, measure the risk generated by stock selection (selection + interaction). Using portfolio weights, they are therefore identical to those presented in 2.3.1.1.

$$(2)\sum_i S_i^2 \times Var(M_i) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(M_i, M_j)$$

$$(3)\sum_i S_i^2 \times Var(\alpha_i) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\alpha_i, \alpha_j)$$

Component (4) measures the relative risk generated by currency allocation choices.

$$(4)\sum_i (S_i - W_i)^2 \times Var(D_i) + 2\sum_{i \neq j} (S_i - W_i) \times (S_j - W_j) \times Co\,\mathrm{var}(D_i, D_j)$$

In a similar way as for volatility, the following components result from the crossing of the various effects encountered. The processing of the tracking error is more complex due to the fact that allocation choices (*Si-Wi*) and weight allocation (*Si*) come together. The adopted presentation takes firstly into account the cross components "*Si-Wi*", then continues with the cross components in "*Si*", and finally ends up with those mixing "*Si*" and "*Si-Wi*".

Component (5) includes the latest currency / market cross-effects induced by the size of allocation bets.

$$\begin{aligned}
&(5)\sum_i (S_i - W_i)^2 \times Var(\overline{D_i} \times \overline{BP_i}) + 2\sum_{i \neq j} (S_i - W_i) \times (S_j - W_j) \times Co\mathrm{var}(\overline{D_i} \times \overline{BP_i}, \overline{D_j} \times \overline{BP_j}) + \\
&2\sum_i (S_i - W_i)^2 \times Co\mathrm{var}(\overline{BP_i}, \overline{D_i} \times (1 + \overline{BP_i})) + 2\sum_{i \neq j} (S_i - W_i) \times (S_j - W_j) \times Co\mathrm{var}(\overline{BP_i}, \overline{D_j} \times (1 + \overline{BP_j})) + \\
&2\sum_i (S_i - W_i)^2 \times Co\mathrm{var}(\overline{D_i}, \overline{D_i} \times \overline{BP_i}) + 2\sum_{i \neq j} (S_i - W_i) \times (S_j - W_j) \times Co\mathrm{var}(\overline{D_i}, \overline{D_j} \times \overline{BP_j})
\end{aligned}$$

Component (6) brings together the balances of the selection effects, crossing on the one hand multi-management with alpha, and on the other hand multi-management with alpha and currencies.

$$(6) 2\sum_i S_i^2 \times Covar(\overline{M_i}, \overline{\alpha_i}) + 2\sum_{i \neq j} S_i S_j \times Covar(\overline{M_i}, \overline{\alpha_j}) +$$
$$2\sum_i S_i^2 \times Covar(\overline{M_i} + \overline{\alpha_i}, \overline{D_i} \times (\overline{M_i} + \overline{\alpha_i})) + 2\sum_{i \neq j} S_i S_j \times Covar(\overline{M_i} + \overline{\alpha_i}, \overline{D_j} \times (\overline{M_j} + \overline{\alpha_j})) +$$
$$\sum_i S_i^2 \times Var(\overline{D_i} \times (\overline{M_i} + \overline{\alpha_i})) + 2\sum_{i \neq j} S_i S_j \times Covar(\overline{D_i} \times (\overline{M_i} + \overline{\alpha_i}), \overline{D_j} \times (\overline{M_j} + \overline{\alpha_j}))$$

The seventh component, more difficult to interpret, incorporates all the elements crossing allocation bets and selection effects. For details, see Appendix 2.

This model applies with ex ante approach as well as ex post approach.

For the ex post analysis, it is recommended to use a relatively long and rich period of time in order to preserve the significance of the model and its results.

2.3.2 ANALYSIS OF THE EX ANTE / EX POST VARIATION

After a given past period of management, the matter is now of breaking down the volatility (or the tracking error) measured ex post and comparing it with the assessed ex ante volatility, using historical data at the beginning of the given period.

This concern is well known to the manager who, reporting on the results of its management to the final customer, must explain why the threshold of volatility (resp. of tracking error) was exceeded (or on the contrary has not been fully exploited).

The challenge for the manager consists of being able to disentangle the impact of various causes:

- On which he has a perfect control, namely asset-allocation,
- On which he may act indirectly, namely the behavior of selected funds,
- On which he has no control at all, namely the market environment and changes in asset correlations.

To that end, we insert between ex ante assessment of the volatility (resp. of the tracking error) and ex post measurement, a calculation of volatility (resp. of tracking error) applying to the constant weights planned ex ante, the market conditions as observed ex post.

Thus we get the amount due to manager's choices (spread "strategy"):

$$Spread(strategy) = Risk(ex\_post\_variable\_weights) - Risk(ex\_post\_constant\_weights)$$

And the one due to the market environment (spread "environment"):

$$Spread(environment) = Risk(ex\_post\_constant\_weights) - Risk(ex\_ante\_constant\_weights)$$

2.3.2.1

2.3.2.2 BREAKDOWN OF VOLTILITY CHANGE

In order to provide a literal explanation, the observations on past management we will use the same notations, coming with a double highlighting. If, ex ante, the weights are constant by definition, ex post these weights are variable. Consequently the strategy followed by the manager will also be doubly highlighted.

The ex post volatility is therefore:

$$Var(\overline{\overline{P}}) = Var(\sum_i \overline{\overline{S_i}} \times \overline{\overline{Pbase_i}}) = Var(\sum_i \overline{\overline{S_i}} \times (\overline{\overline{BP_i}} + \overline{\overline{M_i}} + \overline{\overline{\alpha_i}} + \overline{\overline{D_i}} \times (1 + \overline{\overline{BP_i}} + \overline{\overline{M_i}} + \overline{\overline{\alpha_i}})))$$

To match with the ex ante assessment:

$$Var(\overline{P}) = Var(\sum_i S_i \times \overline{Pbase_i}) = Var(\sum_i S_i \times (\overline{BP_i} + \overline{M_i} + \overline{\alpha_i} + \overline{D_i} \times (1 + \overline{BP_i} + \overline{M_i} + \overline{\alpha_i})))$$

According to what has been described, the difference will be distributed as follows:

$$Var(\overline{P}) - Var(\underline{P}) = Var(\sum_i \overline{\overline{S_i}} \times \overline{\overline{Pbase_i}}) - Var(\sum_i S_i \times \overline{\overline{Pbase_i}}) + Var(\sum_i S_i \times \overline{\overline{Pbase_i}}) - Var(\sum_i S_i \times \overline{Pbase_i})$$

Where we recognize ► strategy ◄ + ► environment ◄

For each component described earlier, the analysis goes through three steps:

1. Measuring the variance during the second period of time and therefore the difference with its equivalent ex ante,
2. Recalculating the covariance matrix involved during the second period, and deduce the "environment" effect by applying the covariance matrix differential to the forecasted strategy,
3. The remaining differences, resulting from a breach in the anticipated weights structure, will constitute the "strategy" effect.

Both effects will now undergo the same breakdown as described in the analysis of variance by highlighting the six selected components.

The first component reflects market allocation:

$$(1\_Strategy) = Var(\sum_i \overline{\overline{S_i}} \times \overline{\overline{BP_i}}) - \sum_i S_i^2 \times Var(\overline{\overline{BP_i}}) - 2 \times \sum_{i \neq j} S_i S_j \times Covar(\overline{\overline{BP_i}}, \overline{\overline{BP_j}})$$

$$(1\_Environment) = \sum_i S_i^2 \times (Var(\overline{\overline{BP_i}}) - Var(\overline{BP_i})) + 2 \times \sum_{i \neq j} S_i S_j \times (Covar(\overline{\overline{BP_i}}, \overline{\overline{BP_j}}) - Covar(\overline{BP_i}, \overline{BP_j}))$$

The second component deals with the effects of multi-management:

$$(2\_Strategy) = Var(\sum_i \overline{\overline{S_i}} \times \overline{\overline{M_i}}) - \sum_i S_i^2 \times Var(\overline{\overline{M_i}}) - 2 \times \sum_{i \neq j} S_i S_j \times Covar(\overline{\overline{M_i}}, \overline{\overline{M_j}})$$

$$(2\_Environment) = \sum_i S_i^2 \times (Var(\overline{\overline{M_i}}) - Var(\overline{M_i})) + 2 \times \sum_{i \neq j} S_i S_j \times (Covar(\overline{\overline{M_i}}, \overline{\overline{M_j}}) - Covar(\overline{M_i}, \overline{M_j}))$$

The third component takes into account the impact of alpha generation delivered by investment managers:

$$(3\_Strategy) = Var(\sum_i \overline{\overline{S_i}} \times \overline{\overline{\alpha_i}}) - \sum_i S_i^2 \times Var(\overline{\overline{\alpha_i}}) - 2 \times \sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{\overline{\alpha_i}}, \overline{\overline{\alpha_j}})$$

$$(3\_Environmt) = \sum_i S_i^2 \times (Var(\overline{\overline{\alpha_i}}) - Var(\overline{\alpha_i})) + 2 \times \sum_{i \neq j} S_i S_j \times (Co\,\mathrm{var}(\overline{\overline{\alpha_i}}, \overline{\overline{\alpha_j}}) - Co\,\mathrm{var}(\overline{\alpha_i}, \overline{\alpha_j}))$$

The fourth component provides with the result of currency strategy:

$$(4\_Strategy) = Var(\sum_i \overline{\overline{S_i}} \times \overline{\overline{D_i}}) - \sum_i S_i^2 \times Var(\overline{\overline{D_i}}) - 2 \times \sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{\overline{D_i}}, \overline{\overline{D_j}})$$

$$(4\_Environmt) = \sum_i S_i^2 \times (Var(\overline{\overline{D_i}}) - Var(\overline{D_i})) + 2 \times \sum_{i \neq j} S_i S_j \times (Co\,\mathrm{var}(\overline{\overline{D_i}}, \overline{\overline{D_j}}) - Co\,\mathrm{var}(\overline{D_i}, \overline{D_j}))$$

The fifth component measures the degree of synchronization between alphas and funds' benchmarks:

$$(5\_Strategy) = 2 \times \sum_{i,j} Co\,\mathrm{var}(\overline{\overline{S_i}} \times (\overline{\overline{BP_i}} + \overline{\overline{M_i}}), \overline{\overline{S_j}} \times \overline{\overline{\alpha_j}}) - 2 \times \sum_{i,j} S_i S_j \times Co\,\mathrm{var}(\overline{\overline{BP_i}} + \overline{\overline{M_i}}, \overline{\overline{\alpha_j}})$$

$$(5\_Environmt) = 2 \times \sum_{i,j} S_i S_j \times (Co\,\mathrm{var}(\overline{\overline{BP_i}} + \overline{\overline{M_i}}, \overline{\overline{\alpha_j}}) - Co\,\mathrm{var}(\overline{BP_i} + \overline{M_i}, \overline{\alpha_j}))$$

The last component contains the spread analysis with all cross-covariances. Refer to Appendix 1 for details.

2.3.2.3 BREAKING DOWN OF TRACKING ERROR CHANGE

The same approach is used for tracking error. The final return highlights the effect of "strategy" and "environment" split into seven sections corresponding to the seven identified components.

The first component returns market allocation choices:

$$(1\_strategy) = \sum_{i,j} (\overline{\overline{S_i}} - W_i) \times (\overline{\overline{S_j}} - W_j) \times Co\,\mathrm{var}(\overline{\overline{BP_i}}, \overline{\overline{BP_j}}) - \sum_{i,j} (S_i - W_i) \times (S_j - W_j) \times Co\,\mathrm{var}(\overline{\overline{BP_i}}, \overline{\overline{BP_j}})$$

$$(1\_environmt) = \sum_{i,j} (S_i - W_i) \times (S_j - W_j) \times (Co\,\mathrm{var}(\overline{\overline{BP_i}}, \overline{\overline{BP_j}}) - Co\,\mathrm{var}(\overline{BP_i}, \overline{BP_j}))$$

Components 2 and 3 (multi-management and alphas) have already been described for the volatility change analysis.

The fourth component measures the impact of currency allocation choices:

$$(4\_strategy) = \sum_{i,j} (\overline{\overline{S_i}} - W_i) \times (\overline{\overline{S_j}} - W_j) \times Co\,\mathrm{var}(\overline{\overline{D_i}}, \overline{\overline{D_j}}) - \sum_{i,j} (S_i - W_i) \times (S_j - W_j) \times Co\,\mathrm{var}(\overline{\overline{D_i}}, \overline{\overline{D_j}})$$

$$(4\_environmt) = \sum_{i,j} (S_i - W_i) \times (S_j - W_j) \times (Co\,\mathrm{var}(\overline{\overline{D_i}}, \overline{\overline{D_j}}) - Co\,\mathrm{var}(\overline{D_i}, \overline{D_j}))$$

The fifth component gathers the remaining currency / market cross effects induced by allocation bets. It will, in turn, be broken as follows:

$$\begin{aligned}(5\_strategy) = {} & 2\sum_{i,j} Co\mathrm{var}(\overline{\overline{S_i}} - W_i)\overline{\overline{D_i}}, (\overline{\overline{S_j}} - W_j)\overline{\overline{D_j}} \times \overline{\overline{BP_j}}) - 2\sum_{i,j} (S_i - W_i)(S_j - W_j) Co\mathrm{var}(\overline{\overline{D_i}}, \overline{\overline{D_j}} \times \overline{\overline{BP_j}}) \\ & + \sum_{i,j} Co\mathrm{var}(\overline{\overline{S_i}} - W_i)\overline{D_i} \times \overline{\overline{BP_i}}, (\overline{\overline{S_j}} - W_j)\overline{D_j} \times \overline{\overline{BP_j}}) - \sum_{i,j} (S_i - W_i)(S_j - W_j) Co\mathrm{var}(\overline{D_i} \times \overline{\overline{BP_i}}, \overline{D_j} \times \overline{\overline{BP_j}}) \\ & + 2\sum_{i,j} Co\mathrm{var}(\overline{\overline{S_i}} - W_i)\overline{\overline{BP_i}}, (\overline{\overline{S_j}} - W_j)\overline{\overline{D_j}} \times (1 + \overline{\overline{BP_j}})) - 2\sum_{i,j} (S_i - W_i)(S_j - W_j) Co\mathrm{var}(\overline{\overline{BP_i}}, \overline{\overline{D_j}} \times (1 + \overline{\overline{BP_j}}))\end{aligned}$$

$$\begin{aligned}(5\_environmt) = {} & 2\sum_{i,j} (S_i - W_i)(S_j - W_j) Co\mathrm{var}(\overline{\overline{D_i}}, \overline{\overline{D_j}} \times \overline{\overline{BP_j}}) - 2\sum_{i,j} (S_i - W_i)(S_j - W_j) Co\mathrm{var}(\overline{D_i}, \overline{D_j} \times \overline{BP_j}) \\ & + \sum_{i,j} (S_i - W_i)(S_j - W_j) Co\mathrm{var}(\overline{\overline{D_i}} \times \overline{\overline{BP_i}}, \overline{\overline{D_j}} \times \overline{\overline{BP_j}}) - \sum_{i,j} (S_i - W_i)(S_j - W_j) Co\mathrm{var}(\overline{D_i} \times \overline{BP_i}, \overline{D_j} \times \overline{BP_j}) \\ & + 2\sum_{i,j} (S_i - W_i)(S_j - W_j) Co\mathrm{var}(\overline{\overline{BP_i}}, \overline{D_j} \times (1 + \overline{\overline{BP_j}})) - 2\sum_{i,j} (S_i - W_i)(S_j - W_j) Co\mathrm{var}(\overline{BP_i}, \overline{D_j} \times (1 + \overline{BP_j}))\end{aligned}$$

The sixth component includes the remainders of selection effects crossing on the one hand multi-management with alpha, and on the other hand multi-management and alpha with currency.

$$(6\_strategy)_t = 2\sum_{i,j} Covar(\overline{\overline{S_i}} \times \overline{\overline{M_i}}, \overline{\overline{S_j}} \times \overline{\overline{\alpha_j}}) - 2\sum_{i,j} S_i \times S_j Covar(\overline{\overline{M_i}}, \overline{\overline{\alpha_j}}) +$$
$$2\sum_{i,j} Covar(\overline{\overline{S_i}} \times (\overline{\overline{M_i}} + \overline{\overline{\alpha_i}}), \overline{\overline{S_j}} \times \overline{\overline{D_j}} \times (\overline{\overline{M_j}} + \overline{\overline{\alpha_j}})) - 2\sum_{i,j} S_i S_j \times Covar(\overline{\overline{M_i}} + \overline{\overline{\alpha_i}}, \overline{\overline{D_j}} \times (\overline{\overline{M_j}} + \overline{\overline{\alpha_j}})) +$$
$$2\sum_{i,j} Covar(\overline{\overline{S_i}} \times \overline{\overline{D_i}} \times (\overline{\overline{M_i}} + \overline{\overline{\alpha_i}}), \overline{\overline{S_j}} \times \overline{\overline{D_j}} \times (\overline{\overline{M_j}} + \overline{\overline{\alpha_j}})) - 2\sum_{i,j} S_i S_j \times Covar(\overline{\overline{D_i}} \times (\overline{\overline{M_i}} + \overline{\overline{\alpha_i}}), \overline{\overline{D_j}} \times (\overline{\overline{M_j}} + \overline{\overline{\alpha_j}}))$$

$$(6\_environment)_t = 2\sum_{i,j} S_i \times S_j \times (Covar(\overline{\overline{M_i}}, \overline{\overline{\alpha_j}}) - Covar(\overline{\overline{M_i}}, \overline{\overline{\alpha_j}}))$$
$$2\sum_{i,j} S_i S_j \times (Covar(\overline{\overline{M_i}} + \overline{\overline{\alpha_i}}, \overline{\overline{D_j}} \times (\overline{\overline{M_j}} + \overline{\overline{\alpha_j}}) - Covar(\overline{\overline{M_i}} + \overline{\overline{\alpha_i}}, \overline{\overline{D_j}} \times (\overline{\overline{M_j}} + \overline{\overline{\alpha_j}})) +$$
$$2\sum_{i,j} S_i S_j \times Covar(\overline{\overline{D_i}} \times (\overline{\overline{M_i}} + \overline{\overline{\alpha_i}}), \overline{\overline{D_j}} \times (\overline{\overline{M_j}} + \overline{\overline{\alpha_j}})) - 2\sum_{i,j} S_i S_j \times Covar(\overline{\overline{D_i}} \times (\overline{\overline{M_i}} + \overline{\overline{\alpha_i}}), \overline{\overline{D_j}} \times (\overline{\overline{M_j}} + \overline{\overline{\alpha_j}}))$$

For details of the seventh component, please refer to Appendix 2.

3 ILLUSTRATIVE EXAMPLE

3.1 PRESENTATION

A fund of funds is invested into three asset classes (UK Equities, U.S. Equities, Euro Fixed Income), respectively named UK, US and EU, denominated in three different currencies (GBP, USD, EUR).

A reference index is assigned to each class, which is invested in a single investment fund. The UK fund and its parent asset class have the same reference index; however the indexes of the other two funds differ from those of their respective classes.

Holdings in each asset class have the flowing weights in the benchmark (or strategic allocation) and in the portfolio (or tactical allocation):

Asset classes	Weight in benchmark	Weight in portfolio
UK Equities	15%	10%
US Equities	35%	30%
Euro Fixed Income	50%	60%

The calculation covers two consecutive periods of time (each lasting one semester in this example):

- During the first period, the weights in the classes are stable, as the analysis is performed on an “ex ante” basis

The “ex ante” analysis consists in positioning at first day of the second period, and assessing the level of volatility or tracking error, resulting from a 10/30/60 strategy when the benchmark is set to 15/35/50, based on the history provided during the first period.

- During the 2nd period, the weights in the classes will vary : “ex post” analysis

The “ex post” analysis consists in explaining the difference between the expected volatility (or tracking error) at the end of the first period and the actual one, as measured during the second period.

As a matter of fact, during the second period, the investment strategy has slightly diverged from the expected one and the various performance indicators (market, currency but also management alphas) have had different behaviors than in the previous period.

Market data for the whole period of time are provided on a weekly basis and are available in appendix.

3.2 RESULTS

We have chosen to submit, in a nutshell, the relative contribution of each component to ensure a better readability of the results. The calculations details are attached.

3.2.1 VOLATILITY

3.2.1.1 EX ANTE ANALYSIS

Volatility breakdown	Contributions to overall return	Variance break-down	Variance %	Volatility	Contributions to overall volatility
1 Market allocation	8,177%	0,1760%	132,4%	4,196%	4,828%
2 Multi-management	-0,078%	0,0055%	4,1%	0,742%	0,151%
3 Alpha generation	-0,422%	0,0071%	5,4%	0,844%	0,195%
4 Currency allocation	-2,679%	0,0150%	11,2%	1,223%	0,410%
5 Markets/Alphas Synchronisation		-0,0168%	-12,6%		-0,461%
6 Remaining cross-effects	-0,031%	-0,0539%	-40,5%		-1,477%
Overall	4,967%	0,1329%	100,0%	3,646%	3,646%

The ex ante variance of the portfolio is 0.1329%, which means 3.646% for volatility.

The results highlight:

- the predominance of asset allocation decisions, which represent more than 132% of the total variance,
- The significant effects of synchronization between markets and alphas of investment management (-12.6%),
- Currency allocation impact, also significant, of (11.2%).

The remaining cross effects still has a big impact in absolute terms (approx. 40%) on the overall variance.

Dominance of asset allocation in the decomposition of volatility is predictable: markets dictate most of the variability of performance. Currency effect will heavily depend on the currencies involved and market behaviors. Except in very unusual circumstances, the investment management as well as the multi-management will only have a very limited contribution. The “other cross-effects” may vary considerably in absolute terms but also change sign.

3.2.1.2 EX POST ANALYSIS

Volatility breakdown	Contributions to overall return	Variance break-down	Variance %	Volatility	Contributions to overall volatility
1 Market allocation	4,966%	0,2120%	101,6%	4,605%	4,641%
2 Multi-management	-0,031%	0,0029%	1,4%	0,535%	0,063%
3 Alpha generation	0,927%	0,0104%	5,0%	1,021%	0,228%
4 Currency allocation	-1,815%	0,0098%	4,7%	0,991%	0,215%
5 Markets/Alphas Synchronisation		-0,0165%	-7,9%		-0,362%
6 Remaining cross-effects	-0,021%	-0,0099%	-4,7%		-0,216%
Overall	4,026%	0,2088%	100,0%	4,569%	4,569%

Ex post variance of the portfolio is 0.2088%, which means 4.569% for volatility.

The impact of the allocation between the various asset classes remains paramount (101.6% of the total variance) while the balance of “other cross-effects” is much lower than the calculated ex ante.

3.2.1.3 VARIATION (EX ANTE / EX POST) ANALYSIS

Anticipated volatility, based on the strategy and the history of the first period was 3.646% that is a variance of 0.1329%. Ex post volatility increased to 4.569% that is a variance of 0.2088%. The following table will help to understand the origin of this increase of 0.07581% of variance.

Volatility variation	Ex ante	Ex post	Difference	Difference break-down	
				Environment	Strategy
1 Market allocation	0,1760%	0,2120%	0,03599%	0,03752%	-0,00153%
2 Multi-management	0,0055%	0,0029%	-0,00264%	-0,00274%	0,00010%
3 Alpha generation	0,0071%	0,0104%	0,00331%	0,00292%	0,00039%
4 Currency allocation	0,0150%	0,0098%	-0,00512%	-0,00514%	0,00002%
5 Markets/Alphas Synchronisation	-0,0168%	-0,0165%	0,00028%	-0,00033%	0,00061%
6 Remaining cross-effects	-0,0539%	-0,0099%	0,04399%	0,04336%	0,00063%
Overall	0,1329%	0,2088%	0,07581%	0,07559%	0,00022%

We can see here that almost all the difference comes from changes in the environment (99.7%): in this example, the small differences in terms of strategy are predominately due to little implementation discrepancies, rather than from deliberately biased tactical choices. It is therefore not surprising to see that they only represent 0.3% of the overall variation.

Among the various environmental effects, market allocation has a big impact (49.5%). The essential part held by market allocation in the volatility breakdown naturally leads to explain a substantial fraction of the volatility variation. The other important component (57.2% of overall volatility variation) is the "remaining cross effects" component which characteristics may vary considerably between the cases studied.

A zoom can be provided to get more comprehensive analysis of "market allocation" and "alpha generation" components:

Market allocation	First half-year volatility	Second half-year volatility	Contribution to overall variance variation	Relative contribution
UK equities	9,17%	9,77%	0,00113%	1,5%
US Equities	9,47%	10,43%	0,01721%	22,7%
EUR Fixed Income	3,79%	3,94%	0,00420%	5,5%
Covariances			0,01498%	19,8%
Environment effect			0,03752%	49,5%

Alpha generation	First half-year tracking-error	Second half-year tracking-error	Contribution to overall variance variation	Relative contribution
UK equities	3,20%	5,35%	0,00184%	2,4%
US Equities	1,76%	1,50%	-0,00075%	-1,0%
EUR Fixed Income	1,19%	0,81%	-0,00276%	-3,6%
Covariances			0,00459%	6,1%
Environment effect			0,00292%	3,8%

This table clearly shows that U.S. equity market is the main responsible for the difference due to market allocation. A relatively small change in its volatility (10.43% against 9.47%), explains 23% of the overall variation, when a much larger change of the tracking error in UK equity funds (5.35% against 3.20%) is 10 times less impact (2.4%).

3.2.2 TRACKING ERROR BREAK-DOWN

3.2.2.1 EX ANTE BREAK-DOWN

Tracking-error break-down	Alpha contribution	Variance break-down	Variance %	Tracking error	Contribution to overall tracking-error
1 Market allocation	-0,683%	0,00946%	59,6%	0,973%	0,751%
2 Multi-management	-0,077%	0,00550%	34,7%	0,742%	0,437%
3 Alpha generation	-0,427%	0,00712%	44,8%	0,844%	0,565%
4 Currency allocation	0,663%	0,00101%	6,4%	0,318%	0,081%
5 Cross Alloc. Markets/Currency	0,007%	-0,00127%	-8,0%		-0,101%
6 Remaining alpha gener. Effects	-0,001%	0,00094%	5,9%		0,075%
7 Hybrid Allocation/Alphas effects		-0,00689%	-43,4%		-0,546%
Overall	-0,518%	0,01588%	100,0%	1,260%	1,260%

The total variance is 0.01588%, corresponding to a tracking error of 1.260%. The contributions are more balanced between market allocation (approx. 60%), multi-management (approx. 35%) and alphas of investment management (approx. 45%).

This time, only allocation bets are involved in the setting of the tracking error. Consequently, the market allocation leaves a significant role to alpha generation. The multi-management effect, also brought out in the volatility, appears at the top of the list although the UK market does not participate.

The balance of hybrid elements is still very significant.

3.2.2.2 EX POST ANALYSIS

Tracking-error break-down	Alpha contribution	Variance break-down	Variance %	Tracking error	Contribution to overall tracking-error
1 Market allocation	-1,512%	0,01298%	47,3%	1,139%	0,784%
2 Multi-management	-0,041%	0,00286%	10,4%	0,535%	0,173%
3 Alpha generation	0,969%	0,01043%	38,0%	1,021%	0,630%
4 Currency allocation	0,765%	0,00080%	2,9%	0,283%	0,049%
5 Cross Alloc. Markets/Currency	0,004%	-0,00025%	-0,9%		-0,015%
6 Remaining alpha gener. Effects	-0,004%	0,00145%	5,3%		0,088%
7 Hybrid Allocation/Alphas effects		-0,00085%	-3,1%		-0,051%
Overall	0,181%	0,02743%	100,0%	1,656%	1,656%

The overall variance is 0.02743%, corresponding to a tracking error of 1.656%. There is a similar order of magnitude for alphas (approx. 38%) while the contribution has declined significantly for market allocation (approx. 47%) and multi-management (approx. 10%) .

The balance of the hybrid elements has a negligible weight, confirming the highly volatile nature of this component.

3.2.2.3 VARIATION ANALYSIS

The forecasted tracking error, on the basis of first period allocation bets and market data, was 1.260%, corresponding to a variance of 0.01588%. We measure ex post that the tracking error increased to 1.656% corresponding to a variance of 0.02743%. The following table will detail the origin of this increase of 0.01155% for overall variance.

Tracking-error variation	Ex ante	Ex post	Difference	Difference break-down	
				Environment	Strategy
1 Market allocation	0,0095%	0,0130%	0,00353%	0,00152%	0,00201%
2 Multi-management	0,0055%	0,0029%	-0,00264%	-0,00274%	0,00010%
3 Alpha generation	0,0071%	0,0104%	0,00331%	0,00292%	0,00039%
4 Currency allocation	0,0010%	0,0008%	-0,00021%	-0,00032%	0,00011%
5 Cross Alloc. Markets/Currency	-0,0013%	-0,0002%	0,00102%	0,00079%	0,00024%
6 Remaining alpha gener. Effects	0,0009%	0,0014%	0,00051%	0,00036%	0,00015%
7 Hybrid Allocation/Alphas effects	-0,0069%	-0,0008%	0,00604%	0,00410%	0,00194%
Overall	0,0159%	0,0274%	0,01156%	0,00663%	0,00493%

For tracking error, small changes in bet sizes eventually have a significant impact (43%). Among the environment parameters, the increased aggressiveness of alpha generation weights up to 25% and will be detailed below. The multi-management provides a clear reduction (-24%) whereas the hybrid position is, again, very significant (35.5%).

A zoom on market allocation provides some complementary lessons: all volatilities are higher in the second half and in particular in the U.S. market that weights relatively heavily in the allocation. As far as alpha generation is concerned, if identical to the decomposition of the volatility in absolute terms, its relative contribution here is much higher:

Market allocation	First half-year volatility	Second half-year volatility	Contribution to overall variance variation	Relative contribution
UK equities	9,17%	9,77%	0,00028%	2,5%
US Equities	9,47%	10,43%	0,00048%	4,1%
EUR Fixed Income	3,79%	3,94%	0,00012%	1,0%
Covariances			0,00064%	5,6%
Environment effect			0,00152%	13,2%

Alpha generation	First half-year tracking-error	Second half-year tracking-error	Contribution to overall variance variation	Relative contribution
UK equities	3,20%	5,35%	0,00184%	15,9%
US Equities	1,76%	1,50%	-0,00075%	-6,5%
EUR Fixed Income	1,19%	0,81%	-0,00276%	-23,9%
Covariances			0,00459%	39,7%
Environment effect			0,00292%	25,3%

4 APPENDIX

4.1 DATA USED IN NUMERICAL APPLICATIONS

Numerical data below are fully displayed. Therefore, numerical results can be replicated.

4.1.1 TRACK-RECORD OF THE INDEXES INVOLVED IN THE PORTFOLIO'S BENCHAMRK

First half-year

	UK equities	US Equities	EUR Fixed Inc.
	B-Ukac	B-Usac2	B-EURto2
31/12/2004	100,00	100,00	100,00
07/01/2005	101,46	101,24	100,71
14/01/2005	101,81	100,10	100,90
21/01/2005	102,50	100,41	101,07
28/01/2005	103,55	100,69	101,23
04/02/2005	106,44	103,53	101,47
11/02/2005	107,91	105,08	101,98
18/02/2005	108,06	105,05	100,52
25/02/2005	107,48	104,71	100,50
04/03/2005	108,40	106,08	100,75
11/03/2005	107,07	104,40	100,31
18/03/2005	106,68	103,76	100,65
25/03/2005	106,36	104,18	100,73
01/04/2005	107,50	104,50	101,35
08/04/2005	109,29	105,45	101,77
15/04/2005	106,79	102,85	102,11
22/04/2005	106,27	101,54	102,38
29/04/2005	103,37	100,41	103,08
06/05/2005	104,62	103,22	102,89
13/05/2005	104,95	102,71	103,65
20/05/2005	106,66	104,74	103,51
27/05/2005	108,53	106,10	104,04
03/06/2005	110,89	107,54	104,76
10/06/2005	112,69	108,36	105,50
17/06/2005	114,10	109,73	104,59
24/06/2005	114,14	109,04	105,79
01/07/2005	114,68	110,99	105,79

Second half-year

	UK equities	US Equities	EUR Fixed Inc.
	B-Ukac	B-Usac2	B-EURto2
01/07/2005	114,68	110,99	105,79
08/07/2005	115,27	111,36	105,44
15/07/2005	116,30	113,26	104,92
22/07/2005	116,86	113,71	105,26
29/07/2005	118,22	114,68	105,31
05/08/2005	118,06	113,60	104,48
12/08/2005	119,09	115,34	105,01
19/08/2005	119,31	115,16	105,80
26/08/2005	118,39	112,12	106,31
02/09/2005	120,49	113,61	107,06
09/09/2005	122,84	116,45	107,13
16/09/2005	123,27	116,53	106,58
23/09/2005	122,97	115,86	107,21
30/09/2005	124,77	118,73	106,56
07/10/2005	122,01	117,23	106,37
14/10/2005	119,51	116,40	105,71
21/10/2005	116,12	113,53	106,00
28/10/2005	116,56	112,84	104,78
04/11/2005	121,25	116,89	104,25
11/11/2005	122,28	117,15	103,99
18/11/2005	123,06	119,40	103,92
25/11/2005	124,83	120,67	105,09
02/12/2005	126,61	122,51	105,30
09/12/2005	127,08	122,26	104,91
16/12/2005	127,50	123,86	105,55
23/12/2005	128,77	125,12	105,75
30/12/2005	129,67	124,96	106,18

4.1.2 TRACK-RECORD OF THE FUNDS INVOLVED AND THEIR RESPECTIVE BENCHMARKS

First half-year

	UK Equities		US Equities		EUR Fixed Inc.	
	Ukac	B-Ukac	Usac	B-Usac	EURto	B-EURto
31/12/2004	100,00	100,00	100,00	100,00	100,00	100,00
07/01/2005	100,97	101,46	101,29	101,14	100,56	100,60
14/01/2005	101,60	101,81	100,32	100,33	100,83	101,00
21/01/2005	102,69	102,50	100,25	100,21	100,83	100,98
28/01/2005	103,77	103,55	101,14	100,65	101,16	101,19
04/02/2005	106,94	106,44	103,60	103,54	101,65	101,58
11/02/2005	108,39	107,91	105,11	105,01	101,89	101,89
18/02/2005	108,91	108,06	105,16	105,00	100,89	100,62
25/02/2005	109,03	107,48	104,87	104,65	100,63	100,42
04/03/2005	110,29	108,40	106,31	105,84	100,79	100,70
11/03/2005	109,32	107,07	105,16	104,26	100,36	100,34
18/03/2005	108,84	106,68	104,74	103,90	100,66	100,66
25/03/2005	107,87	106,36	104,97	104,29	100,69	100,62
01/04/2005	109,59	107,50	105,24	104,32	101,09	101,32
08/04/2005	111,64	109,29	105,98	105,42	101,12	101,68
15/04/2005	110,22	106,79	103,62	102,92	101,29	102,20
22/04/2005	109,32	106,27	102,11	101,73	101,59	102,49
29/04/2005	106,30	103,37	100,40	100,37	101,98	103,06
06/05/2005	107,94	104,62	103,15	103,39	101,79	102,78
13/05/2005	109,14	104,95	102,86	102,83	102,55	103,77
20/05/2005	110,22	106,66	104,64	104,86	102,51	103,57
27/05/2005	111,97	108,53	106,23	106,12	102,65	103,98
03/06/2005	114,66	110,89	107,57	107,42	103,37	104,79
10/06/2005	116,86	112,69	108,76	108,47	103,94	105,43
17/06/2005	119,43	114,10	109,86	109,63	103,31	104,58
24/06/2005	120,22	114,14	109,24	109,24	104,07	105,71
01/07/2005	121,89	114,68	110,58	110,89	104,10	105,71

Second half-year

	UK Equities		US Equities		EUR Fixed Inc.	
	Ukac	B-Ukac	Usac	B-Usac	EURto	B-EURto
01/07/2005	121,89	114,68	110,58	110,89	104,10	105,71
08/07/2005	124,10	115,27	111,54	111,18	104,10	105,53
15/07/2005	125,14	116,30	112,96	113,04	103,64	104,88
22/07/2005	126,11	116,86	114,15	113,87	104,07	105,30
29/07/2005	129,77	118,22	115,39	114,87	104,23	105,33
05/08/2005	130,92	118,06	114,47	113,77	103,57	104,43
12/08/2005	131,59	119,09	116,04	115,49	104,10	105,07
19/08/2005	130,62	119,31	115,91	115,30	104,66	105,82
26/08/2005	130,62	118,39	112,88	112,05	105,03	106,21
02/09/2005	134,91	120,49	114,62	113,71	105,52	106,98
09/09/2005	137,22	122,84	117,15	116,45	105,69	107,14
16/09/2005	138,05	123,27	117,43	116,74	105,23	106,52
23/09/2005	138,83	122,97	116,26	115,71	105,76	107,12
30/09/2005	141,18	124,77	119,41	118,81	105,43	106,53
07/10/2005	137,26	122,01	118,05	117,32	105,26	106,31
14/10/2005	132,97	119,51	117,43	116,42	104,60	105,65
21/10/2005	128,46	116,12	114,45	113,56	105,03	106,06
28/10/2005	128,46	116,56	113,60	112,87	103,87	104,87
04/11/2005	133,76	121,25	117,15	116,72	103,27	104,19
11/11/2005	133,79	122,28	117,48	117,03	103,14	104,05
18/11/2005	133,98	123,06	119,86	119,31	102,94	103,94
25/11/2005	135,92	124,83	121,05	120,68	103,97	105,06
02/12/2005	138,46	126,61	122,99	122,47	104,30	105,33
09/12/2005	140,25	127,08	122,42	122,26	103,94	104,94
16/12/2005	140,51	127,50	124,06	123,91	104,60	105,59
23/12/2005	143,08	128,77	125,42	125,34	104,76	105,76
30/12/2005	144,31	129,67	124,90	124,83	105,06	106,06

4.1.3 EXCHANGE RATES

	First half-year				Second half-year		
	GBP/EUR	USD/EUR	EUR/EUR		GBP/EUR	USD/EUR	EUR/EUR
31/12/2004	0,8000	1,3000	1,0000	01/07/2005	0,8494	1,3906	1,0000
07/01/2005	0,8050	1,2986	1,0000	08/07/2005	0,8444	1,3867	1,0000
14/01/2005	0,8068	1,2946	1,0000	15/07/2005	0,8505	1,3908	1,0000
21/01/2005	0,8176	1,2897	1,0000	22/07/2005	0,8440	1,3866	1,0000
28/01/2005	0,8151	1,2963	1,0000	29/07/2005	0,8552	1,3885	1,0000
04/02/2005	0,8115	1,3086	1,0000	05/08/2005	0,8577	1,3855	1,0000
11/02/2005	0,8095	1,3096	1,0000	12/08/2005	0,8569	1,3821	1,0000
18/02/2005	0,8026	1,3203	1,0000	19/08/2005	0,8556	1,3916	1,0000
25/02/2005	0,8139	1,3248	1,0000	26/08/2005	0,8606	1,3989	1,0000
04/03/2005	0,8146	1,3372	1,0000	02/09/2005	0,8558	1,4069	1,0000
11/03/2005	0,8081	1,3315	1,0000	09/09/2005	0,8633	1,4019	1,0000
18/03/2005	0,8090	1,3268	1,0000	16/09/2005	0,8703	1,4039	1,0000
25/03/2005	0,8143	1,3336	1,0000	23/09/2005	0,8778	1,4049	1,0000
01/04/2005	0,8133	1,3441	1,0000	30/09/2005	0,8825	1,4189	1,0000
08/04/2005	0,8223	1,3556	1,0000	07/10/2005	0,8799	1,4297	1,0000
15/04/2005	0,8157	1,3551	1,0000	14/10/2005	0,8775	1,4279	1,0000
22/04/2005	0,8193	1,3651	1,0000	21/10/2005	0,8815	1,4246	1,0000
29/04/2005	0,8201	1,3597	1,0000	28/10/2005	0,8858	1,4222	1,0000
06/05/2005	0,8308	1,3668	1,0000	04/11/2005	0,8827	1,4257	1,0000
13/05/2005	0,8388	1,3698	1,0000	11/11/2005	0,8752	1,4370	1,0000
20/05/2005	0,8415	1,3742	1,0000	18/11/2005	0,8849	1,4435	1,0000
27/05/2005	0,8384	1,3875	1,0000	25/11/2005	0,8964	1,4406	1,0000
03/06/2005	0,8493	1,3923	1,0000	02/12/2005	0,9042	1,4536	1,0000
10/06/2005	0,8437	1,3873	1,0000	09/12/2005	0,9038	1,4486	1,0000
17/06/2005	0,8413	1,3843	1,0000	16/12/2005	0,9075	1,4458	1,0000
24/06/2005	0,8466	1,3965	1,0000	23/12/2005	0,9133	1,4448	1,0000
01/07/2005	0,8494	1,3906	1,0000	30/12/2005	0,9202	1,4434	1,0000

4.1.4 MANAGEMENT'S STRATEGIC ALLOCATION CHOICES

First half-year

	UK Equities		US Equities		EUR Fixed Inc.	
	Portfolio	Benchm.	Portfolio	Benchm.	Portfolio	Benchm.
31/12/2004	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
07/01/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
14/01/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
21/01/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
28/01/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
04/02/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
11/02/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
18/02/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
25/02/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
04/03/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
11/03/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
18/03/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
25/03/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
01/04/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
08/04/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
15/04/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
22/04/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
29/04/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
06/05/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
13/05/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
20/05/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
27/05/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
03/06/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
10/06/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
17/06/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%
24/06/2005	10,00%	15,00%	30,00%	35,00%	60,00%	50,00%

Second half-year

	UK Equities		US Equities		EUR Fixed Inc.	
	Portfolio	Benchm.	Portfolio	Benchm.	Portfolio	Benchm.
01/07/2005	12,24%	15,00%	30,93%	35,00%	56,83%	50,00%
08/07/2005	8,05%	15,00%	28,14%	35,00%	63,81%	50,00%
15/07/2005	11,87%	15,00%	32,17%	35,00%	55,96%	50,00%
22/07/2005	10,08%	15,00%	29,18%	35,00%	60,74%	50,00%
29/07/2005	9,23%	15,00%	28,40%	35,00%	62,37%	50,00%
05/08/2005	11,66%	15,00%	27,98%	35,00%	60,36%	50,00%
12/08/2005	11,76%	15,00%	31,14%	35,00%	57,10%	50,00%
19/08/2005	8,18%	15,00%	29,90%	35,00%	61,92%	50,00%
26/08/2005	9,67%	15,00%	31,30%	35,00%	59,03%	50,00%
02/09/2005	12,34%	15,00%	29,75%	35,00%	57,91%	50,00%
09/09/2005	7,59%	15,00%	30,38%	35,00%	62,03%	50,00%
16/09/2005	10,52%	15,00%	32,29%	35,00%	57,19%	50,00%
23/09/2005	8,94%	15,00%	30,73%	35,00%	60,33%	50,00%
30/09/2005	11,68%	15,00%	29,35%	35,00%	58,97%	50,00%
07/10/2005	11,04%	15,00%	31,03%	35,00%	57,93%	50,00%
14/10/2005	7,64%	15,00%	30,70%	35,00%	61,66%	50,00%
21/10/2005	7,66%	15,00%	30,39%	35,00%	61,95%	50,00%
28/10/2005	8,10%	15,00%	30,70%	35,00%	61,20%	50,00%
04/11/2005	8,53%	15,00%	29,83%	35,00%	61,64%	50,00%
11/11/2005	9,39%	15,00%	31,10%	35,00%	59,51%	50,00%
18/11/2005	9,10%	15,00%	30,38%	35,00%	60,52%	50,00%
25/11/2005	7,94%	15,00%	29,02%	35,00%	63,04%	50,00%
02/12/2005	8,00%	15,00%	30,59%	35,00%	61,41%	50,00%
09/12/2005	8,60%	15,00%	30,95%	35,00%	60,45%	50,00%
16/12/2005	7,86%	15,00%	29,53%	35,00%	62,61%	50,00%
23/12/2005	10,76%	15,00%	30,51%	35,00%	58,73%	50,00%

4.2 BREAK-DOWN OF EX ANTE VOLATILITY

Historical data being available on a weekly basis, the annualized volatility will be volatility multiplied by $\sqrt{52}$.

4.2.1 MARKET ALLOCATION

Returns of the indexes used in the portfolio's benchmark

	B-Ukac	B-Usac2	B-EURto2
31/12/2004	-	-	-
07/01/2005	1,460%	1,240%	0,710%
14/01/2005	0,345%	-1,126%	0,189%
21/01/2005	0,678%	0,310%	0,168%
28/01/2005	1,024%	0,279%	0,158%
04/02/2005	2,791%	2,821%	0,237%
11/02/2005	1,381%	1,497%	0,503%
18/02/2005	0,139%	-0,029%	-1,432%
25/02/2005	-0,537%	-0,324%	-0,020%
04/03/2005	0,856%	1,308%	0,249%
11/03/2005	-1,227%	-1,584%	-0,437%
18/03/2005	-0,364%	-0,613%	0,339%
25/03/2005	-0,300%	0,405%	0,079%
01/04/2005	1,072%	0,307%	0,616%
08/04/2005	1,665%	0,909%	0,414%
15/04/2005	-2,287%	-2,466%	0,334%
22/04/2005	-0,487%	-1,274%	0,264%
29/04/2005	-2,729%	-1,113%	0,684%
06/05/2005	1,209%	2,799%	-0,184%
13/05/2005	0,315%	-0,494%	0,739%
20/05/2005	1,629%	1,976%	-0,135%
27/05/2005	1,753%	1,298%	0,512%
03/06/2005	2,175%	1,357%	0,692%
10/06/2005	1,623%	0,763%	0,706%
17/06/2005	1,251%	1,264%	-0,863%
24/06/2005	0,035%	-0,629%	1,147%
01/07/2005	0,473%	1,788%	0,000%

Mkt Index. Ret

0,0162%	**0,0138%**	**0,0004%**
0,0138%	**0,0172%**	**-0,0005%**
0,0004%	**-0,0005%**	**0,0028%**

$$(1) = \sum_i S_i^2 \times Var(\overline{BP_i}) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{BP_i}, \overline{BP_j})$$

Numerical application (strategy 10/30/60):

Annualized variance = 0,1760%

That is a volatility of: 4,196%

4.2.2 MULTI-MANAGEMENT

	Index returns			Multi-Management effect			
	B-Ukac	B-Usac	B-EURto		M-Ukac	M-Usac	M-EURto
31/12/2004				31/12/2004			
07/01/2005	1,460%	1,140%	0,600%	07/01/2005	0,000%	-0,100%	-0,110%
14/01/2005	0,345%	-0,801%	0,398%	14/01/2005	0,000%	0,325%	0,209%
21/01/2005	0,678%	-0,120%	-0,020%	21/01/2005	0,000%	-0,429%	-0,188%
28/01/2005	1,024%	0,439%	0,208%	28/01/2005	0,000%	0,160%	0,050%
04/02/2005	2,791%	2,871%	0,385%	04/02/2005	0,000%	0,051%	0,148%
11/02/2005	1,381%	1,420%	0,305%	11/02/2005	0,000%	-0,077%	-0,197%
18/02/2005	0,139%	-0,010%	-1,246%	18/02/2005	0,000%	0,019%	0,185%
25/02/2005	-0,537%	-0,333%	-0,199%	25/02/2005	0,000%	-0,010%	-0,179%
04/03/2005	0,856%	1,137%	0,279%	04/03/2005	0,000%	-0,171%	0,030%
11/03/2005	-1,227%	-1,493%	-0,357%	11/03/2005	0,000%	0,091%	0,079%
18/03/2005	-0,364%	-0,345%	0,319%	18/03/2005	0,000%	0,268%	-0,020%
25/03/2005	-0,300%	0,375%	-0,040%	25/03/2005	0,000%	-0,029%	-0,119%
01/04/2005	1,072%	0,029%	0,696%	01/04/2005	0,000%	-0,278%	0,080%
08/04/2005	1,665%	1,054%	0,355%	08/04/2005	0,000%	0,145%	-0,059%
15/04/2005	-2,287%	-2,371%	0,511%	15/04/2005	0,000%	0,094%	0,177%
22/04/2005	-0,487%	-1,156%	0,284%	22/04/2005	0,000%	0,117%	0,019%
29/04/2005	-2,729%	-1,337%	0,556%	29/04/2005	0,000%	-0,224%	-0,128%
06/05/2005	1,209%	3,009%	-0,272%	06/05/2005	0,000%	0,210%	-0,087%
13/05/2005	0,315%	-0,542%	0,963%	13/05/2005	0,000%	-0,048%	0,225%
20/05/2005	1,629%	1,974%	-0,193%	20/05/2005	0,000%	-0,002%	-0,058%
27/05/2005	1,753%	1,202%	0,396%	27/05/2005	0,000%	-0,097%	-0,116%
03/06/2005	2,175%	1,225%	0,779%	03/06/2005	0,000%	-0,132%	0,087%
10/06/2005	1,623%	0,977%	0,611%	10/06/2005	0,000%	0,215%	-0,096%
17/06/2005	1,251%	1,069%	-0,806%	17/06/2005	0,000%	-0,195%	0,056%
24/06/2005	0,035%	-0,356%	1,081%	24/06/2005	0,000%	0,273%	-0,067%
01/07/2005	0,473%	1,510%	0,000%	01/07/2005	0,000%	-0,278%	0,000%

Multi Management

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0004%**	**0,0001%**
0,0000%	**0,0001%**	**0,0002%**

$$(2) = \sum_i S_i^2 \times Var(\overline{M_i}) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{M_i}, \overline{M_j})$$

Numerical application (strategy 10/30/60):

Annualized variance = 0,0550%

That is a volatility of: 0,742%

4.2.3 ALPHA GENERATION

Out performance of the different funds

	Ukac	Usac	EURto
31/12/2004	-	-	-
07/01/2005	-0,490%	0,150%	-0,040%
14/01/2005	0,279%	-0,157%	-0,129%
21/01/2005	0,395%	0,050%	0,020%
28/01/2005	0,027%	0,449%	0,119%
04/02/2005	0,264%	-0,439%	0,099%
11/02/2005	-0,025%	0,038%	-0,069%
18/02/2005	0,341%	0,057%	0,265%
25/02/2005	0,647%	0,058%	-0,059%
04/03/2005	0,300%	0,236%	-0,120%
11/03/2005	0,347%	0,411%	-0,069%
18/03/2005	-0,075%	-0,054%	-0,020%
25/03/2005	-0,591%	-0,156%	0,070%
01/04/2005	0,523%	0,228%	-0,298%
08/04/2005	0,205%	-0,351%	-0,326%
15/04/2005	1,016%	0,145%	-0,343%
22/04/2005	-0,330%	-0,301%	0,012%
29/04/2005	-0,034%	-0,338%	-0,172%
06/05/2005	0,334%	-0,270%	0,085%
13/05/2005	0,796%	0,260%	-0,217%
20/05/2005	-0,640%	-0,244%	0,154%
27/05/2005	-0,166%	0,318%	-0,259%
03/06/2005	0,228%	0,036%	-0,078%
10/06/2005	0,295%	0,129%	-0,059%
17/06/2005	0,948%	-0,058%	0,200%
24/06/2005	0,626%	-0,209%	-0,345%
01/07/2005	0,916%	-0,284%	0,029%

Alphas Management.

0,0020%	**0,0001%**	**-0,0002%**
0,0001%	**0,0006%**	**-0,0001%**
-0,0002%	**-0,0001%**	**0,0003%**

$$(3) = \sum_i S_i^2 \times Var(\overline{\alpha_i}) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{\alpha_i}, \overline{\alpha_j})$$

Numerical application (strategy 10/30/60):

Annualized variance = 0,0071%

That is a volatility of: 0,844%

This variance can be broken down as shown:

T.E. UKac = 3,20% that is a contribution to variance of 0,0010%

T.E. USac = 1,76% that is a contribution to variance of 0,0028%

T.E. EURto = 1,19% that is a contribution to variance of 0,0051%

Desynchronization of alphas for a contribution to variance of -0,0018%

4.2.4 CURRENCY ALLOCATION

Currency returns

	GBP	USD	EUR
31/12/2004	-	-	-
07/01/2005	-0,621%	0,108%	0,000%
14/01/2005	-0,223%	0,309%	0,000%
21/01/2005	-1,321%	0,380%	0,000%
28/01/2005	0,307%	-0,509%	0,000%
04/02/2005	0,444%	-0,940%	0,000%
11/02/2005	0,247%	-0,076%	0,000%
18/02/2005	0,860%	-0,810%	0,000%
25/02/2005	-1,388%	-0,340%	0,000%
04/03/2005	-0,086%	-0,927%	0,000%
11/03/2005	0,804%	0,428%	0,000%
18/03/2005	-0,111%	0,354%	0,000%
25/03/2005	-0,651%	-0,510%	0,000%
01/04/2005	0,123%	-0,781%	0,000%
08/04/2005	-1,094%	-0,848%	0,000%
15/04/2005	0,809%	0,037%	0,000%
22/04/2005	-0,439%	-0,733%	0,000%
29/04/2005	-0,098%	0,397%	0,000%
06/05/2005	-1,288%	-0,519%	0,000%
13/05/2005	-0,954%	-0,219%	0,000%
20/05/2005	-0,321%	-0,320%	0,000%
27/05/2005	0,370%	-0,959%	0,000%
03/06/2005	-1,283%	-0,345%	0,000%
10/06/2005	0,664%	0,360%	0,000%
17/06/2005	0,285%	0,217%	0,000%
24/06/2005	-0,626%	-0,874%	0,000%
01/07/2005	-0,330%	0,424%	0,000%

Curr. Ret

0,0048%	**0,0003%**	**0,0000%**
0,0003%	**0,0025%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

$$(4) = \sum_i S_i^2 \times Var(\overline{D_i}) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{D_i}, \overline{D_j})$$

Numerical application (strategy 10/30/60):

Annualized variance = 0,0149%

That is a volatility of: 1,223%

4.2.5 MARKETS / ALPHAS SYNCHRONISATION

	Index returns			Out performances		
	B-Ukac	B-Usac	B-EURto	Ukac	Usac	EURto
31/12/2004						
07/01/2005	1,460%	1,140%	0,600%	-0,490%	0,150%	-0,040%
14/01/2005	0,345%	-0,801%	0,398%	0,279%	-0,157%	-0,129%
21/01/2005	0,678%	-0,120%	-0,020%	0,395%	0,050%	0,020%
28/01/2005	1,024%	0,439%	0,208%	0,027%	0,449%	0,119%
04/02/2005	2,791%	2,871%	0,385%	0,264%	-0,439%	0,099%
11/02/2005	1,381%	1,420%	0,305%	-0,025%	0,038%	-0,069%
18/02/2005	0,139%	-0,010%	-1,246%	0,341%	0,057%	0,265%
25/02/2005	-0,537%	-0,333%	-0,199%	0,647%	0,058%	-0,059%
04/03/2005	0,856%	1,137%	0,279%	0,300%	0,236%	-0,120%
11/03/2005	-1,227%	-1,493%	-0,357%	0,347%	0,411%	-0,069%
18/03/2005	-0,364%	-0,345%	0,319%	-0,075%	-0,054%	-0,020%
25/03/2005	-0,300%	0,375%	-0,040%	-0,591%	-0,156%	0,070%
01/04/2005	1,072%	0,029%	0,696%	0,523%	0,228%	-0,298%
08/04/2005	1,665%	1,054%	0,355%	0,205%	-0,351%	-0,326%
15/04/2005	-2,287%	-2,371%	0,511%	1,016%	0,145%	-0,343%
22/04/2005	-0,487%	-1,156%	0,284%	-0,330%	-0,301%	0,012%
29/04/2005	-2,729%	-1,337%	0,556%	-0,034%	-0,338%	-0,172%
06/05/2005	1,209%	3,009%	-0,272%	0,334%	-0,270%	0,085%
13/05/2005	0,315%	-0,542%	0,963%	0,796%	0,260%	-0,217%
20/05/2005	1,629%	1,974%	-0,193%	-0,640%	-0,244%	0,154%
27/05/2005	1,753%	1,202%	0,396%	-0,166%	0,318%	-0,259%
03/06/2005	2,175%	1,225%	0,779%	0,228%	0,036%	-0,078%
10/06/2005	1,623%	0,977%	0,611%	0,295%	0,129%	-0,059%
17/06/2005	1,251%	1,069%	-0,806%	0,948%	-0,058%	0,200%
24/06/2005	0,035%	-0,356%	1,081%	0,626%	-0,209%	-0,345%
01/07/2005	0,473%	1,510%	0,000%	0,916%	-0,284%	0,029%

Covariances
Mkt Index. Ret / Alphas

-0,0009%	**-0,0012%**	**-0,0001%**
-0,0001%	**-0,0008%**	**0,0000%**
0,0005%	**0,0009%**	**-0,0006%**

$$(5) = 2 \times \sum_i S_i^2 \times Cov\left(\overline{BP_i} + \overline{M_i}, \overline{\alpha_i}\right) + 2 \times \sum_{i \neq j} S_i S_j \times Cov\left(\overline{BP_i} + \overline{M_i}, \overline{\alpha_j}\right)$$

Numerical application (strategy 10/30/60):

Annualized variance = -0,0168%

4.2.6 OTHER CROSS EFFECTS

Remainder of the volatility breakdown: -0,0539%

4.2.6.1 FUNDS RETURNS X CURRENCY RETURNS:

	Ukac	Usac	EURto
31/12/2004	-	-	-
07/01/2005	-0,006%	0,001%	0,000%
14/01/2005	-0,001%	-0,003%	0,000%
21/01/2005	-0,014%	0,000%	0,000%
28/01/2005	0,003%	-0,005%	0,000%
04/02/2005	0,014%	-0,023%	0,000%
11/02/2005	0,003%	-0,001%	0,000%
18/02/2005	0,004%	0,000%	0,000%
25/02/2005	-0,002%	0,001%	0,000%
04/03/2005	-0,001%	-0,013%	0,000%
11/03/2005	-0,007%	-0,005%	0,000%
18/03/2005	0,000%	-0,001%	0,000%
25/03/2005	0,006%	-0,001%	0,000%
01/04/2005	0,002%	-0,002%	0,000%
08/04/2005	-0,020%	-0,006%	0,000%
15/04/2005	-0,010%	-0,001%	0,000%
22/04/2005	0,004%	0,011%	0,000%
29/04/2005	0,003%	-0,007%	0,000%
06/05/2005	-0,020%	-0,014%	0,000%
13/05/2005	-0,011%	0,001%	0,000%
20/05/2005	-0,003%	-0,006%	0,000%
27/05/2005	0,006%	-0,015%	0,000%
03/06/2005	-0,031%	-0,004%	0,000%
10/06/2005	0,013%	0,004%	0,000%
17/06/2005	0,006%	0,002%	0,000%
24/06/2005	-0,004%	0,005%	0,000%
01/07/2005	-0,005%	0,005%	0,000%

Covariances
Fund. Ret x Curr. Ret

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

$$(6.1) = \sum_i S_i^2 \times Var\left(\overline{D_i} \times \left(\overline{BP_i} + \overline{M_i} + \overline{\alpha_i}\right)\right) + 2 \sum_{i \neq j} S_i S_j \times Cov\left(\overline{D_i} \times \left(\overline{BP_i} + \overline{M_i} + \overline{\alpha_i}\right), \overline{D_j} \times \left(\overline{BP_j} + \overline{M_j} + \overline{\alpha_j}\right)\right)$$

Numerical application (strategy 10/30/60):

Annualized variance = 0,0000%

(component almost null)

4.2.6.2 MULTI-MANAGEMENT COMBINED WITH INDEXES USED IN THE PORTFOLIO'S BENCHMARK

Covariances Mkt Index. Ret / Multi Mgt		
0,0000%	0,0000%	0,0000%
-0,0001%	-0,0006%	0,0001%
-0,0001%	-0,0004%	-0,0002%

$$(6.2) = 2 \times \sum_i S_i^2 \times Co\,\mathrm{var}(\overline{BP_i}, \overline{M_i}) + 2 \times \sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{BP_i}, \overline{M_j})$$

Numerical application (strategy 10/30/60):

Annualized variance = -0,0198%

4.2.6.3 FUNDS RETURNS COMBINED WITH CURRENCIES X (1 + FUNDS RETURNS)

Covariances Fund. Ret / Curr. Ret x (1+ Fund. Ret)		
-0,0010%	-0,0020%	0,0000%
-0,0011%	-0,0020%	0,0000%
-0,0006%	-0,0001%	0,0000%

$$(6.3) = 2 \times \sum_i S_i^2 \times Co\,\mathrm{var}(\overline{BP_i} + \overline{M_i} + \overline{\alpha_i}, \overline{D_i} \times (1 + \overline{BP_i} + \overline{M_i} + \overline{\alpha_i})) + 2 \times \sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{BP_i} + \overline{M_i} + \overline{\alpha_i}, \overline{D_j} \times (1 + \overline{BP_j} + \overline{M_j} + \overline{\alpha_j}))$$

Numerical application (strategy 10/30/60):

Annualized variance = -0,0342%

4.2.6.4 CURRENCY RETURNS COMBINED WITH CURRENCY RETURNS X FUND RETURNS

Covariances Curr. Ret / Curr. Ret x Fund. Ret		
0,0000%	0,0000%	0,0000%
0,0000%	0,0000%	0,0000%
0,0000%	0,0000%	0,0000%

$$(6.4) = 2 \times \sum_i S_i^2 \times Co\,\mathrm{var}(\overline{D_i}, \overline{D_i} \times (\overline{BP_i} + \overline{M_i} + \overline{\alpha_i})) + 2 \times \sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{D_i}, \overline{D_j} \times (\overline{BP_j} + \overline{M_j} + \overline{\alpha_j}))$$

Numerical application (strategy 10/30/60):

Annualized variance = 0,0001%

4.2.7 RECAP

Performance being split into seven components:

$$\sum_i S_i \times (BP_i + M_i + \alpha_i + D_i \times (1 + BP_i + M_i + \alpha_i))$$

The variance (square of volatility) will be split into 49 components which have been combined to ease the reading; each element in the table below refers to the number of the corresponding equation presented above.

i \ j	BP_i	M_i	α_i	D_i	D_ixBP_i	D_ixM_i	D_ixα_i
BP_i	1	6.2	5	6.3	6.3	6.3	6.3
M_i	6.2	2	5	6.3	6.3	6.3	6.3
α_i	5	5	3	6.3	6.3	6.3	6.3
D_i	6.3	6.3	6.3	4	6.4	6.4	6.4
D_ixBP_i	6.3	6.3	6.3	6.4	6.1	6.1	6.1
D_ixM_i	6.3	6.3	6.3	6.4	6.1	6.1	6.1
D_ixα_i	6.3	6.3	6.3	6.4	6.1	6.1	6.1

4.3 BREAK-DOWN OF EX ANTE TRACKING ERROR

4.3.1 MARKET ALLOCATION

The strategy carried out (10/30/60) compared to the structure of the benchmark (15/35/50) generates allocation bets (-5/-5 / +10) to be combined with already used covariance matrices:

Covariances Mkt Index. Ret.

0,0162%	**0,0138%**	**0,0004%**
0,0138%	**0,0172%**	**-0,0005%**
0,0004%	**-0,0005%**	**0,0028%**

$$(1) = \sum_i (S_i - W_i)^2 \times Var(\overline{BP_i}) + 2\sum_{i \neq j} (S_i - W_i) \times (S_j - W_j) \times Co\,\mathrm{var}(\overline{BP_i}, \overline{BP_j})$$

Numerical application (-5/-5/10):

Annualized variance: 0,00946%

That is a tracking error of 0,973%

4.3.2 MULTI-MANAGEMENT

Reminder of the matrix:

Covariances Multi Mgt

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0004%**	**0,0001%**
0,0000%	**0,0001%**	**0,0002%**

$$(2) = \sum_i S_i^2 \times Var(\overline{M_i}) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{M_i}, \overline{M_j})$$

Numerical application (strategy 10/30/60):

Annualized variance: 0,00550%

That is a tracking error of: 0,742%

4.3.3 BREAK DOWN OF ALPHAS OF INVESTMENT MANAGEMENT

Reminder of the matrix:

Covariances Alphas

0,0020%	**0,0001%**	**-0,0002%**
0,0001%	**0,0006%**	**-0,0001%**
-0,0002%	**-0,0001%**	**0,0003%**

$$(3) = \sum_i S_i^2 \times Var(\overline{\alpha_i}) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{\alpha_i}, \overline{\alpha_j})$$

Numerical application (strategy 10/30/60):

Annualized variance: 0,00712%

That is a tracking error of: 0,844%

4.3.4 BREAK DOWN OF CURRENCIES ALLOCATION

Reminder of the matrix:

Covariances Curr. Ret

0,0048%	**0,0003%**	**0,0000%**
0,0003%	**0,0025%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

$$(4) = \sum_i (S_i - W_i)^2 \times Var(\overline{D_i}) + 2\sum_{i \neq j} (S_i - W_i) \times (S_j - W_j) \times Co\,\mathrm{var}(\overline{D_i}, \overline{D_j})$$

Numerical application (-5/-5/10):

Annualized variance: 0,00101%

That is a tracking error of: 0,318%

4.3.5 CROSSING MARKETS BETS / CURRENCY BETS

This component is the addition of 3 elements involving 3 different covariance matrices:

Matrix n°1: coefficient (currencies x market indexe s)

Covariances Mkt Index. Ret x Curr. Ret

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Matrix n°2: cross coefficient (market indexes / cur rencies x (1+ market indexes))

Covariances

Mkt Index. Ret / Curr. Ret (1+ Mkt Index. Ret)

-0,0012%	**-0,0018%**	**-0,0010%**
-0,0024%	**-0,0019%**	**-0,0001%**
0,0000%	**0,0000%**	**0,0000%**

Matrix n°3: cross coefficient (currencies / currenc ies x market indexes)

Covariances

Curr. Ret / Curr. Ret x Mkt Index. Ret

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

$$\begin{aligned}(5) = &\sum_i (S_i - W_i)^2 \times Var(\overline{D_i} \times \overline{BP_i}) + 2\sum_{i \neq j} (S_i - W_i) \times (S_j - W_j) \times Co\,\mathrm{var}(\overline{D_i} \times \overline{BP_i}, \overline{D_j} \times \overline{BP_j}) + \\ &2\sum_i (S_i - W_i)^2 \times Co\,\mathrm{var}(\overline{BP_i}, \overline{D_i} \times (1 + \overline{BP_i})) + 2\sum_{i \neq j} (S_i - W_i) \times (S_j - W_j) \times Co\,\mathrm{var}(\overline{BP_i}, \overline{D_j} \times (1 + \overline{BP_j})) + \\ &2\sum_i (S_i - W_i)^2 \times Co\,\mathrm{var}(\overline{D_i}, \overline{D_i} \times \overline{BP_i}) + 2\sum_{i \neq j} (S_i - W_i) \times (S_j - W_j) \times Co\,\mathrm{var}(\overline{D_i}, \overline{D_j} \times \overline{BP_j})\end{aligned}$$

Numerical application (-5/-5/10):

Annualized variance for the first fraction: 0,00000%

Annualized variance for the second fraction: -0,00128%

Annualized variance for the third fraction: 0,00001%

That is an overall variance of: -0,00127%

4.3.6 BALANCE OF ALPHA GENERATION EFFECTS

This component is the addition of 3 elements involving 3 different covariance matrices:

Matrix n°1: cross component (multi-management / man agement's alphas)

Covariances Multi Mgt / Alphas		
0,0000%	-0,0001%	0,0002%
0,0000%	-0,0001%	0,0000%
0,0000%	0,0000%	0,0000%

Matrix n°2: cross component (multi-management + alp ha / currencies x (multi-management + alpha))

Covariances Curr. Ret x (Multi Mgt + Alphas) / (Multi Mgt +Alphas)		
0,0000%	0,0000%	0,0000%
0,0000%	0,0000%	0,0000%
0,0000%	0,0000%	0,0000%

Matrix n°3: component (currencies x (multi-manageme nt + alpha))

Covariances Curr. Ret x (Multi Mgt +Alphas)		
0,0000%	0,0000%	0,0000%
0,0000%	0,0000%	0,0000%
0,0000%	0,0000%	0,0000%

$$(6) = 2\sum_i S_i^2 \times Co\,\mathrm{var}(\overline{M_i}, \overline{\alpha_i}) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{M_i}, \overline{\alpha_j}) +$$
$$2\sum_i S_i^2 \times Co\,\mathrm{var}(\overline{M_i} + \overline{\alpha_i}, \overline{D_i} \times (\overline{M_i} + \overline{\alpha_i})) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{M_i} + \overline{\alpha_i}, \overline{D_j} \times (\overline{M_j} + \overline{\alpha_j})) +$$
$$\sum_i S_i^2 \times Var(\overline{D_i} \times (\overline{M_i} + \overline{\alpha_i})) + 2\sum_{i \neq j} S_i S_j \times Co\,\mathrm{var}(\overline{D_i} \times (\overline{M_i} + \overline{\alpha_i}), \overline{D_j} \times (\overline{M_j} + \overline{\alpha_j}))$$

Numerical application (strategy 10/30/60):

Annualized variance for the first fraction: 0,00092%

Annualized variance for the second fraction: 0,00002%

Annualized variance for the third fraction: 0,00000%

That is an overall variance of: 0,00094%

4.3.7 ALLOCATION BETS / ALPHA HYBRID CROSS EFFECTS

This hybrid reminder can be measured as follows:

$$(7) = 2\sum_i (S_i - W_i) \times S_i \times Co\,\mathrm{var}((\overline{M_i} + \overline{\alpha_i}) \times (1 + \overline{D_i}), \overline{BP_i} + \overline{D_i} + \overline{BP_i} \times \overline{D_i}) +$$
$$2\sum_{i \neq j} (S_i - W_i) \times S_j \times Co\,\mathrm{var}((\overline{M_j} + \overline{\alpha_j}) \times (1 + \overline{D_j}), \overline{BP_i} + \overline{D_i} + \overline{BP_i} \times \overline{D_i})$$

The covariance matrix has the following values:

Covariances
Allocation Bets / Alphas Cross.

-0,0007%	**-0,0007%**	**-0,0003%**
0,0005%	**-0,0014%**	**0,0001%**
0,0008%	**0,0005%**	**-0,0008%**

Numerical application (strategy 10/30/60 and -5/-5/10):

Annualized variance: -0,00689%

4.3.8 RECAP

The out-performance being split into seven components:

$$Out.performance = \sum_i S_i \times (M_i + \alpha_i + D_i \times (M_i + \alpha_i)) + (S_i - W_i) \times (BP_i + D_i \times (1 + BP_i))$$

The variance (square of volatility) will be split into 49 components which have been combined to ease the reading; each element in the table below refers to the number of the corresponding equation presented above.

i \ j	BP_i	M_i	α_i	D_i	D_ixBP_i	D_ixM_i	D_ixα_i
BP_i	1	7	7	5.2	5.2	7	7
M_i	7	2	6.1	7	7	6.2	6.2
α_i	7	6.1	3	7	7	6.2	6.2
D_i	5.2	7	7	4	5.3	7	7
D_ixBP_i	5.2	7	7	5.3	5.1	7	7
D_ixM_i	7	6.2	6.2	7	7	6.3	6.3
D_ixα_i	7	6.2	6.2	7	7	6.3	6.3

4.4 BREAK-DOWN OF VOLATILITY VARIATION

4.4.1 ASSET ALLOCATION

Weekly track record of the asset allocation combining performance index, used for the portfolio benchmark, and recorded weights:

First half-year		Second half-year	
31/12/2004	Alloc. Ret.	01/07/2005	Alloc. Ret.
07/01/2005	0,9440%	08/07/2005	-0,0219%
14/01/2005	-0,1901%	15/07/2005	0,2374%
21/01/2005	0,2618%	22/07/2005	0,3663%
28/01/2005	0,2811%	29/07/2005	0,3951%
04/02/2005	1,2675%	05/08/2005	-0,7715%
11/02/2005	0,8888%	12/08/2005	0,8365%
18/02/2005	-0,8537%	19/08/2005	0,4027%
25/02/2005	-0,1627%	26/08/2005	-0,5539%
04/03/2005	0,6274%	02/09/2005	1,0039%
11/03/2005	-0,8598%	09/09/2005	1,0222%
18/03/2005	-0,0170%	16/09/2005	-0,2710%
25/03/2005	0,1391%	23/09/2005	0,1268%
01/04/2005	0,5686%	30/09/2005	0,5263%
08/04/2005	0,6879%	07/10/2005	-0,7343%
15/04/2005	-0,7680%	14/10/2005	-0,8053%
22/04/2005	-0,2722%	21/10/2005	-0,8045%
29/04/2005	-0,1965%	28/10/2005	-0,8687%
06/05/2005	0,8499%	04/11/2005	1,1182%
13/05/2005	0,3265%	11/11/2005	-0,0149%
20/05/2005	0,6748%	18/11/2005	0,6171%
27/05/2005	0,8721%	25/11/2005	1,1354%
03/06/2005	1,0398%	02/12/2005	0,6817%
10/06/2005	0,8149%	09/12/2005	-0,2602%
17/06/2005	-0,0131%	16/12/2005	0,8022%
24/06/2005	0,5033%	23/12/2005	0,4973%
01/07/2005	0,5838%	30/12/2005	0,2750%

Ex ante variance of return: 0,1760%

Ex post variance of return: 0,2120%

That is a spread of: +0,03599%

Reminder of the ex ante covariance matrix

Covariances Mkt Index. Ret.

0,0162%	**0,0138%**	**0,0004%**
0,0138%	**0,0172%**	**-0,0005%**
0,0004%	**-0,0005%**	**0,0028%**

Second period covariances

Covariances Mkt Index. Ret.

0,0183%	**0,0167%**	**0,0002%**
0,0167%	**0,0209%**	**-0,0002%**
0,0002%	**-0,0002%**	**0,0030%**

Application of the forecasted strategy (10/30/60) to the covariances differential 0,03752%

Balance due to weight fluctuations: -0,00153%

4.4.2 MULTI-MANAGEMENT

Weekly track record of multi-management combining spreads in indexes performance (funds' indexes – indexes chosen for the portfolio benchmark) and recorded weights:

First half-year		Second half-year	
31/12/2004	Multi-M Ret.	01/07/2005	Multi-M Ret.
07/01/2005	-0,0960%	08/07/2005	0,0690%
14/01/2005	0,2229%	15/07/2005	-0,0877%
21/01/2005	-0,2418%	22/07/2005	0,1511%
28/01/2005	0,0779%	29/07/2005	-0,0042%
04/02/2005	0,1042%	05/08/2005	-0,0459%
11/02/2005	-0,1417%	12/08/2005	0,0582%
18/02/2005	0,1168%	19/08/2005	-0,0246%
25/02/2005	-0,1102%	26/08/2005	-0,1238%
04/03/2005	-0,0333%	02/09/2005	0,0593%
11/03/2005	0,0748%	09/09/2005	0,0219%
18/03/2005	0,0683%	16/09/2005	0,0143%
25/03/2005	-0,0804%	23/09/2005	-0,1152%
01/04/2005	-0,0354%	30/09/2005	0,0956%
08/04/2005	0,0081%	07/10/2005	-0,0139%
15/04/2005	0,1346%	14/10/2005	-0,0185%
22/04/2005	0,0468%	21/10/2005	0,0729%
29/04/2005	-0,1437%	28/10/2005	0,0180%
06/05/2005	0,0107%	04/11/2005	-0,1420%
13/05/2005	0,1205%	11/11/2005	0,0838%
20/05/2005	-0,0353%	18/11/2005	-0,0143%
27/05/2005	-0,0988%	25/11/2005	-0,0035%
03/06/2005	0,0125%	02/12/2005	0,0240%
10/06/2005	0,0071%	09/12/2005	0,0100%
17/06/2005	-0,0247%	16/12/2005	0,0183%
24/06/2005	0,0418%	23/12/2005	0,0226%
01/07/2005	-0,0834%	30/12/2005	-0,1573%

Ex ante variance of return: 0,0055%

Ex post variance of return: 0,0029%

That is a spread of: -0,00264%

Reminder of the ex ante covariance matrix

Covariances Multi Mgt

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0004%**	**0,0001%**
0,0000%	**0,0001%**	**0,0002%**

Second period covariances

Covariances Multi Mgt

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0002%**	**0,0000%**
0,0000%	**0,0000%**	**0,0001%**

Application of the forecasted strategy (10/30/60) to the covariances differential -0,00274%

Balance due to weight fluctuations: +0,00010%

4.4.3 ALPHA GENERATION

Weekly track record of alpha generation combining each funds' alphas (funds' performance – funds' indexes) and recorded weights:

First half-year		Second half-year	
31/12/2004	Alpha Ret.	01/07/2005	Alpha Ret.
07/01/2005	-0,0280%	08/07/2005	0,4434%
14/01/2005	-0,0966%	15/07/2005	-0,0059%
21/01/2005	0,0663%	22/07/2005	0,1456%
28/01/2005	0,2089%	29/07/2005	0,3120%
04/02/2005	-0,0459%	05/08/2005	0,2778%
11/02/2005	-0,0326%	12/08/2005	-0,1423%
18/02/2005	0,2102%	19/08/2005	-0,1925%
25/02/2005	0,0466%	26/08/2005	0,1150%
04/03/2005	0,0289%	02/09/2005	0,0123%
11/03/2005	0,1166%	09/09/2005	-0,0829%
18/03/2005	-0,0357%	16/09/2005	0,1053%
25/03/2005	-0,0641%	23/09/2005	0,0141%
01/04/2005	-0,0583%	30/09/2005	0,1738%
08/04/2005	-0,2802%	07/10/2005	-0,0054%
15/04/2005	-0,0610%	14/10/2005	-0,0474%
22/04/2005	-0,1158%	21/10/2005	-0,0531%
29/04/2005	-0,2081%	28/10/2005	-0,0592%
06/05/2005	0,0036%	04/11/2005	-0,0362%
13/05/2005	0,0278%	11/11/2005	-0,0605%
20/05/2005	-0,0448%	18/11/2005	-0,0749%
27/05/2005	-0,0768%	25/11/2005	-0,0929%
03/06/2005	-0,0128%	02/12/2005	0,1079%
10/06/2005	0,0326%	09/12/2005	-0,0002%
17/06/2005	0,1975%	16/12/2005	-0,0061%
24/06/2005	-0,2069%	23/12/2005	0,0434%
01/07/2005	0,0238%	30/12/2005	0,0165%

Ex ante variance of return: 0,0071%

Ex post variance of return: 0,0104%

That is a spread of: +0,00331%

Reminder of the ex ante covariance matrix

Covariances Alphas.

0,0020%	**0,0001%**	**-0,0002%**
0,0001%	**0,0006%**	**-0,0001%**
-0,0002%	**-0,0001%**	**0,0003%**

Second period covariances

Covariances Alphas.

0,0055%	**0,0004%**	**0,0002%**
0,0004%	**0,0004%**	**0,0000%**
0,0002%	**0,0000%**	**0,0001%**

Application of the forecasted strategy (10/30/60) to the covariances differential +0,00292%

Balance due to weight fluctuations: +0,00039%

4.4.4 CURRENCY ALLOCATION

Weekly track record of the basket of currencies combining respective currency returns of each fund and recorded weights:

First half-year		Second half-year	
31/12/2004	Curr Ret.	01/07/2005	Curr Ret.
07/01/2005	-0,0298%	08/07/2005	0,1595%
14/01/2005	0,0704%	15/07/2005	-0,1407%
21/01/2005	-0,0181%	22/07/2005	0,1889%
28/01/2005	-0,1221%	29/07/2005	-0,1719%
04/02/2005	-0,2376%	05/08/2005	0,0346%
11/02/2005	0,0018%	12/08/2005	0,0797%
18/02/2005	-0,1572%	19/08/2005	-0,1947%
25/02/2005	-0,2407%	26/08/2005	-0,2036%
04/03/2005	-0,2868%	02/09/2005	-0,1237%
11/03/2005	0,2089%	09/09/2005	-0,0011%
18/03/2005	0,0951%	16/09/2005	-0,1043%
25/03/2005	-0,2181%	23/09/2005	-0,1129%
01/04/2005	-0,2221%	30/09/2005	-0,3508%
08/04/2005	-0,3639%	07/10/2005	-0,1872%
15/04/2005	0,0920%	14/10/2005	0,0693%
22/04/2005	-0,2637%	21/10/2005	0,0364%
29/04/2005	0,1094%	28/10/2005	0,0141%
06/05/2005	-0,2846%	04/11/2005	-0,0469%
13/05/2005	-0,1611%	11/11/2005	-0,1615%
20/05/2005	-0,1281%	18/11/2005	-0,2430%
27/05/2005	-0,2506%	25/11/2005	-0,0556%
03/06/2005	-0,2318%	02/12/2005	-0,3280%
10/06/2005	0,1745%	09/12/2005	0,1091%
17/06/2005	0,0935%	16/12/2005	0,0249%
24/06/2005	-0,3247%	23/12/2005	-0,0295%
01/07/2005	0,0943%	30/12/2005	-0,0511%

Ex ante variance of return: 0,01450%

Ex post variance of return: 0,0098%

That is a spread of: -0,00512%

Reminder of the ex ante covariance matrix

Covariances Curr. Ret

0,0048%	**0,0003%**	**0,0000%**
0,0003%	**0,0025%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Second period covariances

Covariances Curr. Ret

0,0039%	**-0,0002%**	**0,0000%**
-0,0002%	**0,0018%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Application of the forecasted strategy (10/30/60) to the covariances differential -0,00514%

Balance due to weight fluctuations: +0,00002%

4.4.5 MARKETS / ALPHAS SYNCHRONISATION

Weekly track record of alphas compared with respective funds indexes on a recorded weights basis:

First half-year			Second half-year		
31/12/2004	Index	Alphas	01/07/2005	Index	Alphas
07/01/2005	0,8480%	-0,0280%	08/07/2005	0,0471%	0,4434%
14/01/2005	0,0328%	-0,0966%	15/07/2005	0,1497%	-0,0059%
21/01/2005	0,0200%	0,0663%	22/07/2005	0,5175%	0,1456%
28/01/2005	0,3589%	0,2089%	29/07/2005	0,3909%	0,3120%
04/02/2005	1,3717%	-0,0459%	05/08/2005	-0,8174%	0,2778%
11/02/2005	0,7471%	-0,0326%	12/08/2005	0,8947%	-0,1423%
18/02/2005	-0,7368%	0,2102%	19/08/2005	0,3781%	-0,1925%
25/02/2005	-0,2729%	0,0466%	26/08/2005	-0,6777%	0,1150%
04/03/2005	0,5940%	0,0289%	02/09/2005	1,0632%	0,0123%
11/03/2005	-0,7850%	0,1166%	09/09/2005	1,0442%	-0,0829%
18/03/2005	0,0513%	-0,0357%	16/09/2005	-0,2567%	0,1053%
25/03/2005	0,0588%	-0,0641%	23/09/2005	0,0116%	0,0141%
01/04/2005	0,5332%	-0,0583%	30/09/2005	0,6219%	0,1738%
08/04/2005	0,6960%	-0,2802%	07/10/2005	-0,7482%	-0,0054%
15/04/2005	-0,6333%	-0,0610%	14/10/2005	-0,8239%	-0,0474%
22/04/2005	-0,2253%	-0,1158%	21/10/2005	-0,7316%	-0,0531%
29/04/2005	-0,3403%	-0,2081%	28/10/2005	-0,8507%	-0,0592%
06/05/2005	0,8606%	0,0036%	04/11/2005	0,9763%	-0,0362%
13/05/2005	0,4470%	0,0278%	11/11/2005	0,0689%	-0,0605%
20/05/2005	0,6395%	-0,0448%	18/11/2005	0,6029%	-0,0749%
27/05/2005	0,7733%	-0,0768%	25/11/2005	1,1319%	-0,0929%
03/06/2005	1,0524%	-0,0128%	02/12/2005	0,7057%	0,1079%
10/06/2005	0,8220%	0,0326%	09/12/2005	-0,2501%	-0,0002%
17/06/2005	-0,0378%	0,1975%	16/12/2005	0,8205%	-0,0061%
24/06/2005	0,5451%	-0,2069%	23/12/2005	0,5199%	0,0434%
01/07/2005	0,5004%	0,0238%	30/12/2005	0,1177%	0,0165%

Ex ante covariance of returns: -0,0168%

Ex post covariance of returns: -0,0165%

That is a spread of: +0,00028%

Reminder of the ex ante covariance matrix

Covariances
Mkt Index. Ret / Alphas

-0,0009%	**-0,0012%**	**-0,0001%**
-0,0001%	**-0,0008%**	**0,0000%**
0,0005%	**0,0009%**	**-0,0006%**

Second period covariances

Covariances
Mkt Index. Ret / Alphas

0,0030%	**0,0005%**	**0,0003%**
-0,0008%	**-0,0009%**	**0,0001%**
0,0000%	**0,0001%**	**-0,0004%**

Application of the forecasted strategy (10/30/60) to the covariances differential -0,00033%

Balance due to weight fluctuations: +0,00061%

4.4.6 OTHER CROSS EFFECTS

4.4.6.1 FIRST COMPONENT

Weekly track record of (currencies returns x funds returns) on a recorded weights basis:

First half-year		Second half-year	
31/12/2004	6.1 factor	01/07/2005	6.1 factor
07/01/2005	-0,0002%	08/07/2005	0,0021%
14/01/2005	-0,0010%	15/07/2005	-0,0015%
21/01/2005	-0,0015%	22/07/2005	0,0017%
28/01/2005	-0,0010%	29/07/2005	-0,0043%
04/02/2005	-0,0055%	05/08/2005	-0,0007%
11/02/2005	0,0000%	12/08/2005	0,0010%
18/02/2005	0,0003%	19/08/2005	0,0001%
25/02/2005	0,0001%	26/08/2005	0,0041%
04/03/2005	-0,0039%	02/09/2005	-0,0010%
11/03/2005	-0,0021%	09/09/2005	0,0005%
18/03/2005	-0,0004%	16/09/2005	-0,0005%
25/03/2005	0,0002%	23/09/2005	-0,0003%
01/04/2005	-0,0004%	30/09/2005	-0,0090%
08/04/2005	-0,0038%	07/10/2005	0,0016%
15/04/2005	-0,0013%	14/10/2005	-0,0011%
22/04/2005	0,0036%	21/10/2005	-0,0006%
29/04/2005	-0,0017%	28/10/2005	-0,0004%
06/05/2005	-0,0063%	04/11/2005	-0,0012%
13/05/2005	-0,0009%	11/11/2005	-0,0006%
20/05/2005	-0,0020%	18/11/2005	-0,0030%
27/05/2005	-0,0038%	25/11/2005	-0,0011%
03/06/2005	-0,0044%	02/12/2005	-0,0054%
10/06/2005	0,0025%	09/12/2005	-0,0004%
17/06/2005	0,0013%	16/12/2005	0,0007%
24/06/2005	0,0011%	23/12/2005	-0,0007%
01/07/2005	0,0011%	30/12/2005	-0,0008%

Ex ante variance of return: 0,0000%

Ex post variance of return: 0,0000%

That is a spread of: +0,00000%

Reminder of the ex ante covariance matrix

Covariances (Fund. Ret x Curr. Ret)

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Second period covariances

Covariances (Fund. Ret x Curr. Ret)

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Application of the forecast strategy (10/30/60) on the covariances differential +0,00000%

Balance due to weight fluctuations: +0,00000%

4.4.6.2 SECOND COMPONENT

Weekly track record of market index returns compared with multi-management performances on a recorded weights basis:

First half-year			Second half-year		
31/12/2004	Alloc. Ret.	Multi-M	01/07/2005	Alloc. Ret.	Multi-M
07/01/2005	0,9440%	-0,0960%	08/07/2005	-0,0219%	0,0690%
14/01/2005	-0,1901%	0,2229%	15/07/2005	0,2374%	-0,0877%
21/01/2005	0,2618%	-0,2418%	22/07/2005	0,3663%	0,1511%
28/01/2005	0,2811%	0,0779%	29/07/2005	0,3951%	-0,0042%
04/02/2005	1,2675%	0,1042%	05/08/2005	-0,7715%	-0,0459%
11/02/2005	0,8888%	-0,1417%	12/08/2005	0,8365%	0,0582%
18/02/2005	-0,8537%	0,1168%	19/08/2005	0,4027%	-0,0246%
25/02/2005	-0,1627%	-0,1102%	26/08/2005	-0,5539%	-0,1238%
04/03/2005	0,6274%	-0,0333%	02/09/2005	1,0039%	0,0593%
11/03/2005	-0,8598%	0,0748%	09/09/2005	1,0222%	0,0219%
18/03/2005	-0,0170%	0,0683%	16/09/2005	-0,2710%	0,0143%
25/03/2005	0,1391%	-0,0804%	23/09/2005	0,1268%	-0,1152%
01/04/2005	0,5686%	-0,0354%	30/09/2005	0,5263%	0,0956%
08/04/2005	0,6879%	0,0081%	07/10/2005	-0,7343%	-0,0139%
15/04/2005	-0,7680%	0,1346%	14/10/2005	-0,8053%	-0,0185%
22/04/2005	-0,2722%	0,0468%	21/10/2005	-0,8045%	0,0729%
29/04/2005	-0,1965%	-0,1437%	28/10/2005	-0,8687%	0,0180%
06/05/2005	0,8499%	0,0107%	04/11/2005	1,1182%	-0,1420%
13/05/2005	0,3265%	0,1205%	11/11/2005	-0,0149%	0,0838%
20/05/2005	0,6748%	-0,0353%	18/11/2005	0,6171%	-0,0143%
27/05/2005	0,8721%	-0,0988%	25/11/2005	1,1354%	-0,0035%
03/06/2005	1,0398%	0,0125%	02/12/2005	0,6817%	0,0240%
10/06/2005	0,8149%	0,0071%	09/12/2005	-0,2602%	0,0100%
17/06/2005	-0,0131%	-0,0247%	16/12/2005	0,8022%	0,0183%
24/06/2005	0,5033%	0,0418%	23/12/2005	0,4973%	0,0226%
01/07/2005	0,5838%	-0,0834%	30/12/2005	0,2750%	-0,1573%

Ex ante covariance of returns: -0,0198%

Ex post covariance of returns: 0,0027%

That is a spread of: +0,02258%

Reminder of the ex ante covariance matrix

Covariances
Mkt Index. Ret / Multi Mgt

0,0000%	**0,0000%**	**0,0000%**
-0,0001%	**-0,0006%**	**0,0001%**
-0,0001%	**-0,0004%**	**-0,0002%**

Second period covariances

Covariances
Mkt Index. Ret / Multi Mgt

0,0000%	**0,0000%**	**0,0000%**
0,0001%	**0,0003%**	**0,0000%**
-0,0002%	**0,0000%**	**0,0000%**

Application of the forecasted strategy (10/30/60) to the covariances differential +0,02176%

Balance due to weight fluctuations: +0,00082%

4.4.6.3 THIRD COMPONENT

Crossing of funds returns / currencies returns x (1 + funds returns) on a recorded weights basis:

First half-year			Second half-year		
31/12/2004	Funds Ret.	Curr x(1+fund)	01/07/2005	Funds Ret.	Curr x(1+fund)
07/01/2005	0,8200%	-0,0300%	08/07/2005	0,4904%	0,1615%
14/01/2005	-0,0638%	0,0694%	15/07/2005	0,1437%	-0,1422%
21/01/2005	0,0864%	-0,0196%	22/07/2005	0,6631%	0,1906%
28/01/2005	0,5679%	-0,1231%	29/07/2005	0,7029%	-0,1762%
04/02/2005	1,3258%	-0,2431%	05/08/2005	-0,5396%	0,0339%
11/02/2005	0,7145%	0,0018%	12/08/2005	0,7523%	0,0807%
18/02/2005	-0,5266%	-0,1569%	19/08/2005	0,1856%	-0,1946%
25/02/2005	-0,2263%	-0,2406%	26/08/2005	-0,5627%	-0,1995%
04/03/2005	0,6229%	-0,2907%	02/09/2005	1,0755%	-0,1247%
11/03/2005	-0,6685%	0,2068%	09/09/2005	0,9613%	-0,0006%
18/03/2005	0,0156%	0,0948%	16/09/2005	-0,1515%	-0,1048%
25/03/2005	-0,0054%	-0,2178%	23/09/2005	0,0258%	-0,1131%
01/04/2005	0,4750%	-0,2225%	30/09/2005	0,7957%	-0,3598%
08/04/2005	0,4158%	-0,3678%	07/10/2005	-0,7537%	-0,1856%
15/04/2005	-0,6944%	0,0907%	14/10/2005	-0,8713%	0,0682%
22/04/2005	-0,3411%	-0,2601%	21/10/2005	-0,7847%	0,0358%
29/04/2005	-0,5483%	0,1077%	28/10/2005	-0,9099%	0,0137%
06/05/2005	0,8642%	-0,2909%	04/11/2005	0,9400%	-0,0481%
13/05/2005	0,4748%	-0,1620%	11/11/2005	0,0083%	-0,1621%
20/05/2005	0,5947%	-0,1301%	18/11/2005	0,5280%	-0,2460%
27/05/2005	0,6966%	-0,2544%	25/11/2005	1,0389%	-0,0567%
03/06/2005	1,0395%	-0,2362%	02/12/2005	0,8136%	-0,3335%
10/06/2005	0,8546%	0,1770%	09/12/2005	-0,2503%	0,1087%
17/06/2005	0,1597%	0,0948%	16/12/2005	0,8144%	0,0256%
24/06/2005	0,3382%	-0,3236%	23/12/2005	0,5633%	-0,0302%
01/07/2005	0,5242%	0,0954%	30/12/2005	0,1342%	-0,0519%

Ex ante covariance of returns: -0,0342%

Ex post covariance of returns: -0,0128%

That is a spread of: +0,02134%

Reminder of the ex ante covariance matrix

Covariances
Fund. Ret / Curr. Ret x (1+Fund. Ret)

-0,0010%	**-0,0020%**	**0,0000%**
-0,0011%	**-0,0020%**	**0,0000%**
-0,0006%	**-0,0001%**	**0,0000%**

Second period covariances

Covariances
Fund. Ret / Curr. Ret x (1+Fund. Ret)

-0,0013%	**-0,0002%**	**0,0000%**
-0,0003%	**-0,0009%**	**0,0000%**
-0,0004%	**0,0001%**	**0,0000%**

Application of the forecasted strategy (10/30/60) to the covariances differential +0,02153%

Balance due to weight fluctuations: -0,00019%

4.4.6.4 FOURTH COMPONENT

Crossing of currencies returns / currencies returns x funds returns on a recorded weights basis :

First half-year			Second half-year		
31/12/2004	Curr Ret.	Curr x Fund	01/07/2005	Curr Ret.	Curr x Fund
07/01/2005	-0,0298%	-0,0002%	08/07/2005	0,1595%	0,0021%
14/01/2005	0,0704%	-0,0010%	15/07/2005	-0,1407%	-0,0015%
21/01/2005	-0,0181%	-0,0015%	22/07/2005	0,1889%	0,0017%
28/01/2005	-0,1221%	-0,0010%	29/07/2005	-0,1719%	-0,0043%
04/02/2005	-0,2376%	-0,0055%	05/08/2005	0,0346%	-0,0007%
11/02/2005	0,0018%	0,0000%	12/08/2005	0,0797%	0,0010%
18/02/2005	-0,1572%	0,0003%	19/08/2005	-0,1947%	0,0001%
25/02/2005	-0,2407%	0,0001%	26/08/2005	-0,2036%	0,0041%
04/03/2005	-0,2868%	-0,0039%	02/09/2005	-0,1237%	-0,0010%
11/03/2005	0,2089%	-0,0021%	09/09/2005	-0,0011%	0,0005%
18/03/2005	0,0951%	-0,0004%	16/09/2005	-0,1043%	-0,0005%
25/03/2005	-0,2181%	0,0002%	23/09/2005	-0,1129%	-0,0003%
01/04/2005	-0,2221%	-0,0004%	30/09/2005	-0,3508%	-0,0090%
08/04/2005	-0,3639%	-0,0038%	07/10/2005	-0,1872%	0,0016%
15/04/2005	0,0920%	-0,0013%	14/10/2005	0,0693%	-0,0011%
22/04/2005	-0,2637%	0,0036%	21/10/2005	0,0364%	-0,0006%
29/04/2005	0,1094%	-0,0017%	28/10/2005	0,0141%	-0,0004%
06/05/2005	-0,2846%	-0,0063%	04/11/2005	-0,0469%	-0,0012%
13/05/2005	-0,1611%	-0,0009%	11/11/2005	-0,1615%	-0,0006%
20/05/2005	-0,1281%	-0,0020%	18/11/2005	-0,2430%	-0,0030%
27/05/2005	-0,2506%	-0,0038%	25/11/2005	-0,0556%	-0,0011%
03/06/2005	-0,2318%	-0,0044%	02/12/2005	-0,3280%	-0,0054%
10/06/2005	0,1745%	0,0025%	09/12/2005	0,1091%	-0,0004%
17/06/2005	0,0935%	0,0013%	16/12/2005	0,0249%	0,0007%
24/06/2005	-0,3247%	0,0011%	23/12/2005	-0,0295%	-0,0007%
01/07/2005	0,0943%	0,0011%	30/12/2005	-0,0511%	-0,0008%

Ex ante covariance of returns: 0,0001%

Ex post covariance of returns: 0,0002%

That is a spread of: +0,00006%

Reminder of the ex ante covariance matrix

Curr Ret. / Curr Ret. x Fund Ret. Cross		
0,0000%	0,0000%	0,0000%
0,0000%	0,0000%	0,0000%
0,0000%	0,0000%	0,0000%

Second period covariances

Curr Ret. / Curr Ret. x Fund Ret. Cross		
0,0000%	0,0000%	0,0000%
0,0000%	0,0000%	0,0000%
0,0000%	0,0000%	0,0000%

Application of the forecasted strategy (10/30/60) to the covariances differential +0,00006%

Balance due to weight fluctuations: +0,00000%

4.4.6.5 RECAP OF OTHER CROSS EFFECTS

	Comp.1	Comp. 6.2	Comp. 6.3	Comp. 6.4	Comp. 6 total
Ex ante Variance	0,0000%	-0,0198%	-0,0342%	0,0001%	-0,0539%
Ex post Variance	0,0000%	0,0027%	-0,0128%	0,0002%	-0,0099%
Difference	0,00000%	+0,02258%	+0,02134%	+0,00006%	+0,04399%
Environment	0,00000%	+0,02176%	+0,02153%	+0,00006%	+0,04336%
Strategy	0,00000%	+0,00082%	-0,00019%	+0,00000%	+0,00063%

4.5 BREAK-DOWN OF TRACKING ERROR VARIATION

4.5.1 ASSET ALLOCATION

Track record of asset allocation effect deducted from performance attribution calculated from the recorded tactical bets

First half-year		Second half-year	
31/12/2004	Asset alloc.	01/07/2005	Asset alloc.
07/01/2005	-0,0640%	08/07/2005	-0,0504%
14/01/2005	0,0579%	15/07/2005	-0,2473%
21/01/2005	-0,0325%	22/07/2005	-0,0070%
28/01/2005	-0,0493%	29/07/2005	-0,1018%
04/02/2005	-0,2569%	05/08/2005	-0,0275%
11/02/2005	-0,0936%	12/08/2005	-0,0841%
18/02/2005	-0,1487%	19/08/2005	0,0535%
25/02/2005	0,0410%	26/08/2005	0,2447%
04/03/2005	-0,0833%	02/09/2005	-0,0800%
11/03/2005	0,0969%	09/09/2005	-0,1779%
18/03/2005	0,0828%	16/09/2005	-0,0909%
25/03/2005	0,0027%	23/09/2005	0,0690%
01/04/2005	-0,0074%	30/09/2005	-0,2571%
08/04/2005	-0,0873%	07/10/2005	0,1288%
15/04/2005	0,2711%	14/10/2005	0,0600%
22/04/2005	0,1145%	21/10/2005	0,3468%
29/04/2005	0,2605%	28/10/2005	-0,1373%
06/05/2005	-0,2188%	04/11/2005	-0,4886%
13/05/2005	0,0828%	11/11/2005	-0,0955%
20/05/2005	-0,1938%	18/11/2005	-0,1171%
27/05/2005	-0,1014%	25/11/2005	-0,0156%
03/06/2005	-0,1074%	02/12/2005	-0,1658%
10/06/2005	-0,0486%	09/12/2005	-0,0592%
17/06/2005	-0,2120%	16/12/2005	-0,0104%
24/06/2005	0,1444%	23/12/2005	-0,1029%
01/07/2005	-0,1131%	30/12/2005	0,0116%

Ex ante alpha variance: 0,00946%

Ex post alpha variance: 0,01298%

That is a spread of: +0,00353%

Reminder of the ex ante covariance matrix

Covariances

Mkt	**Index.**	**Ret**
0,0162%	**0,0138%**	**0,0004%**
0,0138%	**0,0172%**	**-0,0005%**
0,0004%	**-0,0005%**	**0,0028%**

Second period covariances

Covariances

Mkt	**Index.**	**Ret**
0,0183%	**0,0167%**	**0,0002%**
0,0167%	**0,0209%**	**-0,0002%**
0,0002%	**-0,0002%**	**0,0030%**

Application of the forecast tactical bets (-5/-5/10) to the covariances differential: +0,00152%

Balance due to weight fluctuations: +0,00201%

4.5.2 BREAK DOWN OF MULTI-MANAGEMENT

First half-year		Second half-year	
31/12/2004	Multi-M Ret.	01/07/2005	Multi-M Ret.
07/01/2005	-0,0960%	08/07/2005	0,0690%
14/01/2005	0,2229%	15/07/2005	-0,0877%
21/01/2005	-0,2418%	22/07/2005	0,1511%
28/01/2005	0,0779%	29/07/2005	-0,0042%
04/02/2005	0,1042%	05/08/2005	-0,0459%
11/02/2005	-0,1417%	12/08/2005	0,0582%
18/02/2005	0,1168%	19/08/2005	-0,0246%
25/02/2005	-0,1102%	26/08/2005	-0,1238%
04/03/2005	-0,0333%	02/09/2005	0,0593%
11/03/2005	0,0748%	09/09/2005	0,0219%
18/03/2005	0,0683%	16/09/2005	0,0143%
25/03/2005	-0,0804%	23/09/2005	-0,1152%
01/04/2005	-0,0354%	30/09/2005	0,0956%
08/04/2005	0,0081%	07/10/2005	-0,0139%
15/04/2005	0,1346%	14/10/2005	-0,0185%
22/04/2005	0,0468%	21/10/2005	0,0729%
29/04/2005	-0,1437%	28/10/2005	0,0180%
06/05/2005	0,0107%	04/11/2005	-0,1420%
13/05/2005	0,1205%	11/11/2005	0,0838%
20/05/2005	-0,0353%	18/11/2005	-0,0143%
27/05/2005	-0,0988%	25/11/2005	-0,0035%
03/06/2005	0,0125%	02/12/2005	0,0240%
10/06/2005	0,0071%	09/12/2005	0,0100%
17/06/2005	-0,0247%	16/12/2005	0,0183%
24/06/2005	0,0418%	23/12/2005	0,0226%
01/07/2005	-0,0834%	30/12/2005	-0,1573%

Identical to volatility calculations

Ex ante alpha variance: 0,00550%

Ex post alpha variance: 0,00286%

That is a spread of: -0,00264%

Reminder of the ex ante covariance matrix

Covariances Multi Mgt

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0004%**	**0,0001%**
0,0000%	**0,0001%**	**0,0002%**

Second period covariances

Covariances Multi Mgt

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0002%**	**0,0000%**
0,0000%	**0,0000%**	**0,0001%**

Application of the forecasted strategy (10/30/60) to the covariances differential -0,00274%

Balance due to weight fluctuations: +0,00010%

4.5.3 ALPHA GENERATION

Identical to volatility calculations

First half-year		Second half-year	
31/12/2004	Alpha	01/07/2005	Alpha
07/01/2005	-0,0280%	08/07/2005	0,4434%
14/01/2005	-0,0966%	15/07/2005	-0,0059%
21/01/2005	0,0663%	22/07/2005	0,1456%
28/01/2005	0,2089%	29/07/2005	0,3120%
04/02/2005	-0,0459%	05/08/2005	0,2778%
11/02/2005	-0,0326%	12/08/2005	-0,1423%
18/02/2005	0,2102%	19/08/2005	-0,1925%
25/02/2005	0,0466%	26/08/2005	0,1150%
04/03/2005	0,0289%	02/09/2005	0,0123%
11/03/2005	0,1166%	09/09/2005	-0,0829%
18/03/2005	-0,0357%	16/09/2005	0,1053%
25/03/2005	-0,0641%	23/09/2005	0,0141%
01/04/2005	-0,0583%	30/09/2005	0,1738%
08/04/2005	-0,2802%	07/10/2005	-0,0054%
15/04/2005	-0,0610%	14/10/2005	-0,0474%
22/04/2005	-0,1158%	21/10/2005	-0,0531%
29/04/2005	-0,2081%	28/10/2005	-0,0592%
06/05/2005	0,0036%	04/11/2005	-0,0362%
13/05/2005	0,0278%	11/11/2005	-0,0605%
20/05/2005	-0,0448%	18/11/2005	-0,0749%
27/05/2005	-0,0768%	25/11/2005	-0,0929%
03/06/2005	-0,0128%	02/12/2005	0,1079%
10/06/2005	0,0326%	09/12/2005	-0,0002%
17/06/2005	0,1975%	16/12/2005	-0,0061%
24/06/2005	-0,2069%	23/12/2005	0,0434%
01/07/2005	0,0238%	30/12/2005	0,0165%

Ex ante alpha variance: 0,00712%

Ex post alpha variance: 0,01043%

That is a spread of: +0,00331%

Reminder of the ex ante covariance matrix

Covariances Alphas

0,0020%	**0,0001%**	**-0,0002%**
0,0001%	**0,0006%**	**-0,0001%**
-0,0002%	**-0,0001%**	**0,0003%**

Second period covariances

Covariances Alphas

0,0055%	**0,0004%**	**0,0002%**
0,0004%	**0,0004%**	**0,0000%**
0,0002%	**0,0000%**	**0,0001%**

Application of the forecasted strategy (10/30/60) to the covariances differential +0,00292%

Balance due to weight fluctuations: +0,00039%

4.5.4 BREAK DOWN OF CURRENCIES ALLOCATION

Track record of currencies allocation effects deducted from performance attribution calculated from the recorded tactical bets

First half-year		Second half-year	
31/12/2004	Curr alloc.	01/07/2005	Curr alloc.
07/01/2005	0,0257%	08/07/2005	-0,0278%
14/01/2005	-0,0043%	15/07/2005	0,0701%
21/01/2005	0,0471%	22/07/2005	-0,0327%
28/01/2005	0,0101%	29/07/2005	0,0724%
04/02/2005	0,0248%	05/08/2005	0,0025%
11/02/2005	-0,0085%	12/08/2005	-0,0204%
18/02/2005	-0,0025%	19/08/2005	0,0214%
25/02/2005	0,0864%	26/08/2005	0,0662%
04/03/2005	0,0507%	02/09/2005	-0,0089%
11/03/2005	-0,0616%	09/09/2005	0,0044%
18/03/2005	-0,0121%	16/09/2005	0,0662%
25/03/2005	0,0580%	23/09/2005	0,0402%
01/04/2005	0,0329%	30/09/2005	0,0744%
08/04/2005	0,0971%	07/10/2005	0,0329%
15/04/2005	-0,0423%	14/10/2005	-0,0158%
22/04/2005	0,0586%	21/10/2005	0,0234%
29/04/2005	-0,0150%	28/10/2005	0,0279%
06/05/2005	0,0904%	04/11/2005	-0,0137%
13/05/2005	0,0586%	11/11/2005	-0,0148%
20/05/2005	0,0321%	18/11/2005	0,0791%
27/05/2005	0,0294%	25/11/2005	0,0664%
03/06/2005	0,0814%	02/12/2005	0,1144%
10/06/2005	-0,0512%	09/12/2005	-0,0183%
17/06/2005	-0,0251%	16/12/2005	0,0183%
24/06/2005	0,0750%	23/12/2005	0,0416%
01/07/2005	-0,0047%	30/12/2005	0,0274%

Ex ante alpha variance: 0,00101%

Ex post alpha variance: 0,00080%

That is a spread of: -0,00021%

Reminder of the ex ante covariance matrix

Covariance Curr. Ret

0,0048%	**0,0003%**	**0,0000%**
0,0003%	**0,0025%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Second period covariances

Covariance Curr. Ret

0,0039%	**-0,0002%**	**0,0000%**
-0,0002%	**0,0018%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Application of the forecasted tactical bets (-5/-5/10) to the covariances differential: -0,00032%

Balance due to weight fluctuations: +0,00011%

4.5.5 MARKETS / CURRENCIES CROSS ALLOCATIONS

4.5.5.1 FIRST COMPONENT

Track record of (currency x market indexes) calculated from the recorded tactical bets

First half-year		Second half-year	
31/12/2004	Curr x Index	01/07/2005	Curr x Index
07/01/2005	0,0004%	08/07/2005	-0,0001%
14/01/2005	0,0002%	15/07/2005	0,0008%
21/01/2005	0,0004%	22/07/2005	-0,0002%
28/01/2005	-0,0001%	29/07/2005	0,0008%
04/02/2005	0,0007%	05/08/2005	0,0001%
11/02/2005	-0,0001%	12/08/2005	-0,0003%
18/02/2005	-0,0001%	19/08/2005	-0,0001%
25/02/2005	-0,0004%	26/08/2005	-0,0010%
04/03/2005	0,0006%	02/09/2005	-0,0003%
11/03/2005	0,0008%	09/09/2005	0,0000%
18/03/2005	0,0001%	16/09/2005	0,0002%
25/03/2005	0,0000%	23/09/2005	-0,0001%
01/04/2005	0,0001%	30/09/2005	0,0015%
08/04/2005	0,0013%	07/10/2005	-0,0003%
15/04/2005	0,0010%	14/10/2005	0,0003%
22/04/2005	-0,0006%	21/10/2005	-0,0007%
29/04/2005	0,0001%	28/10/2005	0,0002%
06/05/2005	0,0015%	04/11/2005	-0,0006%
13/05/2005	0,0001%	11/11/2005	-0,0004%
20/05/2005	0,0006%	18/11/2005	0,0007%
27/05/2005	0,0003%	25/11/2005	0,0010%
03/06/2005	0,0016%	02/12/2005	0,0017%
10/06/2005	-0,0007%	09/12/2005	0,0000%
17/06/2005	-0,0003%	16/12/2005	0,0000%
24/06/2005	-0,0003%	23/12/2005	0,0004%
01/07/2005	-0,0003%	30/12/2005	0,0002%

Ex ante alpha variance: 0,00000%

Ex post alpha variance: 0,00000%

That is a spread of: +0,00000%

Reminder of the ex ante covariance matrix

Covariances
Mkt Index. Ret x Curr. Ret

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Second period covariances

Covariances
Mkt Index. Ret x Curr. Ret

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Application of the forecasted tactical bets (-5/-5/10) to the covariances differential: +0,00000%

Balance due to weight fluctuations: +0,00000%

4.5.5.2 SECOND COMPONENT

Cross track record of market indexes and currencies x (1 + market indexes) calculated from the recorded tactical bets

First half-year			Second half-year		
31/12/2004	Asset alloc	Curr x(1+index)	01/07/2005	Asset alloc	Curr x(1+index)
07/01/2005	-0,0640%	0,0261%	08/07/2005	-0,0504%	-0,0279%
14/01/2005	0,0579%	-0,0041%	15/07/2005	-0,2473%	0,0709%
21/01/2005	-0,0325%	0,0474%	22/07/2005	-0,0070%	-0,0328%
28/01/2005	-0,0493%	0,0100%	29/07/2005	-0,1018%	0,0732%
04/02/2005	-0,2569%	0,0255%	05/08/2005	-0,0275%	0,0026%
11/02/2005	-0,0936%	-0,0086%	12/08/2005	-0,0841%	-0,0207%
18/02/2005	-0,1487%	-0,0025%	19/08/2005	0,0535%	0,0214%
25/02/2005	0,0410%	0,0860%	26/08/2005	0,2447%	0,0652%
04/03/2005	-0,0833%	0,0513%	02/09/2005	-0,0800%	-0,0091%
11/03/2005	0,0969%	-0,0608%	09/09/2005	-0,1779%	0,0044%
18/03/2005	0,0828%	-0,0121%	16/09/2005	-0,0909%	0,0664%
25/03/2005	0,0027%	0,0580%	23/09/2005	0,0690%	0,0401%
01/04/2005	-0,0074%	0,0330%	30/09/2005	-0,2571%	0,0759%
08/04/2005	-0,0873%	0,0984%	07/10/2005	0,1288%	0,0325%
15/04/2005	0,2711%	-0,0413%	14/10/2005	0,0600%	-0,0156%
22/04/2005	0,1145%	0,0580%	21/10/2005	0,3468%	0,0227%
29/04/2005	0,2605%	-0,0149%	28/10/2005	-0,1373%	0,0280%
06/05/2005	-0,2188%	0,0919%	04/11/2005	-0,4886%	-0,0143%
13/05/2005	0,0828%	0,0587%	11/11/2005	-0,0955%	-0,0152%
20/05/2005	-0,1938%	0,0326%	18/11/2005	-0,1171%	0,0798%
27/05/2005	-0,1014%	0,0297%	25/11/2005	-0,0156%	0,0674%
03/06/2005	-0,1074%	0,0830%	02/12/2005	-0,1658%	0,1161%
10/06/2005	-0,0486%	-0,0519%	09/12/2005	-0,0592%	-0,0183%
17/06/2005	-0,2120%	-0,0254%	16/12/2005	-0,0104%	0,0182%
24/06/2005	0,1444%	0,0747%	23/12/2005	-0,1029%	0,0420%
01/07/2005	-0,1131%	-0,0050%	30/12/2005	0,0116%	0,0277%

Ex ante alpha covariance: -0,00128%

Ex post alpha covariance: -0,00027%

That is a spread of: +0,00101%

Reminder of the ex ante covariance matrix

Mkt Index. Ret / Curr. Ret (1+ Mkt Index. Ret)

-0,0012%	**-0,0018%**	**-0,0010%**
-0,0024%	**-0,0019%**	**-0,0001%**
0,0000%	**0,0000%**	**0,0000%**

Second period covariances

Mkt Index. Ret / Curr. Ret (1+ Mkt Index. Ret)

-0,0006%	**-0,0008%**	**-0,0005%**
-0,0006%	**-0,0008%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Application of the forecasted tactical bets (-5/-5/10) to the covariances differential: +0,00078%.

Balance due to weight fluctuations: +0,00023%

4.5.5.3 THIRD COMPONENT

Cross track record of currencies and (currencies x market indexes) calculated from the recorded tactical bets

First half-year			Second half-year		
31/12/2004	Curr alloc.	Curr x Index	01/07/2005	Curr alloc.	Curr x Index
07/01/2005	0,0257%	0,0004%	08/07/2005	-0,0278%	-0,0001%
14/01/2005	-0,0043%	0,0002%	15/07/2005	0,0701%	0,0008%
21/01/2005	0,0471%	0,0004%	22/07/2005	-0,0327%	-0,0002%
28/01/2005	0,0101%	-0,0001%	29/07/2005	0,0724%	0,0008%
04/02/2005	0,0248%	0,0007%	05/08/2005	0,0025%	0,0001%
11/02/2005	-0,0085%	-0,0001%	12/08/2005	-0,0204%	-0,0003%
18/02/2005	-0,0025%	-0,0001%	19/08/2005	0,0214%	-0,0001%
25/02/2005	0,0864%	-0,0004%	26/08/2005	0,0662%	-0,0010%
04/03/2005	0,0507%	0,0006%	02/09/2005	-0,0089%	-0,0003%
11/03/2005	-0,0616%	0,0008%	09/09/2005	0,0044%	0,0000%
18/03/2005	-0,0121%	0,0001%	16/09/2005	0,0662%	0,0002%
25/03/2005	0,0580%	0,0000%	23/09/2005	0,0402%	-0,0001%
01/04/2005	0,0329%	0,0001%	30/09/2005	0,0744%	0,0015%
08/04/2005	0,0971%	0,0013%	07/10/2005	0,0329%	-0,0003%
15/04/2005	-0,0423%	0,0010%	14/10/2005	-0,0158%	0,0003%
22/04/2005	0,0586%	-0,0006%	21/10/2005	0,0234%	-0,0007%
29/04/2005	-0,0150%	0,0001%	28/10/2005	0,0279%	0,0002%
06/05/2005	0,0904%	0,0015%	04/11/2005	-0,0137%	-0,0006%
13/05/2005	0,0586%	0,0001%	11/11/2005	-0,0148%	-0,0004%
20/05/2005	0,0321%	0,0006%	18/11/2005	0,0791%	0,0007%
27/05/2005	0,0294%	0,0003%	25/11/2005	0,0664%	0,0010%
03/06/2005	0,0814%	0,0016%	02/12/2005	0,1144%	0,0017%
10/06/2005	-0,0512%	-0,0007%	09/12/2005	-0,0183%	0,0000%
17/06/2005	-0,0251%	-0,0003%	16/12/2005	0,0183%	0,0000%
24/06/2005	0,0750%	-0,0003%	23/12/2005	0,0416%	0,0004%
01/07/2005	-0,0047%	-0,0003%	30/12/2005	0,0274%	0,0002%

Ex ante alpha covariance: 0,00001%

Ex post alpha covariance: 0,00002%

That is a spread of: +0,00001%

Reminder of the ex ante covariance matrix

Curr. Ret / Curr. Ret x Mkt Index. Ret

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Second period covariances

Curr. Ret / Curr. Ret x Mkt Index. Ret

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Application of the forecast tactical bets (-5/-5/10) to the covariances differential: +0,00000%

Balance due to weight fluctuations: +0,00001%

4.5.5.4 SYNTHESIS OF MARKETS/CURRENCIES CROSS ALLOCATION

	Comp. 5.1	Comp. 5.2	Comp. 5.3	Comp. 5 total
Ex ante Variance	0,00000%	-0,00128%	0,00001%	-0,00127%
Ex post Variance	0,00000%	-0,00027%	0,00002%	-0,00025%
Difference	0,00000%	+0,00101%	+0,00001%	+0,00102%
Environment	0,00000%	+0,00078%	+0,00000%	+0,00079%
Strategy	0,00000%	+0,00023%	+0,00001%	+0,00024%

4.5.6 BALANCE OF ALPHA GENERATION

4.5.6.1 FIRST COMPONENT

Cross track record of management alphas and multi-management performances calculated on a recorded weights basis:

	First half-year			Second half-year	
31/12/2004	Alpha Ret.	Multi-M Ret.	01/07/2005	Alpha Ret.	Multi-M Ret.
07/01/2005	-0,0280%	-0,0960%	08/07/2005	0,4434%	0,0690%
14/01/2005	-0,0966%	0,2229%	15/07/2005	-0,0059%	-0,0877%
21/01/2005	0,0663%	-0,2418%	22/07/2005	0,1456%	0,1511%
28/01/2005	0,2089%	0,0779%	29/07/2005	0,3120%	-0,0042%
04/02/2005	-0,0459%	0,1042%	05/08/2005	0,2778%	-0,0459%
11/02/2005	-0,0326%	-0,1417%	12/08/2005	-0,1423%	0,0582%
18/02/2005	0,2102%	0,1168%	19/08/2005	-0,1925%	-0,0246%
25/02/2005	0,0466%	-0,1102%	26/08/2005	0,1150%	-0,1238%
04/03/2005	0,0289%	-0,0333%	02/09/2005	0,0123%	0,0593%
11/03/2005	0,1166%	0,0748%	09/09/2005	-0,0829%	0,0219%
18/03/2005	-0,0357%	0,0683%	16/09/2005	0,1053%	0,0143%
25/03/2005	-0,0641%	-0,0804%	23/09/2005	0,0141%	-0,1152%
01/04/2005	-0,0583%	-0,0354%	30/09/2005	0,1738%	0,0956%
08/04/2005	-0,2802%	0,0081%	07/10/2005	-0,0054%	-0,0139%
15/04/2005	-0,0610%	0,1346%	14/10/2005	-0,0474%	-0,0185%
22/04/2005	-0,1158%	0,0468%	21/10/2005	-0,0531%	0,0729%
29/04/2005	-0,2081%	-0,1437%	28/10/2005	-0,0592%	0,0180%
06/05/2005	0,0036%	0,0107%	04/11/2005	-0,0362%	-0,1420%
13/05/2005	0,0278%	0,1205%	11/11/2005	-0,0605%	0,0838%
20/05/2005	-0,0448%	-0,0353%	18/11/2005	-0,0749%	-0,0143%
27/05/2005	-0,0768%	-0,0988%	25/11/2005	-0,0929%	-0,0035%
03/06/2005	-0,0128%	0,0125%	02/12/2005	0,1079%	0,0240%
10/06/2005	0,0326%	0,0071%	09/12/2005	-0,0002%	0,0100%
17/06/2005	0,1975%	-0,0247%	16/12/2005	-0,0061%	0,0183%
24/06/2005	-0,2069%	0,0418%	23/12/2005	0,0434%	0,0226%
01/07/2005	0,0238%	-0,0834%	30/12/2005	0,0165%	-0,1573%

Ex ante alpha covariance: 0,00092%

Ex post alpha covariance: 0,00145%

That is a spread of: +0,00052%

Reminder of the ex ante covariance matrix

Multi Mgt / Alphas

0,0000%	**-0,0001%**	**0,0002%**
0,0000%	**-0,0001%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Second period covariances

Multi Mgt / Alphas

0,0000%	**0,0000%**	**-0,0001%**
0,0000%	**0,0000%**	**0,0001%**
0,0000%	**0,0000%**	**0,0000%**

Application of the forecasted strategy (10/30/60) on the covariances differential +0,00039%

Balance due to weight fluctuations: +0,00013%

4.5.6.2 SECOND COMPONENT

Cross track record (multi-management + management alphas) and currencies x (multi-management + management alphas) calculated on a recorded weights basis:

	First half-year			Second half-year	
	Curr x			Curr x	
31/12/2004	(M+alpha)	Mult+alpha	01/07/2005	(M+alpha)	Mult+alpha
07/01/2005	0,0003%	-0,1240%	08/07/2005	0,0014%	0,5124%
14/01/2005	0,0001%	0,1263%	15/07/2005	0,0004%	-0,0936%
21/01/2005	-0,0010%	-0,1754%	22/07/2005	0,0009%	0,2968%
28/01/2005	-0,0009%	0,2868%	29/07/2005	-0,0024%	0,3078%
04/02/2005	0,0012%	0,0583%	05/08/2005	-0,0002%	0,2319%
11/02/2005	0,0000%	-0,1743%	12/08/2005	-0,0001%	-0,0842%
18/02/2005	0,0001%	0,3270%	19/08/2005	-0,0003%	-0,2171%
25/02/2005	-0,0009%	-0,0636%	26/08/2005	-0,0004%	-0,0088%
04/03/2005	-0,0002%	-0,0045%	02/09/2005	0,0004%	0,0715%
11/03/2005	0,0009%	0,1914%	09/09/2005	-0,0001%	-0,0610%
18/03/2005	0,0002%	0,0326%	16/09/2005	-0,0002%	0,1196%
25/03/2005	0,0007%	-0,1445%	23/09/2005	-0,0006%	-0,1010%
01/04/2005	0,0002%	-0,0937%	30/09/2005	-0,0008%	0,2694%
08/04/2005	0,0003%	-0,2721%	07/10/2005	-0,0005%	-0,0194%
15/04/2005	0,0008%	0,0736%	14/10/2005	-0,0003%	-0,0659%
22/04/2005	0,0005%	-0,0690%	21/10/2005	0,0001%	0,0198%
29/04/2005	-0,0007%	-0,3518%	28/10/2005	0,0001%	-0,0412%
06/05/2005	-0,0003%	0,0143%	04/11/2005	0,0004%	-0,1782%
13/05/2005	-0,0009%	0,1483%	11/11/2005	-0,0007%	0,0233%
20/05/2005	0,0004%	-0,0801%	18/11/2005	0,0004%	-0,0892%
27/05/2005	-0,0007%	-0,1755%	25/11/2005	-0,0001%	-0,0965%
03/06/2005	-0,0002%	-0,0003%	02/12/2005	-0,0005%	0,1319%
10/06/2005	0,0006%	0,0397%	09/12/2005	-0,0002%	0,0099%
17/06/2005	0,0001%	0,1728%	16/12/2005	0,0001%	0,0122%
24/06/2005	-0,0006%	-0,1650%	23/12/2005	-0,0004%	0,0659%
01/07/2005	-0,0010%	-0,0596%	30/12/2005	-0,0002%	-0,1408%

Ex ante alpha covariance: 0,00002%

Ex post alpha covariance: 0,00000%

That is a spread of: -0,00001%

Reminder of the ex ante covariance matrix

Curr. Ret x (Multi Mgt +Alphas) / (Multi Mgt +Alphas)

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Second period covariances

Curr. Ret x (Multi Mgt +Alphas) / (Multi Mgt +Alphas)

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Application of the forecasted strategy (10/30/60) to the covariances differential: -0,00002%

Balance due to weight fluctuations: +0,00001%

4.5.6.3 THIRD COMPONENT

Track record of (multi-management + management alphas) calculated on a recorded weights basis:

First half-year	Curr x	Second half-year	Curr x
31/12/2004	(M+alpha)	01/07/2005	(M+alpha)
07/01/2005	0,0003%	08/07/2005	0,0014%
14/01/2005	0,0001%	15/07/2005	0,0004%
21/01/2005	-0,0010%	22/07/2005	0,0009%
28/01/2005	-0,0009%	29/07/2005	-0,0024%
04/02/2005	0,0012%	05/08/2005	-0,0002%
11/02/2005	0,0000%	12/08/2005	-0,0001%
18/02/2005	0,0001%	19/08/2005	-0,0003%
25/02/2005	-0,0009%	26/08/2005	-0,0004%
04/03/2005	-0,0002%	02/09/2005	0,0004%
11/03/2005	0,0009%	09/09/2005	-0,0001%
18/03/2005	0,0002%	16/09/2005	-0,0002%
25/03/2005	0,0007%	23/09/2005	-0,0006%
01/04/2005	0,0002%	30/09/2005	-0,0008%
08/04/2005	0,0003%	07/10/2005	-0,0005%
15/04/2005	0,0008%	14/10/2005	-0,0003%
22/04/2005	0,0005%	21/10/2005	0,0001%
29/04/2005	-0,0007%	28/10/2005	0,0001%
06/05/2005	-0,0003%	04/11/2005	0,0004%
13/05/2005	-0,0009%	11/11/2005	-0,0007%
20/05/2005	0,0004%	18/11/2005	0,0004%
27/05/2005	-0,0007%	25/11/2005	-0,0001%
03/06/2005	-0,0002%	02/12/2005	-0,0005%
10/06/2005	0,0006%	09/12/2005	-0,0002%
17/06/2005	0,0001%	16/12/2005	0,0001%
24/06/2005	-0,0006%	23/12/2005	-0,0004%
01/07/2005	-0,0010%	30/12/2005	-0,0002%

Ex ante alpha variance: 0,00000%

Ex post alpha variance: 0,00000%

That is a spread of: 0,00000%

Reminder of the ex ante covariance matrix

Curr. Ret x (Multi Mgt + Alphas)

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Second period covariances

Curr. Ret x (Multi Mgt + Alphas)

0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**
0,0000%	**0,0000%**	**0,0000%**

Application of the forecasted strategy (10/30/60) to the covariances differential +0,00000%

Balance due to weight fluctuations: +0,00000%

4.5.6.4 SYNTHESIS OF THE BALANCE OF INVESTMENT MANAGEMENT EFFECTS

	Comp. 6.1	Comp. 6.2	Comp. 6.3	Comp. 6 total
Variance ex ante	0,00092%	0,00002%	0,00000%	0,00094%
Variance ex post	0,00145%	0,00000%	0,00000%	0,00145%
Difference	0,00052%	-0,00001%	+0,00000%	+0,00051%
Environment	0,00039%	-0,00002%	+0,00000%	+0,00036%
Strategy	0,00013%	+0,00001%	+0,00000%	+0,00015%

4.5.7 ALLOCATION / ALPHAS HYBRID EFFECTS

Cross track record of hybrid elements calculated on weightings and tactical bets recorded:

First half-year			Second half-year		
31/12/2004	selection	allocation	01/07/2005	selection	allocation
07/01/2005	-0,1237%	-0,0379%	08/07/2005	0,5138%	-0,0783%
14/01/2005	0,1264%	0,0538%	15/07/2005	-0,0932%	-0,1764%
21/01/2005	-0,1764%	0,0149%	22/07/2005	0,2977%	-0,0398%
28/01/2005	0,2859%	-0,0393%	29/07/2005	0,3054%	-0,0286%
04/02/2005	0,0595%	-0,2313%	05/08/2005	0,2318%	-0,0249%
11/02/2005	-0,1743%	-0,1023%	12/08/2005	-0,0843%	-0,1048%
18/02/2005	0,3271%	-0,1512%	19/08/2005	-0,2174%	0,0748%
25/02/2005	-0,0646%	0,1270%	26/08/2005	-0,0092%	0,3099%
04/03/2005	-0,0047%	-0,0320%	02/09/2005	0,0720%	-0,0891%
11/03/2005	0,1923%	0,0361%	09/09/2005	-0,0610%	-0,1736%
18/03/2005	0,0328%	0,0707%	16/09/2005	0,1193%	-0,0245%
25/03/2005	-0,1438%	0,0608%	23/09/2005	-0,1017%	0,1091%
01/04/2005	-0,0935%	0,0256%	30/09/2005	0,2686%	-0,1812%
08/04/2005	-0,2718%	0,0112%	07/10/2005	-0,0198%	0,1614%
15/04/2005	0,0745%	0,2297%	14/10/2005	-0,0662%	0,0445%
22/04/2005	-0,0684%	0,1725%	21/10/2005	0,0199%	0,3695%
29/04/2005	-0,3525%	0,2456%	28/10/2005	-0,0411%	-0,1093%
06/05/2005	0,0140%	-0,1269%	04/11/2005	-0,1778%	-0,5029%
13/05/2005	0,1474%	0,1415%	11/11/2005	0,0225%	-0,1107%
20/05/2005	-0,0797%	-0,1612%	18/11/2005	-0,0888%	-0,0373%
27/05/2005	-0,1762%	-0,0716%	25/11/2005	-0,0965%	0,0518%
03/06/2005	-0,0005%	-0,0243%	02/12/2005	0,1314%	-0,0497%
10/06/2005	0,0403%	-0,1005%	09/12/2005	0,0096%	-0,0775%
17/06/2005	0,1729%	-0,2374%	16/12/2005	0,0122%	0,0078%
24/06/2005	-0,1656%	0,2191%	23/12/2005	0,0655%	-0,0609%
01/07/2005	-0,0606%	-0,1181%	30/12/2005	-0,1410%	0,0393%

Ex ante alpha covariance: -0,00689%

Ex post alpha covariance: -0,00085%

That is a spread of: +0,00604%

Reminder of the ex ante covariance matrix

Allocation Bets / Specialist Asset Manager.

-0,0007%	**-0,0007%**	**-0,0003%**
0,0005%	**-0,0014%**	**0,0001%**
0,0008%	**0,0005%**	**-0,0008%**

Second period covariances

Allocation Bets / Specialist Asset Manager.

0,0024%	**0,0009%**	**0,0003%**
-0,0002%	**-0,0007%**	**0,0000%**
-0,0001%	**0,0001%**	**-0,0004%**

Application of the forecasted strategy (10/30/60) to the covariances differential: +0,00410%

Balance due to weight fluctuations: +0,00194%