The return of industrial policy in the United States and the EU: A comparative perspective

*Miriam Frauenlob**

ABSTRACT

This article outlines the revival of industrial policy in the EU and the United States, drawing from the regulation school for interpretation. After outlining the history of industrial policy in both examples, I elaborate on the changes in the approach to industrial policy, especially when it comes to recent proposals considering the green transformation and the conflict with China. I argue that while there are significant similarities in the revival of industrial policy in the EU and the United States, there are differences in the dominant regime of accumulation that have led to divergences in the scope and character of industrial policy measures. While the EU is characterized by conflicts between export-oriented and neo-mercantilist actors and faces coordination problems between the EU as an institution and the member states, the United States tried to combine new efforts of industrialization with a growth model that is built on domestic demand under the Biden administration. However, this seems to have been a short-lived attempt, as the current administration under Trump has already started to roll back much of the effort made, focusing instead on tariffs.

KEYWORDS

Industrial Policy, Regulation School, European Union, United States

JEL-CODES

L52, O25

DOI

10.59288/wug512.291

* **Miriam Frauenlob:** Momentum Institut.
Kontakt: miriam.frauenlob@momentum-institut.at

1. Introduction

In recent years, we have seen an impressive change in the sphere of economic policy, with what has been called a return of industrial policy. While industrial policy has never been fully absent, geopolitical shifts and changing economic environments in different parts of the globe have led to a revival of interventionist policies. In this article, I will debate the rise of industrial policy in Europe and the United States with a focus on the most recent developments.

In my article, I retrace the political economy of these new industrial policy initiatives, trying to understand what motives and developments allowed and facilitated the change in the framework of global capitalism. I will show how the geopolitical imperatives of competitiveness and national security can be seen as the overarching forces determining the form and scope of industrial policy. Despite the similarity in the geopolitical imperative and the logic of competition between continents, the revival of industrial policy takes different forms in the United States and in the EU, which are the entities focused on here. Hence, my article also tries to identify the differences in the return of industrial policy.

The remaining article is structured as follows. The next two short chapters contains a definition of industrial policy and introduces regulation theory as theoretical pillars for understanding the return of industrial policy. Following this theoretical section is an overview of the revival of industrial policy in Europe and the United States. Despite discussing the larger historical context, I focus on the most recent interventions. Subsequently, I debate and compare the latest developments in the realm of industrial policy in the EU and in the United States and then try to interpret these developments through my theoretical framework.

2. Defining industrial policy and its return

When trying to understand the revival or the rise of industrial policy, it is necessary to first define industrial policy itself. This is not a straightforward task. Warwick (2013) defines industrial policy as "any type of intervention or government policy that attempts to improve the business environment or to alter the structure of economic activity toward sectors, technologies, or tasks that are expected to offer better prospects for economic growth or societal welfare than would occur in the absence of such intervention" (Warwick 2013). Some other definitions of industrial policy highlight the role of specific sectors or firms and are thus somewhat narrower. In general, a variety of policy measures can fall under the scope of industrial policy. Tariff protections, tax policies, price controls, or selective trade policies are just a few established measures of industrial policy. Furthermore, there are numerous measures of industrial policy that are often labelled as competition policy

or location policy but can also be classed as industrial policy (Aiginger 2007, 298; Eder 2022, 27).

This problem around defining the term implies that the boundaries of industrial policy are blurred. Nevertheless, it also makes clear that industrial policy aims at achieving a developmental goal such as growth or welfare and focuses on the expansion of specific sectors which are perceived to be necessary for achieving that goal. One helpful distinction is between horizontal and vertical industrial policy. Horizontal industrial policy tries to improve the business environment for all competitors (Aiginger 2007, 298; Warwick 2013, 46). It can include the support of R&D funding if it does not benefit certain technologies and solutions over others or attempts to seek macro-financial stability (Eder 2022, 28; Warwick 2013, 42). The main logic of horizontal industrial policy is that it does not discriminate between sectors and lets "the market" decide on the sectoral outcome.

Vertical industrial policy, on the other hand, deliberately tries to "pick winners". Most prominently, it is featured in development-centred industrial policy strategies. Eder (2022) distinguishes between two forms of vertical (i.e. selective) industrial policy. Reactive industrial policy responds to changes in the economic environment, such as a crisis or changed competitive conditions. By contrast, active industrial policy tries to create new capabilities in sectors that have yet not been targeted, such as renewable energies (Aiginger 2007, 299; Eder 2022, 29).

3. A regulationist approach to industrial policy

The French regulation school is a historical economic theory that tries to understand capitalist developments through the lens of Marxist conceptions (Brenner/Glick, 1991), but importantly it departs from the Marxist assumption that capitalism is always prone to crisis. It emerged in the 1970s as a means to understand why capitalism managed to be stable for decades before the crisis of Fordism and why it entered a crisis afterwards (Becker 2013; Eder 2022, 11). According to the French regulation school, capitalism can be periodically stable, as it takes on a certain regime of accumulation that is governed by a mode of regulation. Following Joachim Becker's interpretation of regulation theory, there are three axes of accumulation and four modes of regulation, also called "structural forms" (Becker 2009). The axes of regulation differentiate between productive and financial capital as the dominant force of accumulation, extensive and intensive accumulation, and dependence on the world market. While extensive accumulation depends on the extension of absolute surplus value, intensive accumulation focuses on relative surplus value, hence making the production process more intensive. The dependence on the world market can be distinguished by introverted or extraverted accumulation. Introverted accumulation describes processes in which accumulation is focused on the domestic

market, whereas extraverted accumulation implies the relevance of exports and imports for a country (Eder 2022, 11; Becker 2009).

The configuration of the three different axes manifests in what is then called the "regime of accumulation", which is temporarily stabilized by the mode of regulation. Following Becker's interpretation of the regulation school, the modes of regulation are the monetary restriction, the ecological restriction, the wage-labour nexus, and the form of competition (Becker, 2009). While the monetary restriction concerns the limitations due to credit access or issues with inflation and deflation, the ecological restriction introduces the various levels of commodification, access and exploitation, of nature. The wage-labour nexus can be described as a vertical conflict between labour and capital, whereas the form of competition mediates competition within the group of workers and within the group of capitalists.

To understand the revival of industrial policy, it is necessary to understand the role it plays within broader capitalist dynamics. The regulation school can be a useful tool for this purpose. Due to its diversity, the regulation school has been used to analyse a broad range of topics and scenarios. Eder (2021, 2022) has shown how it can be applied to study the conditions and institutions around industrial policy. She argues that especially the analysis of structural forms lends itself to an analysis of industrial policy from a regulationist point of view. Industrial policy aims at transforming the accumulation process of a certain region or a regional bloc. It aims at moving accumulation in a more productive and intensive direction (Eder 2021, 333).

Depending on the dominant regime of accumulation and the accompanying mode of regulation, certain forms of industrial policy will be preferred. Most relevant for the constitution of industrial policy is the structural form of competition, regulating the relations between capitalists and between workers. Eder (2021) also highlights that the rules relating to foreign direct investment play a substantial role in how industrial policy emerges and can be mediated. However, the other structural forms also influence industrial policy. The monetary restriction is relevant for the financing of industrial policy and the access to credit. The wage relation is affected, as changing the industrial structure of a country automatically has an impact on its labour market, and lastly, the ecological restriction sets limits on the accumulation process. In addition to the four structural forms, the state interferes with all of them and subsequently plays a dominant role in industrial policy (Eder 2021, 334).

4. European industrial policy

Industrial policy has always played a role in the history of the European Union. When investigating the industrial policy of the EU, however, the issue of definition is even more complicated than when looking at individual states. Industrial policy is mostly

seen as a national competence. Despite this, the EU interferes with national industrial policy in an active way with supranational projects and strategies, as well as in a more "passive" way by limiting the (fiscal) extent to which member states can pursue industrial policy. In this article, I will follow Landesmann and Stöllinger (2020), who apply a broad definition when analysing industrial policy in the EU.

The foundations for today's EU were laid with the European Coal and Steel Community, a common market for these industrial goods with the aim of reducing overcapacities, coordinating production and fostering economic cooperation through increased interdependence (Tagliapietra/Veugelers 2020). In the context of rebuilding the European economy after the war, state interventions focused on developing certain strategic sectors like the steel or automotive industry (Bulfone 2023). At that time, the predecessors of the European Union operated within the scope of a mostly Fordist regime of production and accumulation, guided by Keynesian macroeconomic ideas and policies. Industrial policy aimed at constructing and building a strong economic environment, and until the 1970s, the industrial policy on the level of common European institutions did not interfere with member states' plans and goals for industrial policy (Höpner/Schäfer 2010). On the member state level, industrial policy was characterized by traditionally interventionist forms. Sectors that were considered strategic enjoyed subsidies, such as the steel industry or mining (Polt et al. 2021, 5). Furthermore, European states concentrated on selected collaborations in industrial policy, such as the European Atomic Energy Community (EURATOM) (Polt et al. 2021, 5).

With the crisis of Fordism and the end of the "Golden Age of Capitalism", sentiments shifted. As early as the 1980s, neoliberal visions that centred around horizontal industrial policies and the creation of a common market dominated over developmentalist ideas of fostering sectoral policies. The established development model that prioritized selective industrial policy had run into a crisis, as the sectors that had been fostered before at times created overcapacities. Furthermore, failures such as the expensive attempt to develop the supersonic plane Concorde put pressure on selective industrial policies (Polt et al. 2021, 5).

The newly emerging visions focused on the idea that instead of "picking winners", governments should try to improve market conditions for all actors and avoid policies that would distort competition. This is also evident in the European competition law, which in principle forbids states from subsidizing certain sectors or firms (Aiginger/Rodrik 2020). This has shaped the scope of industrial policy to this day. Within the European institutions, the European Commission (EC) played a dominant role in fostering horizontal industrial policies, such as reducing corporate taxation or loosening employment protections and labour regulations (Pianta 2014). This meant that the shift away from sectoral industrial policy in the 1980s affected not only what kind of industrial policy was pursued on the European level but also limited member states' room for manoeuvre.

In recent years, however, a more interventionist industrial policy has gained renewed popularity at the EU level, as well as in some member states. Trying to date this revival of industrial policy in the EU is hard, and it is not possible to define one distinctive moment. Most scholars agree that the shift towards a more favourable approach to industrial policy occurred sometime between the global financial crisis and 2016, when Brexit in the UK and the election of Donald Trump in the US challenged the established neoliberal consensus and changed the relationship between Europe and the United States (Di Carlo/Schmitz 2023; McNamara 2024). Furthermore, the Covid-19 pandemic led to a changed approach to industrial policy, as supply chain disruptions and shortages commanded the attention of the EU and challenged established trade patterns. This developmental path was further strengthened with Russia's invasion of Ukraine, which highlighted energy dependencies and led to a further increase in awareness of the geopolitical dimensions of industrial policy (Schmitz/Seidl 2023).

In addition, factors besides geopolitics and geoeconomics motivated the revival of industrial policy in the EU (Eder/Schneider 2020). One of the issues driving the discourse and developments even before the pandemic was the necessity of a green transformation due to the increased urgency of the climate crisis. However, the first efforts at green industrial policy in the EU focused on improving market conditions for green technology and making green innovations more efficient. What was lacking was a clear commitment to a substantial transformation of the economy (Eder/Schneider 2020, 7). Also, the challenge of digitalization can be considered a driver of the renewed industrial dynamic. Especially the Important Projects of Common European Interest (IPCEIs), one of the most prominent instruments of European industrial policy, have focused on digitalization, not only but also as an attempt not to fall behind China and the USA in the technology race (Eder/Schneider 2020, 7).

In terms of implementing specific policies, the EU's revival of industrial policy is highly ambivalent in its scope and goals. The multiple documents and initiatives that are being implemented on different levels and to different extents make it hard to maintain an overview (Landesmann/Stöllinger 2020; Raza et al. 2024, 7). A comprehensive summary of EU industrial policy initiatives would go beyond the scope of this paper.

Nonetheless, it is worth discussing selected programmes that are relevant and exemplary. As the revival of industrial policy in the EU cannot be easily pinpointed, I argue that there are two phases in which industrial policy gained more importance. First, through a variety of initiatives in the 2010s, and second, after the pandemic, when the revival of industrial policy also fully manifested in the United States.

When it comes to the first period, there are multiple projects that could be highlighted. One relevant example of the revival of industrial policy in the EU is the increased

importance of IPCEIs. Popularized in 2014, they allowed for state aid in sectors in which the EU did not consider itself globally competitive (Di Carlo/Schmitz 2023). They must be jointly pursued by at least four member states and until now have mostly been used for projects in the field of energy and electronics. While allowing for a larger scope of subsidies, IPCEIs come with strict conditionalities, though these have been criticized for not targeting the most relevant issues (Schmitz et al. 2024). The idea of conditionalities is to not give companies free subsidies, but to bind them to targeting socially desirable goals when taking public funds. In practice, Schmitz et al. (2024, 4) argue that some conditionalities related to IPCEIs make potentially reasonable projects hard to undertake, while other potentially necessary conditionalities are missing.

Another issue related to IPCEIs that also shows up in other EU industrial policy projects is their funding structure. IPCEIs have been implemented in three waves so far. The first wave was funded through a combination of national public investments and private investments, the second wave received European co-financing through the Next Generation EU Fund (NGEU), and the last wave will be implemented after the end of the NGEU. Fontana and Vannuccini (2024, 30) argue that sustained supranational funding and supranational institutional capacities for IPCEIs would be a relevant cornerstone for a successful EU industrial strategy. Especially the unevenness of institutional capacity may explain why some (core) countries are overrepresented when it comes to IPCEIs, while others lack participation.

However, IPCEIs are just one example of the changed approach to subsidies or other means of industrial policy, and they can be found in a variety of sectors, not necessarily related to the green transformation. The majority of initiatives tackling the climate crisis in the EU started later. In 2019, the EU launched its major policy package addressing climate change with the European Green Deal (EGD) and the related Green Deal Industrial Plan (GDIP). The EGD mostly consists of commitments to greening the European economy and achieving climate neutrality by 2050. From the outset, the EGD has been criticized for being too small fiscally and for redirecting existing funds instead of mobilizing new funds (Pianta/Lucchese 2020).

This issue of financing various initiatives around the green and industrial transformation in the EU is well established. Skyrman (2024) provides a good summary of green transformation initiatives in the EU and their financing structure. He argues that especially the two large programmes European Fund for Strategic Investments (EFSI) and InvestEU, the succesor of EFSI, through which a majority of projects around the green transformation should be financed, rely heavily on derisking[1]

1 The term "derisking" has been popularized in the industrial policy discourse in recent years and describes a process of directing private capital into otherwise unprofitable investments, i.e. crowding-in finance.

private investment, which can be considered a "cheap and attractive financing initiative under Europe's austerity framework" (Skyrman 2024, 6). Other initiatives draw more on public funding, though little effort is made to overcome the harsh austerity rules implemented within the architecture of the EU.

The Net-Zero Industry Act (NZIA) can be considered the EU's response to the Inflation Reduction Act in the US and is part of the European Green Deal. It entered into force in June 2024 and focuses on strengthening the manufacturing capacity of net-zero technologies in Europe. Much of the programme is focused on streamlining permitting processes or accessing markets through public procurement. The necessary finances should be gathered through the Recovery and Resilience Facility, InvestEU, and other EU initiatives. Furthermore, the NZIA aims at attracting private finances with an estimated multiplier of around 5.4, which proves its derisking character (Skyrman 2024, 12). It is a prime example that shows that even though regulations and initiatives are brought forward, the success or failure of a lot of EU industrial policy will depend on the scope of private investments that will be mobilised.

While I am only able to give a brief snapshot of what can be considered the increased importance of industrial policy, the projects listed above already hint at the political and economic struggles that led to the revival of industrial policy in the EU. While the revival of industrial policy has been clear and can be seen in multiple regulations and initiatives, the question of financing remains opaque. Though there have been some relaxations in the approach to debt for (green) investments, this has so far not led to a large-scale reform of the EU's approach to public investments. The changed approach to industrial policy, as well as the limitations when it comes to the matter of a shared financing strategy, can be traced back to political economic arguments and developments surrounding the future of the dominant regime of accumulation in the EU. When it comes to the origins of more industrial policy at the EU level, the role of certain member states can be highlighted.

France and Germany can be singled out as having played a decisive role in this shift (Di Carlo/Schmitz 2023), as these countries dominate EU politics and have both experienced shifts in how relevant actors approach industrial policy. Trying to formulate goals for France's industrial policy during his presidency, François Hollande's government first openly criticized the EU's competition rules that forbid certain interventionist policies in the early 2010s, as he saw these policies as conflicting with what he perceived to be a successful development strategy. A few years later, shifts also became visible in Germany. Having been largely silent about France's attempts to revive sectoral industrial policy in the EU and other countries' efforts to join, it was around 2016 that Germany changed its attitude towards industrial policy, at least as articulated via certain interest groups (Di Carlo/Schmitz 2023; Schneider 2023). Di Carlo and Schmitz (2023) highlight the relevance of the takeover of

German robotics firm Kuka by Chinese investors as one of the turning points within the German political approach to industrial policy. Schneider (2023) shows how the shifting attitudes within the German state were and are contested. He identifies the forces within the German state that led to the formulation of the so-called Manifesto for a European Industrial Policy and the National Industrial Strategy 2030, which can be considered exemplary documents for a more permissive approach to industrial policy.

Within Germany, Schneider (2023) argues there are capital factions and organized interests that recognized the crisis of the extraverted regime of accumulation and how Germany lost ground when it comes to exports. Hence, there was an organized effort to overcome the ordoliberal consensus, as a means of fighting for competitiveness within a changed geopolitical and geoeconomic environment. This can also be seen in the EU's commitment to "open strategic autonomy", which describes the EU's new approach to trade policy and geopolitical conflict. While the concept is deliberately vague (Schmitz/Seidl 2023), it characterizes a geopoliticization of industrial relations and trade and reveals tension within the established neoliberal conceptions of the EU's position within larger geoeconomic networks.

Overall, the changing approach to industrial policy in the EU goes hand in hand with a crisis in the established regime of accumulation in the EU, for which no consensus on a solution has yet been reached. The EU can be characterized as being dominated by a neo-mercantilist export-led strategy. Whereas before the financial crisis, the EU allowed for some "growth model pluralism" (Johnston/Matthijs 2022), after the crisis, the export-oriented states in the EU pushed for a generalization of the export-led accumulation pattern. Furthermore, the austerity measures enforced by the European Commission suppressed domestic demand, making growth models that focus more on internal demand impossible (Simonazzi 2023). The new approach to industrial policy now exists in a contradictory space.

On the one hand, there are forces within the member states that view the climate crisis and the geopolitical conflicts as an opportunity for the EU to act more collectively and see the problems related to the climate, digitalization, and defence as a question of competitiveness, for which investments – public and private – are needed. At the same time, there is hesitation when it comes to stepping back from the strict regime of austerity. Suggestions like a golden rule for green investment or a permanent EU investment fund (Heimberger/Lichtenberger 2024) have not been implemented and it seems as if the Recovery and Resilience Facility (RRF) that was established in the context of the Covid-19 pandemic will not be extended or renewed with a climate focus any time soon. A lot of existing proposals rely on attracting private investments in the member states (Raza 2025, 62), while big public sector initiatives are missing (Skyrman 2024, 27).

5. US industrial policy

Industrial policy also has a long history in the USA, dating back to "Founding Father" Alexander Hamilton and the idea of infant industry protection, which included high tariffs and subsidies for industries that were not yet considered competitive on the world market. Domestically, the USA made use of the entire industrial policy playbook both in its early period of industrialization (Chang 2021) and later. One of the most famous cornerstones of US industrial policy in the 20th century was Franklin D. Roosevelt's response to the Great Depression: the New Deal. The New Deal consisted of subsidies, protections from international competition, public procurement, and public work (Lehndorff 2021). This contradicts the USA's international strategy: Especially after World War II, the USA started to push for market-focused and laissez-faire politics in an international context, including through the rules of international institutions such as the World Trade Organization (WTO), in order to protect its own export markets (Chang 2021).

This domestic approach that was very favourable to industrial policy changed in the late 1970s and 1980s. By the 1970s, the US had already lost a significant share of the global manufacturing export market to Japan, Germany and the emerging economies in Southeast Asia (Brenner/Glick 1991). The dominant logic that established US manufacturing had clearly lost ground, and by the 1980s American policymakers turned to what is now established as neoliberalism. This period ended up being a turning point for the dominant logic in economic policymaking – not only, but first and foremost, in the US. The newly established logic of laissez-faire economics rejected – on paper at least – the idea of state interventions and consequently vertical industrial policy.

Robert Wade (2014) sees a paradox in the history of industrial policy in the USA, especially in the 20th century. In no other country did the logic of free markets and competition – as opposed to the idea of steering production – fall on such fruitful ground rhetorically, while at the same time classical industrial policy instruments such as subsidies and "picking winners" persisted throughout the 20th century (Wade 2014). He describes this as a "hidden developmental state", and in a similar fashion, Mariana Mazzucato (2015) describes the entrepreneurial state that funded several of the most relevant technological innovations in recent decades. That the United States became so prominent for its rejection of industrial policy can be traced back more to its role in international organizations, where it famously forbade other countries from developing through the same means that led to the US's own prosperity, and less to their domestic policies.

Like in Europe, the outright rejection of industrial policy started to decrease with the financial crisis and the increased awareness of the apparent necessity of market interventions. Apart from large-scale bailouts for banks and large companies

such as GM or Chrysler, the United States increased maximum benefits for households through the American Recovery and Reinvestment Act (ARRA) of 2009, also known as the Stimulus Act. The idea behind the ARRA was Keynesian deficit spending, though the amount of spending was minor compared to China's response or later stimulus programmes in the United States. The total amount of ARRA investment came to around $90 billion (Bailey 2019). However, at this time the idea was that these projects would be merely one-time responses to the crisis, not part of a larger change in the macroeconomic regime. Furthermore, the crisis only marginally targeted a change in the regulations that caused the malaise that led to bailouts in the first place.

Wade (2014) argues that this constitutes a significant difference from the Roosevelt era, in which state-centred industrial policy went hand in hand with a strengthening of the labour movement and the breaking-up of banks that played a significant role in the Great Depression. Still, interventions in the form of industrial policy started to be less frowned upon after the 2008 financial crisis, but under President Obama, they were not of prime interest. In 2012, the director of the White House's Economic Council argued for the first time in decades that a manufacturing renaissance might be beneficial for the United States, though at that time his speech mostly went under the radar (Wade 2014).

This changed significantly when Donald Trump was elected president for the first time in 2016. Trump talked openly about the necessity to restore American manufacturing, though his focus was less on increasing domestic policies than on the threat from China. Hence, he did not turn to significantly more vertical industrial policy than his immediate predecessors. Under Trump, American industrial policy was mostly characterized by the increase in tariffs that he proposed and the trade war with China that followed (Scherrer 2019). However, what Trump did lay the ground for was a discourse about the left-behind and deindustrialized places in the United States that needed a revival to thrive again.

The main change in the approach to industrial policy came with the Biden administration. Still in the aftermath of the Covid-19 pandemic, Joe Biden made his case for an economic policy that he claimed would reconcile the interests of the American working class with the restoration of American industrial policy and thus American hegemony in the world. Unsurprisingly, Biden's project was therefore a continuation of the hard line against China in combination with a commitment to large investments. While his attempts to reshape American industrial policy aimed to create jobs and fight the climate crisis, they also tried to mitigate China's influence, though the strategy was different than under Trump (Anderson 2023).

Biden's original big industrial policy initiative was the Build Back Better Plan. In this plan, which was part of the 2020 election campaign, Biden and his team envisioned a renewal of American infrastructure, decarbonization of the energy sector, pursuit

of agriculture conservation, and improved energy efficiency in buildings through large amounts of fiscal spending and public investments. Yet by late 2021, the Build Back Better Plan in its original scope was off the table due to internal conflicts in the more right-leaning wing of the Democrats. The industrial policy acts that were subsequently pursued were less extensive than what was originally proposed and split into different pillars. The major industrial policy pillars of the Biden administration were the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA), while the American Rescue Plan Act (ARPA) focused more on direct fiscal stimulus. The IIJA was originally billed at $1.2 trillion and aimed at various forms of infrastructure renewal, including improvement to streets and bridges, public transport, and internet connections (Mayer 2022). It was estimated it would create around 1.8 million jobs a year and 8.8 million jobs over the course of five years (Pollin/Wicks-Lim 2024, 3).

While the IIJA had aspects that focused on the climate, the main green industrial policy instrument of the Biden administration was the IRA. The IRA is a large industrial policy programme that, despite the name, mostly focuses on climate politics. Contrary to the IIJA, the IRA was only voted for by the Democrats and was met with opposition from the Republicans. The main pillars of the IRA were investments in green energy that were funded and subsidized mostly through tax credits. Hypothetically, these tax credits were unlimited, proving the commitment to fiscal spending. The Congressional Budget Office estimated that the climate-related provisions in the IRA alone would total around $391 billion over the next decade (Santiago 2025), though the number was calculated before Trump came into office the second time and started to scale back on climate spending. Similarly, a study relying on input-output estimates assumed that the IRA would create around 8.5 million new jobs (Pollin/Wicks-Lim 2024, 3). According to Climate Power US (2025), the US industrial policy initiatives had created over 400,000 new jobs by April 2025 in the clean energy sector alone. To address the climate crisis, the IRA consists of several support schemes for reducing greenhouse gas emissions that span the entire energy sector (Bistline et al. 2023).

Another major pillar of Biden's industrial policy renewal was the CHIPS and Science Act, which was a direct response to the perceived threat around semiconductors and microchip supply chains. Authorized in 2022, it directed around $550 million per year to research into and the production of semiconductors in the US (Peters 2023). Like the IRA, its main instruments were subsidies and tax credits. Even more than other proposals in Biden's industrial policy plans, the CHIPS and Science Act very directly attacks the Chinese influence on US manufacturing and tries to push back against foreign components in the value chains of strategic production. It came with strong local content requirements that combined subsidies for firms with demands to source nationally.

Now, with another Trump presidency, things have changed again quite rapidly. Within weeks of entering office, Trump announced tariffs on a wide range of countries, with record levels of 50% tariffs on steel and aluminium. Though he stepped back and postponed the dates from which some tariffs would hit certain countries, the tariffs as of June 2025 constitute a 13.4 percentage point increase to the US average tariff rate (The Budget Lab 2025). While forcing an aggressive course with respect to trade, Trump announced he would not continue the clean energy projects of the previous administration. While it is up to Congress to decide on the actual continuation of the projects, the president has so far stalled much the effort that had been made in previous years by laying off necessary staff or unlawfully freezing funds and delaying already granted projects (Guarna/Turner 2025). According to Climate Power US (2025), the high levels of investment have dropped sharply since Trump entered office, and jobs in the green energy sector are currently at risk due to the lack of commitment to continue the projects.

This brief political economic assessment of US reindustrialization plans shows that a significant motivator behind the revival of industrial policy, be it through fiscal measures or tariffs, has its origins in the conflict with China. This is also visible in policies that bear strong protectionist features, such as the local content requirements that even go against WTO law.

At the same time, the Biden administration tried to combine green industrialization with a regime of accumulation that was strongly focused on internal demand. In the analysis of green growth models, there is typically an understanding that export orientation fosters the green transition, for which Germany or China are examples (Nahm 2022). Yet Biden tried to revive the manufacturing industry through green industrialization, while at the same time attempting to tackle the problem of left-behind citizens in deindustrialized regions – an issue that had been already acknowledged by Obama, has influenced the trade policy debate (Autor et al. 2024) and is often considered a starting point for voters turning to right-wing populism. Karas (2024, 5) goes as far as to argue that the Biden administration used industrial policy to reform the US mode of regulation, by deviating from neoliberal arguments about consumer welfare and pursuing a strict regimen against monopolies. For private investors, the monetary constraint was temporarily lifted through limitless tax credits, though this fiscal commitment heavily relied on the role of the dollar and its hegemonic position (Karas 2024). With Trump's strong opposition to ecological efforts, the future of this industrial policy model is unclear at best, though the data already shows that it was most likely a short-lived experiment from which only a few pillars will remain.

6. Comparing the revival

Comparing the revival of industrial policy in the EU and the United States begins with acknowledging the obvious challenge that US industrial policy is conducted by a nation state, whereas the EU acts on a supranational basis, and industrial policy is conducted by both member states and EU institutions at the same time. Despite these differences, I argue that especially the geopolitical motivation behind much of the resurgence of industrial policy makes the comparison worthwhile. A comparison of EU and US industrial policy can take place on different levels. First, it is relevant to compare specific projects in terms of their size and their goals to gain an overview. Second, I will attempt a comparison from the perspective of the political economy of the two entities and how their industrial policy relates to the regime of accumulation and the mode of regulation.

Schütz et al. (2024, 53f.) compare the IRA with the EGD and the American CHIPS and Science Act with the European Chips regulation. Their main assessment regarding the Chips regulations is that while the CHIPS and Science Act mobilizes additional funds, the European counterpart merely reshuffles money from other funding sources, which makes the act far less effective. Furthermore, they argue that the US has stricter conditionalities regarding cooperation with other countries, which exemplifies its more protectionist approach, and that in general the conditionalities for European Chips producers are rather weak, hinting at the problems related to an approach strongly focused on derisking. In the comparison of the IRA with the EGD, their main assessment is that the local content requirements in the IRA that limit foreign producers' access may lead to an inefficient subsidy race that goes against the intention of using the financial resources for actual climate policy. At the same time, the authors positively highlight the major fiscal commitment of the IRA and the easy accessibility through tax credits, while the EGD would benefit from a less complicated and more easily accessible funding structure.

Also, Landais et al. (2023) highlight the local content requirements in the IRA, which might distort foreign direct investment and incentivize companies to relocate to the US. Though their overall assessment concludes that such a risk only applies to specific industries, they warn against a subsidy race with the US. Furthermore, they argue that the broad subsidies in the IRA might not be targeted enough to achieve decarbonization and that the European strategy of green industrial policy is more promising due to it being more directed. Comparing the size of the programmes, they arrive at an estimate of around $750 billion for the US green industrial policy measures and $600 billion for the European counterpart. Because of the tax credit scheme and the repercussions of the Trump administration, these estimates can only be considered a broad range.

Assessing the American and European industrial policy revival from a regulation school perspective leads to further insights. When looking at the EU, I agree with Karas' (2024) assessment that the return of industrial policy happens within the context of a crisis in the export-led regime of accumulation. The outcomes of EU industrial policy strongly reflect the clash of different approaches, especially towards the issue of austerity and public debt. This can be traced back to contradictory interests among the relevant factions of organized capital (Schneider 2023), but also to the different national growth and accumulation models within the EU (Johnston/Matthijs 2022). The disagreements regarding the financing of EU industrial policy are reflected in initiatives that are wide-ranging in their ambition, but do not provide the necessary funds. Especially considering the unevenness of the EU, this might lead to industrial policy widening the gap between the core and the periphery. Nevertheless, the stronger turn towards state intervention can be considered a change in the mode of regulation in the EU, as it directly influences the form of competition through the policies of derisking. While the revival of industrial policy influences the relationship between different capital factions, the state-capital relationship also undergoes change through more state-interventionist policies. The labour relation is affected as it is directly related to industrial relations. At the same time, the current efforts at green industrial policy in the EU are not directly linked to changes in the labour regime, as is the case with the IRA in the US.

The export-led growth model in the eurozone also influences the force with which the EU can confront China and enter geopolitical conflicts. Unlike the United States, the dominant European growth model is strongly dependent on exports to China. While the United States strongly relies on domestic consumption, the EU is caught between a rock and a hard place when trying to decrease reliance on China, while at the same time being dependent on exports to China. This is visible in the different approaches to local content requirements. Whereas the US strongly relies on them, even breaking WTO law by doing so, the EU has a less strict approach (Karas 2024).

The ambivalent positions towards fiscal policy and export-led growth manifest in the way the EU pursues industrial policy, which can largely be seen as "weak derisking" (Gabor/Braun 2025). This describes the fact that a significant amount of EU industrial policy is aimed at crowding-in private investment, without state institutions directly enforcing its implementation. Ultimately, it is still the profit motive that guides investment decisions. With respect to the green elements of industrial policy, export-oriented growth models might be in a better position due to a stronger coalition of actors pushing for international competitiveness in new clean energy markets (Nahm 2022). I argue that in the EU, this leads to a contradiction due to a lack of fiscal commitment to public investment. While Nahm (2022) correctly argues that in export-led regimes, capital factions might more easily pursue decarbonization, the increased geopolitical tensions show the weakness of this model, where demand largely depends on other countries. An unresolved crisis in the

EU's growth model, in total and limited fiscal capacity, in combination with a coordination problem between member states and EU institutions, has led to the revival of industrial policy being a patchwork with unclear outcomes for the climate crisis and other societal goals.

The revival of industrial policy in the United States shares some similarities but also features significant differences. To begin with, there is a lack of continuity when compared to Europe. Compared to the EU, US industrial policy is characterized by less temporal continuity. Under the first Trump administration, the focus on strengthening national manufacturing and infrastructure investment gained momentum rhetorically, but as no major initiatives were brought forward, most of the revival of industrial policy in the United States beyond tariffs falls under the Biden years. With a second Trump presidency and continued tariff wars, however, the major fiscal initiatives that were launched are at risk of being a short-lived experiment.

Turning to the Biden presidency, there was an interesting coalition of actors behind the industrial policy projects. The IRA and related initiatives created a broad coalition of interests. While the hardliners against China were satisfied with the domestic content regulations that pushed China out of US value chains, organized labour could profit from exactly these requirements. At the same time, the concessions to organized labour were dependent on shared interests with the military-industrial complex and the conflict with China (Karas 2023). Although the question is still mostly unanswered whether the labour conditionalities were binding on a large scale and led to better jobs, the assumption that domestic industrial policy initiatives like the IRA, the IIJA, and the CHIPS and Science Act would increase the demand for labour is not a far-fetched hypothesis. One way to frame US industrial policy under Biden is to argue that as opposed to the EU, where the revival of industrial policy is even more the outcome of different interest groups and member states, it can be seen as an attempt at a new regime of demand-led growth. Most importantly, though, it has shown the relevance of the American fiscal space compared to the fiscal framework of the EU. This relies heavily on the role of the US dollar as the global reserve currency. More than half of global trade is conducted in dollars, and due to the continued demand for US dollars, the ability for large government debt will remain uncontested as long as the dollar maintains its dominant role. In the same way, the large fiscal guarantees that Biden gave to clean energy producers show what could be possible fiscally, and it shifts the problem of a green transformation to the real side of accumulation and questions of labour supply and the functioning of supply chains.

With Trump's tariff regime and his lack of support for green industrial policy, the future of US industrial policy is open. Though it is unlikely that the US will lose its fiscal hegemony any time soon, the high tariffs that Trump announced in order to "rebalance" trade immediately weakened the role of the dollar (Ali 2025). It remains to be seen how that will influence US industrial policy in the long run.

ACKNOWLEDGEMENTS

I am grateful to two anonymous reviewers for helpful comments and valuable suggestions.

REFERENCES

Aiginger, K. (2007). Industrial Policy: A Dying Breed or A Re-emerging Phoenix. Journal of Industry, Competition and Trade, 7(3–4), 297–323. Available at: *https://doi.org/10.1007/s10842-007-0025-7*.

Aiginger, K., & Rodrik, D. (2020). Rebirth of Industrial Policy and an Agenda for the Twenty-First Century. Journal of Industry, Competition and Trade, 20(2), 189–207. Available at: *https://doi.org/10.1007/s10842-019-00322-3*.

Ali, M. (2025). Who Benefits From the Dollar's Dominance? Jacobin. Available at: *https://jacobin.com/2025/07/economic-monetary-policy-dollar-trade-currency-dollar* (Accessed: 2 August 2025).

Anderson, G. (2023). Strategies of Denial. Sidecar. Available at: *https://newleftreview.org/sidecar/posts/strategies-of-denial* (Accessed: 2 August 2025).

Autor, D., Beck, A., Dorn, D., & Hanson, G. (2024). Help for the Heartland? The Employment and Electoral Effects of the Trump Tariffs in the United States (w32082; p. w32082). National Bureau of Economic Research. Available at: *https://doi.org/10.3386/w32082*.

Bailey, C. J. (2019). Assessing President Obama's climate change record. Environmental Politics, 28(5), 847–865. Available at: *https://doi.org/10.1080/09644016.2018.1494967*.

Becker, J. (2009). Regulationstheorie. In J. Becker, A. Grisold, G. Mikl-Horke, R. Pirker, & H. Rauchenschwandtner, Heterodoxe Ökonomie (pp. 89–117). Metropolis.

Becker, J. (2013). Regulationstheorie: Ursprünge und Entwicklungstendenzen. In J. Becker, R. Atzmüller, U. Brand, V. Redak, & T. Sablowski, Fit für die Krise? Perspektiven der Regulationstheorie. (pp. 22–56). Westfälisches Dampfboot.

Bistline, J., Mehrotra, N., & Wolfram, C. (2023). Economic Implications of the Climate Provisions of the Inflation Reduction Act. National Bureau of Economic Research. Available at: *https://doi.org/10.3386/w31267*.

Brenner, R., & Glick, M. (1991). The Regulation Approach: Theory and History. New Left Review, 188(1). Available at: *https://newleftreview.org/issues/i188/articles/robert-brenner-mark-glick-the-regulation-approach-theory-and-history.pdf* (Accessed: 2 August 2025).

Bulfone, F. (2023). Industrial policy and comparative political economy: A literature review and research agenda. Competition & Change, 27(1), 22–43. Available at: *https://doi.org/10.1177/10245294221076225*.

Chang, H.-J. (2021). Kicking Away the Ladder: Development Strategy in Historical Perspective (1st ed). Anthem Press.

Climate Power US. (2025). The State of Clean Energy Jobs [Climate Power US]. Available at: *https://climatepower.us/wp-content/uploads/2025/04/April-2025-Clean-Energy-Jobs-Report.pdf* (Accessed: 2 August 2025).

Di Carlo, D., & Schmitz, L. (2023). Europe first? The rise of EU industrial policy promoting and protecting the single market. Journal of European Public Policy, 30(10), 2063–2096. Available at: *https://doi.org/10.1080/13501763.2023.2202684*.

Eder, J. (2021). Moving towards developmental regionalism? Industrial cooperation in the Eurasian Economic Union from an Armenian and Belarusian perspective. Post-Communist Economies, 33(2–3), 331–358. Available at: *https://doi.org/10.1080/14631377.2020.1793590* .

Eder, J. (2022). Bringing Industrial Policy Back into Regionalism: Recent Findings from Latin America, Eurasia, and Europe [Dissertation, JKU Linz]. Available at: *https://epub.jku.at/obvulihs/download/pdf/8165366* (Accessed: 2 August 2025).

Eder, J., & Schneider, E. (2020). Umkämpfte Industriepolitik: Zwischen Geopolitik, grüner Wende, Digitalisierung und Corona (Editorial). Kurswechsel, 4/2020, 3–12.

Fontana, O., & Vannuccini, S. (2024). How to Institutionalise European Industrial Policy (for Strategic Autonomy and the Green Transition). Journal of Industry, Competition and Trade, 24(1), 20. Available at: *https://doi.org/10.1007/s10842-024-00429-2*.

Gabor, D., & Braun, B. (2025). Green macrofinancial regimes. Review of International Political Economy, 1–27. Available at: *https://doi.org/10.1080/09692290.2025.2453504*.

Guarna, O., & Turner, A. (2025, April 29). 100 Days of Trump 2.0: The Inflation Reduction Act. Climate Law A Sabin Center Blog. Available at: *https://blogs.law.columbia.edu/climate-change/2025/04/29/100-days-of-trump-2-0-the-inflation-reduction-act/* (Accessed: 2 August 2025).

Heimberger, P., & Lichtenberger, A. (2024). A permanent EU investment fund to promote the green transition in light of EU fiscal rules. European Journal of Economics and Economic Policies: Intervention, 1–8. Available at: *https://doi.org/10.4337/ejeep.2024.0134*.

Höpner, M., & Schäfer, A. (2010). A New Phase of European Integration: Organised Capitalisms in Post-Ricardian Europe. West European Politics, 33(2), 344–368. Available at: *https://doi.org/10.1080/01402380903538997*.

Johnston, A., & Matthijs, M. (2022). The Political Economy of the Eurozone's Post-Crisis Growth Model. In Diminishing Returns. The New Politiccs of Growth and Stagnation. Oxford University Press.

Karas, D. (2023, December 13). Industrial Policy Isn't a Panacea for Rebuilding Organized Labor. Jacobin Magazine. Available at: *https://jacobin.com/2023/12/industrial-policy-isnt-a-panacea-for-rebuilding-organized-labor* (Accessed: 2 August 2025).

Karas, D. (2024). A Regulationist Perspective on Industrial Policy in the US & EU. Second Cold War Observatory. Available at: *https://www.researchgate.net/publication/379757859_A_Regulationist_Perspective_on_Industrial_Policy_in_the_US_and_the_EU* (Accessed: 2 August 2025).

Landais, C., Jean, S., Philippon, T., Saussay, A., Schnitzer, M., Grimm, V., Malmendier, U., Truger, A., & Werding, M. (2023). The Inflation Reduction Act: How should the EU react? [Joint Statement]. Franco-German Council of Economic Experts.

Landesmann, M., & Stöllinger, R. (2020). The European Union's Industrial Policy: What are the Main Challenges? Wiiw Policy Notes and Reports, 36.

Lehndorff, S. (2021). Vom New Deal der 1930er Jahre zum Grünen New Deal. PROKLA. Zeitschrift Für Kritische Sozialwissenschaft, 51(202), 149–161. Available at: *https://doi.org/10.32387/prokla.v51i202.1924*.

Mayer, M. (2022). Die US-Linke und die Demokratische Partei. Bertz + Fischer.

Mazzucato, M. (2015). The entrepreneurial state: Debunking public vs. private sector myths (Revised edition). Anthem Press.

McNamara, K. R. (2024). Transforming Europe? The EU's industrial policy and geopolitical turn. Journal of European Public Policy, 31(9), 2371–2396. Available at: *https://doi.org/10.1080/13501763.2023.2230247*.

Nahm, J. (2022). Green Growth Models. In Diminishing Returns. The New Politics of Growth and Stagnation. Oxford University Press.

Peters, M. A. (2023). Semiconductors, geopolitics and technological rivalry: The US CHIPS & Science Act, 2022. Educational Philosophy and Theory, 55(14), 1642–1646. Available at: *https://doi.org/10.1080/00131857.2022.2124914*.

Pianta, M. (2014). An Industrial Policy for Europe. Seoul Journal of Economics, 27(3), 277–305.

Pianta, M., & Lucchese, M. (2020). Rethinking the European Green Deal: An Industrial Policy for a Just Transition in Europe. Review of Radical Political Economics, 52(4), 633–641. Available at: *https://doi.org/10.1177/0486613420938207*.

Pollin, R., & Wicks-Lim, J. (2024). Labor Supply, Labor Demand, and Potential Labor Shortages Through New U.S. Clean Energy, Manufacturing, and Infrastructure Laws [PERI REPORT]. University of Massachusetts Amherst. Available at: *https://peri.umass.edu/wp-content/uploads/joomla/images/publication/PERI_BGA_Labor_2_28_24.pdf* (Accessed: 2 August 2025).

Polt, W., Peneder, M., & Prem, E. (2021). Neue europäische Industrie-, Innovations- und -Technologiepolitik (NIIT) Eine Diskussion zentraler Aspekte mit Bick auf Österreich. The Innovation Company. Available at: *https://repository.fteval.at/id/eprint/666/2/2106_Endbericht%20NIIT.pdf* (Accessed: 2 August 2025).

Raza, W. (2025). Towards a progressive industrial policy for the Twin Transformation in the European Union. Austrian Foundation for Development Research. Available at: *https://doi.org/10.60637/2025-RR21*.

Santiago, J. N. (2025, April 22). CHIPS, IRA, and IIJA: An Overview of Biden-Era Legislation and the Bolstering of American Hegemony. Rutgers Eagleton Political Journal. Available at: *https://eagletonpoliticaljournal.rutgers.edu/chips-ira-and-iija-an-overview-of-biden-era-legislation-and-the-bolstering-of-american-hegemony/* (Accessed: 2 August 2025).

Scherrer, C. (2019). Direkte Konfrontation statt Umzingelung: US-Handelspolitik unter Trump mit China. PROKLA. Zeitschrift Für Kritische Sozialwissenschaft, 49(194), 35–57. Available at: *https://doi.org/10.32387/prokla.v49i194.1768*.

Schmitz, L., & Seidl, T. (2023). As Open as Possible, as Autonomous as Necessary: Understanding the Rise of Open Strategic Autonomy in EU Trade Policy. JCMS: Journal of Common Market Studies, 61(3), 834–852. Available at: *https://doi.org/10.1111/jcms.13428*.

Schmitz, L., Seidl, T., & Wuttke, T. (2024). The Costs of Conditionality. IPCEIs and the Constrained Politics of EU Industrial Policy. Available at: *https://doi.org/10.31219/osf.io/f63gd*.

Schneider, E. (2023). Germany's Industrial strategy 2030, EU competition policy and the Crisis of New Constitutionalism. (Geo-)political economy of a contested paradigm shift. New Political Economy, 28(2), 241–258. Available at: *https://doi.org/10.1080/13563467.2022.2091535*.

Schütz, M., Ploder, M., & Polt, W. (2024). Endbericht EFI Studie Industriepolitik. Johanneum Research Available at: *https://www.researchgate.net/publication/384499818_EFI_Studie_Industriepolitik* (Accessed: 2 August 2025).

Simonazzi, A. (2023). European Union's Structural Vulnerability in a Changing Geopolitical Environment. Revista Crítica de Ciências Sociais, 130, 81–100. Available at: *https://doi.org/10.4000/rccs.14460*.

Skyrman, V. (2024). Industrial Policy, Progressive Derisking, and the Financing of Europe's Green Transition. Available at: *https://doi.org/10.60637/2024-WP78*.

Tagliapietra, S., & Veugelers, R. (2020). A Green Industrial Policy for Europe. Bruegel Blueprint Series, 31.

The Budget Lab (2025). State of US Tariffs: June 17, 2025. Available at: *https://budgetlab.yale.edu/research/state-us-tariffs-june-17-2025* (Accessed: 2 August 2025).

Wade, R. H. (2014). The paradox of US industrial policy: The developmental state in disguise. In Transforming Economies: Making Industrial Policy Work for Growth, Jobs and Development.

Warwick, K. (2013). Beyond Industrial Policy: Emerging Issues and New Trends (OECD Science, Technology and Industry Policy Papers 2; OECD Science, Technology and Industry Policy Papers, Vol. 2). Available at: *https://doi.org/10.1787/5k4869clw0xp-en*.