Amundi ASSET MANAGEMENT
Smart Beta

Viewpoint

# Factor investing: Diversifying risks to enhance long-term performance

**For a long time, traditional equity investing has aimed at generating returns rather than managing risk. But in recent years institutional investors have started to change their attitude: mitigating risk is now more important than maximising returns.**

That shift has been driven by several causes. While insurance companies are more constrained by stricter regulation, pension schemes face less stringent regulation and cannot afford significant losses. The memories of both the global financial crisis and the euro sovereign debt crisis have played their part and investors remain cautious as a result. The current macro-economic environment has also changed investor behaviour. Low-bond yields have forced many institutions to look to equities for more significant returns. But investors are looking to manage the risks associated with equities, particularly market turbulence. They are not prepared to experience major drawdowns. As a result, the combination of these trends has created a shift in investment philosophy. Rather than focusing on picking the stocks with the greatest chance of outperforming – deemed to be a high risk strategy – investors now prefer to focus on risk management to enhance long-term performance.

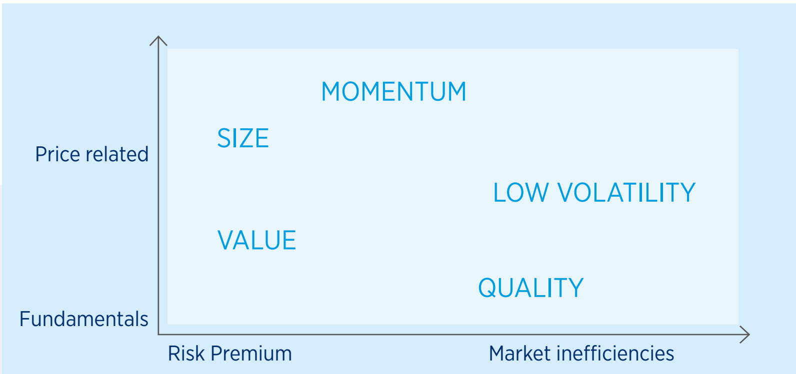
## The power of diversification

One of the best ways to manage market turbulence is to diversify a portfolio. That diversification could be across different asset classes or using different investment styles within a particular asset class, often called factors. A factor looks for stocks which share similar characteristics and behave the same way during different points in the macro-economic cycle. By combining different investment factors, an investor can capture potential future performance and enjoy higher risk diversification.
This diversification works because factors have different relationships with risk premium and market inefficiencies.

By combining these two differing factors, an investor can diversify the risk profile of the portfolio which should result in better long-term performance.
Rather than trying to switch between different factors, however, it makes more sense to combine them in one portfolio and to allocate dynamically to adapt to the risk environment.

That's because the correlation between the factors and each factor to the macro-economic environment evolves over time, meaning the weightings can be varied to better manage risk. A robust, dynamic and quantitative approach is needed to both identify and tackle a wide-spectrum of dynamic risks that will change over time. ■

For example, the value factor could be classified as a risk premium: investors would expect higher returns, so we consider it a high risk factor. The quality factor derives performance from market anomalies and is lower risk *(see chart on the right)*.




For illustration purposes only

## A new approach to multi-factor investing

There are three key steps to building a diversified factor portfolio. The first is to construct factor portfolios which represent particular factors, after which the individual weightings of each factor should be determined. Constraints are then applied to these weightings, such as turnover management, to limit the market impact.

**Building factors requires sophistication**

Careful attention needs to be paid to how those factors should be constructed. A more sophisticated approach is needed than simply selecting stocks using one metric. For example, if a value portfolio is weighted towards cheap stocks using only the price-to-book ratio, then today, almost 40% would be invested in financials. This over-exposure to one sector generates concentration risk into the portfolio.
To address these concerns, Amundi takes a more sophisticated approach and uses metrics such as price-to-earnings and price-to-cash-flow ratio in addition to price-to-book ratio in order to get a better snapshot of the three pillars of a company's financial statements.

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Value is not the only factor where a more nuanced approach is taken. For each of the factors, Amundi refines the metrics to provide a more accurate hierarchy of stocks.
When combining the different investment factors, Amundi uses both a strategic and tactical allocation to limit the expected drawdowns.

### A well-thought through strategic view should be incorporated

The strategic allocation is based on the risk characteristics of the different factors. This is achieved by estimating the volatility of and the correlation between the main four factors- quality, value, momentum and low volatility.
As a first step, an equal risk contribution algorithm is determined to equalize the risk budget of each factor in the final portfolio.
Second, expected drawdowns are further limited by taking the macro-economic regimes into account. Indeed, factors exhibit different levels of risk at different points in the economic cycle, especially when market regime shifts.
For example, the expected drawdown from a value strategy tends to be higher when an economy moves from expansion to contraction and into recession. But the expected drawdown from a quality strategy will be higher when an economy moves out of recession and into recovery.

This relationship between investment factors and macro-economic regimes can change. By actively monitoring these dynamic shifts, it's possible to avoid over-reliance on long-term historic trends.
If there is a shift in the macroeconomic environment, which could affect one or more investment factors, then the allocation will be altered to reflect the expected drawdown.

### Tactical allocation to mitigate valuation risk

Over the shorter-term, tactical asset allocation is required to tackle valuation risk. There are times when the valuation of factors becomes overheated which results in a high mean-reversion risk.

A high valuation for a particular investment strategy also indicates that one strategy is becoming a victim of its own success. There is a potential danger that this factor is being crowded.
These risks are managed by monitoring the valuation for a particular factor. When it becomes overstretched relative to historic averages, this is a signal to reduce the allocation to a particular factor.
The final part of the process is to apply certain portfolio guidelines. These include both a minimum and maximum range for each position as well as maximums for each sector and country. This is to avoid concentration risk.
In addition, there is a close focus on transactions to minimise these costs as well as the price impact when trades occur. ■

| | Swich from… … To | Expansion Contraction | Contraction Recession | Recession Recovery |
|---|---|---|---|---|
| Expected drawdowns | **Value** | Higher | Higher | |
| | **Momentum** | Higher | | Higher |
| | **Low Volatility** | | | |
| | **Quality** | | | Higher |

"Higher": Higher risk contribution than long-term average
Source: Amundi Smart Beta - For illustration purposes only

## How multi-factor investing can meet new clients' needs

As well as launching its newly developed Dynamic Factor Allocation fund range, Amundi can also use this process to tailor bespoke solutions for institutional investors.
For example, an institutional client recently asked Amundi to analyse its equity portfolio using a factor framework. Their objective was to identify the main factor exposures of their portfolio and to analyse the weightings for the individual factors.

The analysis showed a diversification across factors but with significant underweightings and overweightings in specific factors. Their under-exposure to value for instance resulted in their portfolio underperforming at the end of 2016. They wanted a solution to correct this bias without affecting the overall risk factor profile of their portfolio. By implementing a dynamic multi-factor allocation process, they increased their exposure to the value factor and better balanced their exposure to individual factors. This allows them to take advantage of the different behaviour and cycles of those individual factors.
With the development of this new approach of Smart Beta and Factor Investing, Amundi showcases its ability to innovate and design solutions which serve investors' needs, putting risk at the core to deliver consistent potential performance over the long term. ■


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