

Time for Action.

Solactive's EU climate indices

Blog

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Strategic Initiatives – Jennifer Nerlich

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Short Read:

- To mitigate the impacts of climate change and achieve the goals of the Paris Agreement to limit global warming to well below 2° Celsius the time for action is now.
- Solactive's Paris Aligned indices offer a solution that integrates climate risks and opportunities in the index construction. Designed based on the IPCC Special Report, the concept targets to deliver an index portfolio that limits global warming to 1.5° Celsius.
- The resulting Solactive Paris Aligned Developed Markets index shows a reduction in emissions exposure of 59.8% compared to the parent index and eliminates almost completely transition risks from potential emissions of fossil fuel reserves. It outperforms the conventional index by ca. 1% p.a. with similar risk characteristics.

Remaining carbon budget to limit global warming to 1.5 °C is rapidly shrinking

Man-made climate change is one of the biggest challenges of our time. The risks associated with climate change are already materializing in many parts of the world through extreme weather events, drought, or biodiversity loss. Climate change will likely have a significant adverse impact on global GDP and social equality in the future. Tackling the challenge of global warming requires constraining the total cumulative global emissions. According to the IPCC Special Report, the remaining anthropogenic CO₂e emissions budget to limit global warming to 1.5° C only amounts to 420 GtCO₂e by the end of 2017. Assuming similar emission levels as observed in 2016 of 49 Gt CO₂e¹, it is obvious that the remaining budget will be exhausted soon if the world continues to operate in a business-as-usual mode.

However, governments are only slowly reacting to this challenge. While in 2015 196 parties committed to the Paris Agreement targeting to limit global warming to well below 2°C, preferably to 1.5° C compared to pre-industrial levels, not enough has been done so far. The current commitment will not be sufficient to limit global warming according to a recently published

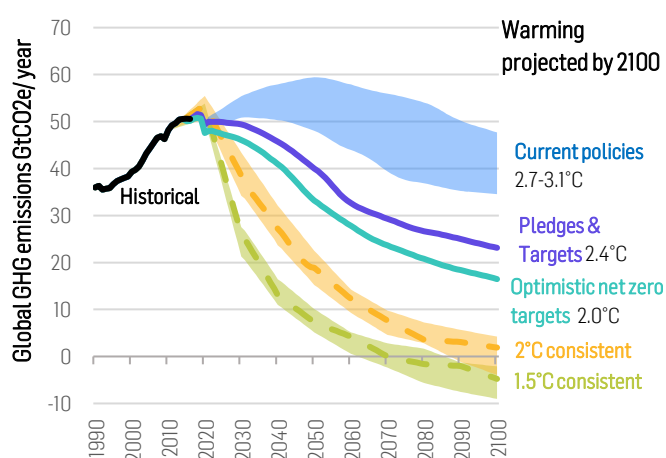


Figure 1: 2100 Warming Projection: Emissions and expected warming based on pledges and current policies. Source: Solactive, Climate Action Tracker (2021). As of May 2021.

analysis from Climate Action Tracker. To mitigate the impacts of climate change further actions are required.

Risks and opportunities of climate change and policy responses

The uncertainty regarding future regulatory adjustments and the risks posed by climate change presents a significant challenge for investors. On the one hand, this manifests itself in acute as well as long-term physical climate risks, e.g., damage to assets in the portfolio due to extreme weather events and limitations on asset usage, and on the other hand in transition risks caused by the transition to a low-carbon economy to

¹ <https://ourworldindata.org/greenhouse-gas-emissions>



reach net zero. The journey to limit global warming could not only shift consumer preferences but make obsolete entire business models. However, there are also opportunities for new technologies and business areas as well as companies that show leadership in the transition.

It is therefore essential to integrate climate considerations into investment decisions. This allows to steer capital towards companies aligned with the Paris goals and incentivize decarbonization for those not yet on track with these goals.

Solactive has developed a wide range of Paris Aligned climate benchmarks that address these opportunities and risks to support investors tackling climate change.

Delivering a climate solution for the upcoming challenges

Solactive's EU Paris Aligned (PAB) and EU Climate Transition Benchmarks (CTB) are constructed in accordance with the relevant EU legislation². The methodology based on the work of the Technical Expert Group on sustainable finance (TEG) intends to achieve a

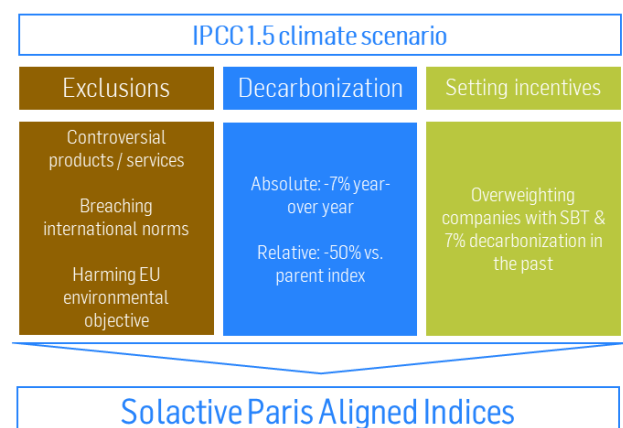


Figure 2: Solactive EU Paris Aligned index criteria

² Commission Delegated Regulation (EU) 2020/1818 of 17 July 2020 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards minimum standards for EU Climate Transition Benchmarks and EU Paris Aligned Benchmarks

1.5°C warming scenario with limited overshoot based on the IPCC Special Report on Global Warming of 1.5°C. The final index concept combines exclusions, positive affirmation, and a dedicated decarbonization strategy to achieve this ambitious goal. In the following section, we illustrate the benchmark methodology using Solactive's Developed Markets Large/Mid Cap universe.

Avoiding climate risks from non-compatible firms

An important aspect of the EU Paris Aligned indices are exclusions of companies that are not considered permissible for a credible pathway towards achieving 1.5°C global warming or show involvement in controversial business areas such as controversial weapons or tobacco. Additionally, firms that are significantly harming the EU's environmental objectives³ are excluded. The "do no significant harm" criteria uses a holistic assessment of a company's products or services, its operational practices, and observed controversies. The filtered index universe consists of approximately 1100 companies which account for around 75% of the free float market capitalization compared to Solactive's Developed Markets Large Mid Cap universe consisting of ca. 1600 companies.

Decarbonization & positive affirmation: rewarding companies with ambitions

The central element of Solactive's Paris Aligned climate index is the decarbonization strategy. It combines two key aspects: first, a relative emission intensity⁴ reduction against the traditional cap-

³ As outlined in Article 9 of Regulation (EU) 2020/852 of the European Parliament and the Council

⁴ Carbon Intensity = (GHG emissions) / (Enterprise Value including Cash)

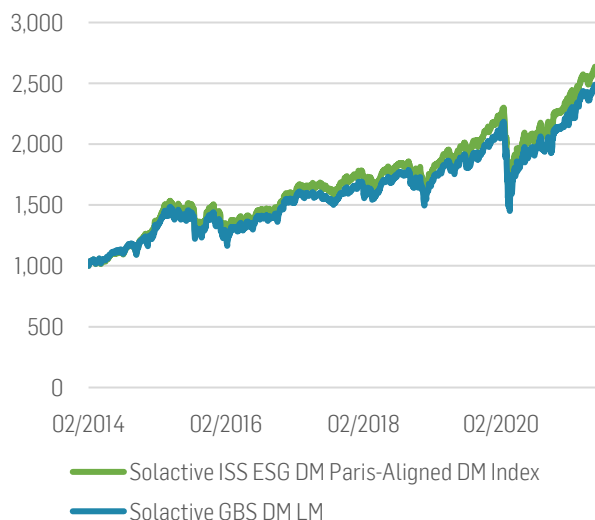


Figure 3: Performance indexed to 1000 on 5 February 2014. Net total returns in EUR. Source: Solactive.

weighted index of 50%, and secondly, a year-over-year self-decarbonization of 7%.

Solactive uses optimization techniques to achieve the required decarbonization while simultaneously maintaining similar risk and allocation characteristics as the conventional index. Solactive considers all direct and indirect emissions of a firm, i.e., scope 1, 2, and 3 when optimizing the greenhouse gas intensity. While the consideration of scope 3 emissions causes some double counting of emissions, it provides a holistic assessment of the firm's carbon emission risk. Furthermore, scope 3 emissions account for about 75% of the overall emissions of the conventional index and are therefore a decisive factor to hold firms accountable for their total GHG footprint.

Furthermore, the index targets decarbonization by investing in companies with low carbon emissions compared to sector peers, not via divestment from highly emitting sectors. Hence, additional criteria are applied to not underweight high emitting sectors where the transformation could have the biggest impact.

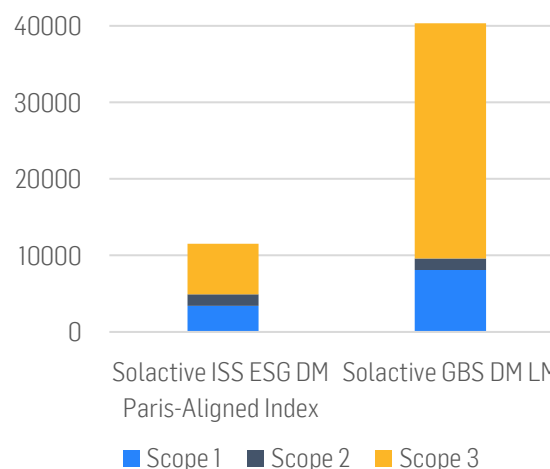


Figure 4: Emissions Exposure (tCO₂e). Source: Solactive, ISS ESG.

Besides the decarbonization, the index strategy rewards firms if they commit themselves to science-based reduction targets and achieved a 7% reduction of their carbon intensity over the last 3 years.⁵

Climate managed diversified portfolio

Applying the Paris Aligned strategy, the resulting index portfolio is well diversified across all eligible companies, sectors, and countries. The index has outperformed the conventional benchmark since inception by ca. 1% p.a. while achieving similar volatility levels and a tracking error of 1.8%. Furthermore, the Paris Aligned index slightly reduced the drawdowns in recent years.

When analyzing the climate performance of the indices, the Paris Aligned Index reduces significantly (by design) the emissions as illustrated in Figure 4. Besides the current emissions reduction, potential future

⁵ For full details on the construction methodology, please refer to the index methodology:

<https://solactive.com/downloads/Guideline-Solactive-SPAB.pdf>

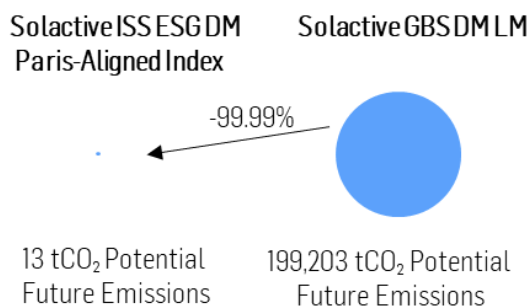


Figure 5: Potential future greenhouse gas emissions for fossil fuel owning companies. Size of the circle approximately illustrates the relation of the potential emissions. Source: ISS ESG, Solactive

emissions, a measure for transition risks calculated on the fossil fuel reserves owned by the portfolio companies, have no material impact in the climate index with an estimated 13 tCO₂ compared to 199,203 tCO₂ in the conventional index. At the same time, the share of renewable power generation in the Paris Aligned index increases to 89% from only 17% in the parent index. Further climate measures, e.g., scenario analysis, also underline the improved climate characteristics of the index.

Conclusion:

The demand for index solutions that credibly incorporate climate change considerations in the index methodology is rising. The Solactive ISS ESG Paris Aligned indices offer a broadly diversified climate index built on the IPCC 1.5°C warming scenario. They can be used as a core benchmark for the investment portfolio

to substitute existing market capitalization-weighted approaches as well as for thematic allocations. By construction, the index delivers the required decarbonization and achieves attractive climate properties, as shown in the article. Besides the standard index concept, Solactive offers customized climate index strategies to help investors with their specific objectives.

Notes:

Climate Tracker's 2100 Warming Projections: Emissions and expected warming based on pledges and current policies. May 2021. Available at: <https://climateactiontracker.org/global/temperatures/>. Copyright © 2021 by Climate Analytics and NewClimate Institute. All rights reserved.

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