

## *Workshop on Simplified Prospectus*

*European Commission  
Internal Market and Services DG  
Financial Services Policy and Financial Markets*

*Brussels, 11 July 2006*

## *UCITS Simplified Prospectus: why using a synthetic risk indicator.*

*Investment Management Department and  
International Affairs Department*

*CONSOB - ITALY*

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*Background: general statements*

*Disclosure of Fund Risk Profile: UCITS Directive and EC Recommendation on SP*

*Fund Synthetic Risk Specification:*

- *appropriateness of volatility to capture the overall fund risk profile*
- *computation of relevant fund volatility*
- *translation of volatility measures into overall risk degrees*
- *definition of a grid of classes of risk*

## *CONCLUSIONS*

## ***BACKGROUND STATEMENTS***

- 1. Protection of savings is a constitutional-rank pan-European principle**
- 2. Individuals can fully pursue their interest (self-protection) only as long as they can make informed judgements of the investments proposed to them**
- 3. Financial markets, services and products present several features that are not easily comprehensible by the average retail investor**



- **Public policy must intervene to ensure that information rendered to investors is meaningful, complete and easily comprehensible by retail investors**
- **Harmonization within the Single Market has maximum priority: there must be no room for regulatory arbitrage**

## *Disclosure of UCITS Risk profile in the Simplified Prospectus*

### **Article 28 (1)**

“Both the SP and the FP must include the information necessary for investors to be able to make an **informed judgement** of the investment proposed to them, and, in particular, **of the risks attached thereto.**”

“The latter shall include, independent of the instruments invested in, a clear and easily **understandable explanation of the fund risk profile**”.

### **Schedule C, Annex I**

The SP must offer a **brief assessment of the fund risk profile.**”

## *Disclosure of UCITS Risk profile in the Simplified Prospectus*

**The EC Recommendation on SP** builds on the need to provide investors with a clear and consistent definition of the fund risk profile with the described objectives and investment policy.

**.....but the EC Recommendation on SP fails to achieve this target**

**Paragraph 1.4.1(c):** Member States are recommended to ensure that the SP encompasses “a **textual description of any risk investors have to face in relation to their investment**”.

**Paragraph 1.4.2.1:** “The description referred to in point 1.4.1(c) should include a brief and understandable explanation of any specific risk arising from particular investment policies or strategies or associated with specific markets or assets relevant to the UCITS” (**market risk, credit risk, settlement risk, liquidity risk and so on**).

## *Disclosure of UCITS Risk profile in the Simplified Prospectus*

**... and EC Recommendation on SP is still lax with respect to setting a common “language” about the overall risk of the fund**

### **Paragraph 1.4.3: Additional disclosure of a synthetic risk indicator**

**“...Member States are also invited to consider as a possible option requiring that the description referred to in point 1.4.1(c) be supplemented by a synthetic indicator of risk in just one figure or word, based on the volatility of the UCITS’ portfolio...”**



- The provision of a synthetic risk grade based on the volatility is only an optional measure**

| Recommandation                                    | N. MS | % Tot. |
|---|-------|--------|
| <u>Objective</u>                                  | 21    | 84%    |
| <u>Joint Pres. Objective and Inv. Policy</u>      | 20    | 80%    |
| TaxRegime   | 20    | 80%    |
| <u>Investm. Policy</u>                            | 19    | 76%    |
| Expected Cost Structure                           | 19    | 76%    |
| <u>Risk Profile</u>                               | 18    | 72%    |
| UCITS' Historical Performance                     | 16    | 64%    |
| <u>Specific Risk</u>                              | 15    | 60%    |
| Entry and Exit and Other Fees                     | 15    | 60%    |
| Prioritisation of info. Disclosure                | 14    | 56%    |
| TER   | 14    | 56%    |
| Costs not Included In the TER                     | 14    | 56%    |
| Turnover Rate                                     | 14    | 56%    |
| Cumulative Performance                            | 13    | 52%    |
| Exclusion of Subscription and Redemption fee      | 13    | 52%    |
| Identify and Classify Fee Sharing Agreements      | 13    | 52%    |
| Identify Soft Comm.                               | 13    | 52%    |
| Presence of Fee Sharing Agreements and Soft Comm. | 12    | 48%    |
| Reference to Full Prospectus                      | 12    | 48%    |
| Benefit of Fee-Arrangements                       | 11    | 44%    |
| Presentation of TER and Turnover                  | 9     | 36%    |
| <u>Synthetic risk indicator</u>                   | 5     | 20%    |
| Disclosure of Benchmark                           | 3     | 12%    |

**Insufficient harmonization across member States concerning disclosure of funds' risk profile in the SP**

## *The Italian Prospectus: information on fund risk profile*

**In Part I of the SP the management companies are requested to insert a synthetic fund risk specification**

- 1. The degree of overall risk associated with investment in the fund must be expressed in qualitative terms (a single word) over a scale that comprises the following 6 grades: low/ medium-low/ medium/ medium-high/ high/ very high **as proposed by EFAMA in 2002****
- 2. The degree of overall risk associated with investment in the fund must be consistent with the measure of fund volatility, as estimated by the annualized standard deviation of fund returns during the last three years of life of the fund or, in alternative, with the volatility of the benchmark, if the former is not available (typically for the case of new funds or of significant changes in the fund investment policy).**

*Sorting the overall risk specification of the fund on the basis of volatility*

**Major issues :**

- 1) appropriateness of volatility to capture the overall fund risk profile**
- 2) computation of relevant fund volatility**
- 3) translation of volatility measures into overall risk degrees**
- 4) definition of a grid of classes of risk**

## *Appropriateness of volatility to capture the overall fund risk profile*

**Volatility is a sufficient and robust indicator of the overall fund risk, as it summarizes the width of fund returns variations due to the joint effects of all risk factors related to the fund investment policy and management style.**

**This mainly follows from:**

- 1) high level of granularity and diversification of UCITS' portfolios;**
- 2) daily valuation of UCITS NAVs according to "fair pricing" of assets and liabilities (typically on the mark-to-market basis);**
- 3) fund returns result from the processing of all available information regarding the behaviours of underlying markets.**

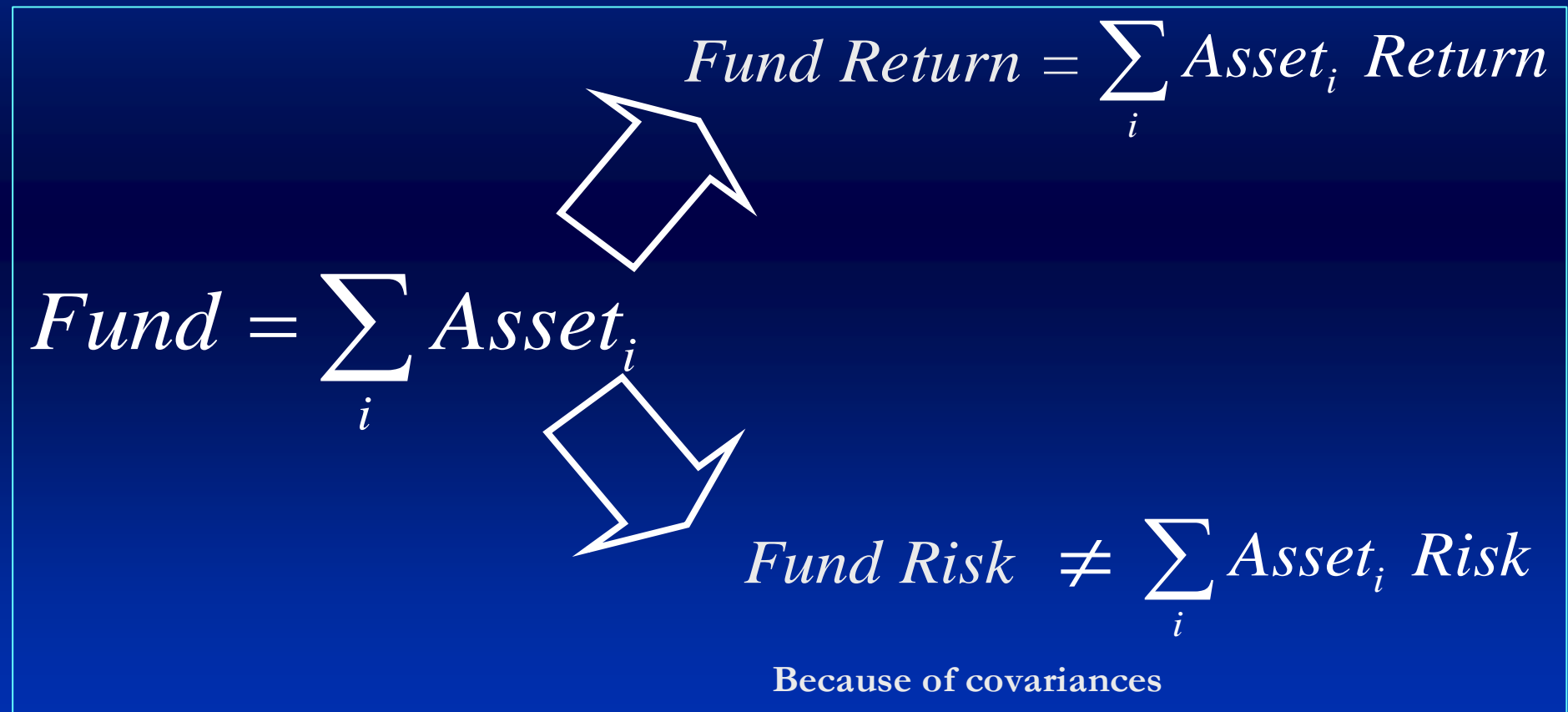
## Appropriateness of volatility to capture the overall fund risk profile (1)

.....in other words



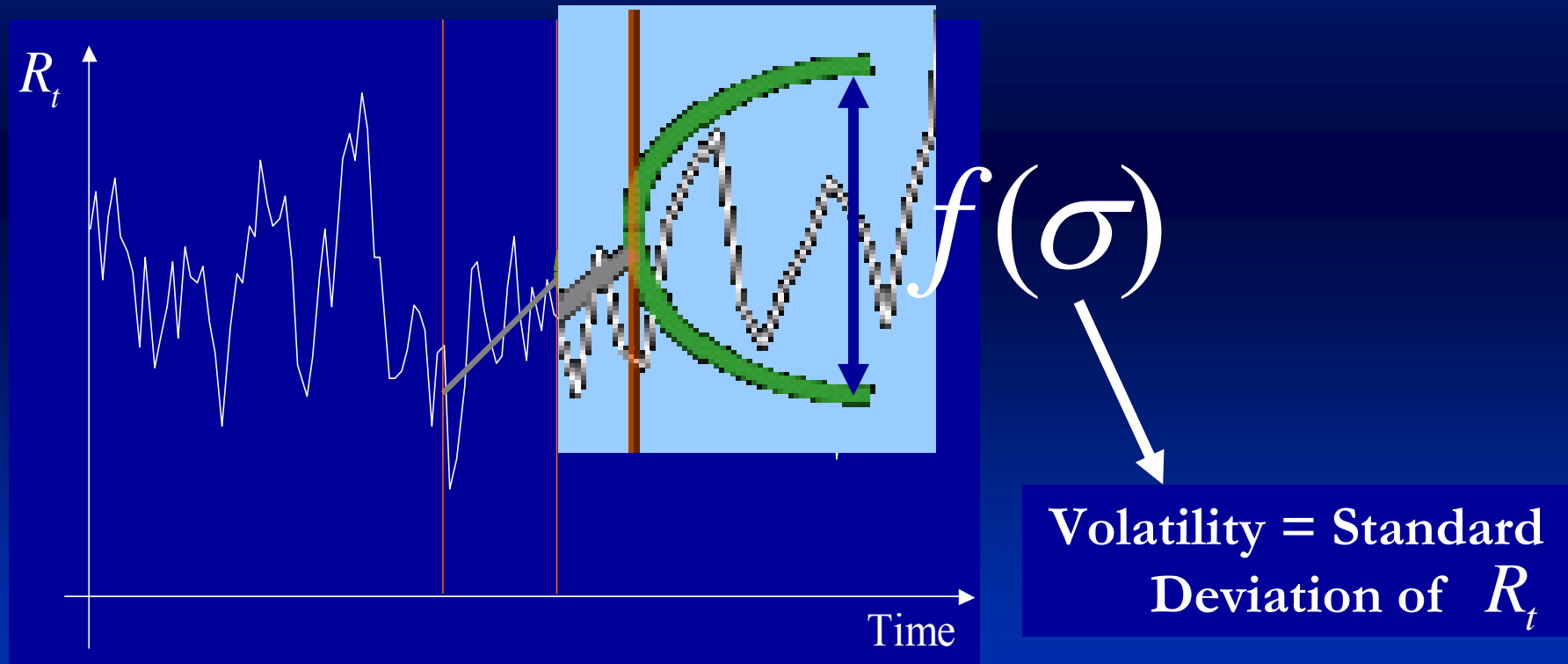
*Appropriateness of volatility to capture the overall fund risk profile (2)*

**.....but from the granularity and diversification of UCITS portfolio (point 1)**



*Appropriateness of volatility to capture the overall fund risk profile (3)*

...therefore volatility enables to formulate forecasts about the distribution of NAV future values/returns, that is, about the overall risk related to investing in the fund!



### *Appropriateness of volatility to capture the overall fund risk profile (4)*

**Volatility is an adequate and sufficient quantitative metric unit of the “normal and predictable” risk related to investing in the fund.**



**The size of extraordinary losses due to extreme and very rare events cannot be predicted looking at volatility.**



**This idea is better rendered by VaR (value at risk) measures, which can be processed from volatility. VaR is a downside risk measure that represents the maximum loss that a portfolio would not exceed with a certain predetermined probability (corresponding to the VaR confidence level).**

## Computation of relevant fund volatility (1)

Fund volatility is commonly referred to as the standard deviation of fund returns.

$p$  = time unit

$T$  = length of the temporal sample

$n$  = number of observations =  $T / p$

$t_i$  = date of the  $i^{\text{th}}$  observation in the sample

$i \in [1, 2, 3, \dots, n - 1, n]$

$$r_i = \frac{NAV_{t_i} - NAV_{t_{i-1}}}{NAV_{t_{i-1}}} \simeq \ln\left(\frac{NAV_{t_i}}{NAV_{t_{i-1}}}\right) \text{ if } p \text{ is small}$$

$$\mu = \frac{\sum_{i=1}^n r_i}{n}$$


$$\text{vol} = \text{std} = \sigma = \sqrt{\frac{\sum_{i=1}^n (r_i - \mu)^2}{(n - 1)}} \times \sqrt{\frac{1 \text{ year}}{p}}$$

The standard deviation is converted in annual terms through an assumption of independence and identical distribution of the returns over time.

## *Computation of relevant fund volatility (2)*

The major issues as regards the computation of volatility concern:

1. **the length of the sample period (T)**



statistical significance but also stability of the estimates: a shift of forecasted volatility may lead to an update of the fund synthetic risk grade disclosed in the prospectus!

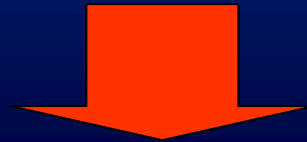
2. **the time unit (p) the returns refer to (e.g. daily, weekly, monthly... returns)**



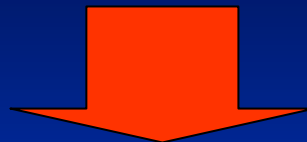
the EC Recommendation suggests that returns be “calculated taking into account all the UCITS net asset values (NAVs) of the period, e.g. daily NAVs where this is the normal frequency of NAV calculation ...”

## *Translation of volatility measures into overall risk degrees (1)*

**The UCITS Directive and the EC Recommendation requires that SP must offer a “brief assessment of the fund risk profile”.**



**The fund risk profile can surely be captured by fund volatility determined over a significant period, which could be placed at the heart of the synthetic risk labelling in the prospectus**



**.....but the fund risk profile in synthetic terms cannot be inferred from the description of fund investment policy and specific risks**

## *Translation of volatility measures into overall risk degrees (2)*

**.... to prove the previous statement it is possible to start from showing some empirical evidence regarding:**

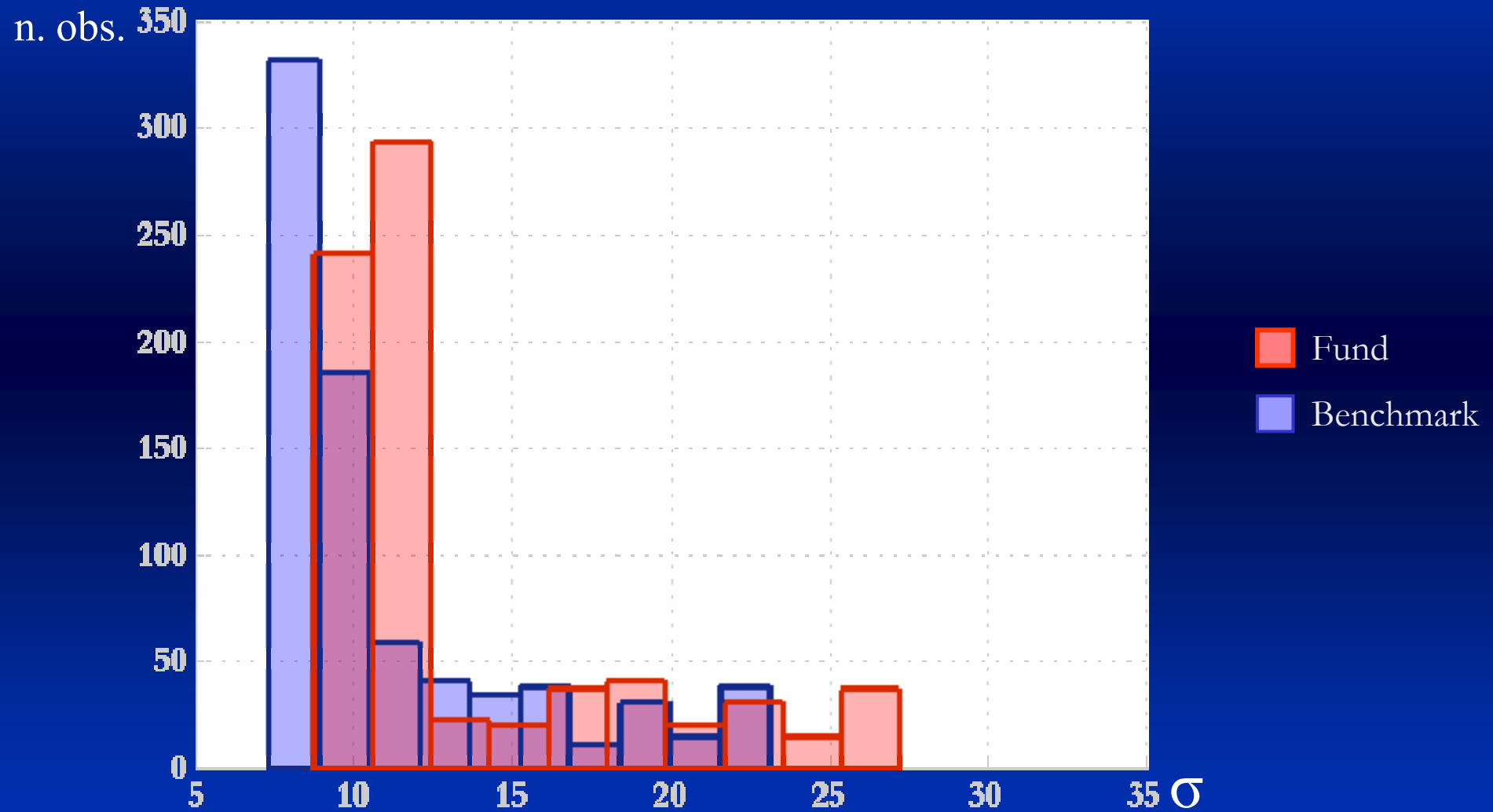
- **a comparison of the behaviour in terms of volatility of funds belonging to different jurisdictions (Italian, German and French) but classified within the same category;**
- **a comparison of the dynamics over time of the volatility of different benchmarks, representative of the most common investment universes targeted by funds.**

# *The Empirics*

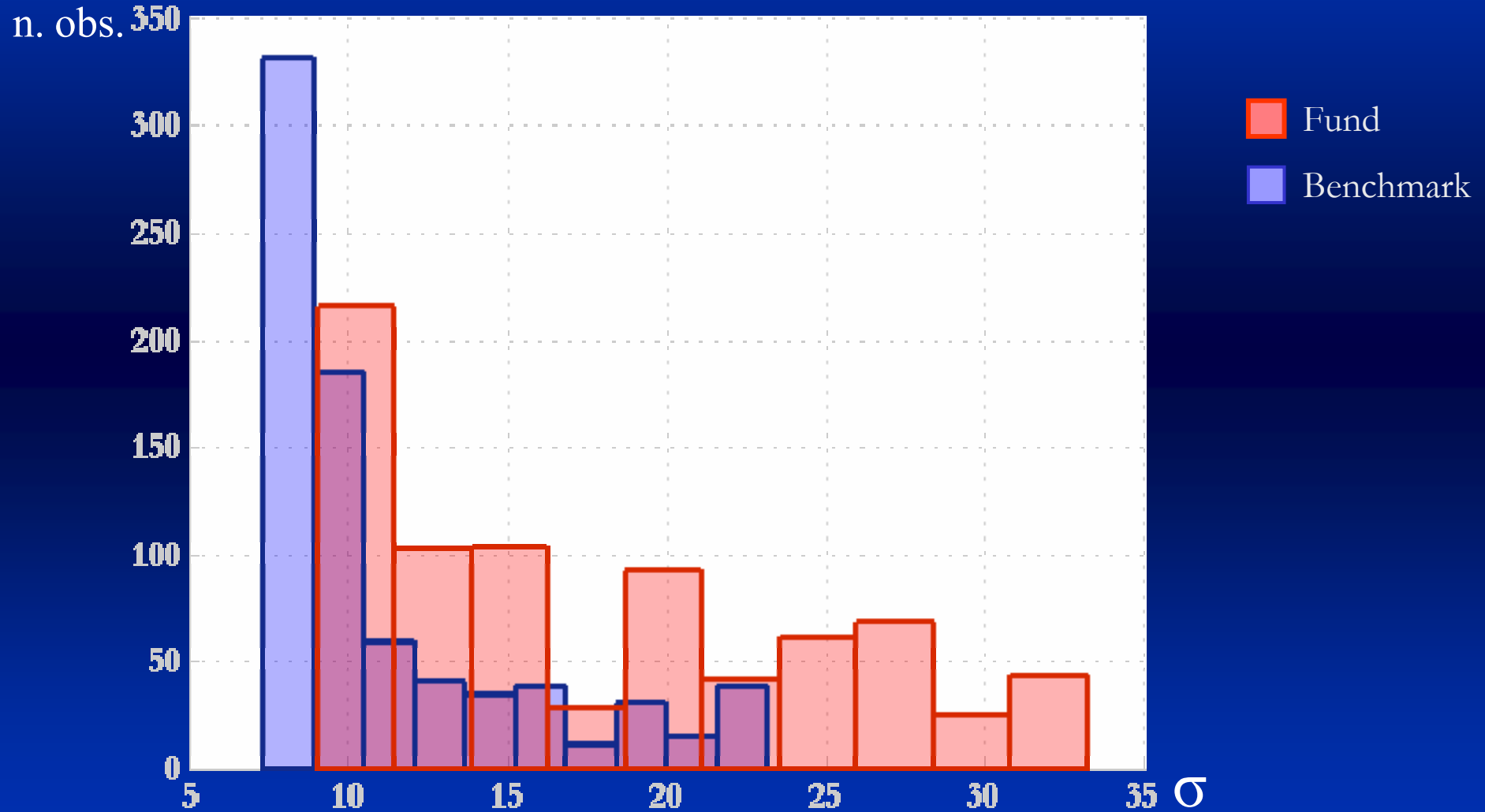
## European funds vs benchmarks volatility analysis

The comparative study, in terms of return volatility, of a pool of funds belonging to different jurisdictions (Italian, German and French) but classified within the same category (liquidity, euro government bonds, world equity, emerging markets ect....) revealed interesting results.

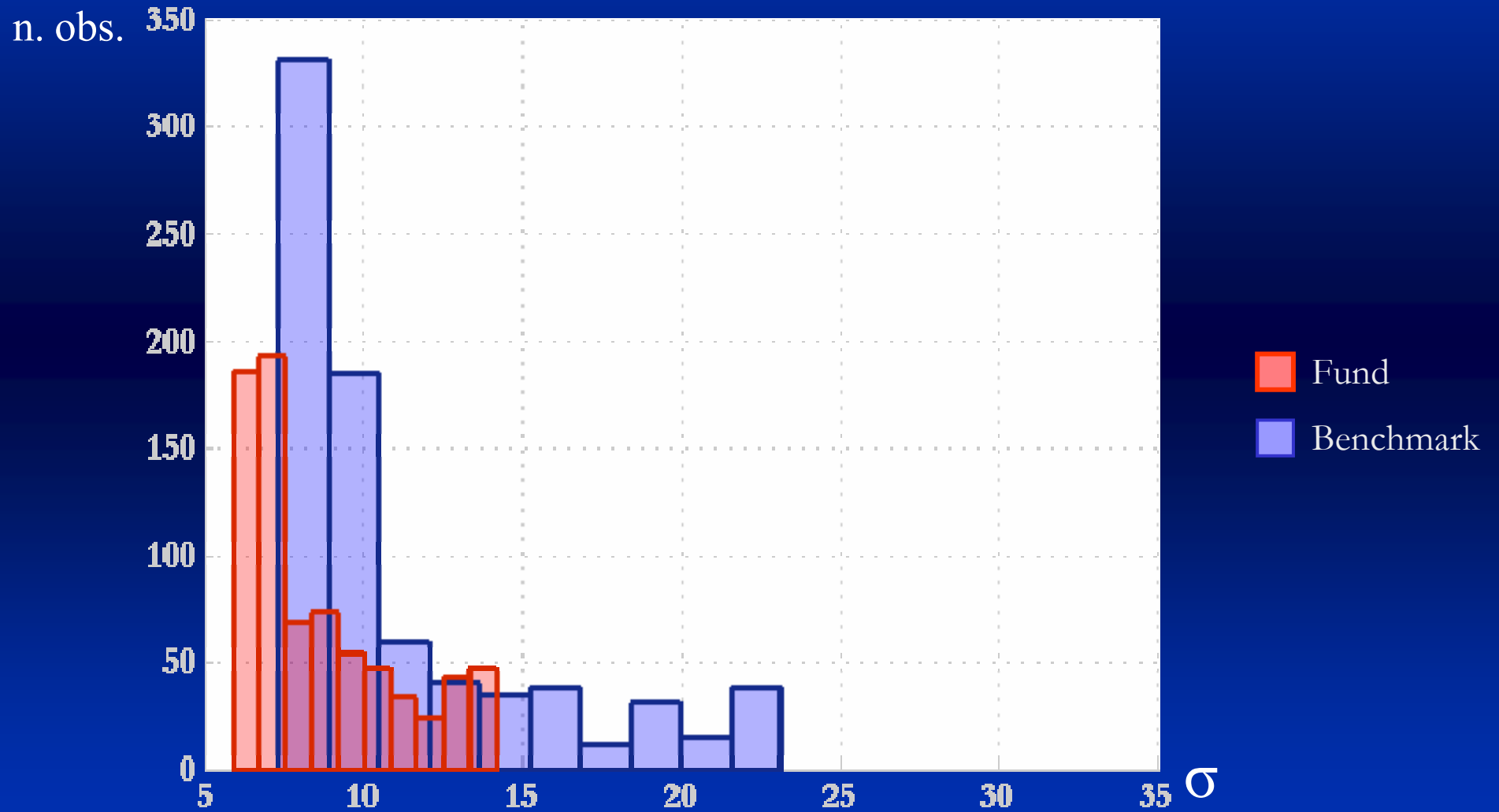
Equity World : Benchmark vs Fund - Germany



## Equity World : Benchmark vs Fund - France



## Equity World : Benchmark vs Fund - Italy



## *Translation of volatility measures into overall risk degrees (3)*

| Range of volatility | 20 <sup>th</sup> perc. | 80 <sup>th</sup> perc. |
|---------------------|------------------------|------------------------|
| Benchmark           | 7%                     | 12%                    |
| Italian fund        | 6%                     | 11%                    |
| German fund         | 8%                     | 15%                    |
| French fund         | 9%                     | 18%                    |

## Insight

- ❖ **Funds from different jurisdictions have different risk profiles in terms of volatility, but they still refer to the same investment policy as expressed by the benchmark.**
- ❖ **The differences are probably due to different management styles.**
- ❖ **Volatility helps not only to capture the actual overall risk of the funds, but also to compare the “active risk” taken by fund managers!**

**In the following it is illustrated the comparison of the dynamics over time of the volatility of different benchmarks, representative of the most common investment universes targeted by funds.**

**The analysis was performed on daily data relative to the last 3 years.**

**The indices regard the following fund categories/markets.**

Liquidity

Euro Gov. M/L Bond

World Gov. Bond

World Balanced

Equity Italy

Equity Spain

Equity Germany

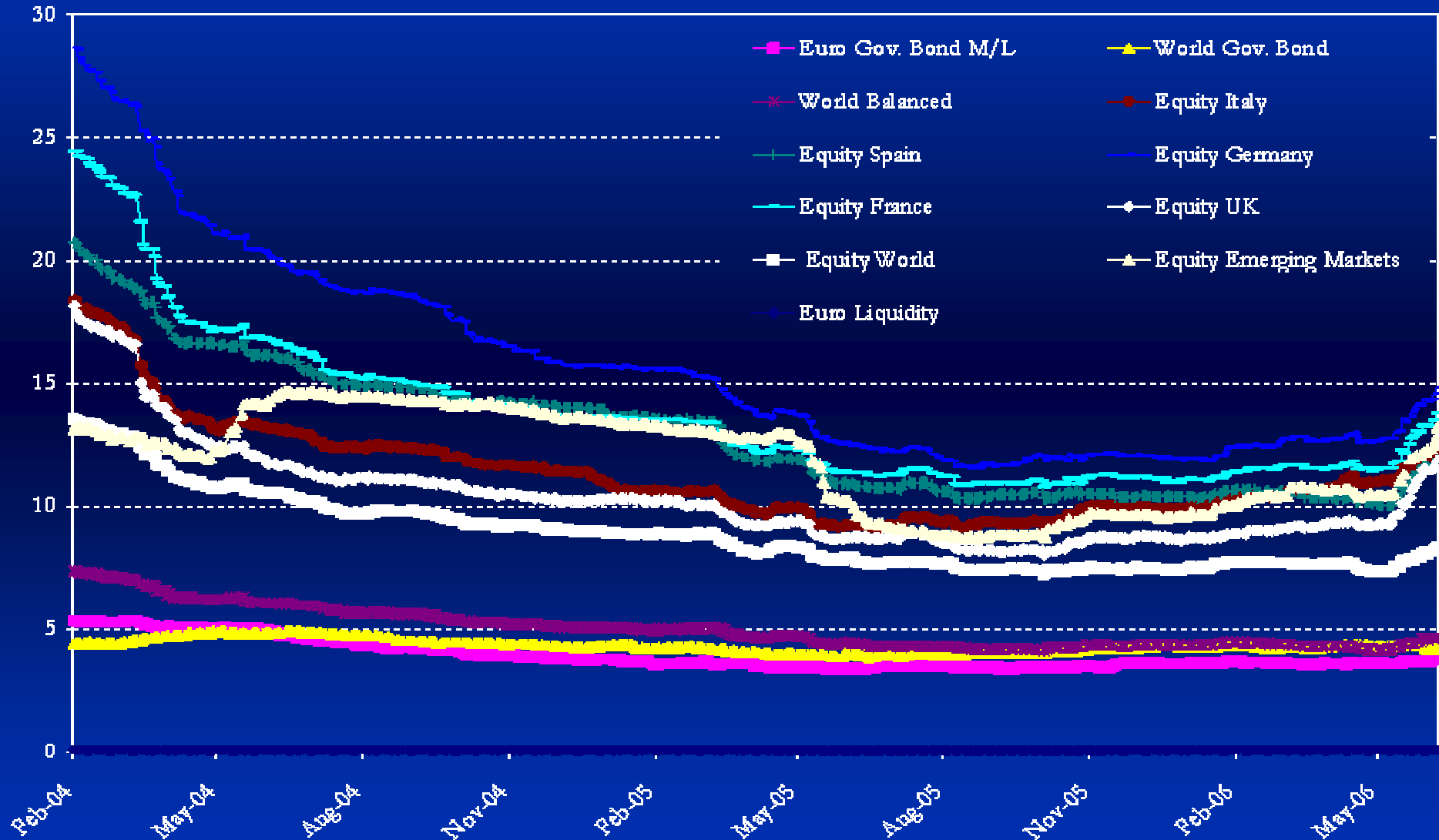
Equity France

Equity UK

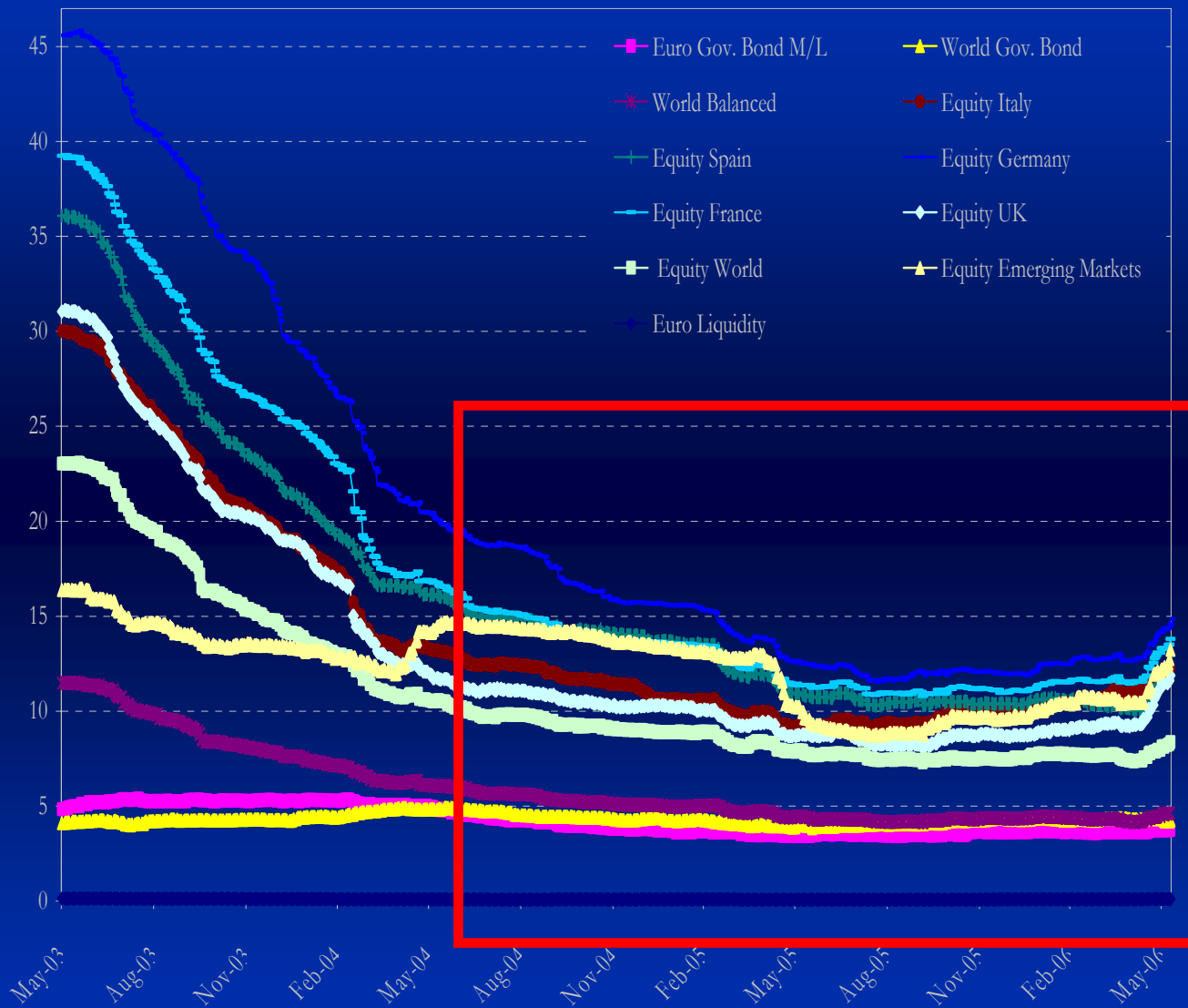
Equity World

Equity Emerging Markets

## Volatility time series May03-May06

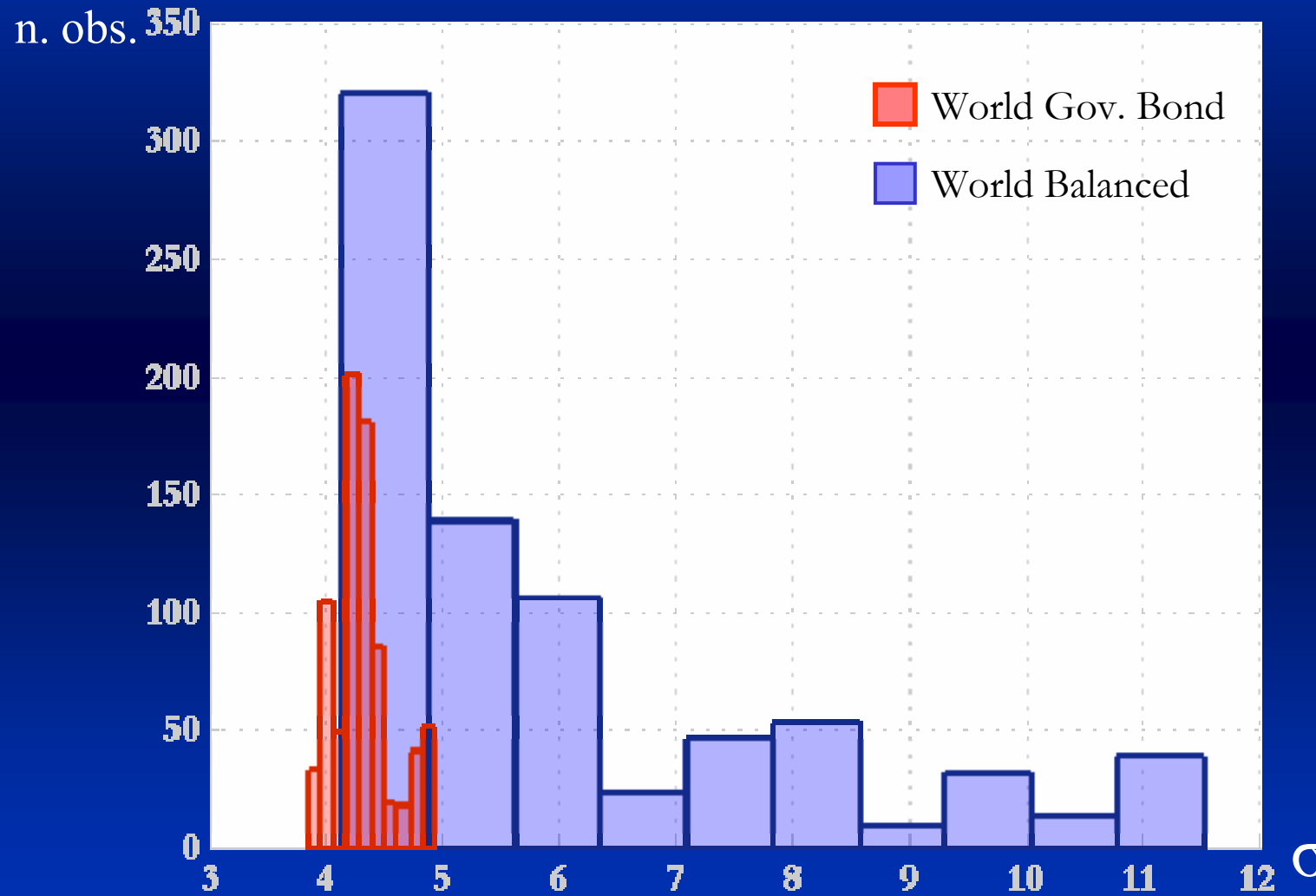


# Changing Scenarios of Market Risk



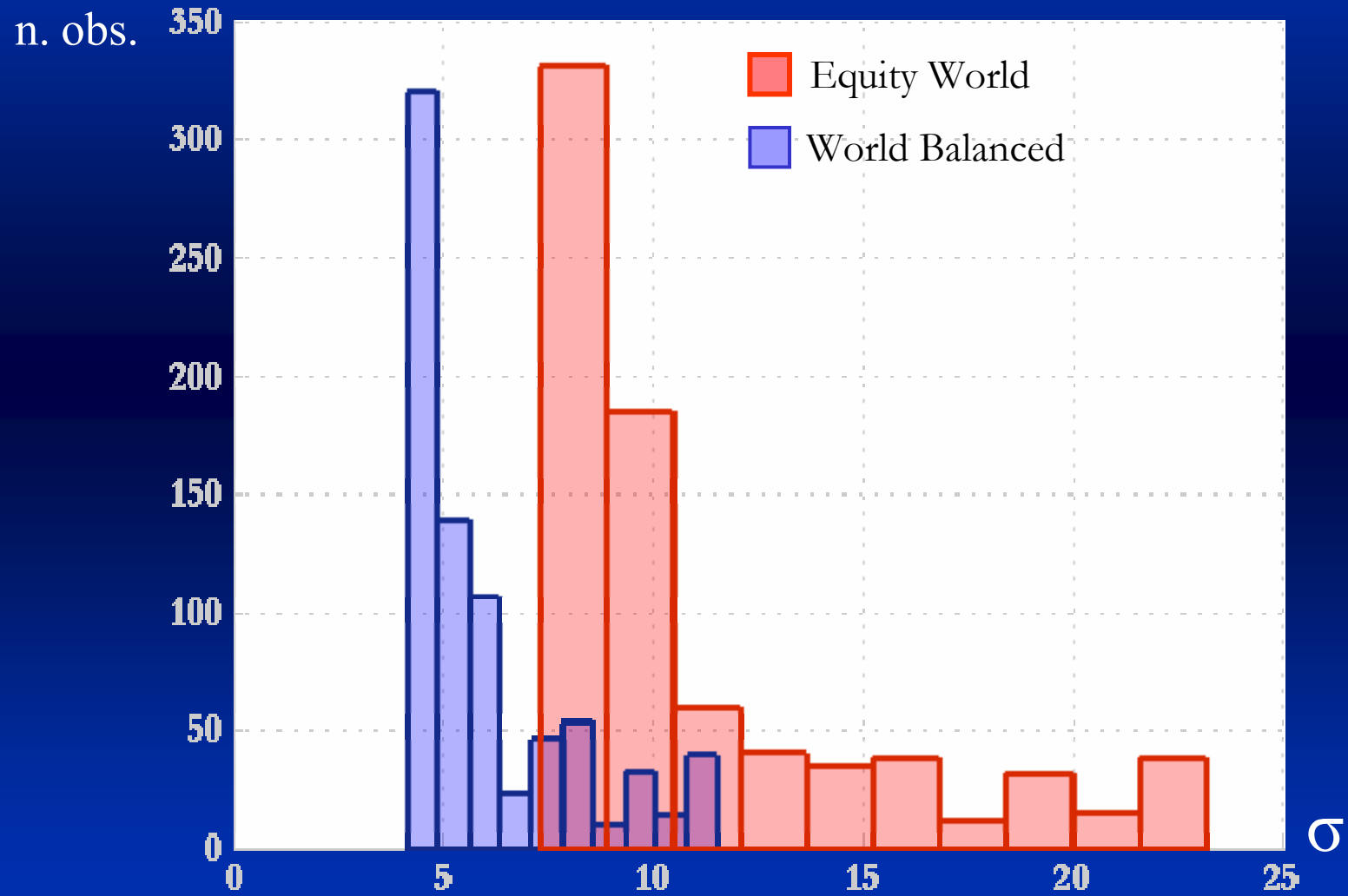
**Risk profiles of  
different markets  
overlap**

## World Balanced vs World Gov. Bond



# Overlaps of Market Risk Profiles

## World Balanced vs Equity World



|                                | MEAN  | P25   | P75   | MODE  | SKEW  |
|--------------------------------|-------|-------|-------|-------|-------|
| <b>Euro Liquidity</b>          | 0,09  | 0,08  | 0,10  | 0,08  | 1,32  |
| <b>Euro Gov Bond M/L</b>       | 4,23  | 3,60  | 5,10  | 3,39  | 0,42  |
| <b>World Gov. Bond</b>         | 4,30  | 4,17  | 4,39  | 3,83  | 0,71  |
| <b>World Balanced</b>          | 5,98  | 4,36  | 7,11  | 4,12  | 1,27  |
| <b>Equity Italy</b>            | 14,12 | 9,98  | 17,25 | 9,09  | 1,38  |
| <b>Equity Spain</b>            | 16,27 | 10,60 | 19,19 | 10,00 | 1,36  |
| <b>Equity Germany</b>          | 20,63 | 12,61 | 26,41 | 11,53 | 1,16  |
| <b>Equity France</b>           | 17,59 | 11,51 | 22,87 | 10,77 | 1,29  |
| <b>Equity UK</b>               | 13,33 | 8,99  | 16,87 | 8,01  | 1,44  |
| <b>World Equity</b>            | 10,93 | 7,71  | 12,94 | 7,28  | 1,43  |
| <b>Equity Emerging Markets</b> | 12,38 | 10,36 | 14,06 | 8,68  | -0,32 |

## Benchmark Volatility Empirical Distribution

| Volatility Ranges       | 0 - 0.5 | 0.5 - 2 | 2 - 4  | 4 - 10 | 10 - 25 | > 25   |
|-------------------------|---------|---------|--------|--------|---------|--------|
| Euro Liquidity          | 100%    |         |        |        |         |        |
| Euro Gov. Bond M/L      |         | 55,32%  | 44,68% |        |         |        |
| World Gov. Bond         |         |         | 10%    | 90%    |         |        |
| Bond Balanced           |         | 10%     | 63,92% | 26,08% |         |        |
| World Balanced          |         |         |        | 93,04% | 6,96%   |        |
| Equity Italy            |         |         |        | 26,20% | 64,43%  | 9,37%  |
| Equity Spain            |         |         |        | 0,13%  | 86,08%  | 13,80% |
| Equity Germany          |         |         |        |        | 73,42%  | 26,58% |
| Equity France           |         |         |        |        | 78,61%  | 21,39% |
| Equity UK               |         |         |        | 39,11% | 52,15%  | 8,73%  |
| Equity World            |         |         |        | 63,42% | 36,58%  |        |
| Equity Emerging Markets |         |         |        | 21,39% | 78,61%  |        |

*Translation of volatility measures into overall risk degrees (4)*

Markets risk profiles as represented by volatility measures are subject to relevant changes over time.

**More importantly, risk profiles of different markets/investment universes overlap !**



**Therefore, the simple description of the fund's investment policy cannot fully disclose its overall risk profile**



Consequently, transparency can be enhanced through the adoption of a synthetic risk grade assessed over a volatility-based metric system.



| Fund Risk Class | $\sigma_{\min}$ | $\sigma_{\max}$ |
|-----------------|-----------------|-----------------|
| low             |                 |                 |
| medium-low      |                 |                 |
| medium          |                 |                 |
| medium-high     |                 |                 |
| high            |                 |                 |
| very high       |                 |                 |

## *Definition of a grid of classes of risk (1)*

- ❖ **The definition of synthetic risk grades based on volatility requires to solve a mapping problem in order to combine overall risk labels with ranges of volatility.**
- ❖ **Both the optimum number of risk classes and the size of related brackets of volatility can be identified studying the evidence offered by the historical data.**
- ❖ **However, accepting the proposal formulated by the EFAMA in 2002, which entails six risk classes, the problem becomes only the identification the thresholds in the grid, which must isolate ranges of volatility corresponding to significant and consistent risk classes.**

## European funds volatility analysis

**A first calibration of the thresholds of the volatility grid, may be provided on grounds of a study of the return patterns offered by a sample of European funds over the last three years.**

## Summary Statistics: Sample of Funds

|                                  | <b>MEAN</b> | <b>P25</b> | <b>P75</b> | <b>MODE</b> | <b>SKEW</b> |
|----------------------------------|-------------|------------|------------|-------------|-------------|
| <b>Liquidity Euro</b>            | 0,16        | 0,12       | 0,19       | 0,08        | 0,30        |
| <b>Euro Gov Bond M/L</b>         | 3,50        | 2,54       | 4,44       | 1,97        | 0,26        |
| <b>World Gov. Bond</b>           | 3,90        | 2,72       | 5,57       | 1,60        | 0,53        |
| <b>World Balanced</b>            | 6,12        | 4,52       | 7,08       | 3,59        | 1,01        |
| <b>Equity (country specific)</b> | 16,60       | 11,5       | 19,25      | 7,06        | 1,24        |
| <b>Equity World</b>              | 13,22       | 9,09       | 15,66      | 5,87        | 1,27        |
| <b>Equity Emerging Markets</b>   | 16,06       | 13,5       | 19,13      | 9,66        | -0,08       |

### Funds Volatility Empirical Distribution

| Volatility Ranges       | 0 - 0.5 | 0.5 - 2 | 2 - 4  | 4 - 10 | 10 - 25 | > 25   |
|-------------------------|---------|---------|--------|--------|---------|--------|
| Euro Liquidity          | 100%    |         |        |        |         |        |
| Euro Gov. Bond M/L      |         | 10,59%  | 74,38% | 14,03% |         |        |
| World Gov. Bond         |         | 12,54%  | 54,64% | 32,82% |         |        |
| World Balanced          |         |         | 9,24%  | 84,45% | 6,31%   |        |
| Equity                  |         |         |        | 22,34% | 61,55%  | 16,11% |
| Equity World            |         |         |        | 34,66% | 56,79%  |        |
| Equity Emerging Markets |         |         |        | 1,93%  | 98,07%  |        |

## A Hypothesis

| Risk Class  | $\sigma_{\min}$ | $\sigma_{\max}$ |
|-------------|-----------------|-----------------|
| low         | 0               | 0,49%           |
| medium-low  | 0,5%            | 1,9%            |
| medium      | 2%              | 3,9%            |
| medium-high | 4%              | 9,9%            |
| high        | 10%             | 24,9%           |
| very high   | 11%             | 100%            |

## Main Conclusions

The SP must offer a “brief assessment of the fund risk profile.”

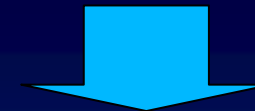
but disclosure of UCITS investment policy not sufficient to explain the fund’s risk profile to retail investors



a different tool for transparency must be adopted in the prospectus



volatility captures the effects of all risk factors which regard a fund



Therefore it is possible to present in the prospectus a synthetic risk grade, expressed in qualitative terms but rigorously based on volatility.

This improves comprehensibility and product comparability.