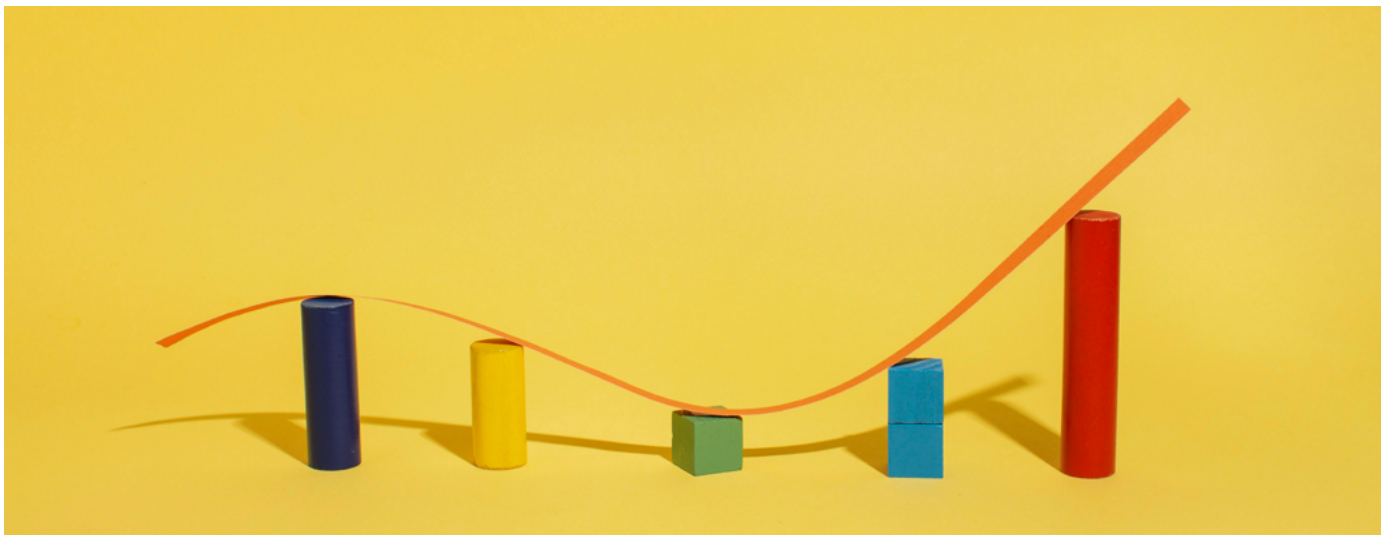


EsadeGeo JANUARY 2024

The effects of the IRA in Europe

EXECUTIVE SUMMARY

- The IRA, enacted by the Biden administration in 2022, is a groundbreaking legislative initiative aimed at reducing global greenhouse gas emissions. It introduces substantial reforms to the American tax system, offering significant subsidies to companies investing in green technologies. Projections estimate the funding impact to range between USD 800 billion and USD 1.2 trillion, positioning the U.S. to achieve a 50% emissions reduction by 2030 compared to 2005 levels.
- The EU's response, including the Green Deal Industrial Plan (GDIP) and the Net Zero Industry Act (NZIA), lacks a unified strategy and faces political constraints. The absence of new EU funds in the NZIA has prompted member states to rely on existing instruments, risking internal competition and market distortions. The fragmented industrial policy exposes vulnerabilities, and without a coherent EU-level strategy, the diversion of investments towards the U.S. is likely to continue.
- To address the challenges posed by the IRA, the EU must develop a coherent and unified industrial strategy. It should include the creation of EU level funding for green industrial policy, the reduction of bureaucratic burdens, and ensuring effective joint governance under the NZIA. In the short term, harmonization of national actions and collaborative efforts under EU programs are crucial to ensure competitiveness and overcome challenges presented by the IRA.



1. Introduction

In the summer of 2022, the Biden administration passed a legislative package coined as the Inflation Reduction Act (IRA). It introduced large reforms to the American tax system. At the industrial level, it seeks to provide subsidies for companies that would invest in green technologies in North America, with the highest estimates calculating it will deliver between USD 800 billion and USD 1.2 trillion.

Figure 1: Projected emissions reductions with and without the IRA.



Quelle: [REPEAT Project – Princeton University](#).

The package is the strongest legislative effort in the United States to reduce global greenhouse gas (GHG) emissions and has been predicted to approximate the country to its goal of slashing emissions by 50% in 2030 compared to 2005 levels.

While there has been an enthusiastic response about the climate contributions of the IRA, [it has also raised concerns](#) about the competitiveness of the European Union (EU). The IRA is designed to onshore production of green technologies to North America, the EU fears it will lose out on key investments in its green industry (Jung, 2022), leading it to not reaching its own climate targets and to become less competitive overall. Furthermore, the EU is upset the IRA goes against World Trade Organization (WTO) rules.

When the policy was introduced, the EU did not directly react, as the NextGenerationEU plan was deemed as sufficient. Nevertheless, when concerns started to mount President Von der Leyen called for the EU to respond by creating an “European IRA”. However, replicating the IRA is not a feasible option for the EU. The EU, despite its climate action dating before the IRA, lacks the policy instruments for funding the US has used for the IRA (Redeker, 2021). Instead, it could be better served by considering its own needs when it comes to green industrial challenges. This passes through using the instruments the EU does have at its disposal to build a single industrial strategy.

This brief seeks to examine the implications for the EU of the IRA, the current EU approach to responding to the IRA and a brief review of propositions to adopt a more coherent approach to green industrial policy in the EU.

2. The effects of the IRA in the EU

The IRA raises three main concerns for the EU when compared to its GDP: the easier access to subsidies, the protectionist aspect of the package and the sheer volume of funding.

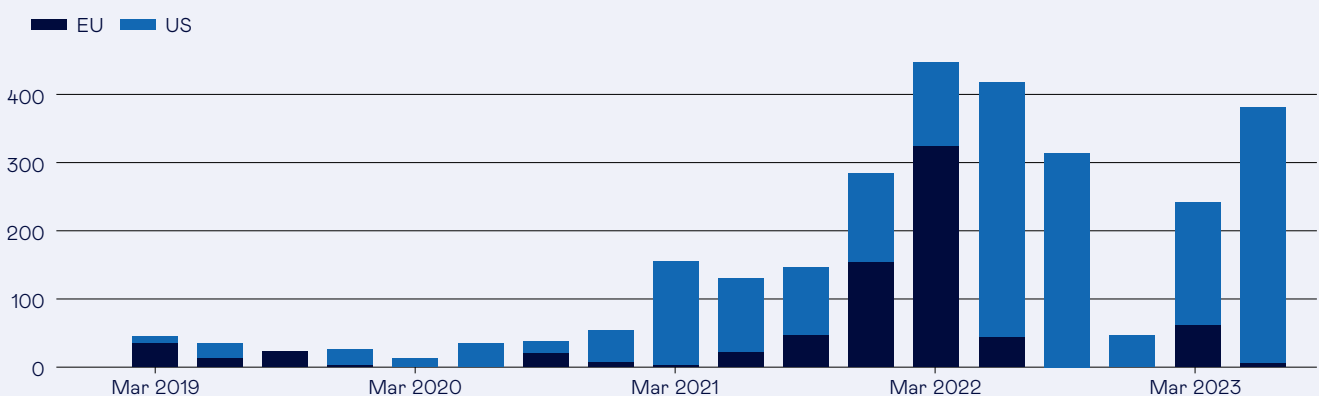
First, the IRA is primarily implemented through changes to the tax code. This means that funding is directly and immediately available to the investing party, and since they are focused on operational costs, they help reduce the costs of production for companies. Operating through the tax code further adds certainty as all applicants that comply with the requisites are eligible for tax credits and, once those tax credits are received, they are transferrable, creating further incentives. In comparison, the EU’s program is project based, often through some sort of tendering/competitive process. This forces companies to go through lengthy application procedures and reduces the access of small and medium enterprises to the funding. Additionally, the nature of tenders means there is a high degree of uncertainty, as only certain applications will receive funding. Overall, providing less incentives for investment in comparison to the IRA.

Second, the subsidies the IRA presents have a large protectionist component. One of the package’s main political goals is to reduce the US’ dependence on Chinese production of clean technologies. In doing so, it potentially excludes trade of clean technologies with some of its allies such as Europe or Korea and it also breaches WTO rules by including provisions that distort trade by including local content requirement conditions (Villoslada Camps and Saz-Carranza, 2023).

Third, the level of funding of the IRA cannot be compared to any EU’s response at large. The IRA projected funding is officially estimated to be USD 370 billion (CBO, 2022), but because it operates through uncapped tax credits, it could be much larger depending on the uptake by companies and households, with some estimates placing it at a range between USD 800 billion and USD 1.2 trillion (Blistine et al., 2023).

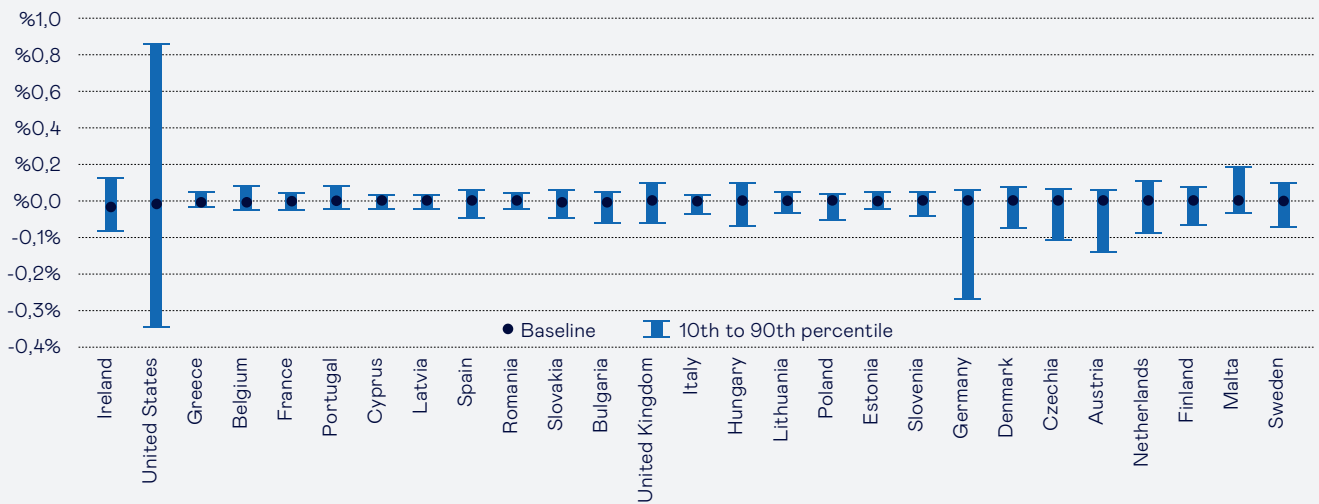
Since the implementation of the IRA, the EU has invested an estimated \$8.7 billion in start-ups in areas such as carbon storage, electric vehicles, and clean power. While, in the same period, the US has invested an estimated \$21.7 billion. The EU, as it currently stands, will not be able to match the investment effort of the IRA. While the EU counts with different initiatives, such as carbon pricing, that try to incentivize private investment in clean technology; the US looks set to invest substantially more than the EU in key clean technology sectors (Jansen et al 2023), as shown by the example of hydrogen below.

Figure 2: Comparison US-EU cleantech venture capital investment in hydrogen (€MN). [Source Financial Times.](#)



Nevertheless, a word of caution is necessary: first, the impact of the IRA will have a limited macroeconomic effect on the EU economy, as real income would be reduced by 0.001% for the EU as a whole (Fajeau et al., 2023; Attinasi et al., 2023). The effects on the EU will, most probably, only be direct on certain member states and certain sectors. Second, and more importantly, it will depend on the extent the NextGenerationEU funds can be utilised. Projections show that if EU funding is properly used, it could result in a rise of 0.3% of GDP (Barrios et al. 2023). Nevertheless, the current approach lacks the coherence needed at the EU level to turn the effects of the IRA into an opportunity for economic benefits, as we examine in the next section.

Figure 3: Effect of the IRA on real income: Tax wedge-sector heterogeneity. Source: [French and German Council of Economic Experts calculations.](#)

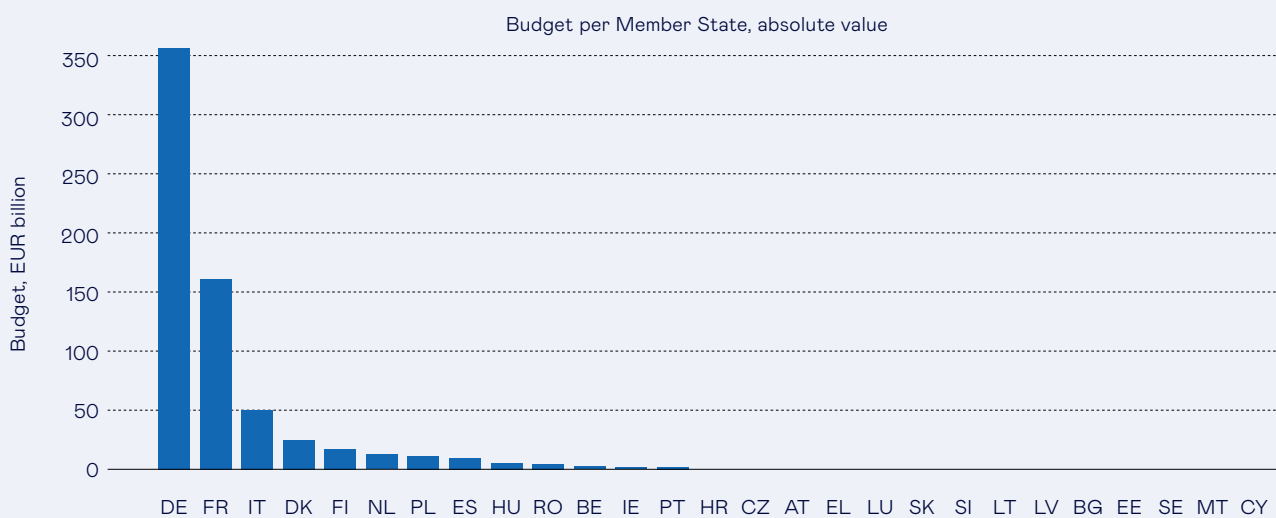


3. EU’s Current Response: Broad and National

In response to the IRA, the EU Commission presented the following initiatives: the [Green Deal Industrial Plan \(GDIP\)](#), followed by the [Net Zero Industry Act \(NZIA\)](#), alongside substantial revision of state aid guidelines. These initiatives present political constraints, which are a direct byproduct of the institutional arrangements of the EU, as well as time pressures, meaning that the passing and implementation of these laws risk taking too long to meet the different climate objectives for 2030 and 2050. Both policy initiatives date back before the implementation of the IRA (Pianta et al., 2020), but the American laws has also exposed the fragility of having a fragmented industrial policy, instead of a unified European strategy.

The NZIA, [which has not yet been approved](#), lacks a provision of new EU funds to achieve the goals set by the Commission in the law itself. This absence has pushed member states to use the relaxation of state aid rules by the Commission to counter the effects of the pandemic and the war in Ukraine to design national responses. This has allowed countries with more economic capacity to spend more: Germany and France combined for 77% of the total state aid notified under the temporary crisis framework.

Figure 4: State aid budget in the EU by country under the temporary crisis framework.



While this should not be overestimated, it does point towards the danger of internal competition and single market distortion if this direction continues. Further, it is unlikely to stop the diversion of investment towards the US as it does not reach the levels of investment of the IRA (Jansen, 2023). In addition, no single European country has the scale to generate the necessary economic conditions to attract major clean technology projects. As an alternative, the EU should focus on appropriately on the creation of an EU level budget, and then, put special care into a just distribution across all member states. For this, deep rooted changes are needed.

4. Coherent EU Strategy

In the present and short-term future, the situation is set to remain without strong changes. For one, there is little appetite to develop new European instruments for common fundings. Countries will try to make as much use of existing instruments (e.g., Innovative Productive Capability Enhancing Instruments). This will not last long, though. In 2024, after the European elections, the budget will be renegotiated. In addition, the temporary state aid exemptions will run out after 2025 and the industrial policy support included in the recovery funds will run out in 2026.

Once the debate reemerges, the EU's green industrial policy requires a much more serious attempt to developing common financing instruments. To succeed in this effort, it would be positive for the EU to move beyond project-based funding; where this is not possible, it should keep the bureaucratic burden to a minimum to avoid the risk of market failures in less developed industries.

Moreover, the NZIA framework, in its existing configuration, lacks the necessary tools for effective joint governance and the creation of EU level funding. In the meantime, harmonization of national actions under EU programs, with a specific focus on collaborative effort-sharing, multi-country projects, and advisory functions for state aid, is crucial for enhancing its efficacy.

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