Frequently Asked Questions

S&P GSCI Climate Aware

As the world continues to focus on sustainability and the energy transition, it is understandable that market participants are seeking to incorporate sustainability considerations into their commodities portfolios. To that end, S&P Dow Jones Indices (S&P DJI), utilizing a new environmental dataset developed in collaboration with S&P Global Sustainable1 (Sustainable1), has launched the S&P GSCI Climate Aware, which seeks to retain the inflation sensitivity and diversification benefits of the broad commodities market, but with a lighter environmental footprint than the benchmark S&P GSCI.

1. **What drove the creation of this index?** Sustainability considerations have become a major focus area for many market participants. Some asset classes such as equities and fixed income have led the way, with granular information already available to incorporate them into an investment strategy. Commodities, which play a key role in current environmental impacts and in the energy transition to come, have paradoxically lagged this evolution.

   In this context, market participants have expressed a desire for a broad, rules-based commodity index that incorporates sustainability considerations. The S&P GSCI Climate Aware addresses the need for an index that incorporates environmental considerations while maintaining the key attributes of the S&P GSCI, namely diversification and inflation protection.

2. **What is the S&P Global Commodity Environmental dataset?** Recognizing the need for increased transparency on environmental issues across commodity value chains, S&P DJI and Sustainable1 have developed the S&P Global Commodity Environmental dataset, which covers a range of agricultural, energy, precious metal and industrial metal commodities (including all of the S&P GSCI constituents). The dataset provides physical and financial impact data on GHG emissions, water consumption and land use at the commodity-level based on life cycle impact assessment (LCIA) factors, and natural capital valuation metrics. It can help investors understand the environmental risks and opportunities associated with their investment in specific commodities, as well as across portfolios, indices and benchmarks.

   More information on the dataset can be found here.

3. **What are natural capital valuation metrics?** The natural capital valuation metrics presented in the dataset represent the costs to society and the environment caused by each impact. These are the indirect costs of production that are not borne by polluters, but often incurred by other businesses and society at large through factors such as health impacts, property damage and lost amenities. The valuation metrics for greenhouse gas (GHG) emissions are based on global averages, due to the way they affect the environment and society.

   Sustainable1 values GHG emissions using an estimate of the social cost of carbon (SCC). The SCC represents an estimate of the marginal externality cost of GHG emissions, as it reflects the global cost of the damages caused by GHG emissions over their lifetime in the atmosphere. The impact of water consumption is valued based on the consequences of the restricted access to water on human health and the environment. The land use valuation methodology considers the ecosystem services lost when naturally occurring ecosystems are converted to artificial ecosystems or gained when natural ecosystems are restored or conserved.

4. **What are environmental CVIs?** The commodity valuation intensity (CVI) metric ascribes an economic value to each environmental impact on a unit of commodity production or per dollar invested (or dollar per contract value). This allows for comparison across commodities and across environmental impacts. Examples of CVI metrics are provided in the Exhibit 1.

Exhibit 1: CVI Metrics

Metric	Wheat	Cattle	Natural Gas (North America)	Natural Gas (North America) in Use
Commodity Valuation Intensity (USD per Unit of Production)	466	9,350	48	302
Commodity Valuation Intensity (USD per USD Contract Value)	2.62	3.23	0.42	2.65

Source: S&P Global Sustainable 1. Data as of January 2023. Table is provided for illustrative purposes.

5. **How much of a reduction in environmental footprint does the index target?** The index targets a 25% reduction in the environmental CVI compared to the benchmark S&P GSCI.

6. **Does the index incorporate a transition glidepath?** Yes. The index incorporates a transition mechanism that seeks to decarbonize the index at a rate of 5% year-over-year, anchored to an initial 25% reduction relative to the S&P GSCI as of the rebalance date immediately before index launch, while also maintaining land and water use that are at least no worse than the S&P GSCI.

   A 5% year-over-year decarbonization target was chosen in recognition that decarbonization needs to be anchored in reality and the fact that the current mix of global commodity production cannot support a large year-over-year reduction without heavy concentration.

7. **At a high level, how does the index work?** The S&P GSCI Climate Aware is designed to measure performance through futures of a long-only climate-aligned and climate-transition strategy across the constituents of the S&P GSCI. The index follows a portfolio optimization approach to compute constituent weights by seeking to reduce the environmental footprint of the index whilst minimizing weight and sector deviations from the S&P GSCI. The optimized constituent weights are constrained to help maintain diversification, investability and liquidity for the index.

   Specifically, the optimized index seeks to achieve a 25% reduction in GHG and total CVIs per dollar invested compared with the S&P GSCI, along with 5% year-over-year decarbonization target, while maintaining total food production and ensuring land and water CVIs per dollar invested are no higher than the S&P GSCI. It seeks to do this by minimizing an objective function that combines two penalties: a quadratic penalty on weight deviations from the benchmark and a quadratic penalty based on sector deviations from the benchmark. The sector definitions used for the objective function are a hybrid of the S&P GSCI sectors and the newly defined Energy Systems and Food Supply economic sectors chosen to encourage displacement from fossil fuels to metals, and from meat to plant-based foods. Additionally, tilted weights are applied to the fossil fuel group and food supply sector to improve their environmental efficiency on a per unit of production basis.

8. **Does the index incorporate social and governance considerations?** No. To be clear, the focus of this Sustainable1 dataset is on the environmental footprint of commodities, the E in ESG, which is not to diminish the social and governance—the S and G—considerations which are plentiful in commodities supply chains.

   While unequivocally acknowledging their relevance, the index doesn't yet incorporate social and governance considerations for lack of suitable datasets. We view this is as one of the major evolutions to come in this space.

9. **What target audience would most benefit from using this index?** We believe the index could have a wide application across the financial market. It was designed to be used as a benchmark to track the price performance of the broad commodities market and as the basis of financial products such as exchange-traded products. It may appeal to those market participants already active in commodities markets, but it may also be of interest to investors who have not traditionally held exposure to commodities.

10. **What is unique about the S&P DJI and S&P Global Sustainable1 collaboration?** S&P DJI is the world's leading resource for benchmarks and investable indices, and our indices are widely used to track market performance, benchmark portfolios and develop

investment strategies. Our series of commodities indices, headlined by the S&P GSCI, offers market participants straightforward measures of commodity beta, commodity sectors, single commodities and commodity thematics.

Sustainable1's intelligence helps corporations, financial institutions and governments to build resilience and get ahead in the transition to a low carbon, sustainable and equitable future—as well as being the data and analytics engine that powers many of S&P Global's ESG solutions.

The S&P GSCI Climate Aware is the first broad commodity index to incorporate data from Sustainable1. It is exciting to bring together the expertise of two analytically independent S&P Global divisions on such an important and relevant segment of the investment landscape. Together, we hope to improve market transparency and offer market participants the ability to build unique investment strategies incorporating commodities.

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