

Factor Investing and Smart Beta Solutions

Smart Beta



Yves Perrier
Chief Executive Officer, Amundi

As a European leader, Amundi strives after offering investors key solutions to make the most of asset allocation challenges.
All dedicated teams at Amundi are getting together to build solutions, provide services and advisory support around Smart Beta and Factor Investing.

Valérie Baudson Head of ETF, Indexing & Smart Beta of Amundi and CEO of CPR AM



In a challenging environment, yield-starved investors are turning towards riskier assets while still seeking to limit potential drawdowns. Smart Beta & Factor investing solutions can provide an appropriate answer for investors juggling specific constraints and we strongly believe at Amundi that they will be key drivers in the future landscape of asset management.

Amundi Smart Beta & Factor Investing capabilities

Amundi, a pioneer in Smart Beta & Factor Investing strategies, has developed a range of solutions passive or active - to deliver better adjusted risk/ return profiles than those found in traditional indices. Overall, the dedicated platform groups more than 14 experts and weights more than €20 Bn of AUM¹.

LONG & RECOGNIZED TRACK RECORD

Our first Smart Beta track record dates back to 2007 when we launched our Minimum Variance portfolio. Since then, Amundi has developed complementary and innovative solutions to meet new clients' needs, becoming one of the most experienced Smart Beta & Factor Investing managers in the industry.



Smart Beta Manager of the Year 2017



European ETF Innovation Award 2018 for Multi Factor Market Neutral ETF

Indexing & Smart Beta

Fannie Wurtz

Amundi has the full capability to fulfil all types of clients' needs in terms of Smart Beta & Factor Investing, be it de-risking and/or performance enhancement."

Managing Director Amundi ETF,

DEDICATED EXPERTS

With a 30-year track record in quantitative modeling and extensive knowledge in index replication, the portfolio managers have developed a large spectrum of Smart Beta & Factor Investing

Such know-how enables Amundi to efficiently drive investors and help them implement customized solutions.

THOUGHT LEADERSHIP

To help clients tackle Smart Beta & Factor Investing, Amundi provides them with regular insight: Videos, Webinars, discussion papers, education focus, etc





Discussion Papers



Amundi Smart Beta Viewpoints









How to define Smart Beta & Factor Investing

Smart Beta & Factor Investing strategies have been developed to address the two main limits of traditional market capitalization weighted indices.

Firstly, these indices do not adequately capture rewarded risk premia. Secondly, risk tends to be concentrated in few stocks or sectors.

In response, different approaches have emerged with the objective to **outperform** and/or optimize risk vs cap-weighted indices.

RISK-EFFICIENT SOLUTIONS

Risk-Efficient Solutions enable investors to optimise their risk versus market capitalization-weighted indices which tend to concentrate on the largest weighted stocks in a market and which can also lead to factor biases.

EQUAL WEIGHT

The weight of each asset is the same across the portfolio.

MINIMUM VARIANCE

The Minimum Variance weighting scheme seeks to consider the lowest level of volatility when weighting stocks.

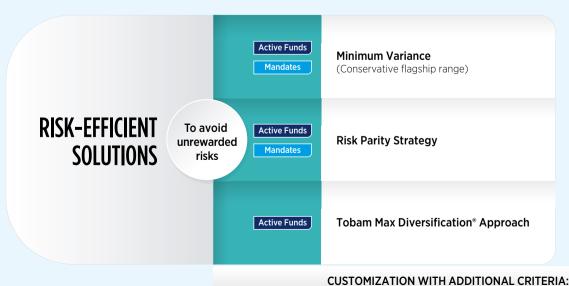
MAX DIVERSIFICATION®

The Maximum Diversification® weighting scheme seeks to maximize the Diversification Ratio® of the portfolio.

RISK PARITY

The Risk Parity weighting scheme seeks to weight securities in a way that equalizes their contribution to risk.

At Amundi, we consider it is critical to offer investors a complete Within our product offering, investors can find the approach that





We are convinced that it is necessary to focus on multifaceted risk to generate strong and sustainable performance. Amundi Smart Beta & Factor Investing platform is committed to offer a large spectrum of solutions ranging from passive to active strategies to help investors manage risks, in line with their own constraints."

Laurent Trottier Head of Amundi ETF, Indexing & Smart Beta management

FACTOR INVESTING

Factor Investing enables investors to focus on diversification across different assets' risks. Factor indices can help investors capture different risk premia available in the market, as they provide explicit exposure to underlying risk factors. The most commonly used factors are:

SIZE

Smaller companies generate potentially better returns over time than larger cap stocks. These stocks can be easily identified by looking at market capitalisations.

VALUE

Value stocks have low prices relative to their fundamental valuation but outperform higher-valued stocks over time. These stocks can be identified looking for instance at price-to-book and price earnings.

MOMENTUM

Stocks which performed well in the past are likely to continue to outperform those which did not. Looking at the relative performance of stocks over different time periods highlights those with this factor.

DIVIDENDS

Stocks with high and sustainable dividends outperform those with lower dividends. This is easily spotted using dividend yields.

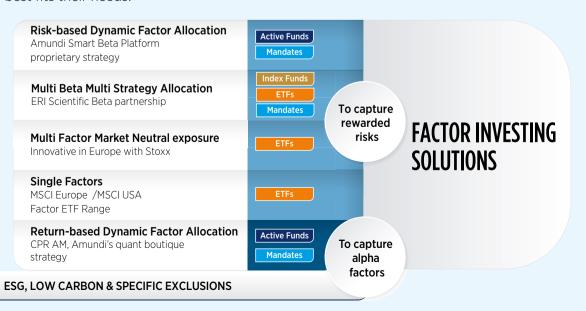
MIN VOLATILITY

Shares with lower historical volatility are likely to perform better than their more volatile counterparts over time. This is captured by looking at the standard deviation of price returns.

QUALITY

Companies with low debt and stable earnings growth outperform less high quality companies. Looking at return on equity, stability of earnings and balance sheet strength enable to identify these characteristics.

and consistent range of Smart Beta & Factor Investing solutions. best fits their needs:



Amundi Smart Beta & Factor Investing flagship solutions

RISK-EFFICIENT SOLUTIONS

Amundi offers several strategies that focus on an alternative way to weight stocks:

EQUITY CONSERVATIVE SOLUTION

Avoid unrewarded risks to generate potential performance with reduced drawdowns"

- Seeking equity returns whilst mitigating drawdown.
- Portfolio construction aims to select companies with solid fundamentals (high operating efficiency, high profitability, low or no debt) after having applied a liquidity filter and limit volatility by using a quantitative optimisation process.
- Robust track-record on European market, successfully implemented on Global, Emerging & Euro zone markets.

RISK PARITY SOLUTION

Limit unrewarded risks with capital diversification"

- Ensure a very high level of capital diversification and limit market drawdown.
- The investor's risk budget is spread over a very large number of stocks.
- Portfolio construction aims to equalize risk contribution within and between sectors.

THE PATENTED MAX DIVERSIFICATION® APPROACH

diversification in order to capture the risk premium of an asset class"

- TOBAM's Maximum Diversification® approach, supported by original, patented research and a mathematical definition of diversification, provides clients with diversified core exposure, in both the equity and fixed income markets.
- The Anti-Benchmark® strategy is based on the Maximum Diversification® approach and designed to access risk premium evenly from all the effective independent sources of risk available in the market at any given time.
- Fully quantitative approach, developed, refined and maintained in-house by TOBAM research team.

FACTOR INVESTING SOLUTIONS

Risk factors can be used in a stand-alone approach and can also be combined, either dynamically (Risk-based or Return-based) or in a systematic way through ready-to-use indices:

- Capture potential performance with a reduced risk profile.
- Proprietary factors developed with Amundi Quantitative Research Team.

Diversified Equity Factor Exposure blended with five popular alternative weighting schemes.

- Diversified Risk through "Equal Risk Contribution" methodology.
- Size, Value, Quality, Momentum, Dividend and Low Volatility on European and US markets.
- Cost-efficient way to achieve passive exposure to single factors.
- An innovative* ETF offering a market neutral exposure to European equities.
- Exposure to a multi factor index combined with a short position on European futures.
- Identification of market regimes and related multi factor models.
- Bottom-up selection and combination of Systematic Strategic Factors.

RISK-BASED DYNAMIC **FACTOR ALLOCATION**

Combining factors to better diversify portfolio risks and achieve long-term performance"

MULTI BETA MULTI STRATEGY PASSIVE SOLUTIONS

Combining Factor Investing with Alternative Weighting Schemes for improved riskadjusted performance"

SINGLE FACTOR ETF RANGE

Implementing allocation strategies with Amundi Factor FTFs"

MULTI FACTOR MARKET **NEUTRAL ETF**

A source of decorrelation from equities and fixed income"

RETURN BASED DYNAMIC **FACTOR ALLOCATION** (GLOBAL EQUITY ALL REGIME)

6 Achieve a robust performance with a limited risk thanks to a dynamic allocation"

Working alongside investors in Smart Beta & Factor Investing implementation

FROM ADVISORY TO CUSTOMIZED SMART BETA & FACTOR INVESTING IMPLEMENTATION

Amundi's organization takes great care of understanding clients' needs, their investment objectives and constraints (risk budget, tracking error, ESG consideration, etc.), and guide them in the implementation of Smart Beta & Factor Investing strategies in their asset allocation.

Because of low expected returns and increasing asymmetrical risk in bond markets, a diversified investor wants to reallocate from fixed income to equities, while avoiding to increase overall risk.

An institutional client wants to analyse its equity portfolio using a factor framework to identify the main factor exposures and breakdowns.

A major pension fund wants to enhance the ESG profile of its existing Smart Beta allocation.

CONSERVATIVE (APPROACH

The Amundi Conservative Equities solution aims to offer an exposure to equity markets with a lower volatility, while maintaining the same expected potential returns.

COMPLETION PORTFOLIO

The analysis showed diversification across factors but with significant bias.

Amundi team suggested

Amundi team suggested several solutions to better diversify risks, as an overlay to get more diversification. FACTORS & ESG

Amundi team can replicate the performance of any Smart Beta strategy, while simultaneously integrating specific ESG, carbon emissions and reserves constraints, reducing the portfolio carbon footprint and increasing its ESG rating.



Leveraging our strong capabilities in research and portfolio management, we are committed to identify, select or build together with our clients the right Smart beta & Factor Investing solution to meet their needs."

Bruno Taillardat Global Head of Smart Beta & Factor Investing

An institutional investor is investigating on high concentration of its cap weighted index exposure to the Eurozone and would like to reduce overall portfolio volatility.

Due to uncertainties on Global Equity markets, an institutional client wants to have a diversified portfolio which adapts to different market regimes.

With interest rates and bond yields at near-record lows, many investors are driven to the equity markets in search of potential higher returns. However, equities' inherent volatility may be too high for investors seeking a smoother return path.





MULTI FACTOR MARKET NEUTRAL



Amundi Risk Parity strategy can help investors to significantly improve their capital diversification and limit drawdowns by investing in all the stocks of the investment universe, with a low volatility profile.

CPR AM Global Equity All Regime strategy aims to identify market regimes and related factor models impacted. According to markets configuration, portfolio managers are able to adjust the factor model.

Amundi ETF multi factor market neutral innovative exposure offers superior potential long-term performance with fixed income-like levels of volatility and low correlation to other asset classes.

Amundi, a stronger firm, a greater reach

Amundi is Europe's largest asset manager by assets under management and ranks in the top 10⁽¹⁾ globally. It manages €1,466 billion of assets⁽²⁾ across six main investment hubs⁽³⁾.

Amundi offers its clients in Europe, Asia-Pacific, the Middle-East and the Americas a wealth of market expertise and a full range of capabilities across the active, passive and real assets investment universes. Headquartered in Paris, and listed since November 2015, Amundi is the 1st asset manager Group in Europe by market capitalization⁽⁴⁾.

Leveraging the benefits of its increased scope and size, Amundi has the ability to offer new and enhanced services and tools to its clients. Owing to its unique research capabilities and the skills of close to 4,500 team members and market experts based in 37 countries, Amundi provides retail, institutional and corporate clients with innovative investment strategies and solutions tailored to their needs, targeted outcomes, and risk profiles.

€1,466 billion in assets under management⁽²⁾

Over

4,500 employees

6 main investment hubs: Boston, Dublin, London, Milan, Paris and Tokyo

BREAKDOWN OF AUM BY ASSET CLASS(2)



A comprehensive range of investment strategies

Our truly client-centric organisation allows us to provide a rich and diversified global offering for retail, institutional and corporate clients.

A client-centric service model

A global client base of over 100 million retail, institutional and corporate clients reflects our ability to earn the trust of a wide variety of private and public investors all over the world.

BREAKDOWN OF AUM BY CLIENT SEGMENT⁽²⁾



^{3.} Investment hubs: Boston, Dublin, London, Milan, Paris and Tokyo. 4. Based on market capitalization as of June 30, 2018.

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