

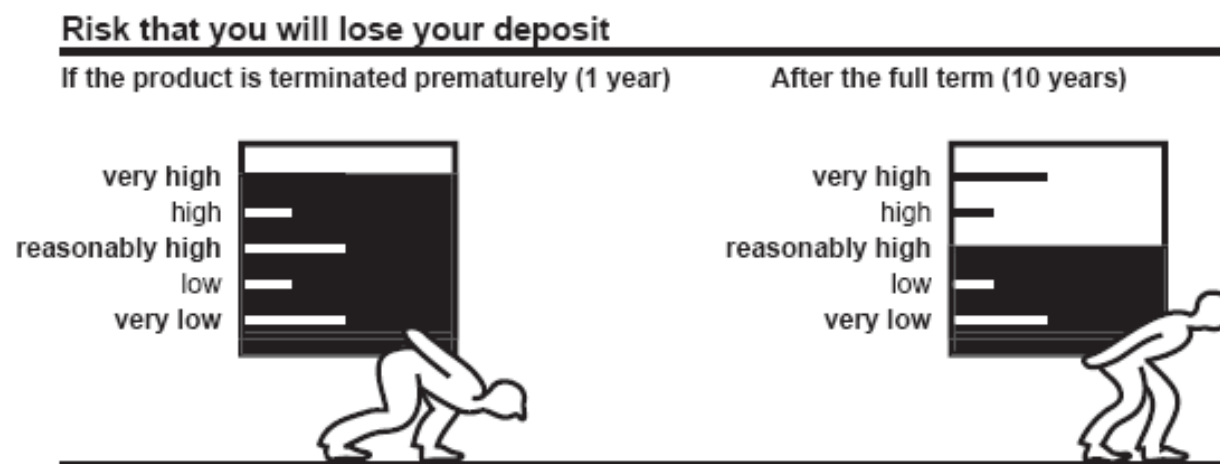
A risk measure for retail financial products

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Brussels, July 2006



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New financial leaflet will include graphical risk meter



Important note:

The risk indicator presented in this document has been developed for application to a broad spectrum of financial products, not just investment funds.

Central idea is expected pay-off in bad scenarios

- Risk indicator is measure of 'market' or 'investment' risk
- Key concept is expected pay-off in bad scenarios (VAR)
- Measured as % of total investment by consumer
- This amount, called the **GUISE**, is calculated after subtracting **ALL** costs (upfront, periodic and exit costs)
- Other factors also taken into account when determining risk level, e.g:
 - existence of guarantees (capital protection)
 - whether the consumer may end up with residual debt



There are five risk levels

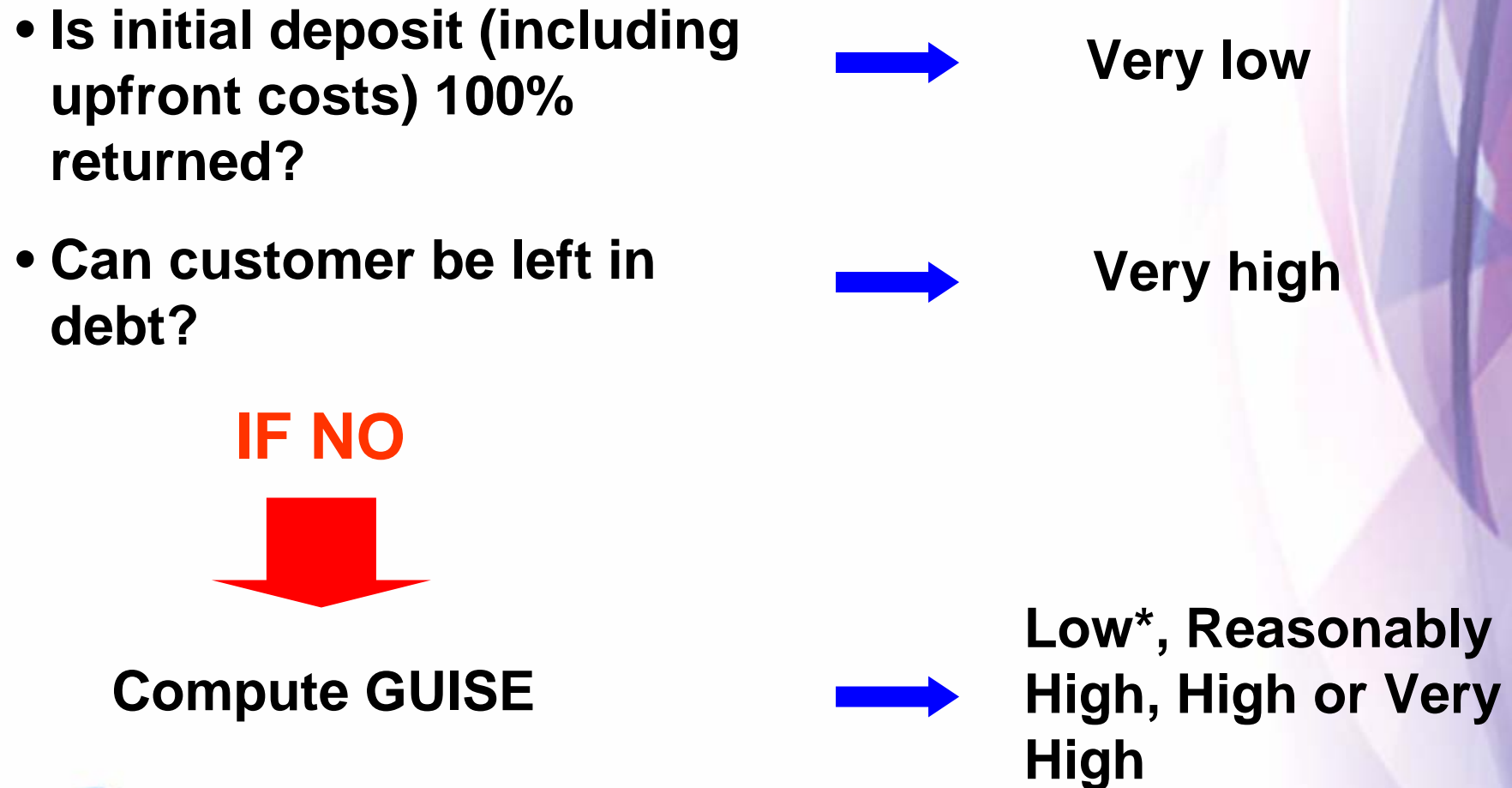
Classification

Risk that you will lose your deposit is:

Very Low	If payout of the deposit is fully guaranteed
Low	If payout of more than 80% of the deposit is guaranteed and GUISE equals 95% or more
Reasonably high	If GUISE equals 90% or more of deposit
High	If GUISE equals 90% to 75% of deposit
Very high	If GUISE equals less than 75% of the deposit (or if customer can end up with residual debt)



Steps in determining risk classification



Computing the GUISE

- Risk indicator can be applied to any product that has a payoff dependent on observable underlying quantities
- Determine underlying investment category (6 categories)
- Corresponding parameters (Mean and SD), investment amount and time horizon laid down in regulation
- Can use fund parameters if fund has sufficient history
- Perform calculation based on formula (in most cases standard tables can be used)
- Adjust result for for costs
- For non-linear products value 'optional' elements using Black-Scholes

A worked example (1/3)

Characteristics product

- Investment fund that invests 100% in shares
- With currency risk
- No capital protection
- Initial costs 30 euro

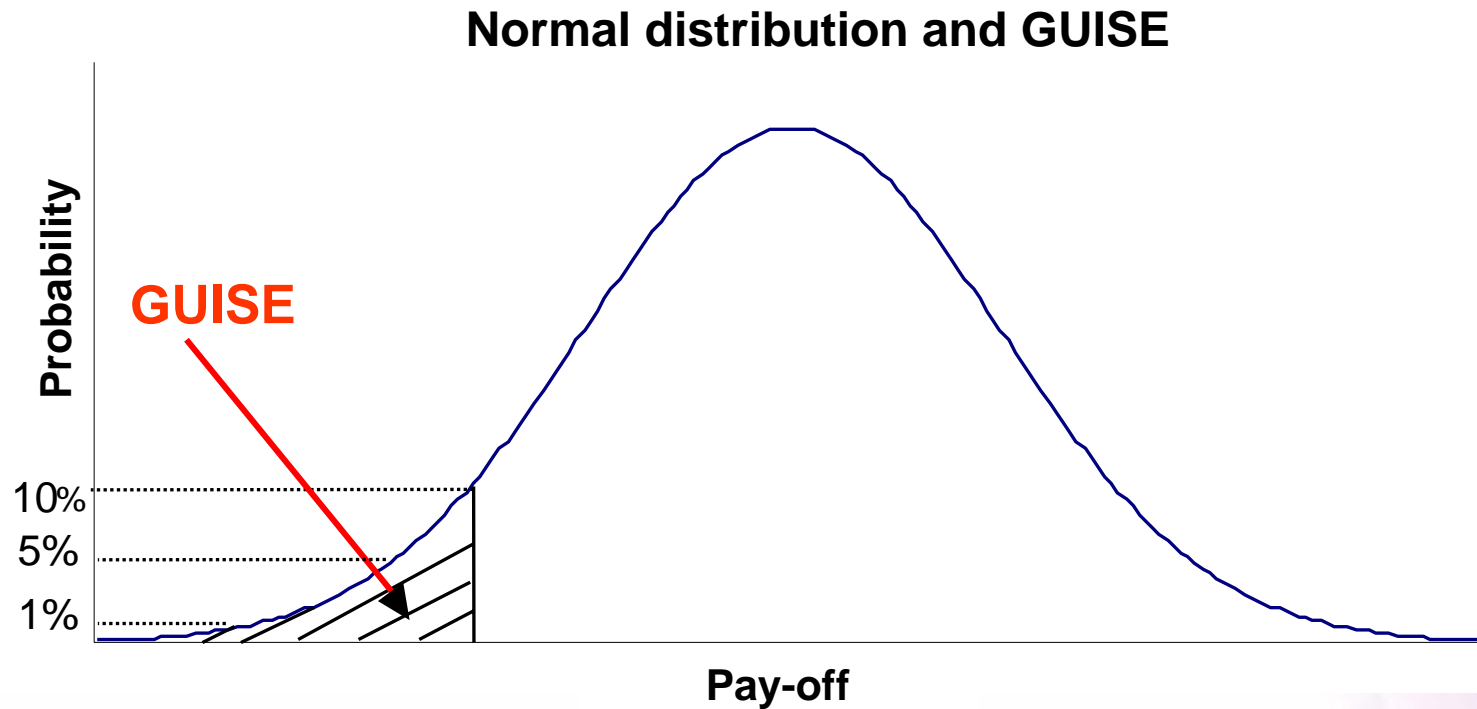
Inputs (prescribed in regulation)

- Expected yield 8.3%, Volatility 27.5%*
- Time horizon: 1 year
- Initial deposit 1000 Euro

**can use own fund parameters if there is sufficient history⁷*

A worked example (2/3)

Computation



GUISE ≈ 0.3125 * value 1%-probability scenario
+ 0.4375 * value 5%-probability scenario
+ 0.25 * value 10%-probability scenario

A worked example (3/3)

Computation

- For products with only an initial deposit, the **GUISE** can be calculated directly using a simple formula
- The one off costs, in this case 30 euro, should be deducted from the initial deposit
- The computed **GUISE** is 652 euro (or 65%).
- It follows that this product will be classified as **VERY HIGH**
- To assist institutions in determining the risk categorisation of their products, the AFM has also developed an application which this process.

Risk measure satisfies several properties

- **One-dimensional quantity**
- **Can be applied to wide range of products**
- **Differentiates sufficiently (particularly between different types of financial products)**
- **Takes into account investment horizon**
- **Easy to implement**
- **Simple to interpret**
- **Difficult to reverse engineer**



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