

MEASURE THE CARBON PERFORMANCE ATTRIBUTION IN YOUR INVESTMENT

Carbon Impact





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CARBON EMISSIONS

The transition to a low-carbon, resource-efficient mindset, and sustainable economy, is now everyone's priority! Unprecedented investments are needed in the coming decades to prevent a climate disaster. To achieve climate, environmental and social sustainability goals, significant investments in both private and public sectors are needed to reach the emission reduction targets set out in the Paris Agreement in 2015.

Due to the overwhelming need for mobilising new investments, a growing number of asset managers are establishing new processes aiming to select securities issued by companies concerned about emitting less carbon. These new strategies are either chosen by the top management or imposed by investors. In either case, it raises the question: "how to differentiate the financial return attributed to these strategies from the return provided by the portfolio, manager"? To answer this question, it is required to improve performance attribution methods to measure the impact on the performance of emission reductions.

With 20 years of experience in performance attribution, AMINDIS has developed a new calculation methodology combining the carbon intensity and the portfolio relative performance compared to its "traditional" benchmark¹.

MEASURING THE CARBON EFFECT ON THE PORTFOLIO

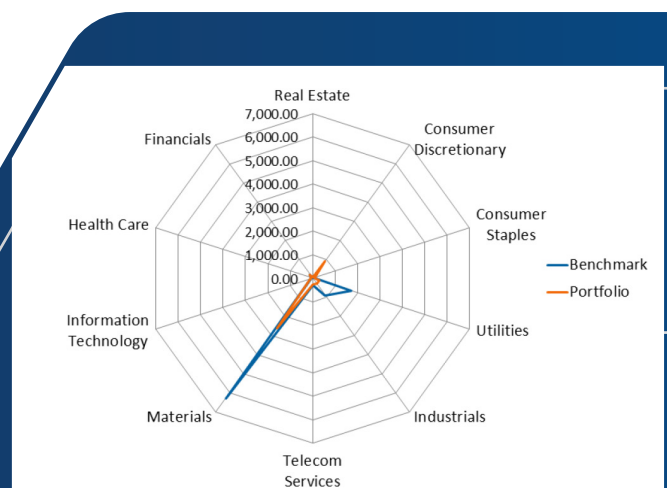
Investors are now integrating climate indicators into the construction of their portfolios to target larger-scale investments, which are then more likely to require multiple streams of financial support with different objectives:

- 01** Explicit **carbon reduction targets**
- 02** Temperature **alignment to limit global warming**
- 03** Climate objectives such as **mitigation and adaptation**

Some of these indicators have been built to provide an easy and readable interpretation of the portfolio's climate orientation at a global level. However, a new indicator is needed to measure companies' carbon costs. Indeed, to meet climate challenges, some companies are now investing to reduce their future emissions. Which comes with an immediate cost. In the long run, these companies will make significant savings and will be much less at risk in the face of an increase in the price of carbon certificates or a carbon tax. The proposed methodology balances these two parameters (i.e., rate of decrease of carbon emissions, and price of carbon) to compute a present carbon cost

This carbon cost can, in turn, be transformed into a carbon return for each position in a portfolio and each constituent of its corresponding benchmark. Over- or under- weighting securities in the portfolio compared to the benchmark leads to improving or reducing the excess carbon return. While the carbon cost is always negative, a strategy that underweights securities from companies having a high carbon cost leads to a positive carbon effect highlighted by our novel performance attribution methodology.

Computations can constituent out on different cutting criteria, (i.e., by sector, by country etc. ...) to detail this impact in specific industrial contexts. This breakdown better explains how each allocation (a sector or industry allocation for example) or selection decision resulted in carbon savings (or carbon wasted) compared to the benchmark.



This chart illustrates the carbon footprint of the portfolio and its benchmark. We see in this example that the investment strategy has been to underweight the materials sector, which is made up of carbon-emitting companies

¹ Climate Risk and Carbon Neutral Performance Attribution

METHODOLOGICAL APPROACH

The approach is inspired by the classic Brinson attribution method which consists of breaking down the excess yield into several specific effects. The goal is to isolate an effect specifically related to carbon. It is implemented by following these steps:

1. Computation of the carbon footprint of each position in the portfolio
2. Computation of the associated carbon cost in the portfolio. This cost is measured based on:
 - Either the current price of the carbon certificate or the amount of a carbon tax associated with the carbon emission by the company depends on its sector but also its geographical location.
 - The anticipated decrease rate of the carbon emissions of a company
3. This cost is transformed into the carbon return of the portfolio (< 0)
4. Computation of the footprint of each position in the benchmark for an investment equivalent to that in the portfolio
5. Computation of the carbon cost associated with the benchmark
6. This cost is transformed into the carbon return of the benchmark (< 0)
7. The difference in carbon return between the portfolio and the benchmark is finally calculated.

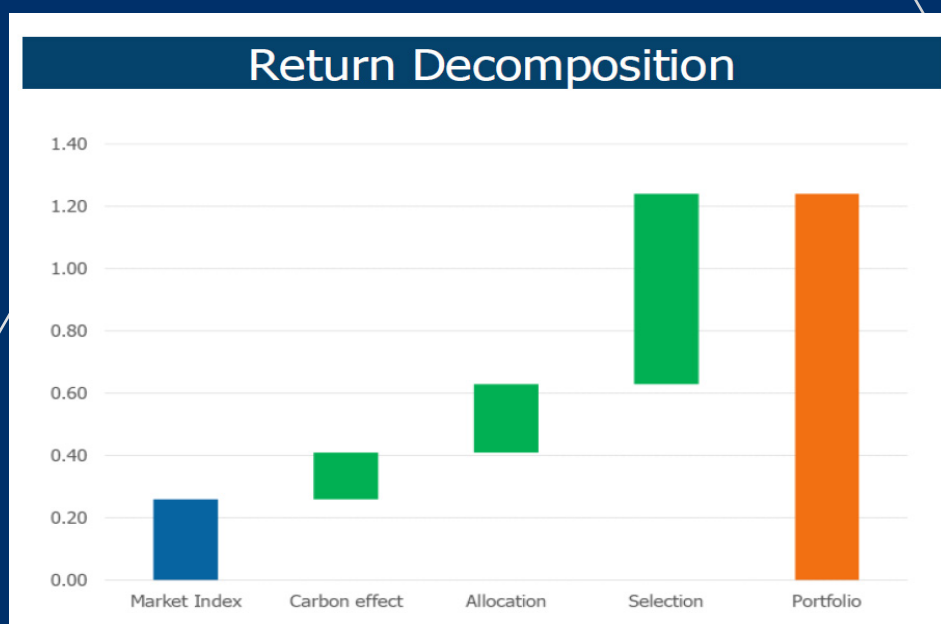
This will measure the excess return (> 0 or < 0) between the portfolio and the benchmark, i.e., the Carbon Effect.

This effect can then be inferred from the excess overall return between the portfolio and its benchmark. This new excess return is also **called excess return in a carbon-neutral world**. We can then apply the "classic" allocation methods to highlight the effects of allocation and selection for example.

UNDERSTAND THE IMPACTS OF LOW-CARBON SECURITY SELECTION ON PORTFOLIO PERFORMANCE SOURCES

Putting this indicator in direct relation to the carbon gain makes it possible to properly measure the impact of the investment strategy aimed at reducing carbon emissions. Through this methodology, we see that the construction of low-carbon portfolios provides fundamental information to both the manager and the investor on the quality of the selection of securities for equivalent carbon emission categories.

This methodology thus makes it possible to better understand the excess return of the portfolio compared to the benchmark in a carbon-neutral world. The resulting allocation and selection effects give a more reliable picture of the quality of the business model of the companies underlying the chosen securities once the carbon impact has been cancelled. Optimized portfolios have the advantage of finding the best balance between several investment objectives, including return, risk and exposure objectives such as carbon reduction.

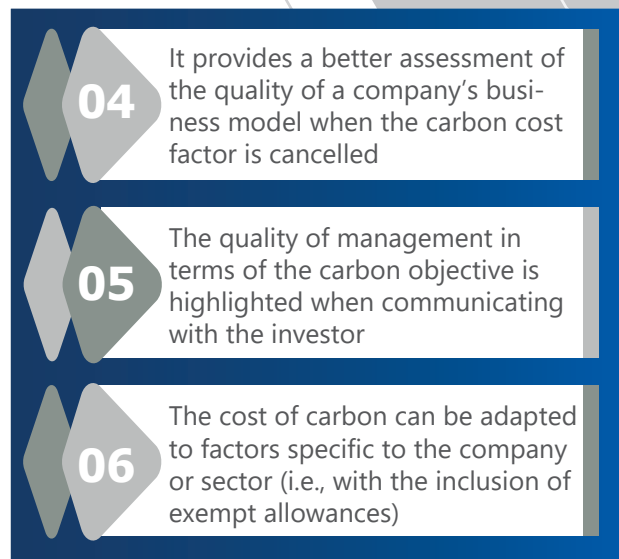
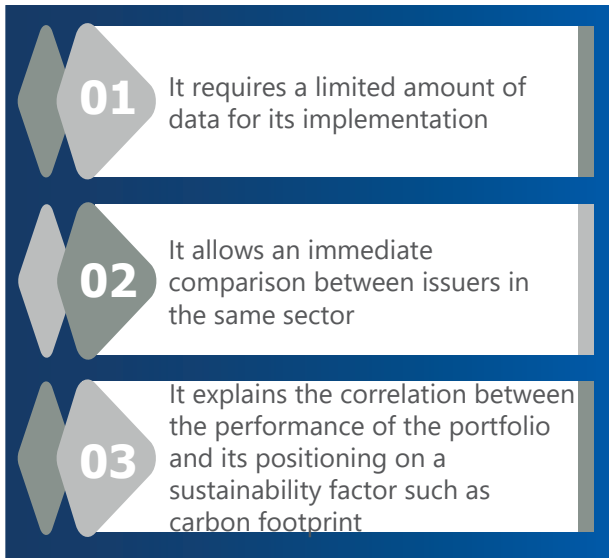


Using the proposed methodology, the portfolio's excess return relative to its benchmark is broken down into three effects: the carbon effect, the selection effect, and the allocation effect.

THE METHOD ADVANTAGES

This method is in line with the New I.R.R (Impact, Risk, Return) approach, which aims to measure the cross-effects between sustainability, return and risk objectives.

This method has the following advantages:



The use of this methodology for the construction of portfolios with reduced carbon emissions, best balances the multiple objectives of investors and managers that go beyond the reduction of carbon emissions. Investors can achieve their carbon reduction targets while better understanding the effects of an investment strategy of choosing securities with a lower carbon footprint.



The only solution allowing you to solve the Impact, Risk, Return equation with a holistic view across all business functions for premium investment decisions!

ASSET MANAGEMENT & INSURANCE SOFTWARE & SERVICES

We are industry pioneers transposing ground-breaking ideas into an adaptable software answering the needs of asset managers and insurers.

We offer a tailor-made solution to help you better analyse your portfolio and take the best investment decisions.



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