How to use a lean, green weighing machine

Two trends dominate institutional investing today: allocating capital responsibly and allocating capital by quantitative factors. The first looks away from short-term gain to sustainable long-termism. The latter looks to extract most of the benefits of active investing at a fraction of the price. Both trends are captured by Candriam's range of bond and equity ETFs.

Investors are increasingly challenging the notion that traditional benchmarks represent their default guide to allocating capital. Nowhere is this more evident than in the wish to allocate capital responsibly for the long-term. Candriam's research shows that investing by Responsible criteria per se improves risk-adjusted returns in bond and equity markets within different geographical regions. To do so requires reshaping and refining the standard bond and equity indices. We reject one-third of the constituents of each major regional bond and equity index in the first step of our refining process, which is based on companies' sensitivity to global trends – macro analysis - and their relationship with other groups in the business chain, including customers and suppliers – micro analysis.

MACRO

- the company's exposure towards global trends such as climate change
- resources depletion
- emerging economies
- demography
- interconnectivity
- and social well-being.

MICRO

- the company's behaviour towards employees
- suppliers
- investors
- the environment
- countries in which it operates.

For sovereign issuers, we have four criteria: Human Capital, Natural Capital, Social Capital and Economic Sustainability which are equally weighted. To give just a flavour of the sub-criteria, Natural Capital looks at each country's total emissions, waste treatment, ecosystems and biodiversity, water consumption and transport policy inter alia.

Our universe of potential investments starts with the top 70% from each industrial sector by these analyses. We further apply a screen by the criteria of the UN Global Compact as a further check on unsuitable companies. For countries, we insist on minimum standards for democracy and lack of corruption.

Such a strategy alone would make for an interesting, robust and beneficial product.

But it lacks consideration of another major trend in investing: the emergence of a 'via media' between traditional active and passive known as factor investing, which can demonstrably improve risk-return profiles still further.

COMBINED MULTI-FACTOR METHODOLOGY STATISTICS

The table below outlines statistical data relating to the combined multi-factor methodology between 2016 and 2017 prior to the launch of Candriam's range of Bond and Equity ETFs.

	European Equities*	EMU Equities*	Japan Equities*	Corporate Bonds*	Government Bonds**
Annualised Return	9.62%	11.66%	6.94%	3.65%	2.58%
Annualised Std Dev	17.87%	17.81%	21.21%	1.88%	1.83%
Annualised Sharpe (Rf=0%)	0.5384	0.6544	0.3272	1.9471	2.46%
Maximum Drawdown	16.93%	16.72%	20.58%	-0.19%	0.74
Historical VaR (95%)	-1.68%	-1.66%	-2.02%	-	4.00%

*Source: Candriam, Bloomberg. *Equities & Corporate Bonds = Jan 2016 – May 2017, **Government Bonds = May 2016 – May 2017*

There are literally hundreds of factors to every company. We could equally call them characteristics or facets. But only a handful of factors capture risk premia that make for superior returns. Among this handful of rewarded factors, Candriam's ETFs target size, quality, low volatility, momentum and value.

Our Responsible criteria already implicitly nudged the portfolio towards low volatility and quality. We continue to reduce characteristic flaws of bond and equity indices by reweighting constituents by their economic health, which makes for further bias towards value as well as size.

In bonds we define the economic health of countries by their indebtedness in relation to their working population and GDP. For equities, the criteria include annual revenues, sales, book value and free cashflow. In both cases, this measure alone lowers volatility and boosts the portfolios' Sharpe Ratio versus standard indices.

Economic weighting makes intuitive sense to investors who want to fund the most productive companies. But in their methodology, both bond and equity indices reduce the power of this intuition.

In fixed income, we are remedying the indices' flaw of weighting by indebtedness. The more debt an issuer takes on, the greater influence it carries in the index. By the end of 2016, the first quintile of issuers in the European Economic Area Eurobond universe with the highest debt-to-GDP ratio represent over 43% of the total index while the lowest quintile of the least indebted countries averaged just 0.4%. The rational investor would not want indebtedness to decide the weightings of their portfolio. Nor would they want issuers to decide their duration exposure, but this happens in bond indices because issuers lengthen the term of their debt when interest rates are low and shorten them when rates rise.

The parallel flaw in equity indices is that 'glamour' companies attract too much capital. By construction, these market cap indices tend towards a high allocation in stocks with a hefty Price-Earnings ratio, leading to investing predominantly in expensive stocks. As a consequence, many equity indices are less diversified than people assume.

In contrast, our methodology introduces a size bias by widening the universe for securities beyond standard indices while capping the maximum exposure any issue, issuer or company can have. In corporate bonds, we limit the number of issues per issuer to ten and the maximum weight of any issue to 0.5% of the portfolio. In equities, we ensure that the lowest 50% of the portfolio by constituent is allocated equally among them.

After refining the universe by Responsible criteria and then weighting by fundamental economic measures, we apply a combination of explicit factor tilts from our chosen handful of size, value, momentum, low volatility and quality. It is important to highlight that combining multiple factors into one portfolio greatly improves risk-adjusted returns compared to mono-factor smart beta funds.

For each regional universe, e.g European equities, we rank each stock by preferred factor. From the results a stock is awarded a number, by which it is placed in a quintile. We then tilt the previously established responsible and economic weighting of stocks according to their quintile. The final result is a broad exposure to the universe, not a narrow portfolio.

The evidence suggests we have a successful formula. The table above for real portfolios shows superior risk and return characteristics for Candriam equity strategies versus market cap indices.

In conclusion, conventional benchmark indices do not prioritise the most responsible or most sustainable sources of capital. To appropriate Keynes' maxim, they are voting machines in the short run. Candriam's ETFs, on the other hand, have been constructed as machines to weigh companies and borrowers for the long run. Which methodology better suits investors' needs?

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