



# The path forward for Europe's green transition

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## Abstract

The EU's green transition started with the establishment of long-term goals but now requires short-term actions. It is a constant balancing act to achieve these goals while also responding to new problems and challenges. The time frame for reaching the ambitious climate target is short in terms of undertaking a deep transformation but long enough to expect unforeseen events. Europe's green transformation must include intermediate steps, with the most important short-term deadline being 2030, when CO<sub>2</sub> emissions are expected to have been reduced by 55%. This goal cannot be achieved without a thorough industrial and economic transformation. However, the funds available for the transformation are limited and diluted by more pressing immediate needs: Russia's war against Ukraine has increased global economic uncertainty, value chains have been distorted and EU–US policy divergences are increasing. In other words, Europe needs to reduce its emissions at a time of economic uncertainty, geopolitical tensions and increasing energy pressures.

## Keywords

EU, Sustainability, Green Deal, Emissions, Economy, Transformation

## Introduction

Europe's green transition is a long-term project. It is guided by the political resolution to make Europe's economy climate neutral by 2050. This is an extremely ambitious, yet realistic goal. It is politically desirable, yet economically and technically highly challenging. It requires a comprehensive approach, consistent policies and consequential

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actions. The green transformation involves immeasurable investment in new climate-friendly production methods, new ways of managing businesses and the development of new climate-friendly products. The lifespan of the existing productive capacity of many companies with a large impact on the climate is generally longer than the time available. They must change faster, leaving behind unused potential that otherwise could serve them for many years. Incremental improvements in efficiency cannot deliver the radical transformation required by climate change (Klunker 2018). The green transition cannot be based on the natural cycle of equipment replacement, because CO<sub>2</sub> emissions reductions must occur quickly.

The economic transitions are not happening in a linear way. Let us look back over the last three years. During this period the world has faced two major events which had not been factored in when the long-term climate goals were agreed upon: the Covid-19 pandemic and Russia's war against Ukraine. But the implications of these events are much wider, including the current energy crisis; sudden changes to supply lines and energy mixes; rising energy costs; broken supply chains; an increasing awareness of our excessive reliance on supplies from unreliable sources; rivalry for rare earth elements and other resources, exacerbated by efforts to quickly depart from fossil fuels; and issues with access to food supplies and security. In such circumstances managing the economic transformation and making political choices becomes more complicated.

New developments can overshadow current efforts, causing new problems to be perceived as more urgent and important to deal with (Analysis and Research Team 2023). In previous decades it was easier to mobilise public opinion in favour of climate action in periods of prosperity, while public support was much weaker in times of economic trouble (Burns and Tobin 2016). It was also quite evident that the crises themselves contributed to lowering CO<sub>2</sub> emissions because of the slowdown in economic activity (Skovgaard 2014). After the economic slowdown, however, there was a rebound effect of increased growth and increased emissions (Peters et al. 2012). Climate policy reactions after an economic slowdown had to be delayed and only regained momentum after some time had elapsed. Inadvertently, within the current debates, climate and energy are not considered to be entirely opposing policies or to be competing for resources under conflicting objectives.

Profound economic changes of this type bring to mind the Schumpeterian cycle of constructive destruction followed by a new phase of investment. The pandemic affected certain industries in a serious and mostly negative way, but its effects were not directly linked to the production capacity of the most CO<sub>2</sub>-emitting and climate-damaging branches of the economy. Some industries gained in importance under these new conditions, such as the pharmaceutical industry, e-commerce and online communication. The CO<sub>2</sub>-emitting sectors faced a slowdown, but not a reduction in capacity. In reaction to the pandemic's disastrous economic impact, many measures were taken by the EU, national governments and central banks to ensure recovery. In reality, the productive capacity of Europe's industry did not experience the Schumpeterian destruction phase as public

efforts focused on preventing the decline of GDP and employment, and the survival of companies that would otherwise have been bankrupted.

## **The green component of Europe's economic resilience**

In reaction to the pandemic, the EU has opted to provide an unconventional source of finance in the form of the Resilience and Recovery Facility (RRF). The funds provided by the RRF should partially be used to ensure twin transitions to a more digital and greener Europe (Darvas et al. 2021). The Facility offers EU countries the financing necessary to introduce reforms for both the recovery and the subsequent transition. The funds, totalling €750bn, present a large additional source of finance for those economies severely affected by the pandemic restrictions. These funds alone are not sufficient, but could help to reorient other public financial resources as well as private investment. However, there is a tension between the desire to finance short-term recovery focused on supporting industries and the long-term transition that requires new investment.

The assertion of the green transition is omnipresent in the RRF (Pisani-Ferry 2020). Likewise, the legislative framework and all related European initiatives aim to ensure this transition. Unfortunately, this priority is not fully confirmed by the reality of the national recovery plans. The structure of the RRF, which is based on national allocations and national plans, creates a particular difficulty for coherent governance of its implementation. The European Commission assesses the national plans presented by the EU governments and can significantly influence the composition of the measures intended for implementation. All the general criteria must be respected, in particular the obligation to allocate at least 37% of funding to the green transition. This threshold is reached, or easily surpassed, by all the national plans accepted by the Commission. However, most of the EU countries that rely most heavily on carbon-emitting energy sectors have planned to spend less on the green transition than could be expected in their situation. Furthermore, a closer look at the content of these plans suggests that the majority of the expenditure allocated to address the green transition is to be spent on projects varying widely in size, significance and thematic focus (Corti et al. 2021). Further examination also reveals significant weaknesses in some of these plans, which do not differ much from the national energy plans prepared some time ago and presented to the Commission before the pandemic and the Ukraine War. Even if the continuation of the actions can be seen as positive, no careful consideration has taken place in the context of the much more ambitious requirements of the 'Fit for 55' package.

In times of crisis, when companies are under pressure, there is an increased expectation of government intervention and assistance to withstand difficult times. The reaction to the banking crisis of 2008 involved the engagement of public funds on a magnitude far greater than has ever been devoted to the green transition. Protecting businesses and supporting the income of consumers during the Covid-19 pandemic again involved the unprecedented use of public funds to support the status quo rather than to change it. Since September 2021 European governments acting individually have earmarked and allocated over €700bn in energy subsidies (Goldthau and Tagliapietra 2022). This is

comparable to the total amount of the RRF and also represents nearly double the figure (\$743bn) of the subsidies provided by the US Inflation Reduction Act, provoking worries in Europe that such allocations could undermine European climate efforts.

## **The impact of the war on the green transition**

The energy crisis which followed Russia's aggression against Ukraine has seriously affected the progress of the green transition. The war has exposed a weakness in terms of European energy security, in particular its dependence on Russia. The weaponisation of energy supplies by Russia, resulting in high prices for imported fossil fuel energy, has highlighted the vulnerability of an energy supply coming from just one source, and is the main reason for increased energy costs, not climate actions. However, because of the high cost of energy, which has affected millions of European consumers, governments have been prompted to undertake measures to reduce the impact on consumption, even if this limits the changes to patterns of energy consumption. The amplified energy prices have helped Europeans to see the value of having their own sources of energy, which are scant in most EU countries with the exception of renewable energy production. In this sense the energy crisis, linked to the security of supply of fossil fuels from actual or potentially hostile energy suppliers, has become a real game-changer for the green transition.

At the time of writing, energy prices on the global markets are stabilising and normalising, but European prices are taking longer to do so. And in all probability they will stay higher in the EU than on the world market for some time. This sudden jump in energy costs has triggered companies and consumers alike to undertake immediate energy-efficiency measures. After years of hesitation and the gradual increasing of energy-efficiency targets, real changes have surpassed earlier expectations concerning energy-saving measures.

During the year preceding the Russian attack on Ukraine, when energy prices had already started to increase, though not to the extent that they rose in summer 2022, there were many demands to freeze, or to limit, the cost of CO<sub>2</sub> allowances within the Emissions Trading System (ETS). It was argued in some member states that the ETS was the major reason for the increasing cost of energy. There was quite regular political willingness to offer immediate relief from this, even at the expense of long-term policies. It is notable that since Russia attacked Ukraine, which has created unprecedented turmoil in the energy supply and economic activity, the issue of reducing costs in the ETS has not been a manifest part of the European response. Moreover, willingness to agree on further steps in the green transition has continued and the opposition to ambitious targets has become much weaker. Prior to Russia's attack on Ukraine, the 2030 ambition to reduce emissions to 55% and the associated legislative package 'Fit for 55' were considered likely to have a rocky ride in legislative negotiations. However, since the outbreak of war the mood has changed radically. By the end of 2022 the Czech EU Council Presidency had been able to get approval of all the climate sections of the Fit for 55 Package. These include the tightening of the market for emissions allowances, the creation of a new social climate

fund, new rules for aviation emissions, the reduction of CO<sub>2</sub> emissions from cars and vans, the planting of forests to absorb CO<sub>2</sub> emissions, and stricter limits on CO<sub>2</sub> emissions from transport, buildings, waste and agriculture outside of allowances.

## **Current problems and long-term objectives**

The political dilemma between taking actions to address immediate economic problems and introducing measures aimed at the implementation of a long-term strategy has been less pronounced in the current energy crisis compared to during the reaction to the Covid-19 pandemic or the earlier financial crisis. Solutions considered to overcome the energy crisis could help to accelerate the green transition. This looks very promising, but there is still a long way to go to remove all the obstacles on the way to climate neutrality. For example, European sovereignty has become an important component of the strategic approach to shaping the EU's policies. It involves not only strengthening Europe's defence capabilities, but also wider actions aimed at augmenting strategic autonomy, reducing energy dependency and developing strategies based on technological innovation. It cannot necessarily be implemented smoothly alongside the green transition.

The current coincidence of Russian aggression against Ukraine with the green transition makes it less clear as to which is responsible for the social consequences of high energy prices. With evident Russian manipulation of energy supplies and prices, the green transition is seen by the wider public as a solution rather than a cause of the problems. This suggests that public opinion may be more inclined to absorb the impact of climate measures and their consequences. The current economic turbulence, inflation and unemployment can be explained by a variety of factors including the war waged by Russia, the energy crisis, supply-chain turbulence, the fragmentation of globalisation, and the insufficient self-sufficiency of critical supplies, including food and medicines, rather than by the green transition. However, these harsh economic conditions might make it difficult to place additional stress on an already strained economy (Heussaff et al. 2022).

In February 2023 the Commission proposed an Industrial Plan for the Net-Zero Age as a direct response to the American Inflation Reduction Act, which provides, among other measures, a \$369 billion subsidy package for the green transformation of the US economy. This American instrument is widening the difference between the EU and the US in the approach to the green transition (Wong and Tucker 2023). While Europe is asking companies to pay for allowances to emit CO<sub>2</sub>, increasing the cost of European production, the US has embarked on subsidising the transformation, allowing companies to reduce their harmful emissions without actually paying for the change. EU industries feel disadvantaged by this, even if some imports to the EU might be shielded by the Carbon Border Adjustment Mechanism. The proposed Net-Zero Industry Act might not include new money, and in this way would hope to avoid a subsidy race between the EU as a whole and the US. However, the relaxation of public aid rules concerning green investments might contribute to an internal EU race to support member states' green industries, enabling more resourceful countries to win such a contest. The Net-Zero Industry Plan is intended

to focus on investments within strategic projects along the entire supply chain. The Battery Alliance, based on collaboration between the European Commission, national governments and the private sector, serves as an example. It could offer a promising public–private partnership tool to progress the green transition (Hermine 2023). Additionally, the expected removal or limiting of administrative obstacles to investment included in the Plan is desirable, but could have been initiated much earlier.

It should be noted that the Industrial Plan for the Net-Zero Age was not included in the original European Green Deal. It has come later as a response to the American legislation. This confirms that new events put enormous pressure on governments to quickly provide remedies to unforeseen difficulties. For many years EU policymakers have tried to maintain the principle of technology neutrality. Even in the case of nuclear energy, the EU would not take sides between those countries which rely on this source of energy and those which have decided not to use it. In times of crisis, especially an acute one, there are expectations that the government and the EU will do ‘whatever it takes’. This leads to the use of disposable public instruments, such as policies, recommendations, subsidies and partnerships, to develop solutions on the basis of current understanding and knowledge of existing technologies (Transport and Environment 2023). Even the most promising avenues may lead to ‘picking a winner’ and locking both private and public investment into a specific direction. There is always the risk that newer, more efficient technologies might quickly be developed, meaning that the support ends up promoting inferior results in the long run. This could be a real danger when public financial support is extended not only to initial investment, but to the implementation of the entire supply chain and the lifetime of a product and its production, meaning that the commitment to support is extended for many years, if not decades.

## Risks ahead

The coming years may be as equally tumultuous as the last few. For the time being the EU continues to push through with the green transition as planned, and with even greater determination as the new conditions make it more necessary than ever (World Economic Forum 2023). The war in Ukraine may take unforeseen twists that have a bigger impact, requiring the reorientation of political goals. It is now already clear that the member states will have to spend more on their militaries, including installations and equipment, tanks, artillery, ammunition and infrastructure, all of which will require an increased supply of steel and other metals, cement, chemicals and so on. From a security point of view these supplies will need to originate mostly from Europe. This will require the continuation of production by heavily emitting industries for some time to come and, depending on the development of the security and military situations, potentially also in much increased quantities. The insecurity of the energy supply has prompted many governments to postpone reductions in the use of fossil fuels. Moreover, EU member states invested billions of euros in 2022 in new fossil energy production (Tocci 2022), and the created capacity will last for decades. The European steel sector is preparing to produce green steel (Cornot-Gandolphe 2023), but in such circumstances it might also be forced to keep old facilities in use. There is also the risk of a rebound effect on growth and

emissions after the end of Russia's war against Ukraine. It is difficult to forecast, but the post-war reconstruction of the Ukrainian economy, linked to the process of Ukraine's accession to the EU (Savoy and Staguhn 2023), might also have a significant impact on the economic dynamics and scale of emissions.

The transformation of the economy by 2050, with the immediate ambitious steps to be taken by 2030, will have to be profound. Such a transformation will create many new opportunities, but due to its extensivity and rapidity could result in a significant number of losers. Companies keeping assets linked to production involving emissions of greenhouse gases will be under stress and many of their assets might become stranded. Many of those employed within these companies will have to earn new qualifications. It will be a down-to-earth economic process, as part of which companies will need to adjust to market conditions and the new regulatory framework. As regulations concerning CO<sub>2</sub> become tougher, the markets will react accordingly. However, it is politically difficult to propose rules which could negatively affect large groups of society without providing a shield; furthermore, the European Green Deal proposal refers to an equitable and just transition.

The main risks are linked to pushing forward with the green transition without ensuring solid and sustainable social support. The energy crisis and war seem to have strengthened public support for actions aimed at solving the current problems, such as the development of renewable energy sources or energy-efficiency measures, which also contribute to the mitigation of climate change. A word of caution is in order, however, because public opinion being generally supportive of climate action has its own dynamic that is very often affected by the news, and changing the political discourse could affect the perception of urgency.

The green transition requires a long-term consistent approach from the European political class. Even if it was difficult to reach an agreement among all the EU member states regarding the Fit for 55 Package, the clear majority was able to agree on the necessary decisions and legislation. The most difficult issues were decided at the highest level by heads of state and government acting within the European Council. There is a visible diversity of views and opinions, but decisions concerning the climate have been consistently more and more ambitious. Despite all the differences among the mainstream parties present, most of the governments have been supportive of the green transition. The loss of dominance of the traditional, well-established political parties in many of the EU member states has led to the greater presence of coalition governments composed of more diverse groups and sometimes involving more radical and unusual political configurations.

The end point of the journey to a climate-neutral Europe is clear. However, the path forward for the green transition is not straightforward. There may be many turns and unexpected obstacles between now and 2050. The green transition means that Europe must decrease its emissions at a time of continued economic uncertainty, heightened geopolitical tensions and increasing pressure on energy. It is important to keep the ultimate objective in mind, even if the present situation affects the pathway. In a different context,



US President Dwight Eisenhower made famous a phrase (overheard from a soldier in wartime) which could be relevant here. When describing preparations for military action, Eisenhower noted that, ‘Plans are worthless, but planning is everything’ (Blair 1957). The same could be said about designing a path to reach climate neutrality. It is necessary to continue planning, even if unpredictable events might require that adaptations are made to the most crucial mechanisms that will power the green transition forward.

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