

Frankfurt am Main, 10 August 2009

Open letter to the Committee of European Securities Regulators (CESR). Organization: CAPITECTS GmbH

Ref.: CESR/09-552 and CESR/09-716, Consultation on technical advice at level 2 on the format and content of KID and Addendum.

Dear Sirs/Mmes,

CAPITECTS is a provider of managed risk-return services dedicated to helping institutional and non-institutional clients understand and manage financial investments with the utmost in transparency and intuition. We highly regard the opportunity to submit our contribution to the KID consultation.

We understand that under the current regulatory regime a healthy balance has not yet been achieved between the provision of all necessary information for prospective investors to make an informed decision and, at the same time, ensuring that the documentation is comprehensible and user-friendly, especially on **costs** and **risks**. Notwithstanding, we believe that complete and transparent information can be provided to investors to facilitate intuitive financial decisions. The efforts in addressing risk-based disclosure will also facilitate the building of a common playing field at European level (see corresponding revision of MiFID prospectuses).

Based upon our findings, meaningful information shall comply with these guidelines:

- Disclosure of time horizons underlying UCITS to disclose liquidity concerns.
- Disclosure of risk-based profiles (at given investment horizons).
- Disclosure of potential returns and risk neutral probabilities to compare cost benefit relationships at appropriate investment horizons.

While favoring the proposed calculation methodology, as an evolution from narrative approaches, we also invite CESR to further reinforce the risk-based approach by requiring full disclosure on investment horizons and the "passage of time". The intuitive comparison of the risk neutral probabilities over time with costs and rewards allows all market participants to differentiate among the various products.

Together with our responses to the questionnaire, we also submit a case study on financial advisory which we believe it could better highlight our propositions for transparent and intuitive decision-making. Queries about this letter can be addressed to Paolo Sironi or Jochen Freund at CAPITECTS (solutions@capitects.com).

Paolo Sironi

Jochen Freund



Responses to the CESR consultation paper

Ref.: CESR/09-552 Technical advice at level 2 on the format and content of Key Information Document disclosures for UCITS.

Form and presentation of Key Investor Information

Section 1 – Title of the document, order of contents and headings

1. Do you agree with the proposal in Box 1? Should the information referred to in point 9 of the box be called "Practical information"?

We have no relevant comments to provide about this section of the consultation.

Section 2 – Appearance, use of plain language and document length

1. Do you agree with the proposal in Box 2? In particular, do you agree that the maximum length of the document and minimum acceptable point size fot type should be prescribed at Level 2? Are there any other rules that should be prescribed in relation to the appearance of the KID?

We have no relevant comments to provide about this section of the consultation.

Section 3 – Publication with other documents

1. Do you agree with proposal in Box 3?

We have no relevant comments to provide about this section of the consultation.



Content of Key Investor Information

Section 4 – Objectives and Investment Policy

(1) Do you agree with the proposal in Box 4? In particular, do you agree that the information shown is comprehensive and provides enough detail to ensure comparability between KIDs? Are there any other matters that should be addressed at Level 2?

We do not fully agree with the proposal in Box 4. We believe that the regulation should be more prescriptive and require a specific section that identifies and explains in plain language the relationship between the costs of the UCITS, the potential return and the level of risk.

Notwithstanding, we agree that investor shall be informed without misleading words about the difference between a preferred redemption time (at which the guarantees become effective, if any) and the potential redemption time (at which investor can redeem the investments and lock in an up-to-date performance).

Section 5 - Risk and reward disclosure

1. What are your views on the advantages and disadvantages of each option described above? Do you agree that Option B (a synthetic risk and reward indicator accompanied by a narrative) should be recommended in CESR's final advice? Respondents are invited to take due account to of the methodology set out in Annex 1, as supplemented by the addendum to be published by the end of July, when considering their view on this question.

We believe that Option B shall be openly recommended in CESR's final advice.

The adoption of a synthetic risk and reward indicator is paramount for fostering transparency and supporting investors to achieve intuitive decision-making.

Only synthetic and "standardized" measurement facilitates the discussion of risk and return concepts for a variety of individuals of various different backgrounds, creating a common language and playing field at European level for investment decision-making.

Moreover, market experience has shown that a purely narrative approach leads to caustic documentation, which reduces the clients' understanding of risk and reward representations.



Option A – Presentation of the enhanced narrative approach

1. Do you agree with the proposals for presentation of risk and reward in Box 5A? Are there any other issues that CESR should consider if it decides to recommend this approach to the disclosure of risk and reward?

We do not agree with the proposal in Box 5A.

Narrative approaches cannot provide the necessary simplicity and intuition to allow investors understand the risk and reward profile of UCITS. Moreover, narrative approaches cannot allow easy and fast appraisal of risk and return differences among UCITS or even among other potential investment products.

Narrative approaches will impair the possibility of building a truly common playing field at European level as well as further harmonization with other regulations (like MiFID) and will severely disallow future integration and harmonization of the internal markets.

Option B – Presentation of the synthetic risk and reward indicator complemented by narrative explanations

1. Do you agree with the proposals for presentation of risk and reward in Box 5B? In particular, is the proposed methodology in Annex 1 capable of delivering the envisaged benefits of a synthetic indicator? Does the methodology proposed by CESR work for all funds? If not, please provide concrete examples. Respondents are invited to take account of the methodology set out in Annex 1, as supplemented by the addendum to be published by the end of July, when considering their view on the questions above. Are there any other issues that CESR should consider if it decides to recommend this approach to the disclosure of risk and reward?

We agree with the CESR preference for a synthetic indicator (as in Option B) because only a forward looking approach based upon probabilistic scenarios can be applied to any kinf of investment products to allow assessment and comparison of potential returns over recommended investment horizons.

Notwithstanding some of the limitations of Option B, which in our views could be resolved by introducing quantile measurement in the context of probabilistic scenarios, risk-based indicators can facilitate a consistent categorization of all types



of funds within the risk and reward space. Moreover, they can make such categorization clear (intuitive for investors and easy to validate), appropriate (common metric for comparison of different funds and any other financial product), comprehensive (synthetic indicator coupled with narrative information provides short and complete information) and not expensive (existing easy-to-use solutions with many similarities with the proposed approach).

We believe that modern regulation shall support intuition as a key element of transparency. The current proposals seem to take the right direction as long as Policy Makers will make sure that solutions are based upon actual data and actual products on which actual people make investment decisions.

Risk-based methodologies do not lead per se to "bunching" of funds. If any, that is never a consequence of the methodology but a result of a non adequate tranching of the risk-reward classes. Leaving aside the cases of improper funds' management, most funds' risk-reward levels tend to be dominated by non-idiosyncratic factors that make their potential migration a function of general market shifts more then individual events. Therefore, appropriate tranching and consistent recalibration can sufficiently compensate for changes in market volatilities, bringing desired stability together with sufficient granularity.

In case of insufficient information that might weaken the risk and reward assessment - i.e. liquidity concerns -, prudential measurement can be introduced by means of scenario-based methodologies. Synthetic indicators can be calibrated by introducing regulatory floors as well as measurement under stress conditions (quantile measurement) to induce products' migration to higher risk-sensitive classes.

Section 6 - Charges disclosure

1. Presentation of the charges

Do you agree with the proposal in Box 6? In particular, do you agree the table showing charges figures should be in a prescribed format? Do you agree with the methodology for calculating the ongoing charges figure?

2. Summary measure of charges

Do you agree with the proposal in Box 7? In particular, do you agree that CESR should not prescribe a specific growth rate in the methodology for calculating the illustration of the charges?

3. New funds

Do you agree with the proposal in Box 8?

- 4. Material changes to the charging structure Do you agree that a variation of 5% of the current figure is appropriate to determine whether a change is material?
- 5. Annual review of charges information Do you agree with the proposals in Box 10?

We have no relevant comments to provide about this section of the consultation.



Section 7 – Past performance presentation

- Presentation of past performance for funds for which past performance exists or where simulated performance is permitted
 Do you agree that the above CESR proposals on past performance presentation are sufficient and workable? If not, which alternative approach would you prefer?
- 2. <u>Past performance calculation methodology</u>
 Do you agree that the above CESR proposals on past performance are sufficient and workable? If not, which alternative approach would you prefer?
- 3. <u>Impact and treatment of material changes</u>
 Do you agree that the above CESR proposals on the material charges are sufficient and workable? If not, which alternative approach would you prefer?
- 4. <u>Inclusion of a benchmark alongside the fund past performance</u>
 Do you agree with this approach? If not, which alternative approach would you prefer?
- 5. The use of "simulated" data for past performance

 Do you agree that the above CESR proposals on the "simulated" data for past performance presentation are sufficient and workable? If not, please suggest alternatives.

We have no relevant comments to provide about this section of the consultation. However, though believing the past can contain useful information, we believe that only simulation over time provides a complete and intuitive understanding of risk and reward differences among UCITS.

Section 8 – Practical information

- 1. Content of "Practical information" disclosure
 Do you agree with the proposal in Box 17?
- 2. <u>Use of signposting for the other source of information</u> Do you agree with the proposals in Box 18?

We have no relevant comments to provide about this section of the consultation.

Section 9 – Circumstance in which the KID should be revised

1. Do you agree with the proposal in Box 19?

We have no relevant comments to provide about this section of the consultation.



Special cases – hoe the KID might be adapted for particular fund structures

Section 10 - Umbrella structures

1. Do you agree with the proposal in Box 20?

We have no relevant comments to provide about this section of the consultation.

Section 11 - Share classes

1. Do you agree with the proposal in Box 21?

We have no relevant comments to provide about this section of the consultation.

Section 12 - Funds of funds

1. Do you agree with the proposal in Box 22?

We have no relevant comments to provide about this section of the consultation.

Section 13 - Feeder of funds

1. Do you agree with the proposal in Box 23?

We have no relevant comments to provide about this section of the consultation.

Section 14 – Structured funds, capital protected funds and other comparable **UCITS**

1. Do you agree with the above CESR proposal on performance scenarios? In particular, which option (A or B) should be recommended? If not, please suggest alternatives.

We believe that probability tables (as per Option B and Annex IV) are the most appropriate representation of potential risk and reward profiles of UCITS since they can provide:

intuitive elements to make investment decisions:



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- compliance to the pricing of fair values as provided by financial institutions (therefore reducing any misalignment between internal and external prices);
- basis for transparent and auditable financial advisory (probability tables are the backbone of automated decision-making in financial planning tools);
- regulatory harmonization (comparison with any other financial product like structured obligations or insurance policies).

This type of solutions are already becoming market practice in the industry, as part of the effort to enhance financial planning and enable clients to make financial decisions on actual data, actual investment opportunities and actual portfolios.

Risk neutral scenario analysis over time allows to represent in simple terms the financial characteristics of all funds, from the least to the most sophisticated (capital guarantees or formula funds) without engaging the investors in discussing complex mathematical characteristics.

While in principle we highly favour graphical representations, we see no drawbacks in displaying tables instead.

Even though we believe that the probability tables herein describe are already a sufficient representation of the risk and reward profile of UCITS, we would also favour an extension of them to include quantile measurement on a grid of time steps. We believe that the full representation of the probability space of risk-reward profiles over time enables clients to fully compare prospective investment opportunities with their standard alternatives. This will also allow investors with different investment horizons to understand the relationship between their investment time and the evolution of costs, risks and potential rewards. This element is also a fundamental building block of the most advanced solutions for financial advisory and intuitive decision-making which are available in the non-institutional sector.

We believe that key goal of the transparency principle shall be to enable investors to understand the cost of the guarantees with respect to direct investments, allowing them to understand the effective benefits (if any) of the guarantees in probability terms with respect to non-guaranteed investments. This only brings full transparency to the cost structure of the investment products because it grants a simplified and synthetic description of costs, risks and potential rewards.

On the contrary, Option A does not satisfy in our view the intuition and transparency principles since decision-making would be based upon non-objective but arbitrarily chosen market scenarios, without representation of the corresponding occurrence probability. Probability tables are instead fairly objective and allow to reveal in better terms the added value of even low-probability guarantees. Besides, they are also fairly coherent with the pricing and risk management models of financial institutions and management companies as well as independent advisory services.



Other issues

Section 15 – Medium and timing of delivery, including use of a durable medium

1. Do you agree with the proposal in Box 25? If not, what alternative approach would you suggest?

We have no relevant comments to provide about this section of the consultation.

Section 16 - Other possible level 3 work

1. Do you agree with the approach to transitional provisions set out above? Are there any other topics, relating to KII or use of a durable medium, not addressed by the consultation, for which CESR might undertake wotk on developing Level 3 guidelines?

We have no relevant comments to provide about this section of the consultation.



Responses to the CESR consultation paper

Ref.: CESR/09-716 Addendum to CESR's consultation paper on the format and content of Key Information Document disclosures for UCITS Ref. CESR/09-552.

CESR proposal for the volatility intervals

- 1. Do you agree with the criteria considered by CESR to formulate its proposals regarding the volatility intervals? Are you aware of any other factors that should be considered?
- 2. Which option (A or B) do you see as more appropriate for the KID?
- 3. Would you like to propose any other alternative for the volatility intervals? If so, please explain your reasoning.

We do believe that CESR's proposal is coherent and will allow investors to achieve transparent understanding of the risk category of prospective investments.

Having considered the two propositions herein presented, we would favour Option A being more robust. Option A is in fact purely based upon empirical evidence and stochastic optimisation. This element reduces the room for any subjective judgement from the regulators or industry representatives and further allows yearly or multi-yearly revision of the categorization.

We would also recommend CESR to adopt a qualitative description for the six classes as such investors' intuition will be fostered.

Periodic updating of the SRRI – rules to assess migrations

- 4. Do you agree that introducing some rules for assessing migration is desirable?
- 5. If so, which option (2 or 3) do you think is more appropriate?
- 6. Would you like to propose any other rule for assessing migrations? If so please explain your reasoning?



We agree that a migration rule should be adopted to compensate the fact that SRRI is constructed as a point in time indicator though its relevance stems from its evolution path into the future.

We also believe that option 2 is of preference since it better addresses the relevance of objective judgments on the temporal persistence of the adopted measurement.

SRRI computation methodology for structured funds

- 7. Do you agree with CESR's proposal concerning the methodology to compute the SRRI of structured funds? If not, please explain and, if possible, suggest alternatives.
- 8. Do you agree with CESR's proposal to use VaR as an (intermediate) instrument for the measurement of volatility? Is the proposed VaR-based approach appropriate to convey correct information about the relevant return volatility of structured funds?
- 9. Do you share the view that the solution proposed by CESR is flexible enough to accommodate the specific features of all (or most) types of structured fund? If not, please explain your comments and suggest alternatives or explain how the approach could be adjusted or improved.
- 10. Do you agree with CESR's proposal concerning the methodology to compute the VaR-based volatility of structured funds over a holding period of 1 year? If not, please explain your comments and suggest alternatives.
- 11. Do you agree with CESR's proposal concerning the methodology to compute the VaR-based volatility of structured funds at maturity? If not, please explain your comments and suggest alternatives.

We believe that the methodology to compute the SRRI for structured funds shall not be based upon classical VaR computations but via a more evolved time simulation approach which relies on "probability tables" and "risk neutral" Monte Carlo simulation techniques. Our view on this element if extensively described in our responses to the questionnaire Ref. CESR 09/552 as well as in the case study attached to our response.

Additional questions for the consultation

12. Do you agree with CESR's decision not to promote further the adoption of the delta representation approach for the computation of volatility of structured funds?



- 13. Do you share the view that CESR's current proposal represents an improvement with respect to the delta representation approach? If not, please clarify why you believe that the delta representation approach may be more suitable to estimate the volatility of structured funds.
- 14. Do you consider it possible and appropriate to allow the use of Monte Carlo simulations for the computation of the SRRI of structured funds? If yes, please explain whether these methods are more suitable for the computation of VaR or, directly, for that of volatility measures.
- 15. Do you believe that it would be possible to avoid significant differences in the outcome of such simulations across management companies? What should be the key methodological requirements needed to avoid such divergences

We highly favour Monte Carlo simulations and the adoption of "risk neutral probability tables".

Such an approach is part of CAPITECTS proposition to the market participants. Time to future simulations constitute a truly innovative element that allows to shape financial planning processes around transparent and intuitive representations of riskreturn characteristics of funds and structured funds. This approach fosters the riskreturn awareness of investors decision-making and allows to combine the potential evolution of risk classes representations with upfront and time varying cost structures.



Transparency case study

Assessment of adequacy and portfolio optimization through time.



Transparency is a fundamental regulatory requirement as well as an ethical driver for highly reputable and sustainable financial businesses.

Transparency is a key aspect to overcome the current financial turmoil, re-establishing investors' confidence and improving risk awareness for portfolio allocation.

Transparency goes beyond documentation by strengthening the banks' capability to deliver the most appropriate tools to simplify investors' decision making.

One of the main pitfalls of today's financial planning systems is the difficulty of handling quantitative methods such as Value-at-Risk in conjunction with liquidity or investment horizon assumptions. The Mark-to-Future methodology adopted by CAPITECTS facilitates the integration of such fundamental drivers, enabling the differentiation of structured products applying simple quantitative measurement to the analysis of full cost/return relationships through time.



Here is a simple example demonstrating the utilization of CAPITECTS solution to facilitate intuitive decision-making as well as transparent cost-benefit understanding. We believe that the reader will appreciate the reputational benefits as well as the commercial opportunities of modern financial planning when complemented with the following techniques:

- > Simulation of risk neutral potential future returns, to compare graphically different categories of retail investment products.
- > Assessment of risk neutral probabilities, to optimize investment decision-making at instrument as well as portfolio level.
- > Analysis at the investment horizon, to assess and compare the time dynamics of the investments' cost-benefit relationships as a function of the investment horizon of individual retail investors.

Transparency is fundamental to simplify investors' decision-making





Assessment of clients' risk-return profile.

A client with a MiFID risk profile of type Medium (using a simple scale of Low, Medium, High) enters her bank with 10,000 euros to invest. As per the internal bank definition, clients are given a potential max loss limit consistent with individual profiles:

Table 1

MaxImum sustainable loss (example)

Risk profile	1M	2 Y	5Y	
Low	-1%	-2%	0%	
Medium	-3%	-7%	-15%	
High	-5%	-10%	-20%	

The client (or any typical Medium risk client) possesses the following minimum desirable return function:

Table 2

Target return (example)

Risk profile	1M	2Y	5Y	
Medium	+5%	+15%	+30%	

The investor, holding 10,000 euros today, decides that she prefers to allocate all of her wealth to a 2 years time horizon, giving herself a chance of buying a brand new Vespa in 2 years time while currently being short 1,500 euros.



The bank has four investment alternatives on offer:

- > Proprietary fixed rate bond issue.
- > **Equity investment fund** managed by the Asset Manager (A. M.) partner.
- > Equity investment fund with **capital guarantee**, managed by the A. M. partner.
- > Index linked policy issued by the Insurance Company partner.

The analysis can be calibrated to accommodate different credit risk sensitivities. For simplicity, we assume from here on that all issuers are AA rated, bearing the same credit risk while counterparty risk is collateralized.

All equity related products only have the same risk factors as the underlying is identical. The fee structures differ as functions of the different payoff profiles.

Table 3

Investment opportunities

	Return type	Triggers	Fees	Risk factors
Bond	4% semi	5 years maturity	buy 0.5%	EUR int. rates, credit spreads
Investment fund	equity mkts	n.a.	buy/sell 0.2% mgt fee 1.0%	USA 50%, UK 15%, Europe 30%, Japan 5%
Fund capital guarantee	equity mkts	2 years guarantee	1y mgt fee 2.5% 2y mgt fee 2.2%	USA 50%, UK 15%, Europe 30%, Japan 5%
Index linked insurance	equity mkts + zero coupon	5 years maturity	buy 8.0% premium 10.6%	USA 50%, UK 15%, Europe 30%, Japan 5%



Transparent decision making.

- 1. Worst investment in terms of probability of losing a certain amount?
- 2. Best investment in terms of yielding a certain cumulated cash flow?
- 3. Product with the best mix of costs, risks and revenue opportunities?
- 4. Product with the highest likelihood of paying back the fees in the shortest time?
- 5. Best portfolio allocation given a certain investment horizon?

The client and the branch manager are faced with with 5 alternatives. Being open to invest in equity markets, the investor might feel confused by the fact that the equity related products invest exactly in the same underlying portfolios but come with very different fee structures.

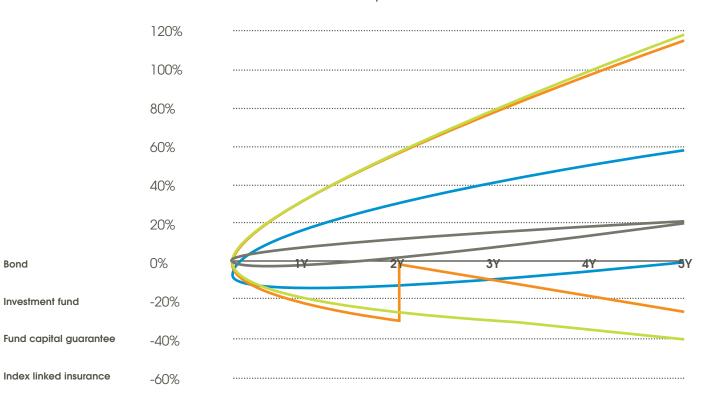
Banks need to implement financial planning systems capable of differentiating among individual products bearing the same underlying risks, in order to properly reflect the different cost structures in risk/return analysis and answer all of the above questions.

CAPITECTS can provide the simulation of all products over time, by structuring all payoffs within CAPITECTS full-revaluation solution. In this example, risk neutral Monte Carlo simulations have been applied. All underlying variables evolve with forward rates under base scenarios, allowing for appropriate dividend adjustments and null risk premium assumptions. Volatility and correlations are taken fromhistorical time series of the relevant risk factors. The MtF framework implemented by CAPITECTS also allows for the simulation of upfront costs and performance fees through time.



Graph 1

Risk neutral simulation of potential future returns



Bond

Investment fund

Index linked insurance



Adequacy and risk analysis.

In this example, the following statistics are provided:

- > VaR 1M: Value-at-Risk with 95% c.i. and 1 month investment horizon (most institutions base the adequacy rules using 1M or 3M measures).
- > Risk 2Y, Risk 5Y: cumulative lower/negative returns, measured at the investment horizon with 95% confidence interval and market neutral simulations.

Without looking at the effective investment horizon of the client (i.e. 2 years), here is what the different measures indicate:

Table 4

Potential future loss with 95% confidence interval and risk neutral simulations

	VaR 1M	Risk 2Y	Risk 5Y	
Bond	-0.9%	0.0%	0.0%	Bond
Investment fund	-8.9%	-30%	-43%	Investment fund
Fund cap. guarantee	-8.9%	0.0%	-29%	Fund capital guarantee
Index linked insurance	-3.7%	-5.0%	0.0%	Index linked insurance



- > VaR 1M: Only the fixed rate bond is an adequate investment opportunity.
- > Risk 2Y: The fixed rate bond, the equity fund capital guarantee and the index linked insurance are consistent with the client's risk profile in 2 years time.
- > **Risk 5Y**: Only the fixed rate bond and the index linked insurance are consistent with the client's risk profile in 5 years time.

Given a classical VaR 1M measurement framework, the fund capital guarantee is not an adequate investment since it has the same VaR 1M of the straight investment fund. However, capital guaranteed products often are expressively designed to suit the needs of Low-Medium risk clients over longer time horizons. Therefore, being capable of differentiating the products' risk profiles at the most appropriate investment horizon is a key element of modern financial advisory.



Risk neutral probability distribution.

Graphing potential future returns is a powerful and trasparent way for allowing banks' managers and investors to judge investment risk/return profiles. Banks adequacy processes can therefore be built around the probability distribution that Monte Carlo scenarios are based on. In the following, we represent the probability of making a gain or a loss through time at the end of the first year, the second year and the fifth year net of commissions and fees. At this stage of the analysis, only the probability of achieving positive/negative returns is investigated, without weighting the results by the effective amount potentially lost/gained.

Probability of:

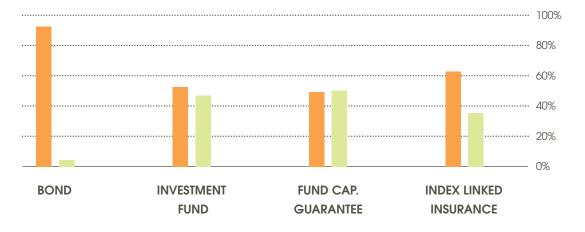
Positive return

Negative return

Graph 2

Gain/Loss risk neutral probability at the end of:

THE 1ST YEAR







THE 2ND YEAR



THE 5TH YEAR



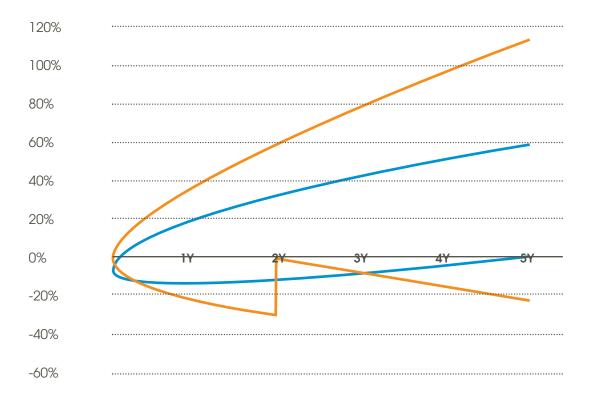




As it can be seen, the two structured products (fund capital guarantee, index linked insurance) have a very different probability of making a potential loss (as a function of either the product or the portfolio's holding period) and a very similar probability of achieving the target return. Therefore, if the investment horizon is 2 years, while both products have a very similar probability of reaching the target return (31% vs. 33%), the structured fund has zero probability of incurring into a loss given the capital guarantee, while the insurance product still bears a 28% probability of generating a loss.

Graph 3

Risk neutral simulation of structured products





Hence, in terms of single product selection the structured fund is the most appropriate product for a 2 years investment horizon and 15% target return.

Table 5

Risk neutral return and probability at chosen horizons

	1Y	2Y	5Y
Target return	+5%	+15%	+30%
Probability of reaching the target return			
Equity Fund Cap. Guarantee	31%	31%	38%
Index Linked Insurance	31%	33%	43%
Probability of making a loss			
Equity Fund Cap. Guarantee	57%	0%	36%
Index Linked Insurance	42%	28%	0%

Fund capital guarantee

Index linked insurance



Optimal portfolio allocation.

A very important feature of MtF analysis is that it allows fast and efficient portfolio optimization through time. The CAPITECTS solution allows optimization of existing or potential portfolios through time.

What is the best mix of fixed income securities and structured funds given the client's ambitions and profile?

Here is an example with multiple constraints (many more can be customized):

- > Optimization horizon: 2 years.
- > Maximum loss: the portfolio's potential loss shall not exceed the risk limit at the investment horizon.
- > Minimum desirable return: the portfolio's potential return shall be enhanced (maximum among strategies).
- > **Highest probability:** the portfolio's return probability shall be enhanced (maximum probability of reaching a desirable return).
- > Minimum return: portfolio's cumulative return shall not be lower than 1% yearly.
- > Minimum cash: at least 5% of all investments shall be in cash.

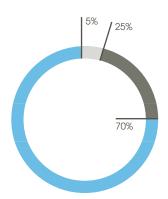
Starting from an initial portfolio with 5% cash and 95% fixed rate bond, the optimization routine replaces the bond holdings with the structured fund by increments of 5% (500 euros). This enables to calculate the required quantiles and probability measures for the various potential portfolios. The optimal portfolio is the one that fullfills all of the above conditions. If the client's ambitions are not in line with the available investment opportunities or the required investment horizon, the investor shall be asked to review her ambitions (i.e. extend the investment horizon, agree on a different risk profile).



In the context of this example, the MtF optimization process provides the following allocation:

Graph 4

Portfolio optimization



	OPTIMAL ASSET ALLOCATION	INVESTED PRODUCTS
	Liquidity: 5%	Cash
-	Fixed income: 25%	Fixed rate bond
	Equity: 70%	Fund capital guarantee

Graph 5

Potential return distribution of the optimal portfolio for a 2 years time horizon

Portfolio potential return distribution

