

Arezki, Rabah; Landau, Jean-Pierre; van der Ploeg, Frederick

Article

Europe needs to rewire its energy - Green policy mix

EconPol Forum

Provided in Cooperation with:

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Arezki, Rabah; Landau, Jean-Pierre; van der Ploeg, Frederick (2025) : Europe needs to rewire its energy - Green policy mix, EconPol Forum, ISSN 2752-1184, CESifo GmbH, Munich, Vol. 26, Iss. 2, pp. 42-45

This Version is available at:

<https://hdl.handle.net/10419/317811>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Rabah Arezki, Jean-Pierre Landau and Frederick van der Ploeg

Europe Needs to Rewire Its Energy-Green Policy Mix

KEY MESSAGES

- **The bilateral tariffs imposed by the US are uncalled for, and the EU must respond vigorously to deter the administration from harming their mutual trade relationship**
- **The threats of tariffs come on top of adverse energy shocks associated with the war in the Ukraine and lagging productivity growth in the EU**
- **In contrast, the US has benefited from a shale gas revolution, which has boosted its energy competitiveness**
- **The EU's green policy framework is out of date due to the new geopolitics, industrial policies emerging in China and elsewhere, and growing fiscal pressures**
- **The EU must take swift action and rewire its energy-green policy mix**

The European Union, China, and many other countries have been targeted with tariffs between 10 and 50 percent by the President of the United States, Donald J. Trump, to be implemented with immediate effect on April 5, 2025 – as of the writing of this article, there are unconfirmed indications that the US administration will pause tariff implementation for 90 days for all countries but China. The arguments for tariffs have been to counter unfair competition, defined by President Trump to be countries selling more goods to the US than buying goods from the US. The problem is not only that these calculations are erroneous, but that these tariffs are uncalled for. Indeed, the tariffs fly in the face of all the multilateral agreements signed by the US. The threats of tariffs are seen throughout the world as unfair and will provoke counter-tariffs, with all the dangers for world trade and the risks of a global recession that such a trade war entails. The EU, being the largest single market, needs to respond vigorously to deter the US administration from harming their mutual trade relationship.

However, this latest trade war escalation comes amid growing concerns about the competitiveness of the European Union. The new tariffs will translate into higher costs and economic fragmentation, which will fuel inflation, reduce foreign investment, and worsen inequality in the EU. To put these latest developments into historical perspective, note that the economies

of the European Union have already been hit by adverse energy shocks combined with deficient green policies and lagging productivity growth, which have eroded competitiveness. We therefore argue that the EU needs to take swift action and rewire its energy-green policy mix.

The debate on competitiveness in the EU has been raging since well before Trump's tariffs. The much-debated Draghi report has offered a bleak yet realistic picture of where the EU stands relative to the two main other economic blocs: the US and China. One important reason why the competitiveness of the EU has suffered over the past decades is the increase in the relative cost of energy for European households and producers. This increase is the result of two energy shocks: the US shale revolution, leading to big falls in energy prices in the US, and the fallout from the Ukraine war, including the shift in European demand away from Russian gas, led to higher energy prices in Europe. Both shocks have severely undermined the ability of the EU to compete with other economic blocs. Add to that a widening gap between climate and energy policy frameworks between the EU and the other two blocs. While the European Green Deal adopted in 2020 is ambitious on the climate front, it contrasts with the industrial policies of China and the US, which have proactively sought to further their competitiveness in energy-intensive sectors.

TWO ADVERSE ENERGY SHOCKS

The US shale revolution has had indirect adverse effects on the competitiveness of the EU. Indeed, the combination of innovations in hydraulic fracturing and horizontal drilling allowed a significant ramp-up of oil and natural gas production in the US after 2008. The shale innovation and its diffusion came about because of the mineral rights – as well as hydrocarbon rights – legal framework in the US. Unlike in other parts of the world, including in the European Union, the ownership structure in the US allows individuals or entities to lease or sell mineral and hydrocarbon rights beneath their properties. This aspect of the US legal framework has thus contributed to creating a wedge in terms of the abundance of energy resources compared to other blocs including the EU.

One important implication of the abundance of energy stemming from the shale gas revolution is that it lowered domestic energy prices, in turn boosting

the reindustrialization of the US economy. In consequence, the shale revolution significantly curbed the US current account deficit due to a drop in energy imports. The revolution has sparked investment in energy-intensive firms and created good jobs. That newly found comparative advantage in the US relative to other blocs has dampened the consequences of China's comparative advantage in cheap labor, but it has also deteriorated the relative competitiveness of European Union.

The second shock, namely the fallout from the war in Ukraine, caused a global energy shock, which hit the Europe Union disproportionately. Indeed, a series of sanctions and bans on Russian oil and gas imports were imposed by the EU on account of Russia's invasion of Ukraine in 2022. The direct costs resulted in higher energy prices and the scramble of the EU to secure alternatives to Russian energy sources. Indirect costs were also sizable, involving price subsidies and lowering taxes, which increased debt levels. Perhaps even more damaging were decisions by energy-intensive firms to relocate outside the EU. The overall cost was estimated to be up to 3 percent of GDP for Germany and deemed to be manageable in the short run. The economies of the European Union have since managed to find alternative energy sources to Russia's supply (e.g., liquefied natural gas) and prices have stabilized, perhaps also due to ineffective sanctions against Russia. Elevated debt levels are pressing many European countries to now remove subsidies and re-introduce taxes, causing a stir among voters. The political consequences of such energy shocks cannot be underestimated at times when democracies in Europe are being tested by populist movements.

A DEFICIENT GREEN POLICY FRAMEWORK

On top of these two energy shocks, a widening gap between EU energy and climate policies vis-à-vis China and the US has become apparent. For example, the European Green Deal, adopted in 2020 and aimed at reaching climate neutrality by 2050, has done little in the way of addressing the harsh reality facing European countries due to these two energy shocks.

Notwithstanding the laudable climate ambitions of the European Green Deal, it contrasts with the proactive agenda set by industrial policy of China and the US to dominate new green industries.

The US Inflation Reduction Act, spearheaded by President Biden, uses tax credits extensively to promote clean energy investment at home. It can be seen as a reaction to China's industrial green policy, which has propelled the country to become a super-processor of critical materials and producer of solar photovoltaic technologies and other critical equipment. The incentives in the Inflation Reduction Act for selected clean technologies are largest for green hydrogen, utility solar, utility battery and storage, CCS, and efficiency in homes. Total investment spending on renewables, electricity transmission, and other clean technologies and energy spending in the Act amounts to more than USD 1.6 trillion. European leaders have expressed strong discontent about the Inflation Reduction Act and over the risk of them losing out on green investments at home, including from corporations headquartered in the European Union. The concern of European leaders is acute because the economic bloc has also been hit by the energy crisis resulting from the invasion of Ukraine. There have since been radical changes to the US stance on climate change. Indeed, the Trump administration has pulled out of the Paris Agreement and frozen funding associated with the Inflation Reduction Act, the future existence of which is in jeopardy.

While the US is currently undergoing what promises to be a chaotic era, it is high time to reset the European Green Deal to make up for lost ground. Europe must formulate a comprehensive policy response to the proactive industrial policy that both China and the US have enacted. After years of rejecting plans for a European Union industrial policy in the light of the Covid-19 pandemic, the war in Ukraine, and Biden's green policies, the time for such a policy finally seems ripe. The European Union should not mimic the US and China's policies, but should formulate a trade policy response that includes reform of the international subsidies regime by developing an instrument for subsidies at the EU level that focuses on



Rabah Arezki

is Senior Fellow at the Foundation for Research on International Development (FERDI), Research Director at the French National Center for Scientific Research (CNRS), and Senior Fellow at the Harvard Kennedy School.



Jean-Pierre Landau

is Professor in the Economics Department, Sciences Po, Paris.



Frederick van der Ploeg

is Professor of Economics at the University of Oxford and University Professor at the University of Amsterdam as well as a CESifo Research Fellow.

early-stage development and increasing EU resilience to trade disruptions.

REWIRING THE EUROPEAN GREEN DEAL

While the European Union should retain its high ambitions on the climate, it must reorient its policies to align with the new rules of the international game. In the years to come, the march toward net zero emissions will be driven by the technology race, not just by domestic taxes, regulation, or constraints such as restrictions or outright bans stemming from the enactment of the Carbon Border Adjustment Mechanism (CABM) or deforestation laws.

The bulk of the effort should go to massive encouragements to develop future green technologies through incentives and subsidies. For example, the EU could expand and relax criteria for tax credits for green investment, including research and development (R&D). It should adopt a phased approach to the imposition of new environmental and climate standards. That would smooth the cost of the transition and avoid disrupting the rather slow learning at early stages of innovation. In practice, this means pushing back deadlines by at least a decade for the adoption of standards on heating, transportation, and land restoration to allow consumers and corporations to cushion the associated costs of purchasing new equipment while creating space for learning and innovation. Only when those clean technologies have become mature enough should stringent environmental and climate standards be imposed to accelerate the adoption of those new technologies.

This staggered approach should try to avoid further loss in competitiveness by generating higher energy and technology costs relative to the other economic blocs. A new Green Deal should recognize nuclear energy as a major contributor to decarbonization (together with renewables) and exploit its comparative advantage. Nuclear energy provides high-capacity baseload generation that contrasts with renewable energy, which is intermittent – requiring important and costly storage capacity. Interestingly, giant digital platforms in the US are investing massively in privately-owned nuclear facilities to ease their access to ample and cheaper sources of energy required by the development of artificial intelligence technologies. While traditional nuclear reactors have somewhat fallen out of favor, the small modular reactors are not only cheaper but also more versatile and safer. The sourcing of uranium to power nuclear technology, just like with renewable energy and with other critical minerals, will require the EU to maintain strong partnerships abroad.

As well as protecting and subsidizing nascent industry, the EU should seek to promote the competitiveness of European firms globally. Allowing them to grow to reach greater economies of scale would help them compete internationally. The European Com-

mission should ensure that antitrust policy does not prevent strong European firms from merging when warranted, while preserving the welfare of customers.

A big push is required to move households and firms away from internal combustion engine vehicles to electric vehicles (EVs) and from coal- and gas-fired central heating to heat pumps, and to switch the energy infrastructure from coal, oil, and gas to renewables. This will increase learning-by-doing in the renewables sector, building experience and bringing down costs, as well as increasing demand for renewables and green technologies like electric cars.

Once the economy has shifted from a dirty to a clean one, incentives and subsidies can be withdrawn. The European Union should also take steps to ensure it does not depend on China and other countries for access to critical minerals. It can do so by developing mutually advantageous partnerships with countries rich in such minerals such as Chile, Indonesia, and the Republic Democratic of Congo and favoring trade and investment in these countries.

Carbon taxes might play a residual role in sectors and activities that are not exposed to international competition. The EU should limit the Emissions Trading Scheme to non-traded sectors like real estate, local transportation, and public services for the foreseeable future to limit further loss in competitiveness, for as long as an international system is not agreed upon. The CABM, premised on enticing others to adopt carbon pricing, should be dropped, in our view.

The electoral victory of Donald J. Trump in the US presidential election will exacerbate trends toward slowing international coordination on climate issues. Down the road, as targets for emissions reductions become tighter, the price of emissions trading permits will rise rapidly. This will help stimulate the green transition.

Finally, the EU's New Green Deal should aim to minimize the social costs associated with the transition and increase its acceptability. Low-income households cannot afford to pay high carbon and energy taxes or borrow to buy an EV or install a heat pump. Too often, that simple fact is neglected, and this allows the populists to portray climate policies as an obsession of the elite. The Yellow Vests protests in France were a case in point. More generally, policy-makers should avoid imposing constraints on households that yield small benefits while imposing large costs on important segments of the population such as small property owners and farmers.

Policies related to agriculture and housing renovation might need to be reassessed in this perspective by pushing back deadlines for applications and offering compensations. For example, low-income households needing to switch from coal- or gas-fired central heating to heat pumps might need subsidies or loans to make the transition. Revenues from the Emissions Trading Scheme could be earmarked to compensate those on lower incomes.

ACCELERATED ENERGY TRANSITION USING INDUSTRIAL POLICY

Beyond the specifics of the Green Deal, given the debt situation in the European Union, industrial policy should avoid waste. To do so, new industrial policy should be governed strictly with utmost transparency and not chase too many objectives. Innovation policy must be placed at the center for the European Union to meet its goals in terms of decarbonization rather than adding to energy costs with additional taxes and caps, which risk further alienating voters by eroding their purchasing power and might push investors to other blocs with more energy-friendly policy.

If industrial policy in advanced economies is to become mainstream, the ratio of the stock of capital to output will rise and productivity decline. Indeed, the effects of industrial policy on the efficiency of investment have not received enough attention. It is not certain that a strong departure from allocating capital through markets will enhance productivity, which has been declining in those economies. There is a significant risk of misallocation. Earlier efforts at industrial policy provide little evidence to be hopeful about their success in many countries.

Capital misallocation would have adverse consequences on future generations in advanced economies and on current generations in developing countries. Indeed, a misallocation of scarce capital will deteriorate the net international investment position in advanced economies and hence hurt future generations, who will have to repay excessive debt. For developing countries, the need to boost their stock of infrastructure, including to boost electricity access to their population and invest in human capital, will be rendered even more difficult as capital will become scarcer globally. International transfers from advanced economies to developing countries in the form of development aid may also be reduced as the levels of debt in advanced economies has reached new highs. Indeed, several traditional donors have already reduced their aid commitments, which will further constrain poorer countries' ability to navigate an already difficult international financial environment.

What is more, the risk of stranded assets linked to the energy transition will boost the need for even more capital investment, leading to transitional risks. That comes on top of the consequences of population aging on savings and the consequences of industrial policy on the misallocation of investments. All will raise long-term interest rates and make the financing of the energy transition more difficult. Countries will have to decide whether to retire natural capital and infrastructure, in the form of oil and natural gas reserves, as well as extractive capital structures or grant energy access to their populations by exploiting hydrocarbon resources.

That tension over an accelerated energy transition using industrial policy and the growing scarcity of

capital including on account of capital misallocation is also present in advanced economies and to a lesser extent in emerging markets with excess savings. All in all, getting the balance right between structural policies and the horizon of the energy transition as well as digitalization will determine the sustainability of international investment positions. There are fundamental trade-offs associated with industrial policy, and no matter the justification linked to the threats from the new geopolitics or externalities, eluding these trade-offs will have adverse consequences on present and future generations around the world.

POLICY CONCLUSION

The bilateral tariffs imposed by the United States are not just uncalled for, they fly in the face of all the multilateral agreements signed by the US. The EU, being the largest single market, needs to respond vigorously to deter the US administration from harming their mutual trade relationship. Beyond the threat of tariffs to EU competitiveness, the EU has suffered from adverse energy shocks associated with the war in the Ukraine and lagging productivity growth in the European Union. In contrast, the US has benefited from a shale gas revolution, which has boosted its energy competitiveness. The green policy framework of the European Union is out of date due to the new geopolitics, proactive industrial policies in China and elsewhere, and growing fiscal pressures. The EU must take swift action and rewire its energy-green policy mix. This requires new EU-wide subsidies targeting early-stage development and increasing EU resilience to trade disruptions, nuclear energy together with renewable as a major contributor to decarbonization, and carbon pricing.