Crédit Agricole CIB
Momentum Optimal Multi-Asset 5 Index (MOMA)

Index Designer

Crédit Agricole CIB Momentum Optimal Multi-Asset 5 Index (MOMA) is a rule-based investment strategy developed by Crédit Agricole CIB. The strategy is based on Momentum principles i.e. capitalising on the tracking of a existing market trends.

ETF Provider

Europe’s largest asset manager by AUM, in the top 10 globally*
4th Largest European provider with 38,6bn€ AUM**
Fast and consistent growth pace
120 UCITS ETFs covering all asset allocation needs
500+ cross listings on the main European stock exchanges

Calculation Agent

The Index is calculated, administered and published by Solactive AG, assuming the role as index administrator and Calculation Agent. Solactive AG is EU BMR compliant.

The valuation and the performance of the index is available on Solactive website.

Awards 2020: Investment product of the year

Awards 2020: European ETF Provider of the year

* Source IPE “Top 400 asset managers” published in June 2018 and based on AUM as of end December 2017
**Source: DB ETF Monthly Review & Outlook as end of December 2018
Overview: key features and advantages

1. Multi-asset and diversified across asset classes and geographies:

<table>
<thead>
<tr>
<th>Asset Group</th>
<th>Asset Long Name</th>
<th>Group Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equities</td>
<td>Amundi MSCI Europe UCITS ETF DR</td>
<td>70%</td>
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<tr>
<td></td>
<td>Amundi Japan Topix UCITS JPY</td>
<td></td>
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<tr>
<td></td>
<td>Amundi Nasdaq 100 USD</td>
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<td></td>
<td>Amundi S&amp;P 500 UCITS ETF</td>
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<tr>
<td></td>
<td>Amundi MSCI EM Asia UCITS ETF</td>
<td></td>
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<tr>
<td>US Equities</td>
<td>Amundi Nasdaq 100 USD</td>
<td>50%</td>
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<td></td>
<td>Amundi S&amp;P 500 UCITS ETF</td>
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<tr>
<td>Emerging Equities</td>
<td>Amundi MSCI EM Asia UCITS ETF</td>
<td>15%</td>
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<td>Amundi MSCI Emerging Market UCITS ETF</td>
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<tr>
<td>Bonds</td>
<td>Amundi ETF Government Bond Euromts Broad 7-10 UCITS</td>
<td>70%</td>
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<td></td>
<td>Amundi US Treasury 7-10 UCITS ETF</td>
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<tr>
<td></td>
<td>Amundi ETF Global Emerging Bonds Markit Iboxx UCITS</td>
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<td></td>
<td>Amundi ETF JP Morgan GBI Global Govies UCITS</td>
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<tr>
<td>Emerging</td>
<td>Amundi MSCI EM Asia UCITS ETF</td>
<td>25%</td>
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<td>Amundi MSCI Emerging Market UCITS ETF</td>
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<tr>
<td></td>
<td>Amundi ETF Global Emerging Bonds Markit Iboxx UCITS</td>
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<tr>
<td>Real Assets</td>
<td>Amundi ETF FTSE EPRA NAREIT Global UCITS</td>
<td>20%</td>
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<td></td>
<td>LBMA Gold Price PM USD</td>
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<tr>
<td>Cash</td>
<td>EUR Cash</td>
<td>50%</td>
</tr>
</tbody>
</table>

5 Asset classes

- Cash
- Bonds
- Equities
- Commodities
- Real Estate

4 Geographies

- Asia
- LATAM
- USA
- Europe

13 Underlyings

- 11 ETFs managed by Amundi
- LBMA Gold
- Cash

Group caps have been set, by underlying, asset class and by type of risk so as to reduce to the extent possible the correlation to a certain market / geography.
Overview: key features and advantages

2. Volatility Control: Target Volatility Strategy

Based on Modern Portfolio Theory (pioneered by Markowitz), weights are allocated among the 13 underlyings through a 3 steps process, in such a way to build the optimal portfolio offering the maximum possible expected return for a given level of risk.

1. Simulation of all possible portfolios respecting the Weight constraints and the 5% Volatility Target*

   * over the past six months is run; The annualized Volatility Target is subject to change when no Eligible Portfolio meets the Volatility Target

2. Among these portfolios, select
   a. the one with best 1-month Excess return* (the “Short Term Portfolio”),
   b. the one with best 3-month Excess return (the “Medium Term Portfolio”)
   c. the one with best 6-month Excess return (the “Long Term Portfolio”)

3. The optimal portfolio will result from the average between
   a. “Short Term Portfolio”,
   b. “Medium Term Portfolio”,
   c. “Long Term Portfolio”

A second layer of control results in the portfolio being \textit{instantaneously rebalanced} if realized volatility exceeds 7% over 21 days (irrespective of bull or bear market), thus \textbf{limiting the loss} in case high market volatility.

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Efficient Frontier for a given term portfolio

Excess returns: difference between the asset return and the riskless rate, could be positive or negative.

x-months return

5% Volatility

126 days volatility
Overview: Main risks of the strategy

1. ETF Termination
   In case any of the index components is terminated, it will be replaced with another ETF from Amundi. The substituting component should have the identical benchmark (or very close), a similar minimum AUM, the same currency as well as similar running costs. The selection will be suggested by the Index Designer and needs to be approved by the index committee composed of staff from Solactive and its subsidiaries.

2. The strategy may underperform following major markets crash
   The MOMA Strategy may not perform under certain situations, notably when major markets (bonds, stocks and real assets) fall at the same time and lose their expected negative correlation. This situation has been observed over the past 10 years for instance during aggressive fed tightening/inflation fighting/late stage of economic expansion.
   Examples of correlated movements:
   - 2013: Fed taper tantrum
   - 2015: First Fed hike
   - 2017: Hikes are gradual, economy is optimistic, tame inflation (SPX outperform)
   - 2018: Both resources and Labor utilization were running tight at late cycle as inflation are hitting Fed Target, Fed had to hike aggressively

3. Scarce market liquidity may reduce index gains
   In stressed markets when liquidity is scarce greater bid-ask spreads may result in larger discrepancies between the ETF net asset value and the value of the underlying securities. This, in turn, might have an impact on the index fixings, partially reducing the performance of the strategy.

4. Potential of partial missed momentum when the market rebound
   In periods of high uncertainty, the index might be mainly invested in cash, limiting the risk but also the potential return for the investor when markets quickly recover from their low.

5. Potential risk of loss in capital
   Depending on the structured product, according to the design of the index, the strategy may present a risk of loss in capital (partial or unlimited loss).
Index Performance

On each business day the Index is calculated as follows:
1. The Crédit Agricole CIB MOMA ETF Index is initially equal to 100 (Base Date: 31st Dec 2007);
2. The daily returns of each ETF are measured and the return of the Reference Portfolio is computed;
3. The Excess return Index value is then retrieved by deducting the fees of 0.85% (p.a).

Evolution of the Crédit Agricole CIB Amundi Momentum Optimal Multi-Asset 5 Index

Crédit Agricole CIB Amundi MOMA5 Index (EUR) Annual Returns

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</thead>
<tbody>
<tr>
<td></td>
<td>-1.01%</td>
<td>4.13%</td>
<td>10.52%</td>
<td>3.03%</td>
<td>6.75%</td>
<td>8.64%</td>
<td>11.67%</td>
<td>-1.26%</td>
<td>4.18%</td>
<td>11.82%</td>
<td>-4.70%</td>
<td>5.93%</td>
<td>3.86%</td>
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</table>

Cost and charges

<table>
<thead>
<tr>
<th>Index Fees</th>
<th>Running fees: 0.85% per annum</th>
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</table>
| Structured Product Fees | ▪ Entry costs: depending on the structured product.  
▪ Exit costs: depending on the structured product. However, as the product is not a liquid instrument, the investor might incur in higher costs, partially reducing gains, if he sells the product before the maturity date.  
Costs will be disclosed prior trading |

Source: Bloomberg, Solactive, Crédit Agricole CIB (as of 31st of December 2020)  
Values of the CACIB Amundi Momentum Optimal Multi-Asset 5 Index from the 01 January 2009 to the 21st December 2018 are based on simulations.
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