



CHANGING THE RISK GAME

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Investment Management

Clients' Profiling

Understanding clients' needs and risk profile is even more important than having the best investment solutions on the market. This is because the key to good service is to provide the right solution to the right customer. In Europe, client' profiling, has been helped by regulations on consumer protection and investment service competition and the European Securities and Markets Authority (ESMA). The Markets in Financial Instruments Directive 2004/39/EC (known as "MiFID") has provided harmonized regulation for investment services across the 31 member states of the European Economic Area.

In the following picture, is an example of how clients can be profiled in order to determine the right investment solution for them.



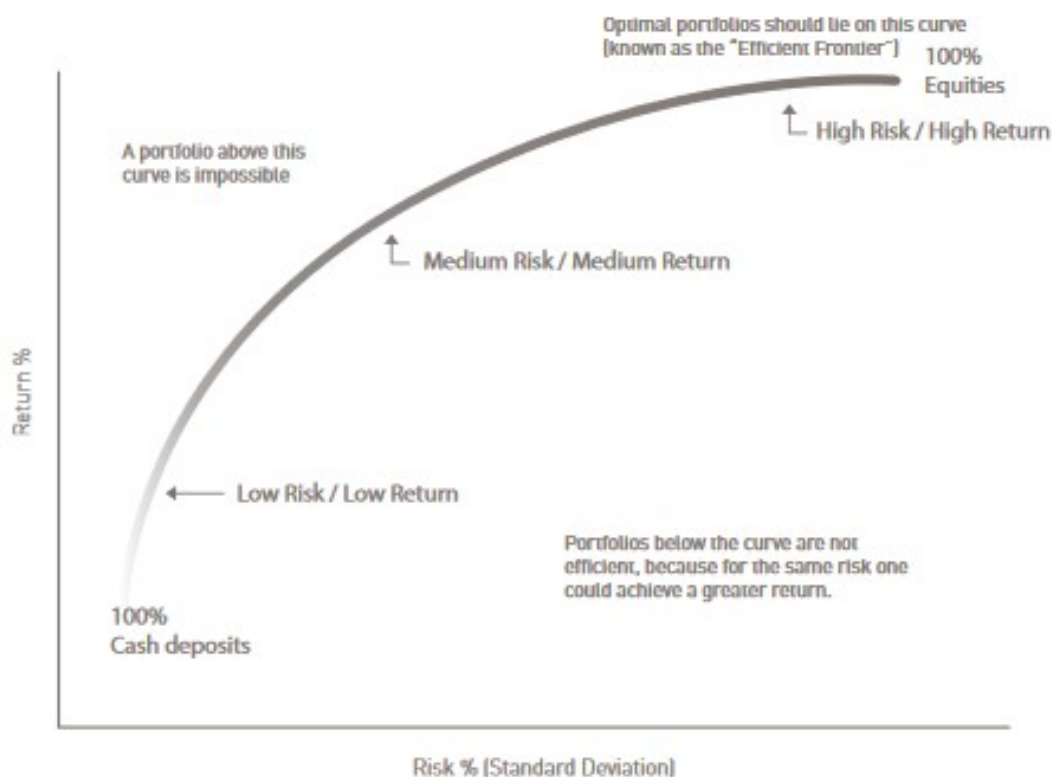
Strategic and Tactical Asset Allocation

Strategic asset allocation (SSA) outlines the proportion of various asset classes in a portfolio designed to provide an investor with an appropriate risk/return profile over a given time period (usually of 3/5 years). Tactical asset allocation (TAA) is a dynamic strategy that actively adjusts a portfolio's strategic asset allocation (SAA) based on actual market's developments and company short term forecasts.

Asset Type	Strategic Asset Allocation	Tactical Deviations
Equity	50%	+10% -30%
Bond	30%	+30% -10%
Cash	20%	+30% -10%

While the strategic asset allocation provides the anchor for long-term investments, the tactical ranges determine the acceptable tactical "tilts".

According to the principles of Modern Portfolio Theory (a pioneering work that gave Harry Markowitz a Nobel Prize in 1990), strategic asset allocation should be located on the Efficient Frontier, i.e. on the curve where it can achieve the highest possible expected rate of return for a given level of risk.



Source: Modern Portfolio Theory, Harry Markowitz (1990)

While Markowitz (1956) has laid down the foundations of modern portfolio theory, and the CAPM by Sharpe (1963) has extended it, we approach the topic following the Black-Litterman (1992) framework which incorporates the investor's own views in determining asset allocations.

The basic steps we follow are:

1. Find implied returns
2. Formulate investor views
3. Determine what the expected returns are
4. Find the asset allocation for the optimal portfolio

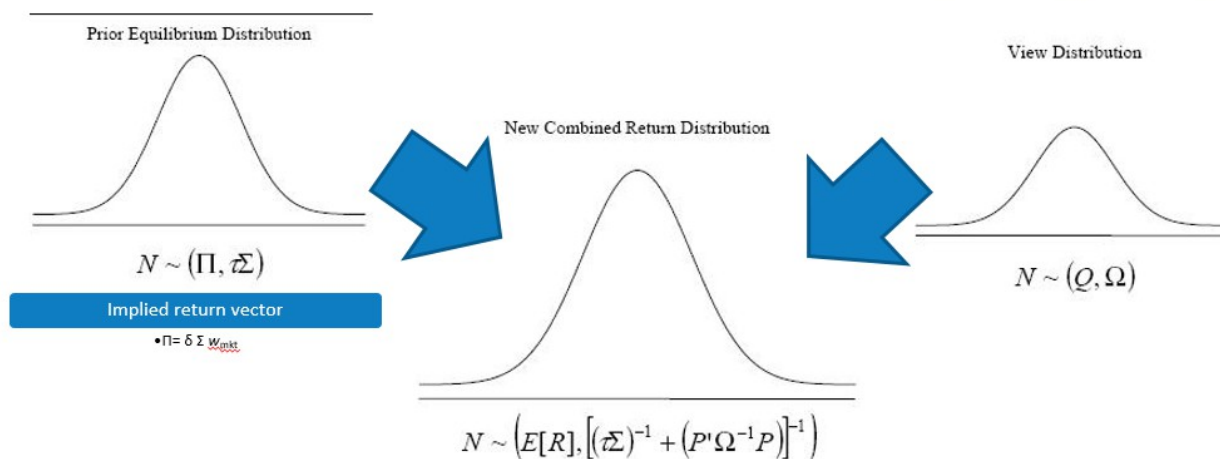
Implied Returns + Investor Views = Expected Returns

Market return and risk

Risk Aversion Coefficient	Covariance Matrix	Market capitalization weights
$\bullet \delta = (E(r) - r_f) / \sigma^2$	$\bullet \Sigma$	$\bullet w_{mkt}$

Investor views on return and risk

Views	Uncertainty of Views
$\bullet (P)$ $\bullet (Q)$	$\bullet (\Omega)$



Tactical Asset Allocation Signals

As mentioned above TAA should be used in order to adjust to contingencies in market developments on which the investment company has to express its view. A way to help the company adjust the allocation on timely fashion is through so called "signals" such as:

- 1) The "Fed model" signals comparing earnings yields (the inverse of the price/earnings [P/E] ratio) to nominal bond yields to determine the relative attractiveness of equities over bonds.
- 2) Business cycle/macroeconomic signals to retrieve value-added by timing the business-cycle-related variation in market risk premiums and firms' earnings.
- 3) Fundamental-valuation signals which involve using fundamental firm-valuation

metrics, such as dividend yield, book/market ratio, and P/E ratio, to determine relative valuation.

- 4) Momentum signals based on technical indicators, earnings growth, and changes in trading volumes, etc.
- 5) Sentiment signals i.e. consumer confidence and margin borrowing.

These examples illustrate the rationale behind commonly used TAA signals and the time periods over which such signals are expected to add value. In this way both the investment company and the clients can judge the skill of a portfolio manager and be comfortable with the types of bets made in the portfolios (which introduces top performance evaluation).

Performance Evaluation

Performance Evaluation can be divided into three components: performance measurement, performance attribution, and performance appraisal. Performance measurement is about methodologies of calculating portfolio performance. Performance attribution is a process of analyzing the sources of returns relative to a designated benchmark and, last but not least, performance appraisal, which deals with assessing investment skill.

By limiting ourselves just to the evaluation of how strategic and tactical asset allocations may contribute to investment's performance, we can suggest an approach where strategic asset allocation is used to select beta-driven asset classes/strategies (that in the medium-long term achieve the desired risk–return) and tactical allocation is used to select those asset classes/strategies that at the moment are believed to have a better alpha (alpha-driven selection to improve returns relative to the strategic allocation).

Source of Performance	Systematic Risk*	Idiosyncratic Risk**
Beta	SAA: Compensation for assuming a certain systematic risk	
Alpha	TAA: Compensation for timing systematic risk factors	Traditional Performance Evaluation: Alpha is generated by security selection

The table exhibits how performance evaluation can be carried out to assess the contribution of SAA and TAA to total performance

* The risk of a loss inherent to the investment on a certain asset class/strategy

**The risk of a loss based on the characteristic of the single investment rather than general market movements