How important are Scope 3 emissions when measuring Portfolio Impact?

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The Scope 3 Debate

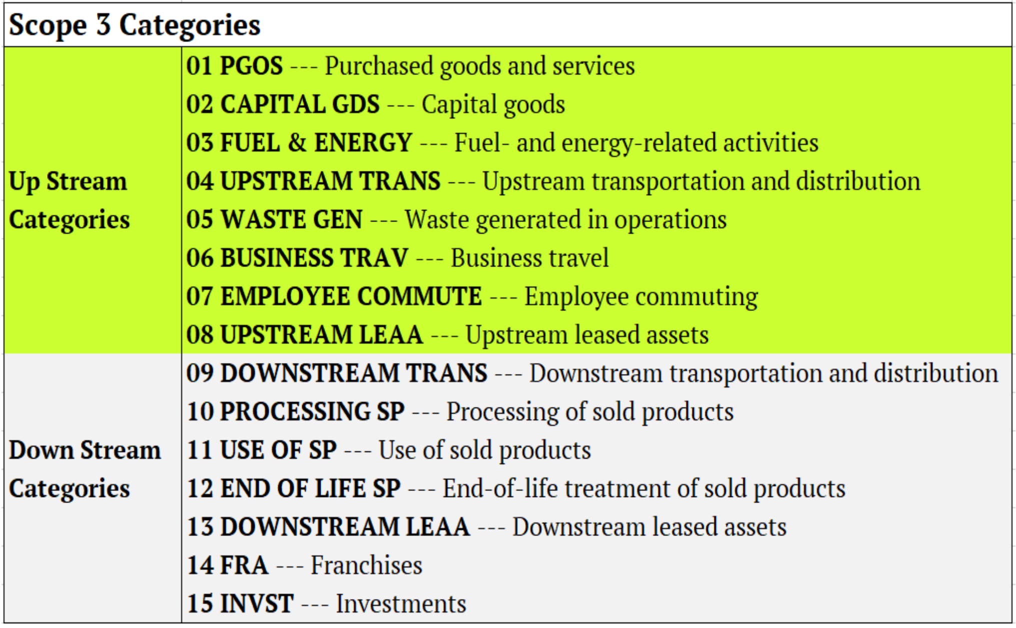
One of the most common questions asked of us by clients is, “What’s the importance of Scope 3 emissions for portfolio analysis and carbon footprint reporting?”

Our point of view is that the inclusion of Scope 3 emissions (all other indirect emissions in a company’s value chain not included in scope 2 – see figure 1), is an essential component of any holistic picture of emissions exposure that’s worthy of the name.

If Scope 3 emissions aren’t included then informed management and reporting of portfolio climate risks simply isn’t feasible.

Taking full consideration of Scope 3 emissions on a portfolio reveals significant and often surprising insights. Moreover, it’s not just the magnitude of the impact that can surprise portfolio managers and asset owners, but also the distribution of the impact across sectors within a portfolio.

Figure 1: Scope 3 Emission Categories



Scope 3 Categories	
Up Stream Categories	**01 PGOS** --- Purchased goods and services
	02 CAPITAL GDS --- Capital goods
	03 FUEL & ENERGY --- Fuel- and energy-related activities
	04 UPSTREAM TRANS --- Upstream transportation and distribution
	05 WASTE GEN --- Waste generated in operations
	06 BUSINESS TRAV --- Business travel
	07 EMPLOYEE COMMUTE --- Employee commuting
	08 UPSTREAM LEAA --- Upstream leased assets
Down Stream Categories	**09 DOWNSTREAM TRANS** --- Downstream transportation and distribution
	10 PROCESSING SP --- Processing of sold products
	11 USE OF SP --- Use of sold products
	12 END OF LIFE SP --- End-of-life treatment of sold products
	13 DOWNSTREAM LEAA --- Downstream leased assets
	14 FRA --- Franchises
	15 INVST --- Investments

Source: Urgentem

Numerous research studies have shown that around 85% of company emissions are represented by Scope 3, highlighting the importance of including these emissions in portfolio analysis and carbon footprint reporting. Furthermore, the relative sector impact of including Scope 3 often sharpens the focus on sectors which generally do not come under heavy scrutiny when just Scope 1 and 2 emissions are analysed. Inclusion of Scope 3 emissions can reveal the need for deeper analysis of a portfolio for climate alignment purposes.

Using the onboard data and analytical tools of Urgentem's Element6™ Climate Risk Platform, we've highlighted the relative sector level impact that the inclusion of Scope 3 emissions can have on a portfolio's carbon footprint.

FTSE100 vs S&P500

Using the FTSE100 as our portfolio, the sector impact of Scope 1 and 2 emissions is clear in the areas one would expect, such as Energy, Materials, Industrials and Utilities sectors (see figure 2).

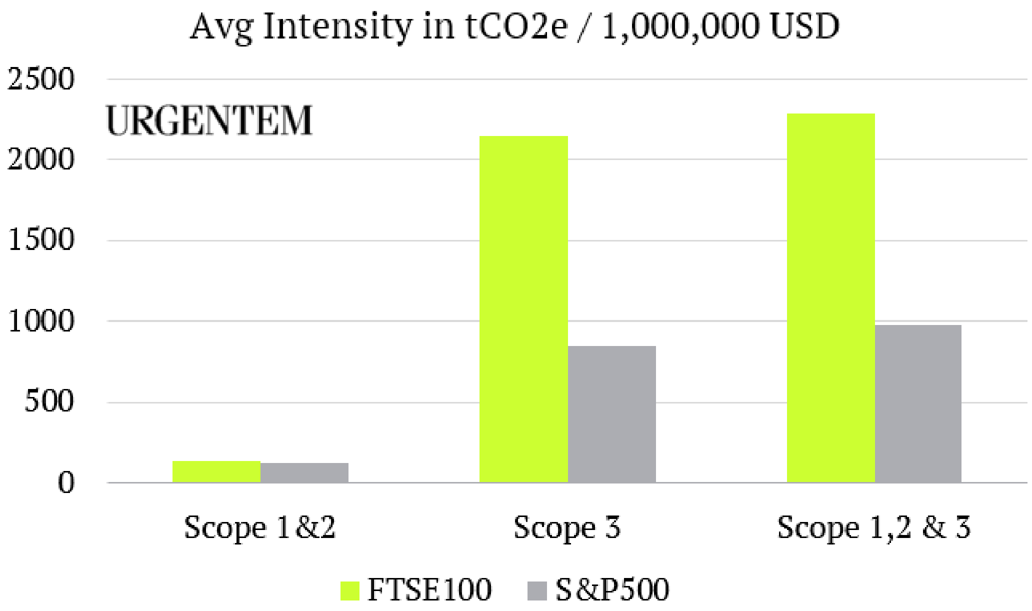
This is unsurprising given that the FTSE100 is heavily weighted to these sectors. A quick comparison with the S&P500 also reveals just how divergent the impact can be, even between two broad-based indices.

Taking into account just Scope 1 and 2 emissions, the carbon intensity of the S&P500, when examined as a portfolio, is just below that of the FTSE100.

However, once Scope 3 emissions are included in the equations this divergence between the emissions intensity of the FTSE100 and S&P500 becomes more striking.

Including Scope 3, the average GHG intensity of the FTSE100 is 2282 tCO2e / 1,000000 USD. This compares to the average GHG intensity of the S&P500 of 973 tCO2e / 1,000000 USD, based on a weighted average intensity by revenue (see figure 2).

Figure 2: Impact of Scope 3 on FTSE vs S&P 500



Source: Urgentem

Sector Surprises

However, some of the most significant and counter-intuitive surprises are revealed when the intensity of carbon emissions is analysed at a sector or company level.

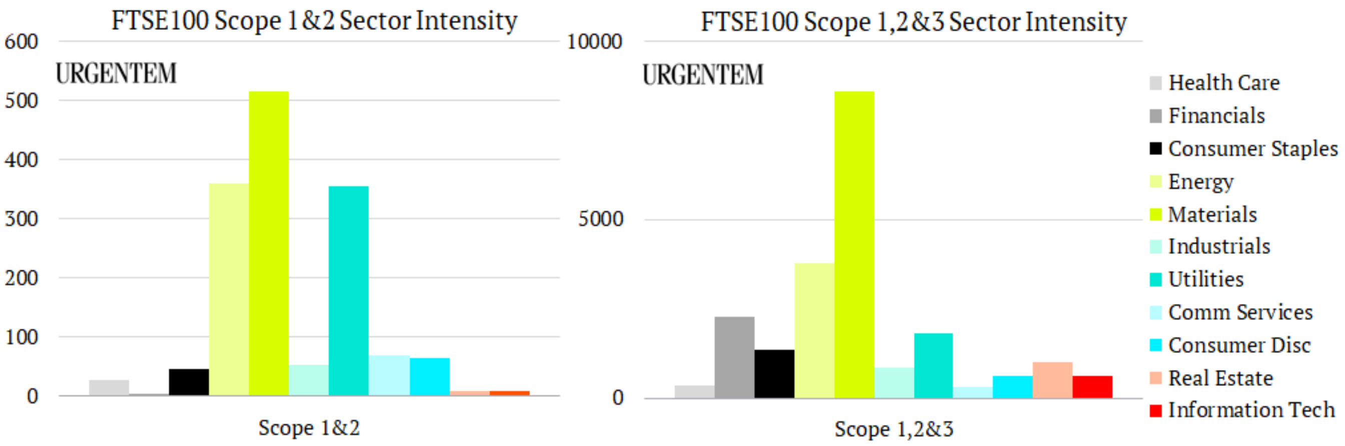
Again, taking the FTSE100 as our sample portfolio, when Scope 3 emissions are included in the analysis there is a significant impact across sectors.

This is most notable for the Financials sector, where a very significant increase in relative emissions intensity is seen.

In fact, the Financials sector goes from being one of the least significant sectors within the FTSE100 for carbon intensity under a Scope 1 and 2 analysis, to the third most significant sector behind the energy and materials sectors when Scope 3 emissions are included.

By way of contrast, a significant reduction in the relative emissions intensity for the Utilities sector is also surfaced when Scope 3 is taken into consideration, compared to just Scope 1 and 2 (see figure 3).

Figure 3: Sector Impact of Scope 3 on FTSE100 (Avg Intensity in tCO2e / 1,000,000 USD)



*Source: Urgentem **Element6™***

These shifts are the result of the relative composition of emissions within sectors.

For the Financials sector most of the material emissions are within the Scope 3 Investments category (category 15), while for Utilities a much higher proportion of their emissions are within Scope 1 and 2 compared to other sectors, hence the relative reduction of intensity for the sector when Scope 3 is included.

Sector Allocation vs Stock Selection

It is also worth noting that while the relative increase of emissions intensity in Financials is driven by a sector allocation effect, the relative reduction of intensity in the Utilities sector is a result of the stock selection effect.

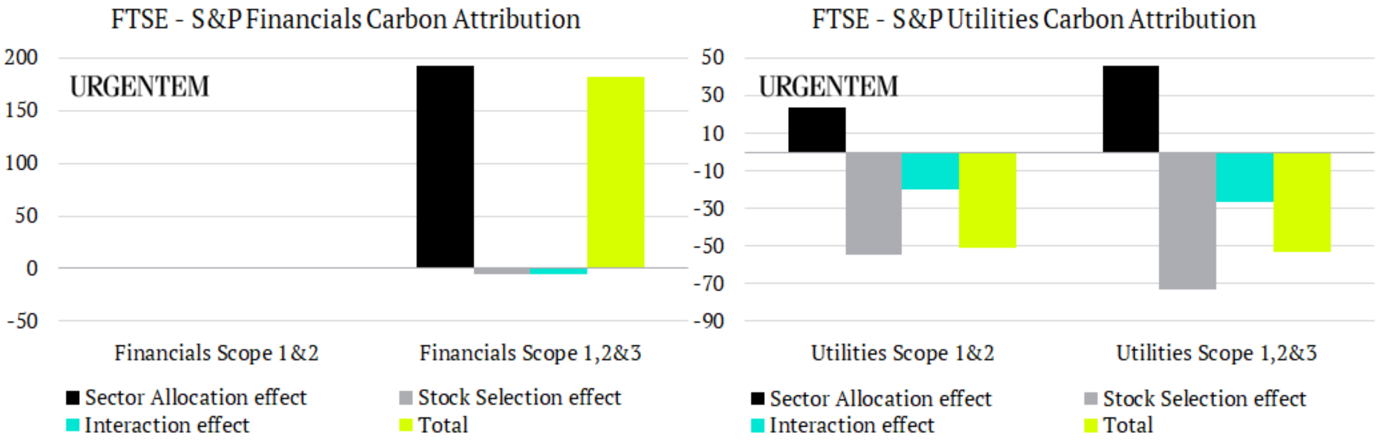
We set the Element6™ climate risk platform the task of creating a detailed comparison between the Financials and Utilities sectors of the FTSE100 (using our portfolio in this example) and the same sectors in the S&P500, which we are using as a benchmark.

As can been seen from the left-hand chart in Figure 4, the carbon intensity of the FTSE100 Financials and the S&P500 are closely matched when just Scope 1 and 2 data are used, with the bars barely visible in the chart, given the scale used here.

Yet once Scope 3 data is introduced, there is a significant increase in the carbon intensity of the FTSE100 Financials compared to S&P500 Financials.

Examining the drivers behind this significant divergence in carbon intensity of the Financials, there appears to be a sector allocation effect at work, namely Financials having a higher weighting in the FTSE100 compared to the S&P500.

Figure 4: Scope 3 Carbon Attribution Impact - FTSE100 (portfolio) vs S&P500 (benchmark)



Source: Urgentem Element6™

Carrying out the same analysis for the Utilities sector also highlights some highly significant dynamics (see right-hand chart of figure 4).

We find that the FTSE100 Utilities sector has a lower carbon intensity than the S&P500 when just Scope 1 and 2 emissions are taken into account. The relative intensity of the FTSE100 Utilities sector is further reduced when the analysis of Scope 3 emissions is added to the equation.

In this Utilities sector example, it is the stock selection effect (the lower carbon intensity of the individual utility stocks in the FTSE100) that is the driver behind the relative reduction in carbon intensity compared to the S&P500 Utilities sector.

The stock selection effect increases further for the Utilities sector once Scope 3 emissions are also taken into account, outweighing the sector allocation effect which points in the opposite direction.

Increasing Scrutiny

Given the significant impact that Scope 3 data has on portfolio emission analysis and carbon footprint reporting we believe it is important for investors, asset managers and owners to take this data into consideration in order to provide a more complete picture of their emissions exposure.

Indeed, as seen in the above example, it is not just the overall impact on a portfolio that is often most striking, but the relative distribution of the impact across sectors.

In our view, the ability to analyse a portfolio's carbon intensity in more depth and to greater levels of granularity in order to identify specific sector allocation and stock selection effects will become increasing important as ESG credentials come under ever more intense scrutiny.

How can we help?

To find out more about Urgentem's data, our Element6™ Climate Risk Platform, or any information included in this Urgentem Insights Document, contact our team at info@urgentem.net or call us on +44 207 183 3221.

To book an Element6™ demo, email demo@urgentem.net

More information can be found at www.urgentem.net