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A Weekly Comprehensive Macroeconomic Overview

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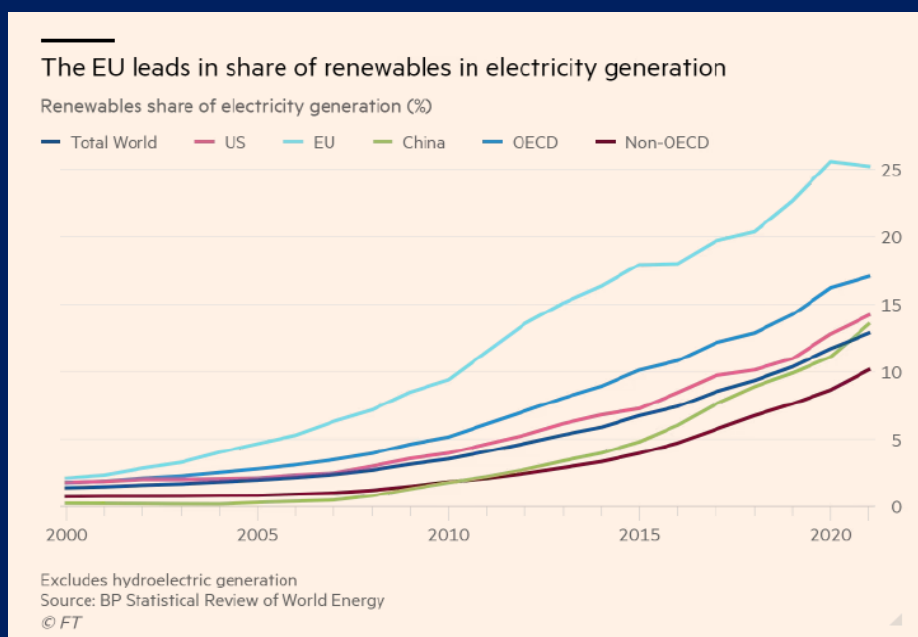
Renewable Energy Outlook

According to research from the climate and energy think-tank Ember, in 2021, wind turbines and solar panels delivered more than [a tenth \(10.3%\)](#) of the world's electricity, an increase from 9.3% in the previous year. Clean energy sources generated 38% of global electricity in 2021, indicating that global wind and solar growth is on track to meet climate targets. According to Ember's research, solar generation increased by 23% globally, while wind generation increased by 14%. According to the analysis, if the ten-year average compound growth rate of 20% is maintained until 2030, solar and wind power could grow enough to limit global warming to 1.5°C. In 2015, the United Nations Climate Change Conference in Paris agreed to limit the temperature increase to 1.5°C to prevent major future climate change impacts. To achieve this, scientists conveyed that there must be minimal emissions between 2030 to 2050. This emphasises the green energy transition to replace coal and cut greenhouse gas emissions.

Even if economics has other flaws, it is correct in its fundamental assumption that rewards motivate behaviour. If the energy supply was dominated by renewable technologies, so if it was more cost-effective to use solar, wind or other renewable energy sources than fossil fuels, the transformation of economies toward climate protection would then be driven solely by market forces. These actors could be domestic private companies or governments, as well as international participants, but their activities may be limited by regulations. However, political opposition is likely to make such regulation difficult — consider the debate over fossil fuel production in the United States. Furthermore, as demonstrated at COP27 in Egypt, oil producers will fight to the death to protect their interests. So, how close are we to making renewables the dominant energy supply? The answer is that we've made incredible strides. The relevant timescale, however, which has become shorter because of decades-long delays, is too short for it to be transformative and therefore it is unlikely to become the dominant supplier in the next decade.

A reason for this is that this cost reduction has not been promptly transformative. The use of renewable energy in electricity generation has increased, such as in the EU where it grew [to 25% in 2021](#), but it was only 13% for the entire world. And meanwhile, all-source combined emissions have not decreased. To keep the 1.5C limit alive, total emissions must fall sharply by 2030, particularly in electricity generation. To achieve this, there must be a significant increase in the use of what the International Energy Agency refers to as "low-emissions sources," with the majority coming from renewables, while the use of unabated fossil fuels must be reduced by one-third in the next 8 years to be deemed a success, a concept which is highly unlikely to realize.

Global oil and gas prices have been extremely volatile since the invasion of Ukraine by Russia on February 24th



2022, with Brent oil prices surging to \$113 per barrel in May and leading to a 65.39% increase from May 2021; price uncertainties matched by the G7's proposed price cap on Russian oil to \$65-\$70 per barrel has led to demand for oil to drop with OPEC and the IEA cutting their 2023 demand forecast by 100,000 barrels per day (BPD). This has resulted in the renewables sector receiving increased focus as countries aim to decrease their reliance on oil and gas: COP27 saw 9 countries including the UK and US sign up to join the Global Offshore Wind Alliance in the hopes of scaling up renewable



energy projects, signaling how countries are aiming to use renewable energy as support amidst volatile fossil fuels prices.

The question is how to accelerate market forces that are increasingly pushing in the right direction. Nations need to understand that the benefits that the transition to renewables will bring in terms of employment, economic diversification by way of being independent of fossil fuel-based energy, limiting scarcity of water, and addressing climate change. Furthermore, countries can focus on implementing advanced technology to improve the flexibility and efficiency of their overall operations, such as smart electric grids. This will be useful in times of energy crises as well as helping to create job opportunities. In addition to this, as the IEA's World Energy Outlook argues, renewable energy sources increase the security of energy supplies in addition to being increasingly affordable. For major players like China, Europe, and India the security case for renewable energy sources is compelling. Therefore, despite the skepticism about efforts to force profit-seeking businesses to pursue moral goals, it is pleasing that these desired changes are at least consistent with what the markets are clearly saying: one can hope to do well by doing good.

