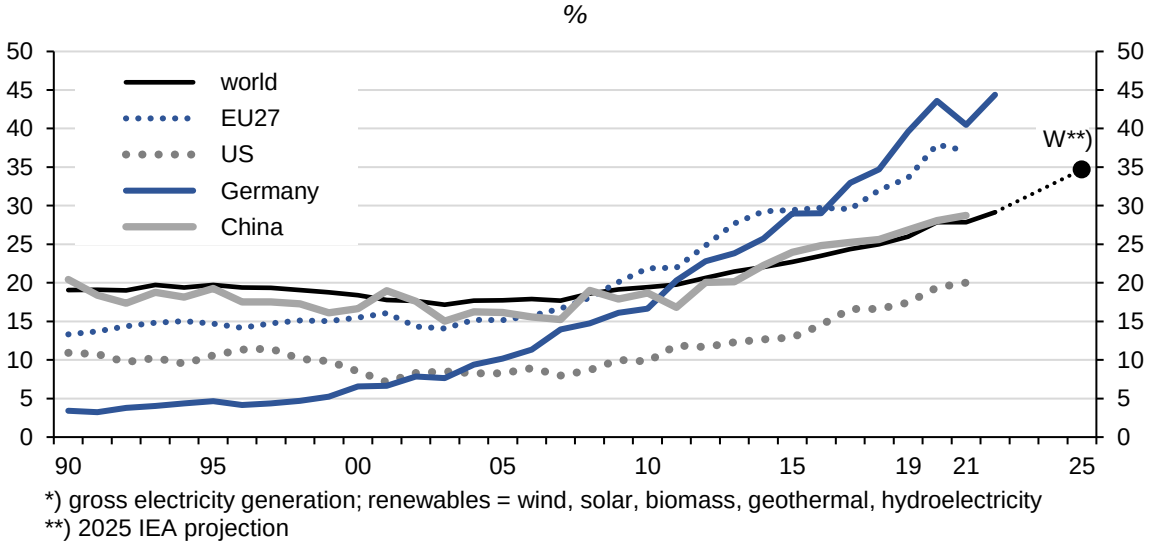
Record high subsidies for fossil fuels

Mainz, February 21, 2023 | *Dieter Wermuth*

Hard to believe: as the International Energy Agency (IEA) has just reported, global subsidies of fossil fuels have reached about 1tr dollars last year, a new record. This is the equivalent of 1% of the world's GDP, twice as much as in 2021 and almost five times more than in 2020. At the Glasgow climate conference COP26 in November 2021 it had been agreed "to phase out … inefficient fossil fuel subsidies, while providing targeted support for the poorest and most vulnerable." The opposite has happened. The sharp increase of gas, gasoline and electricity prices in the wake of Russia's invasion of Ukraine had led to a significant loss of purchasing power in the poorer parts of the population while energy intensive business models made less and less sense. In order to avoid a dangerous escalation of these developments, governments, including Germany's, decided to introduce price caps and income transfers, de facto promoting the burning of fossil fuels at taxpayers' expense.

While there is a broad consensus in rich societies that the emission of greenhouse gases must be reduced by steadily increasing absolute and relative prices of fossil fuels it became apparent that the process must not be too rapid – people will not support it if the purchasing power shrinks a lot, or if jobs get lost. Structural change and climate mitigation take a back seat when the essentials, income and jobs, are at stake. The actual situation and the near-term prospects are more relevant to a majority of the population than the threat of a climate catastrophe in the distant future. No surprise then that global CO_2 emissions have reached a new record in 2022, a strong year in economic terms (about 41 bn tons). Since China, India and the other emerging markets, which account for 85% of the world's population, continue to aim for a more energy-intensive standard of living it is a foregone conclusion that the cusp of emissions is still several years off. The Paris climate targets are at risk.

share of renewables in electricity generation*)



*) gross electricity generation; renewables = wind, solar, biomass, geothermal, hydroelectricity
**) 2025 IEA projection

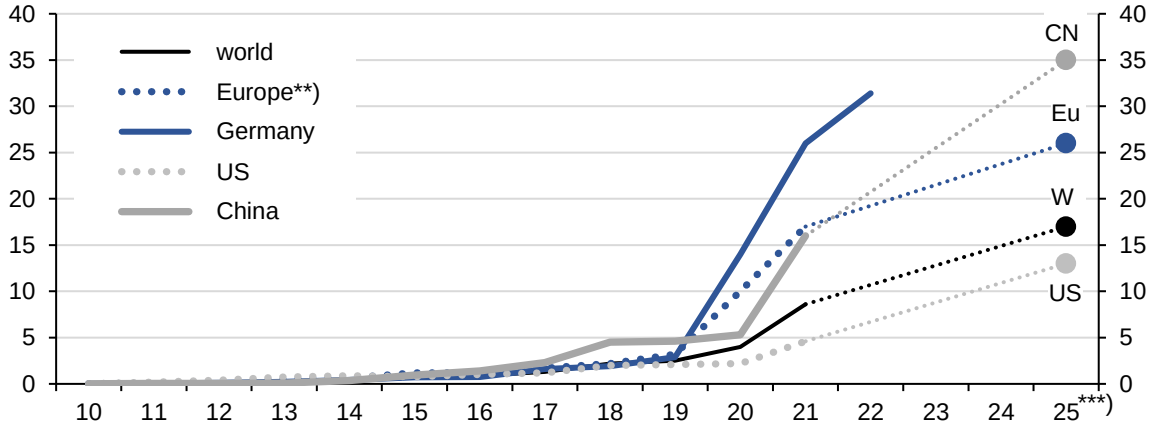
sources: UBA, IEA, BP Statistical Review of World Energy; own calculations, design & research: Uwe Richter ©UR

Longer term, the outlook is actually not so bleak, at least in some segments. The share of (emission-free) renewables in global gross electricity production for instance has increased from less than 20% to presently 29% over the past ten years and will probably reach about 40% by 2030, a result of technical progress, government policies and the mass production of wind and solar equipment. The trend will continue – but is not steep enough in view of what is necessary to save the climate.

Another piece of good news is electric vehicles (EVs). In recent years, registrations have increased at high double-digit rates, and the share in global car registrations has gone from 2% in 2018 to about 11% in 2022. The IEA expects it to reach 17% in 2025, and 25% in 2030. At that point the world's fleet of EVs would be in the order of 200 million, an increase by a factor of eleven compared to today. In Germany, by the way, the share of EVs had already been 31.4% in 2022 and had thus been a lot higher than in China, and no less than four and a half times higher than in America: the US needs a lot of catching-up.

EV registrations*)

share in total car registrations (%)



*) battery electric vehicles (BEV) plus plug-in hybrid electric vehicles (PHEV)
**) EU27, Norway, Iceland, Switzerland and UK
***) 2025 IEA projections, Stated Policies Scenario (STEPS)

sources: IEA, KBA, design & research: Uwe Richter

To put these numbers into context: if one day all cars were electric and if everybody on this earth owned as many cars as people in the OECD today, the number of EVs would reach about 4 billion, or 20 times more than the expected number for 2030. This is, of course, a non-scientific extrapolation and not a realistic scenario, but it is still a pretty safe bet that the electrification of mobility has only just begun. It is a growth industry.

Even so, according to most climate scientists a catastrophe cannot be avoided if current CO_2 trends persist. Progress in industry, buildings and agriculture in particular is still much too slow. As an optimist, I would argue, though, that climate mitigation efforts will accelerate a lot once the further deterioration of the environment causes large-scale existential problems in rich countries as well. It is a trademark feature of our societies that they can adapt if they really must. Let's hope it is not too late when this point is reached.