

Didier Prime

Comparative analysis of the use of investment powers, investment outcomes and related risk features in both UCITS and non harmonized markets 2008



Agenda

- Objectives and scope of the survey
- Performance analysis
- Portfolio composition analysis
- Comparative regulatory analysis
- Risk management survey

Objectives and scope of the survey

1. Objectives

The European Commission wanted to assess how UCITS III was implemented in Europe and what the consequences are on:

- Performance and volatility
- Portfolio composition
- Regulatory frameworks
- Risk management processes with asset managers

A second objective was to compare UCITS with retail oriented Non UCITS

The European Commission organised a call for Tender in 2006

Key contact with the Commission: Niall Bohan, Head of Unit Asset Management

Strong involvement of EFAMA

2. Scope

- Geographical focus
 - 9 European countries: 7 “old” European countries and 2 new joining countries
- Products
 - UCITS
 - Non-harmonized funds, provided that:
 - They are not dedicated to institutional investors in accordance with the legal framework they fall under
 - Their investment policy / strategy is not compliant with UCITS III requirements

Objectives and scope of the survey

2. Scope (contd)

In practice....

UCITS

- 350 Funds of 9 countries
- Covering all main investment strategies
- Representative of the European Market, based upon EFAMA statistics as of December 31, 2005.

Non UCITS

- 150 Funds of 7 countries
- Covering main non-UCITS vehicles available in the respective countries

3. Methodology

1. Analysis of historical data (Performance and Volatility) using historical NAV/Share
2. Analysis of Portfolio composition based on financial statements' disclosure
3. Comparative analysis of the regulatory framework of both UCITS and non-UCITS funds
4. Obtain market feed-back on key problematics through on-line questionnaire and face-to-face interviews

Performance analysis

1. Results on performances and risk profiles

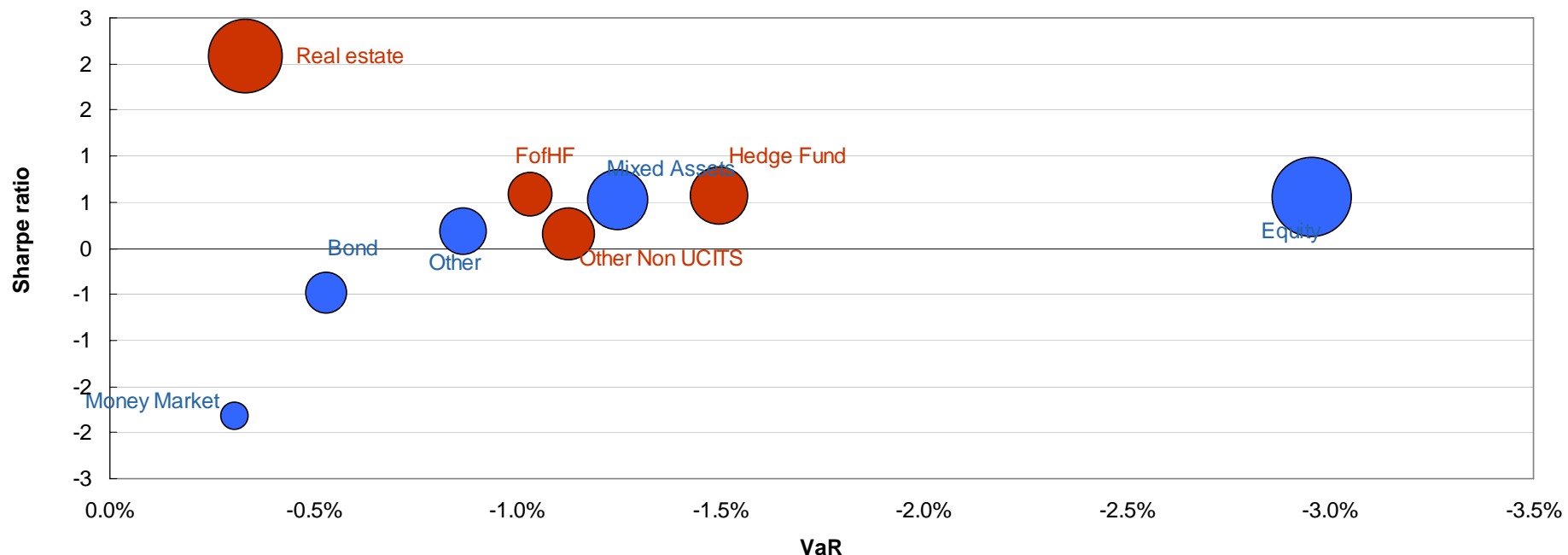
For both UCITS and Non-UCITS, we have computed:

- Average annual performance by category
- Average annual volatility by category
- Average Sharpe ratio by category
- Value at Risk (VaR)

2. Statistics on performance and volatility

UCITS and NON UCITS: Risk adjusted performance comparison

Risk-Adjusted Performance 2002 - 2006



The graph shows the relationship between Sharpe Ratio's value and Value at Risk for each asset class within both samples for the whole period (2002- 2006), while the size of the circle reflects their average return. At exactly the opposite sides of the graph in term of risk profile, as expressed by VaR, we find real estate investments and equity funds.

3. Results on performances and risk profiles

Our preliminary conclusions are as follows:

- The UCITS sample is representative of the whole population
- Non-UCITS tend to have a better risk profiles than UCITS but be careful with liquidity
- In particular, the risk to reward ratio is negative for money market fund because of expense
- We have not identified any significant change in risk profile of UCITS following UCITS III implementation

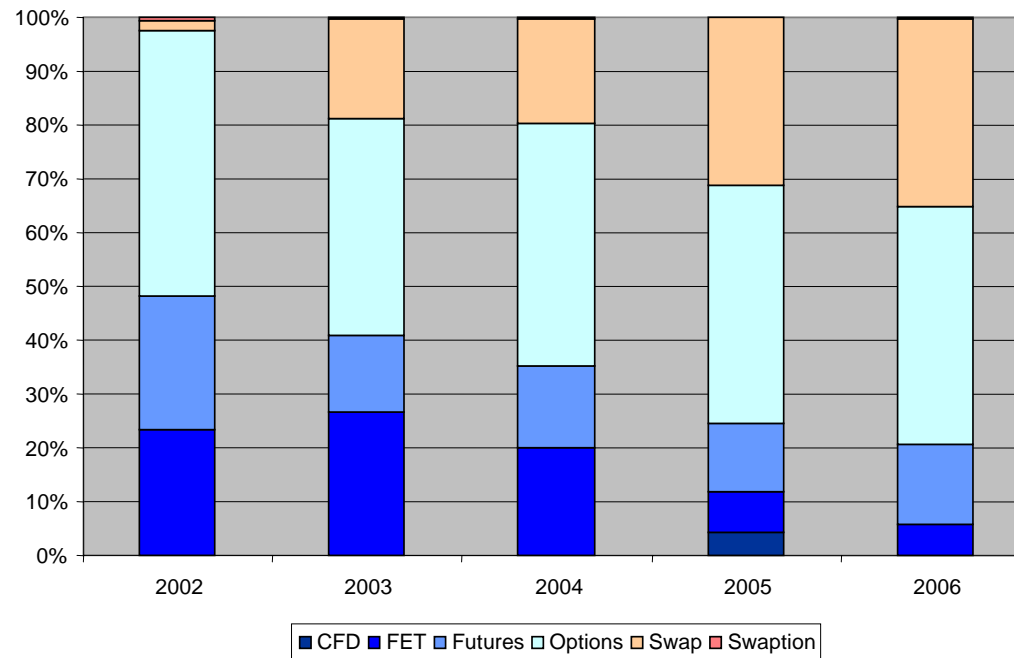
Portfolio composition analysis

1. Results of our analysis: Portfolio composition - UCITS

The following statistics show the evolution of the percentage of funds, by category, having derivatives in their portfolio, based on the financial statements collected.

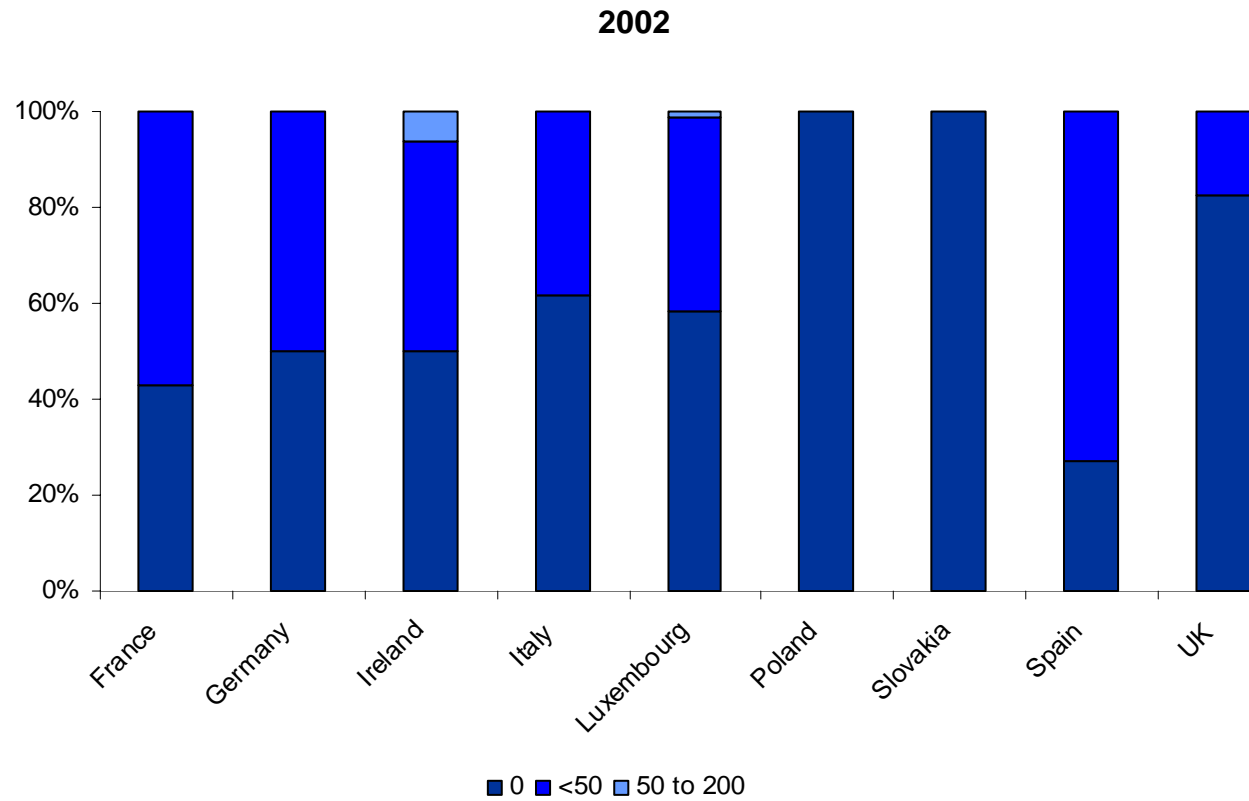
	2002	2003	2004	2005	2006	Average
Futures	18%	24%	28%	34%	31%	27%
Repurchases / Reverse Repurchases	18%	15%	20%	22%	19%	19%
Options	14%	14%	18%	18%	20%	17%
FET	13%	15%	14%	18%	17%	15%
Swap	1%	4%	4%	9%	12%	6%
Swaption	1%	1%	1%	1%	1%	1%
Contract For Difference (CFD)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

2. Type of derivatives – Average weight in derivative population UCITS

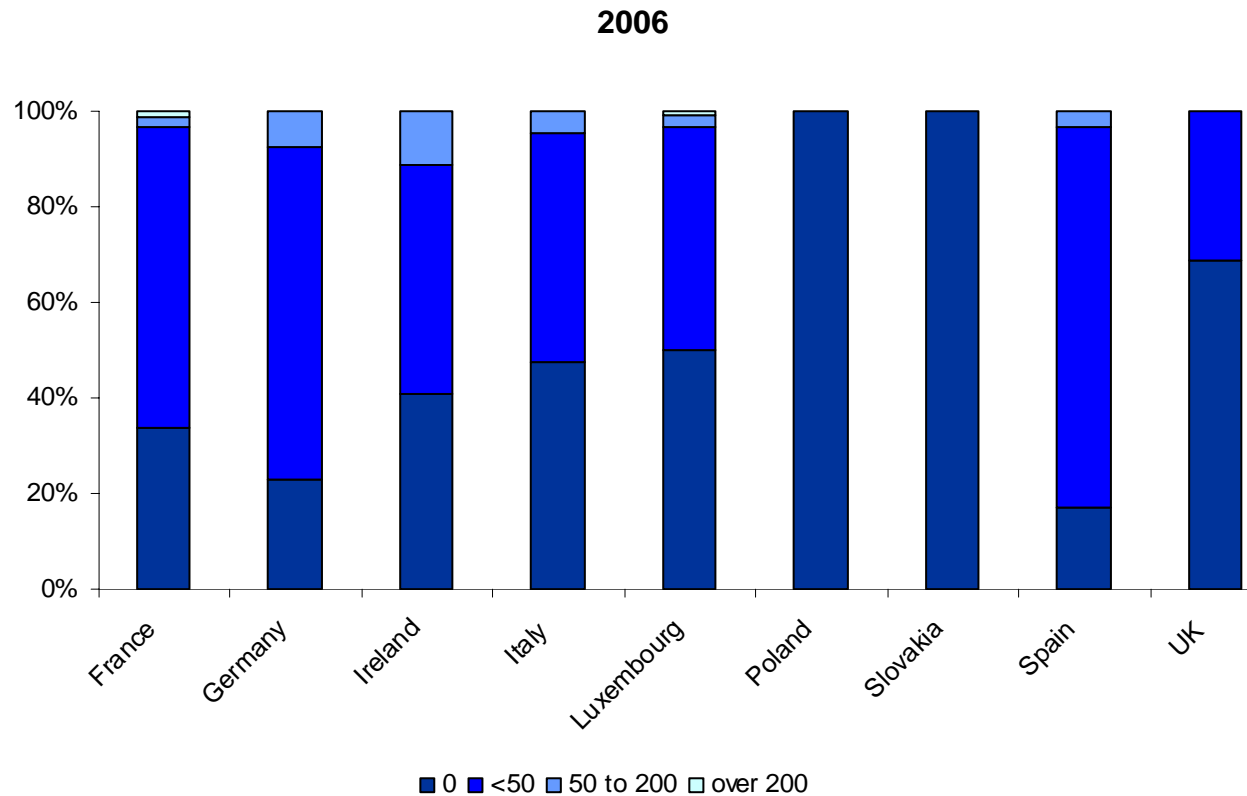


Based on this information, we can note that options remain the main derivatives in terms of weight in net assets; throughout the period under consideration, they correspond to around 40% of the global net assets resulting from derivatives products. The increasing importance of swaps is also evidenced in that context.

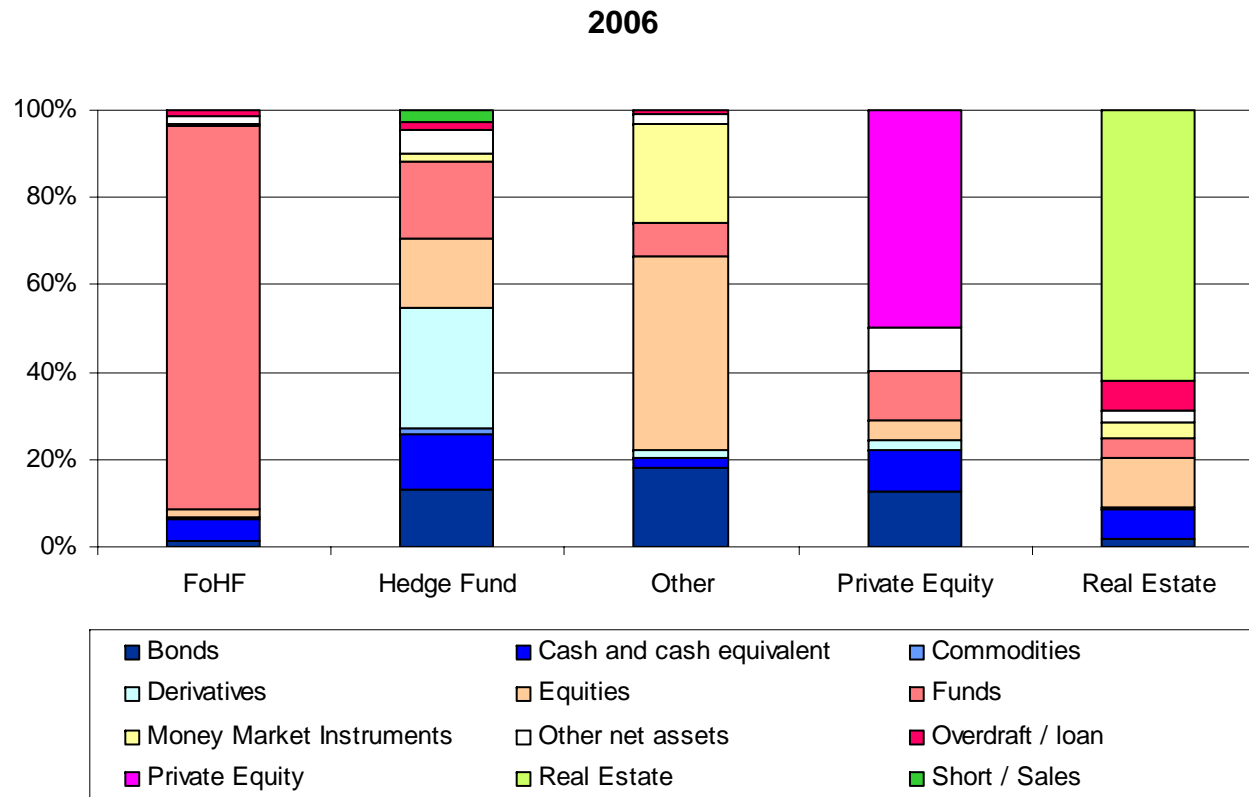
3. Evolution of the number of lines of derivatives - UCITS



3. Evolution of the number of lines of derivatives - UCITS



4. Net Asset Components – Non UCITS Funds



5. Comments on the portfolio composition analysis

The use of derivatives is increasing

This may lead to additional sources of risk:

- Leverage
- Valuation risk
- Operational risk
- Counterparty risk

Such risks are further discussed in the following sections on regulatory frameworks and risk management

Comparative regulatory analysis

1. Analysis of legal framework

Scope

The analysis has been carried out for all countries of the sample.

Results

- The analysis shows that even for eligible assets, we have some differences among countries but not significant enough to justify fund domiciliation.
- On Risk Management side, the implementation of VaR is not totally harmonised.
- The Non-UCITS universe is very different from one country to another.
- The liquidity of investment is rarely mentioned in Regulation.
- The concepts of leverage and of sophisticated funds are not always defined.

Comparative regulatory analysis

2. Difference in UCITS Risk Management

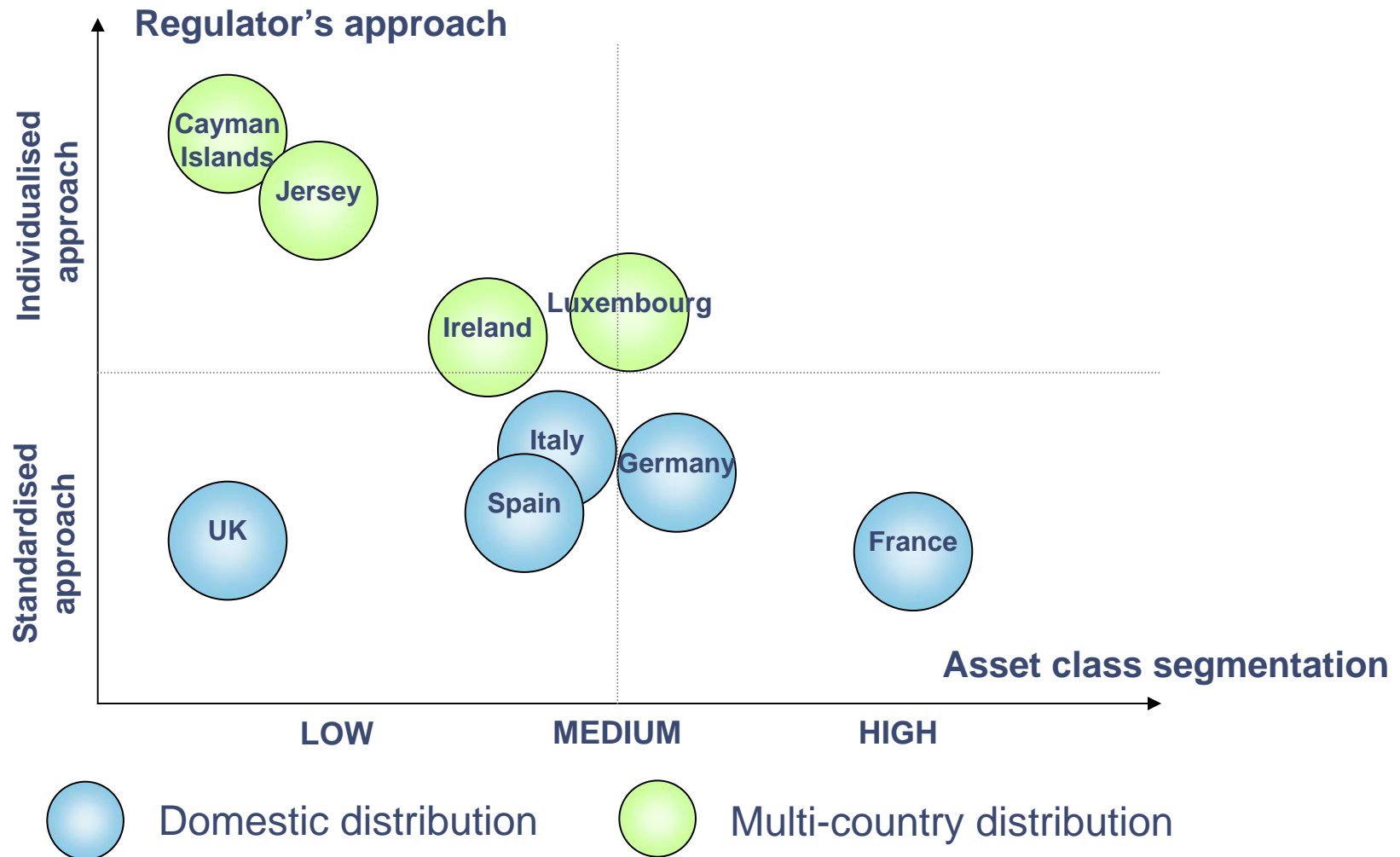
Countries	Lux.	France	Ireland	UK	Germany	Spain	Italy
VaR							
Level of confidence	99%	95%	99%	99%	99%	Not defined	99%
Holding period	1 month	1 week	maximum 1 month	1 month	10 business days		1 month
Historical data	Min 1 year	-	Min 1 year	Max 1 year	Min 1 year		Max 1 year
VaR limit	20%	5% if no benchmark – 10% otherwise but basic rule is relative VaR	5%	Not precised	Twice the Var of the benchmark		Not precised

Comparative regulatory analysis

2. Difference in UCITS Risk Management (contd)

Countries	Lux.	France	Ireland	UK	Germany	Spain	Italy
Counterparty risk							
Positive replacement value	-	YES	-	-	-	Not defined	-
Positive replacement value + (notional * add-on)	-	-	YES	-	-		-
Positive replacement value + (replacement value* add-on)	-	-	YES	-	YES		-
Multiplier * (positive replacement value + (notional * add-on))	YES	-	-	YES	-		YES

3. Country analysis: the balance between the asset class segmentation and the Regulator's approach for Non-UCITS



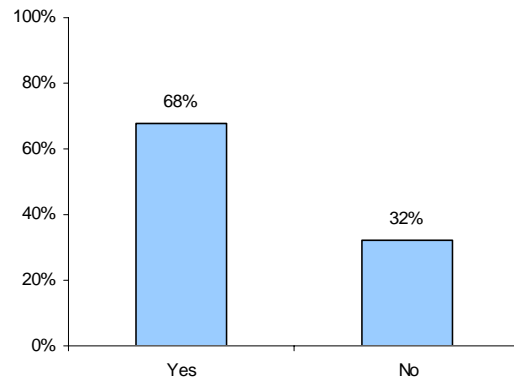
Source: PwC, 2007

1. Key results of interviews with selected promoters

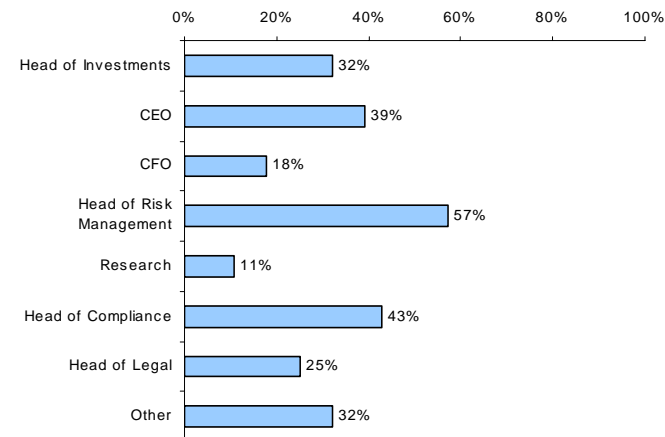
- Detailed questionnaire (82 questions) sent to 70 asset managers of mainstream UCITS, sophisticated UCITS and Funds of Hedge Funds
- 55 respondents
- Key topics covered
 - Use of derivatives
 - Risk management organisation
 - Valuation
 - Market risk
 - Liquidity risk
 - Counterparty risk
 - Operational risk

2. Risk Management Committee

Q18 - Do you have a Risk Management Committee?



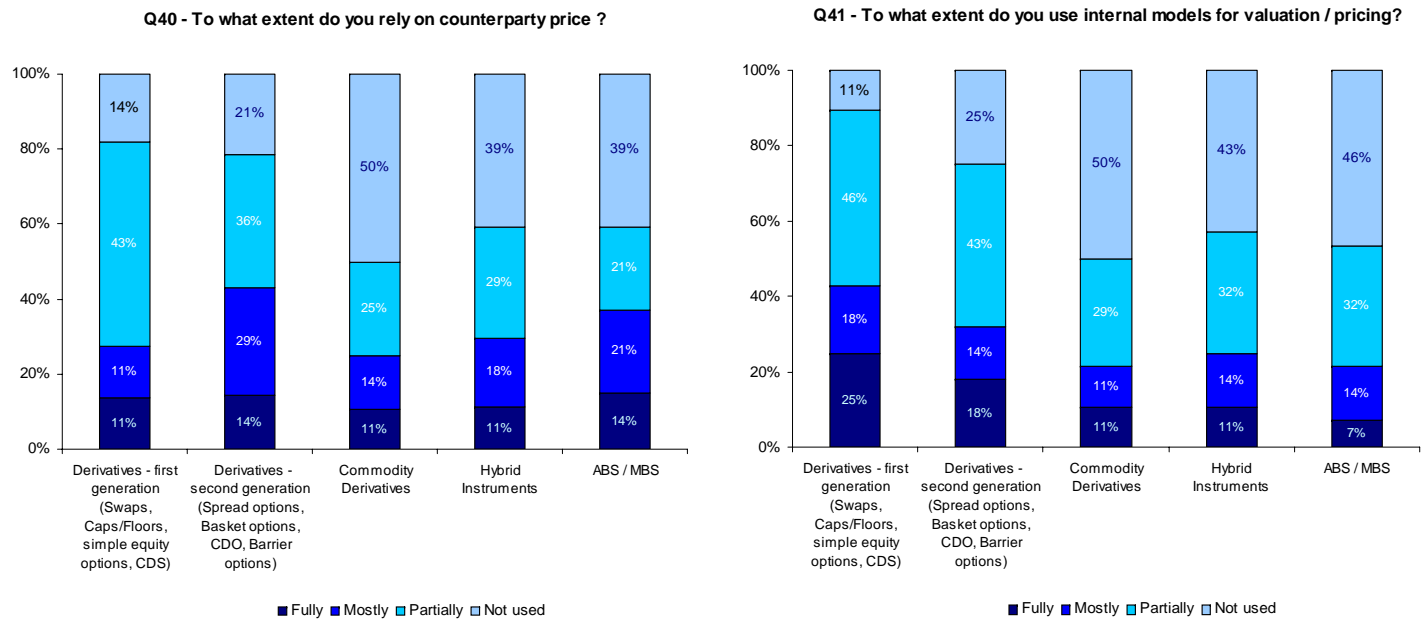
Q18 - Who are the members?



Most of our respondents (68%) have a formal risk management committee. Both the Head of Investments (32%) and CEO (39%) are well represented in the risk management committee. Other front office roles, such as investment managers or other board members are included in this committee.

The absence of Risk Management Committee does not mean that there is no Risk Management function. All Asset Managers promoting sophisticated UCITS have a Risk Management Committee. Asset Managers of non-harmonised funds rarely have a risk management committee, but they do have a person in charge of risk management. Obviously the size of the management company impacts the size and the scope of the risk management unit.

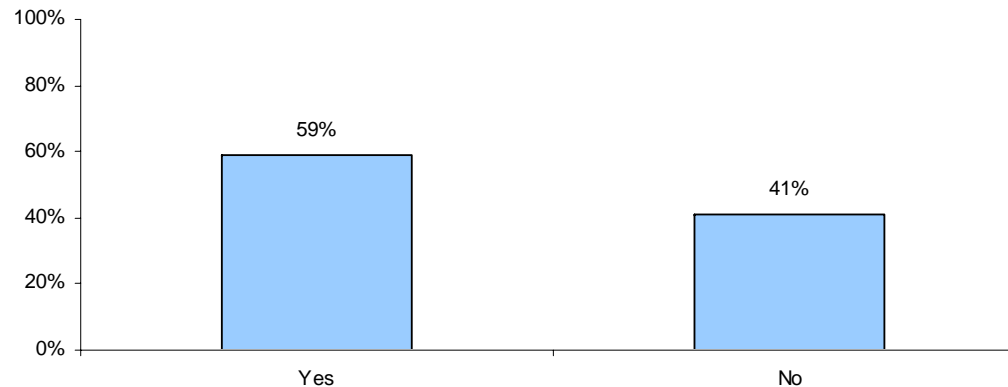
3. Source of valuation and pricing of derivatives



- Source of valuation depends on the kind of instruments
- Dual pricing is not the trend we observe
- Face to face interviews confirm that valuation risk is considered carefully

4. Trading requirements

Q47 - Is the ability to independently price an instrument a prerequisite for trading it ?

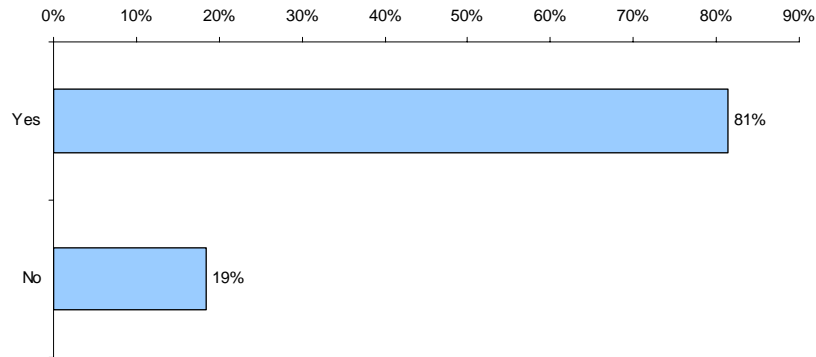


Those percentages refer to all respondents.

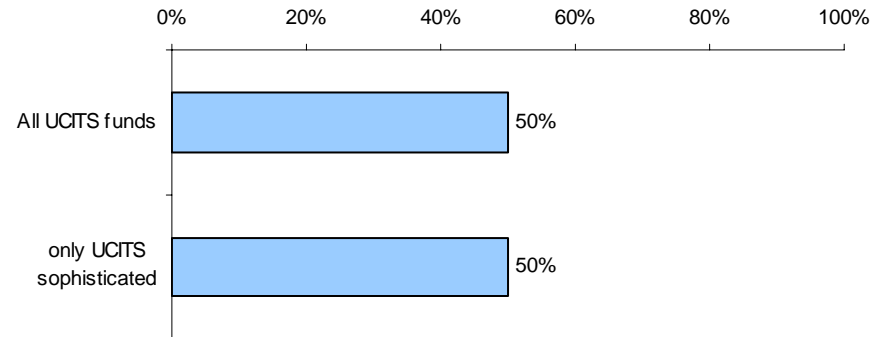
If we consider asset managers of sophisticated UCITS, the percentage of positive answers reaches 88%. It appears that for non-harmonised funds the ability to independently price an instrument before trading it is not always a pre-requirement. The issuance of guidance by international organisation like AIMA (Alternative Investments Management Association) on pricing should help to improve this situation.

5. Value at Risk

Q50 - Do you assess VaR?



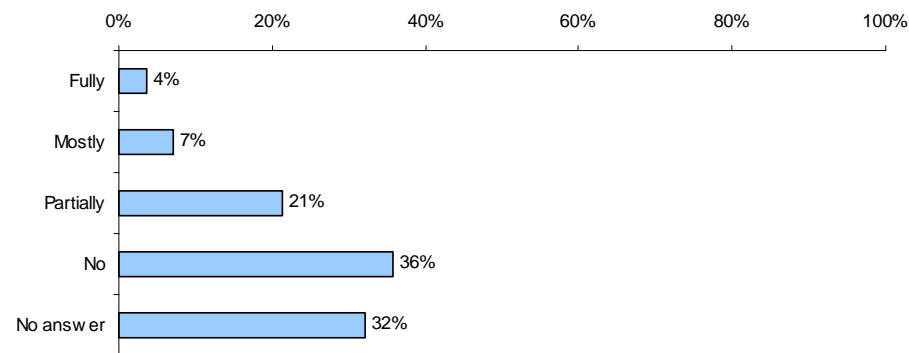
Q50b - Do you assess VaR on UCITS funds?



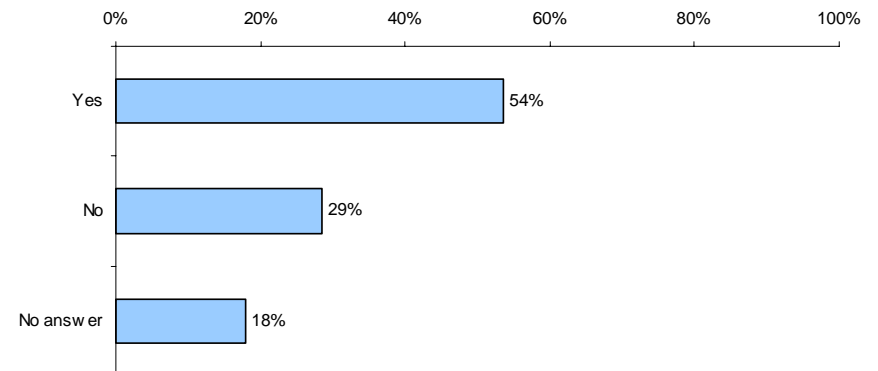
VaR is widely used, not only for sophisticated funds. It is an essential tool for Risk Management units. Moreover, all the asset managers in our sample, managing only non-UCITS, including Hedge Funds and Funds of Hedge Funds, measure the Value at Risk.

6. Value at Risk coverage

Q54 - Does your VaR calculation take into account the liquidity of the instruments/products?



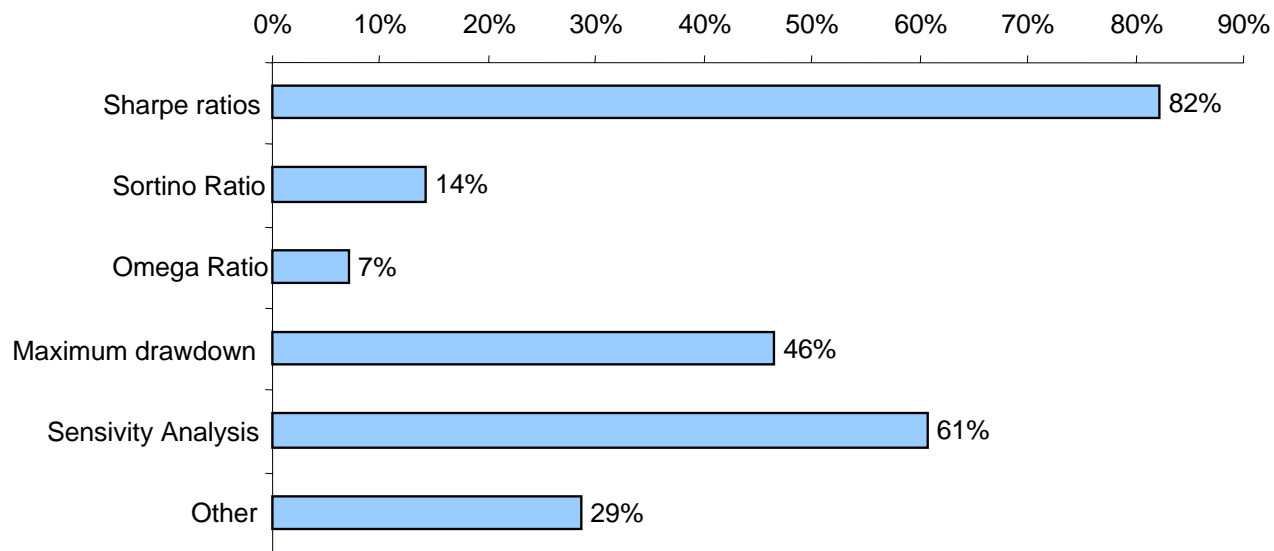
Q55 - Do you think, your VaR model sufficiently covers all your product and portfolio risks?



Those answers highlight the most important risk in the European Funds industry, i.e. liquidity risk. Even if VaRs are properly calculated, the impact of liquidity is not always assessed.

7. Traditional ratios and other risk measures

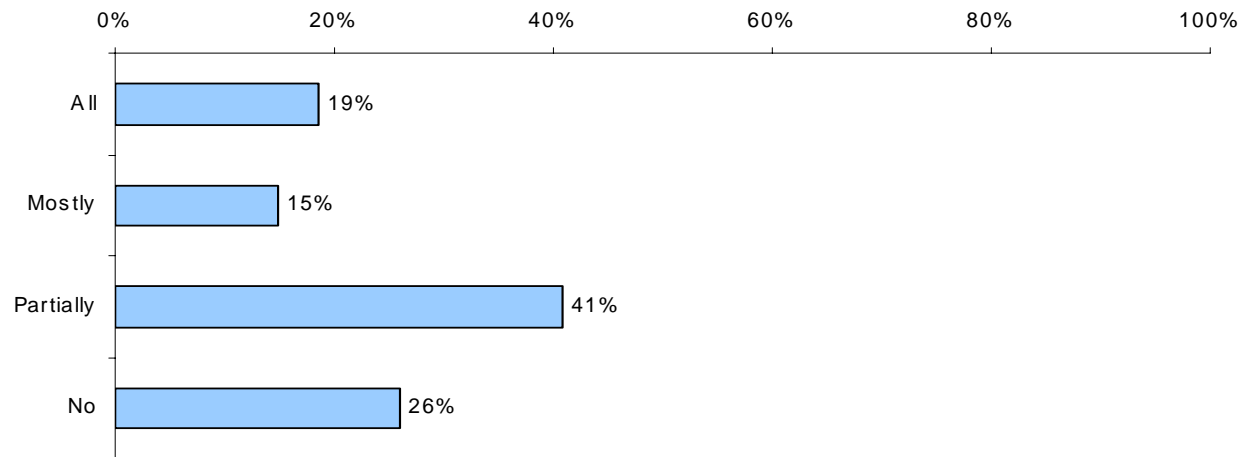
Q63 - Do you use the following ratio/risk measures for your funds?



The Sharpe ratio is used across the industry even if it is frequently criticised for not being appropriate. It is also used extensively for non-UCITS. For Funds of Hedge Funds, the maximum drawdown is always used, but with other, more traditional ratios.

8. Liquidity risk

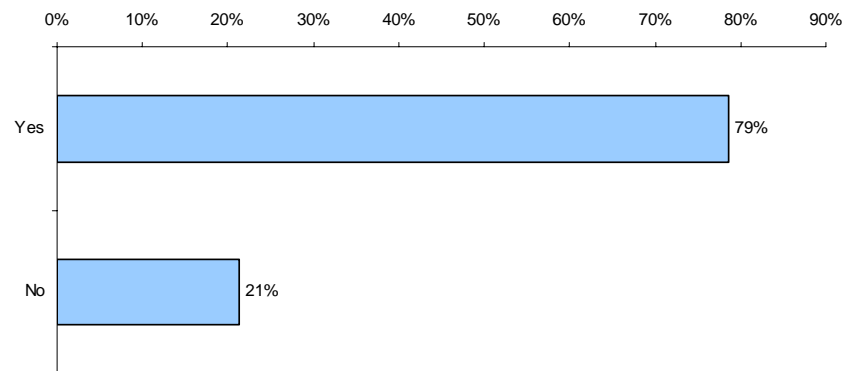
Q67 - Do you include a liquidity analysis of authorized products?



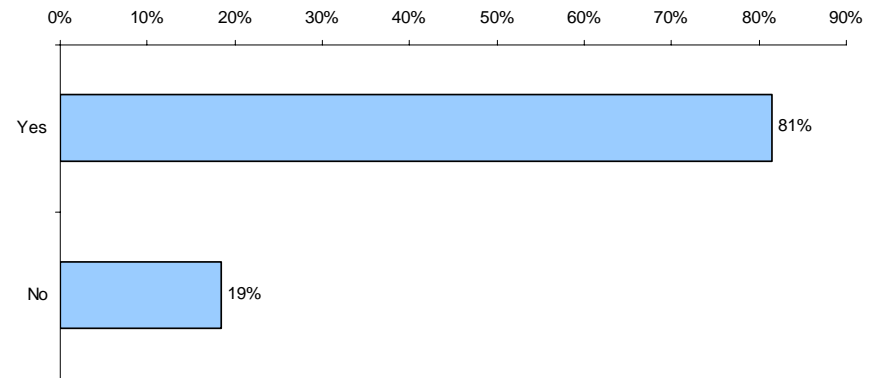
The liquidity analysis is developed and applied but not to a large extent. Question 54 already showed that VaR calculation does not always include the impact of liquidity. This is even more the case for non-harmonised funds.

9. Counterparty risk

Q68 - Do you measure Counterparty Risk for derivatives?



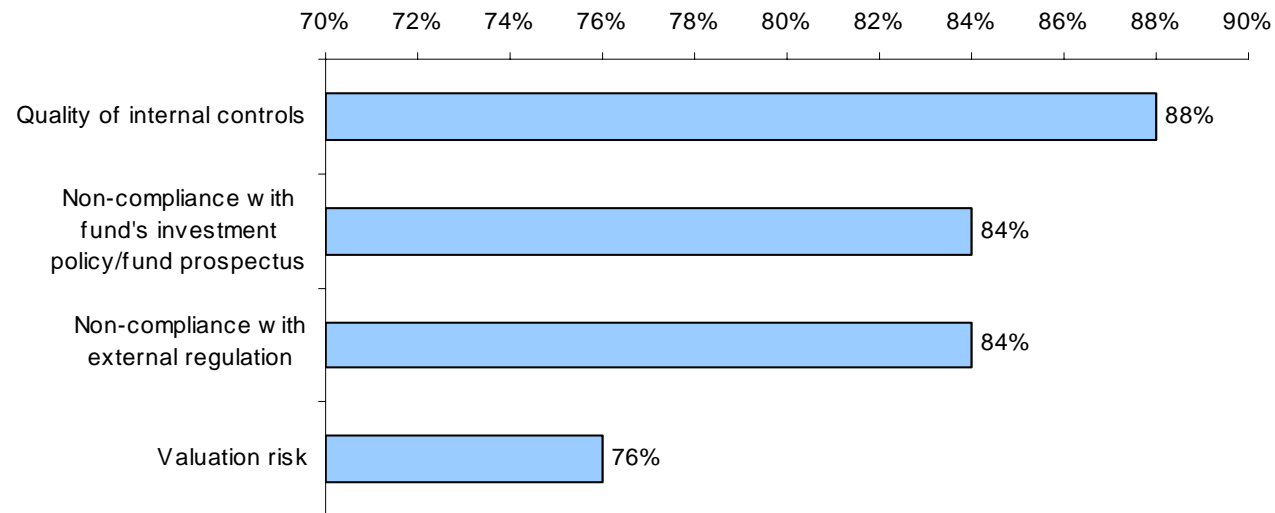
Q69 - Do you use collateral agreements to reduce Counterparty exposure?



Counterparty risk is logically measured by most asset managers, as well as collateral agreements. This is imposed by UCITS III for OTC derivatives. Counterparty risk measurement tends to be harmonised among asset managers even if it is not harmonised by regulators as shown by the comparative Regulatory Analysis. Asset Managers tend to adopt the most conservative approach when performing measurements.

10. Operational risk assessment

Q73 - Does your operational risk assessment include ?



11. Key results of interviews with selected promoters

- Path of transition from UCITS I to UCITS III
- Convergence between UCITS III and Alternative Investments Funds
- Leverage opportunities under UCITS III
- Replacement of investment restrictions and eligible assets with risk management principles
- Request for additional powers
- Other requests

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