# EDITORIAL



## FROM PARIS TO BELEM, OR HOW CLIMATE CHANGE BECAME A KEY ECONOMIC ISSUE

**Countries will not be able to limit global warming to +1.5°C compared to pre-industrial levels, as was the ambition of the Paris Agreement ten years ago. However, it would be wrong to conclude that it was a failure. Paris was the catalyst in accelerating for the race to decarbonisation, not only in the European Union, but also in China, which is now on track to reduce its greenhouse gas emissions. Despite the climate scepticism of its president, Donald Trump, the United States continues to green its electricity production. The scientific consensus is that we must now expand and intensify our efforts, which will come at a cost, but much lower than the cost of the status quo.**

Whether philosophical, as with Plato, or physical, as with Malthus, the limits to the accumulation of wealth have always been debated. With the optimism created by the industrial revolution and continuing until the end of the "Glorious Thirty" boom period post WW2 in France, economic thinking long believed that it could overcome these limits, however. The dominant post-war models laid the foundations for a "permanent" growth regime, able to satisfy the ever-increasing needs of *homo economicus* through technical progress. In the words of economist Daniel Cohen, the aim was to find answers to infinite desire, but in a closed world[1].

Cracks began to appear in the paradigm inthe 1970s, when oil shocks and stagflation thwarted the promises of unlimited expansion. The aging of populations, first in Japan and then throughout the West, has more recently revived the hypothesis of "secular stagnation", but, out of all the upheavals that have ever tested our way of life, climate change is clearly one of the most serious. It took around 30 years for the warnings of the IPCC (Intergovernmental Panel on Climate Change) to become scientific consensus, influence public policy, and then lead to the shift towards decarbonisation.

### THE PARIS CLIMATE CONFERENCE REPRESENTED A TURNING POINT

Whatever people may think of them, the Conferences of the Parties (COP) remain the only forum for concerted decision-making between states on climate and environmental issues. One of their main achievements was to convince a majority of political and economic leaders that the cost of inaction outweighs that of transition. The Paris Agreement, reached ten years ago, marked a turning point: it was from there that the first roadmaps aimed at achieving carbon neutrality in the long term were written; that the study of the socio-economic consequences of greening and of "business as usual" was deepened; and finally, and most importantly, that the economic landscape began to transform.

From Paris (2015) to Belém (2025), the European Union (EU) is by far the one who has made the most progress. Now close to USD 400 billion annually, its decarbonisation investments have doubled at constant prices; the share of renewables in electricity production has soared to become the majority; and sales of electric vehicles are no longer tiny, now accounting for a quarter of registrations (see table).

Furthermore, after a difficult start, the EU Emissions Trading System (or carbon market) has become a global benchmark, even being exported to China. China has also announced a 7% to 10% reduction in its greenhouse gas (GHG) emissions by 2035, a turning point that some consider too slow, but no less remarkable if you consider that the first bricks of the "world's workshop" were laid barely thirty years ago.

**FROM PARIS TO BELEM: TEN YEARS OF GREENING IN THE EU**

| SHARE OF RENEWABLES | 2015 | 2025e |
|---|---|---|
| In the primary energy mix | **14%** | **25%** |
| In electricity production | 30% | 50% |
| **SHARE OF ELECTRIC VEHICLES (*)** | **2015** | **2025e** |
| In total passenger vehicles sales | 1% | 25% |
| (*) Battery + plug-in hybrid vehicles | | |
| **GREENOUSE GAS EMISSIONS** | **2015** | **2025e** |
| In gigatonnes | 3.8 | 3.0 |
| Change in % | | -21% |
| **"CLEAN ENERGY" INVESTMENT** | **2015** | **2025e** |
| In 2024 USD billion | 175.0 | 390.0 |
| Change in % | | +123% |

TABLE SOURCE: OUR WORLD IN DATA, EMBER, AIE, ACEA, EUROSTAT

Although it is not leading the race against global warming, the United States has not abandoned it, despite the openly climate-sceptical stance of its president, Donald Trump. Should Trump wish to revive coal industry, as he promised, he would come up against an economic reality of increasingly profitable renewable alternatives (solar and wind power). Their growth in the American electricity mix is part of a fundamental trend, not only in California or Texas, which are often highlighted, but almost everywhere. In Oklahoma, South Dakota, Iowa, Kansas, New Mexico and Colorado, their share of electricity production is already or is exceeding 50%, and is therefore on a par with European standards[2].

### CONTINUING TO TAKE ACTION AGAINST GLOBAL WARMING WILL BE COSTLY, BUT STOPPING HALFWAY WILL BE EVEN MORE, SO...

Nevertheless, in order to remain within the limits of tolerable global warming, the scientific consensus is that much more needs to be done. Despite the progress made, Europe is far from certain to meet its GHG emission reduction targets[3]. The next steps, which involve electrifying end uses (building heating and transport), will directly affect consumption choices.

1 Cohen, D. (2015), *Le monde est clos et le désir infini* ('The world is closed and desire is infinite'), Albin Michel, August.
2 Voir Ember (2025), US Electricity 2025 Special Report, March.
3 As a reminder, the "Fit for 55" plan aims for a 55% reduction in emissions by 2030 compared to 1990 levels, with a target of 66.25% to 72.5% reduction by 2035 set at the COP in Belém. This would require an annual reduction rate of 6%, which is far from being the case.

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These are considered the most difficult, especially as they require investment in technologies (such as batteries, heat pumps and semiconductors) with lagging competitiveness, particularly in relation to Asia (Korea, China and Japan).

On a global scale, the main challenge will be to bring emerging countries (excluding China) on board with the energy transition. According to the International Energy Agency (IEA), staying below the +2°C limit would require almost tripling the annual amounts that the world spends on decarbonisation, bringing them to around USD 5.5 trillion by 2035[4] (i.e., 3.8% of GDP, compared to 1.8% of GDP today). It should be noted that once the "green" capital has been built up, this amount would no longer need to be increased, but simply rolled over in real terms. Therefore, the cost of the transition, as it progresses, would logically decrease in proportion to national wealth.

As to whether it is worth the effort, the figures for an alternative scenario, involving sticking to current policies (the share of green investments in GDP remains at its current level), leave little room for doubt. In simulations by the NGFS (Network for Greening the Financial System), "business as usual" means global warming of +3.5°C; its economic cost, in terms of physical capital destruction and/or productivity losses (particularly in the agricultural sector), far exceeds that of climate action, as by 2050, it would result in a net gain of 3.5 percentage points of global GDP[5], which would only increase thereafter.

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In just a few years, the climate issue has become central to public debate and economic choices. Investments in decarbonization have multiplied since the 2015 Paris Conference for Climate, reaching a level that will be more than double the amounts devoted to fossil fuels by 2025. This reversal of priorities is significant. While it does not guarantee the success of the energy and climate transition, it is nevertheless proof of its irreversible nature.

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4 Amount estimated at constant 2024 prices, according to the "Net zero by 2050" report published in 2021. See International Energy Agency (2021) A Roadmap for the Global Energy Sector, October.

5 GDP gains resulting from strengthened climate action (limiting warming to less than +2°C by 2100), compared to a scenario based on current policies (leading to warming of +3.5°C by 2100).