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DISCUSSION PAPER

// LARS P. FELD AND JOSHUA HASSIB

On the Role of EU Cohesion Policy for Climate Policy





On the Role of EU Cohesion Policy for Climate Policy

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Abstract

Cohesion policy in the European Union (EU) has been widely accepted as a tool to advance the catch-up process, i.e., helping member countries with lower GDP per capita to grow faster economically in order to arrive at similarly high-income levels as member countries with higher GDP per capita. However, empirical studies provide contradicting evidence as to the success of structural funds in this regard. From a political economics perspective, EU structural funds and their instruments of cohesion policy, but also EU agricultural policy, are interpreted as providing for a compensation for poorer member countries' agreement on additional steps of European integration. In recent times, climate policy has entered the cohesion strategy of the EU as higher energy costs due to carbon pricing may require programs for transformation of the existing carbon intensive capital stock to a carbon-neutral capital stock. Structural funds should thus help countries in the transformation process to carbon neutrality such that they do not fall behind. An example is Next Generation EU (NGEU) that is aiming at member countries' transition to carbon neutrality. In this paper, the goals of EU cohesion policy are contrasted with the necessities of climate policy in order to fight climate change. Potential conflicts between the goals of cohesion policy and climate policy are highlighted.

Keywords: Cohesion policy; Climate policy; Common market; Currency union; Multi-level

governance; European Union

JEL codes: F42; F55; Q58; R58

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1 Introduction

In the Treaty on the European Union, the EU commits to promoting "economic and social progress for their peoples, (...) within the context (...) of reinforced cohesion and environmental protection." (European Commission, 2012). In addition, with regard to the European Green Deal (EGD), the EU's overarching climate strategy, it aims at achieving net zero Carbon emissions by 2050, a decoupling of economic growth from resource use, and, interestingly, to leave no place nor person behind. (European Commission, 2023e). This implies that cohesion among EU member states is desired to be deeply entrenched within the EU's climate policy.

Among several other challenges, the EU sets ambitious goals in both its cohesion and climate policies. The cohesion policy in the European Union (EU) has been a widely accepted tool to foster the catch-up process, i.e., helping member countries with lower GDP per capita to grow faster economically in order to arrive at similarly high-income levels as member countries with higher GDP per capita. Climate policy reforms are incorporated as conditions within the EU's structural funds. Access to the funds is conditioned to progress regarding climate policy goals.

Basically, both EU ambitions, cohesion and climate, are thus pursued within the same approach. How does this fit together? Are the cohesion funds successful, i.e., is no member state or region left behind within the transition towards a climate neutral EU? Are climate policies achieving their goals? How does the political economics of structural funds look like and what does this mean for climate policy? What are possible investments that foster both EU's cohesion and climate policy? This paper aims at finding answers to these questions.

The remainder of the paper is organized as follows: In Sections 2 and 3, EU cohesion policy and climate policy are covered, respectively. This includes a short overview of the major EU structural funds. In terms of climate policy, the EGD resembles the core component of the climate side, since it defines the current set of climate policies. Section 4 provides for the political economics background. Its application to EU structural funds as well as potential mechanisms with regard to climate policy may help to understand the role of EU cohesion policy for climate policy. In Section 5, potential conflicts between cohesion and climate policies are discussed and evaluated using the political economics approach. Section 6 hints at synergies between both policies. The final Section 7 concludes the analysis by summarizing the results and alluding to potential perspectives on future developments of EU cohesion and climate policy.

2 EU Cohesion Policy across Time

2.1 Overview of the EU's Major Structural Funds

Since the start of the European Economic Community (EEC) founded by the Treaty of Rome in 1957, the EU created several types of structural funds following the objective of cohesion among its member countries (see Figure 1). Across time, specific instruments and targets have been modified manifold. The primary goal of structural funds that is to promote economic and social cohesion across the EU has however only gradually changed. Structural funds aim at reducing disparities in income, employment, and living standards among the member states and their regions.

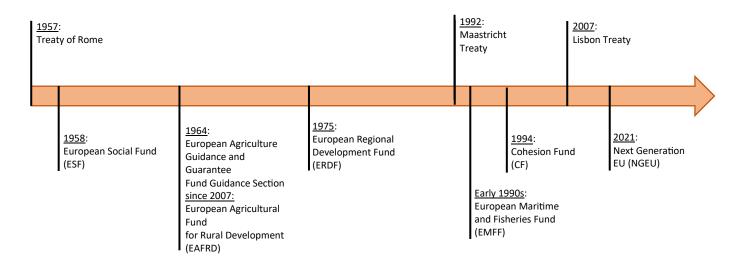


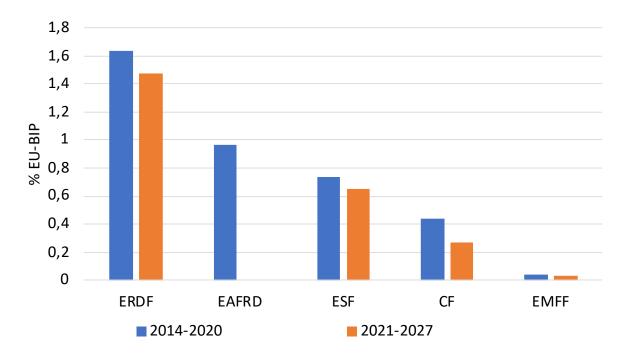
Figure 1: EU Cohesion Policy across Time

Source: Forte-Campos, V. und J. Rojas (2021)

The current Multiannual Financial Framework (MFF) resembles the EU's medium-term budget including spending plans which prioritize EU policies within a seven-year range. A significant share of the MFF consists of the European Structural and Investments Funds (ESIF) comprising a set of five structural funds (see Figure 2).

Upon the founding of the European Economic Community in 1957, the European Social Fund (ESF) was created under the Treaty of Rome. It resembles the EU's main tool for investing in human capital, workers' skills and the creation of jobs. The amount of transfers a region receives depends on the regional GDP performance, yet all EU regions are eligible. The MFF 2021-2027 allocates a total of €88 billion (Forte-Campos & Rojas, 2021). Right from the outset, the first steps towards a common European market were thus accompanied by regional transfers.

The European Regional Development Fund (ERDF) is a second structural fund supporting various projects that today aims at strengthening regional competitiveness, innovation, and environmental sustainability. It has been created in 1975 to countervail regional disparities in development. Within the 2021-2027 MFF, €200 Billion are allocated towards the ERDF (European Commission, 2023c). The ERDF accompanied the enlargement of the core EEC, consisting of the six countries Belgium, France, Germany, Italy, Luxembourg and the Netherlands, by Denmark, Ireland and the United Kingdom.



Notes:

ERDF = European Regional Development Fund

EAFRD = European Agricultural Fund for Rural Development

ESF = European Social Fund

CF = Cohesion Fund

EMFF = European Maritime and Fisheries Fund

Figure 2: Structural Funds in Percent of EU GDP

Source: EuroStat and European Commission (2023a)

The Cohesion Fund, created in 1994, is specifically dedicated to supporting member states with a Gross National Income (GNI) per capita below a level of 90% of EU average. It has been created as a consequence of the Maastricht Treaty in 1992 and precedes another round of enlargement by Austria, Finland and Sweden in 1995. The Cohesion Fund today aims at strengthening low-performing regions in the environmental and communication sector, i.e., it finances projects that contribute to environmental protection and sustainable transport infrastructure. A total of €43 billion are directed from the MFF to the Cohesion Fund (European Commission, 2023a).

The European Maritim, Fisheries and Aquaculture Fund (EMFAF) focuses on climate policy as well as economic and social sustainability within the aquaculture and fisheries sector. It covers a sensitive topic among (former) EU member states with significant and traditional fishing industries, e.g., France and the UK. The EMFAF has been created in the early 1990s and totals a current budget for 2021-2027 of €6.11 billion. With respect to climate policy, it facilitates the transformation to a sustainable and low-carbon fishing industry as well as the environmental protection of marine ecosystems and biodiversity, for instance (European Commission, 2023b). Actually, the EU's Common Agricultural Policy (CAP) is a heavyweight among the structural funds although it only counts partially as a structural fund. While there was no further round of enlargement immediately after the six founding members signed the Treaty of Rome, the original member states created the CAP in order to facilitate the ratification of the Treaty by the French National Assembly. With around 40% of the EU's total budget today, its design and goals significantly determine EU actions. The creation of the Guarantee Section of the European Agricultural Guidance and Guarantee Fund from 1962 to 1964 provided for a market regime for the agricultural sector with tariffs and subsidies for farmers. From 1964 to 2007, the Guidance Section of the European Agricultural Guidance and Guarantee Fund aimed at structural development of rural areas and was thus counted to the structural funds in the narrow sense. In 2007, it has been renamed and redesigned as the European Agricultural Fund for Rural

Most recently, the EU established the Next Generation EU (NGEU) program in order to cope with asymmetric effects of the COVID-shock on less advanced regions (see Table 1). Under NGEU, two new financial instruments were created in 2020. First, the Recovery and Resilience Facility (RFF) focuses on six core areas: green transition; sustainable growth; employment; digital transformation; social and territorial cohesion; health and resilience; and education. Thus, RFF directs a significant share of attention towards both climate and cohesion policies. A total of €723 billion is issued to investment of which are €385 billion of funds in loans and €338 billion of funds in grants (European Commission, 2023f).

Development (EAFRD). In 2017, the European Commission initiated a public consultation round,

with the aim to strengthen the focus on climate policy more distinctively. The demand for

climate action in the heavily emitting agricultural sector was clear, as the EU had committed to

the Paris Agreement and the UN Sustainable Development Goals (Matthews, 2018).

The second financial instrument created by the NGEU program is the Recovery Assistance for Cohesion and the Territories of Europe (REACT-EU). Its transfers amount to €50.6 billion and

primarily focus on crisis response and repair measures. By this, the REACT-EU aims at the transition towards a green recovery of the EU's economy (European Commission, 2023d).

Table 1: Next Generation EU (NGEU) and Climate Policy, in Prices of 2018

NGEU Supported Programmes	Share NGEU (2018, in Billion)	Climate Contribution NGEU (2018, in Billion)	Climate Contribution NGEU (in %)
Horizon Europe	5.0	1.75	35
InvestEU Programme	5.6	1.68	30
Recovery and Resilience Facility	672.5	248.82	37
Just Transition Mechanism (JTM)	10.0	10.00	100
ReactEU	47.5	11.87	25
European Agricultural Fund for Rural Development (EAFRD)	7.5	2.70	36
RescEU (disaster relief and emergency reserves)	1.9	0.00	0
Total	750	276.83	37%

Source: European Commission (2023b)

By this, the EU breaks new ground. The NGEU may be the first ever, though controversial, step towards a debt union. Many argue that there are several other fields of deepening of European integration that should come first, for instance a joint EU foreign policy or EU military. Despite continuing battles on the fiscal and legal dimensions, the NGEU could mark a 'Hamilitonian moment', potentially becoming a permanent fiscal instrument (de la Porte & Jensen, 2021). However, NGEU nonetheless has the potential of applying the jointly borrowed means to direct the transfers into cohesion policy and structural projects from which also the EU's climate agenda is profiting (Thöne, 2021).

Thöne (2021) highlights NGEU's role in terms of strengthening EU cohesion. The program was initiated as a consequence of the early COVID-19 pandemic, a time during which each member state suddenly focused on its own agenda and intra-EU borders had been closed. Based on this anti-integration throwback, the NGEU sends a remarkable signal of cohesion by issuing low-interest loans to member states whose low credit worthiness would lead to far worse credit borrowing conditions on the capital market (Thöne, 2021). This implies that debt-financed funds are backed by guarantees from EU member states (Fuest & Dorn, 2021).

2.2 Empirical Evidence on the Success of the EU's Structural Funds

Given this long-term history of EU cohesion policy, the question emerges to what extent the structural funds have actually achieved the goal of catching-up of less advanced regions in Europe. As mentioned above, empirical studies provide however contradicting evidence as to the success of structural funds regarding the promotion of this catch-up process in the EU.

Mohl and Hagen (2010) analyze the role of EU structural funds in terms of promoting regional growth. By employing a structural funds dataset on a total of 126 NUTS-1/-2 regions, they are able to distinguish between Objective 1, 2, and 3 regions. A region is classified as Objective 1 if the ratio of the regional GDP/capita and the total EU-wide GDP is below 75%. Mohl and Hagen (2010) use a GMM estimator, which accounts for the problem of endogeneity in a panel context, and a spatial econometric panel estimator, which accounts for spatial spillover effects of regional growth. Mohl and Hagen (2010) find strong evidence for a positive impact of EU structural funds on regional growth of Objective 1 regions. However, this does not apply to the total amount of Objective 1, 2, and 3 regions altogether (Mohl & Hagen, 2010). In other words, only regions, which need the stimulus of EU structural funds the most, are able to unleash regional growth based on the EU assistance (and the respective EU member states providing the finances). This finding is similar to Becker et al. (2010, 2018) who find a positive GDP growth effect with regard to Objective 1 transfers, yet no positive growth effects on unemployment.

Von Ehrlich and Overman (2020) look at spatial disparities across European metropolitan regions with a focus on income levels and unemployment. A metropolitan region is defined along the so-called NUTS3 regions with between 150,000 to 800,000 inhabitants. They provide evidence that disparities in GDP across EU-15 metropolitan regions have been diverging since the mid-2000s, stabilized in the 1990s and converged in the 1980s.

Motivated by this result, von Ehrlich and Overman (2020) ask whether place-based policies for structural funds are justified. Providing clear evidence in favor of structural funds, the authors also find that the effects vary considerably across areas, mostly driven by areas with a high-quality local government and high levels of human capital. These results are similar to those of Breitenbach et al. (2019) who report even negative effects of EU structural funds depending on regional institutional quality. Moreover, decreasing returns from transfers are reported by von Ehrlich and Overman (2020). Overall, Ehrlich and Overman (2020) conclude that place-based

policies have not prevented rising income disparities yet may have mitigated the increase (von Ehrlich & Overman, 2020).

Also covering disparities in the EU, Cerqua and Pellegrini (2017) look at the relationship between the 'treatment' intensity of the EU Structural and Cohesion Fund and regional GDP growth rates. They find an overall positive effect of the fund-related transfers on regional growth rates, however with a strong heterogeneity across the regions. Most interestingly, their results reveal that the intensity-growth function is concave and thus a maximum value of €305-€340 per capita can be calculated. After this value, the marginal effect of the transfer becomes negative (Cerqua & Pellegrini, 2017).

Another potential effect of structural funds could be to stimulate public investment overall. Staehr and Urke (2022) analyze the effect of the ESIF on public investments within the EU and find heterogeneous evidence of an overall ESIF-related positive association with public investments. In particular, for the Cohesion Fund they report an almost one-to-one effect on public investment, in both the short and long term. However, with regard to the ERDF no clear evidence is found (Staehr & Urke, 2022).

3 Climate Policy within the EU's Structural Funds

The EU aims at integrating climate policy and structural funds mainly in two ways. First, by climate mainstreaming, i.e., funds are required to be used in ways that align with climate goals, promoting sustainability, reducing greenhouse gas emissions, and adapting to the impacts of climate change. The second option is to direct investment into sustainable projects. This implies that structural funds directly support projects related to, e.g., renewable energy, energy efficiency, public transportation, and the overall transition to a carbon-neutral economy.

In terms of environmental sustainability, the funds aim at promoting green growth and a circular economy, which involves reducing waste, enhancing resource efficiency, and minimizing the environmental impact of economic activities. In addition, structural funds also support projects that protect and restore natural ecosystems, preserve biodiversity, and promote sustainable land use.

A significant concern of the EU's structural funds is the integration of climate objectives as defined within the European Green Deal (EGD) as the EU's overarching strategy for achieving climate neutrality by 2050. The Next Generation EU program is closely aligned with the EGD.

NGEU reinforces the EGD's objectives by providing financial resources for green and sustainable initiatives across the EU. The climate contribution of NGEU amounts to almost 280 billion Euro in 2018 prices and thus a share of a bit more than a third of the NGEU total (see Table 1).

A substantial portion of the funds allocated under the Next Generation EU program is earmarked for the Recovery and Resilience Facility (RRF). Member states are required to develop national recovery and resilience plans that allocate a significant share of their funding to climate-related projects and reforms. These projects aim at supporting the EU's transition to a greener and more sustainable economy. In particular, a climate mainstreaming target of 30% for the NGEU and the MFR has been committed by the European Council (Inguscio, 2022).

The disbursement of funds under the NGEU program is subject to conditions, including the fulfillment of climate and environmental objectives on a national level. Member states are expected to invest in projects and reforms that contribute to the EU's climate goals, such as reducing greenhouse emissions and promoting renewable energy.

In order to account for the EU's goal not to leave anyone behind during climate transition, the Just Transition Fund (JTF) has been created as a new instrument of Cohesion Policy covering the current MFF period of 2021-2027 (European Commission, 2023g). The Just Transition Fund is part of the broader EGP and aims at supporting regions most affected by the transition to a low-carbon economy. It focuses on investing in green projects, such as renewable energy, energy efficiency, and retraining workers for new, sustainable employment opportunities.

Moesker and Pesch (2022) undertake three case studies on the EU's Initiative for Coal Regions in Transition. They find that the JTF's design in fact highlighted several caveats from earlier transition experiences. Remaining problems were mostly of distributive and procedural nature, potentially caused by a lack of stakeholder participation and scarce funding (Moesker & Pesch, 2022).

4 The Political Economics of the EU Budget

The political economics approach is useful whenever one applies the utility-maximizing assumption on governments as political actors. Loosening a central assumption of traditional economic theory, this implies that governments do not necessarily follow the implications of a certain normative economic perspective (e.g., economic theory of federalism, see Biehl, 1988; Spahn, 1993; Genser, 1997), but instead follow their own self-interests (Feld, 2005).

There is a substantial body of literature on the political economics of the EU, jointly attributed to both political scientists and economists (e.g., Dür et al., 2020). Out of this, the following two strands are relevant for an analysis of structural funds: first, the relationship between funds and approval within the EU and, second, the determinants of decision-making processes within the EU's main institutions.

EU structural funds and their instruments of cohesion policy, but also EU agricultural policy, are interpreted as providing for a compensation for poorer member countries' agreement on additional steps of European integration (Begg, 2000). Although it is rather difficult to establish causal evidence, there is at least illustrative anecdotal evidence in support of this hypothesis. As described above, EU agricultural policy was established in the beginning of the 1960s to facilitate a ratification of the Treaty of Rome by the French National Assembly. In addition, the ESF should help poorer regions to catch up. The ERDF followed the enlargement of the EEC by Denmark, Ireland and the UK. The Cohesion Fund was established after the Maastricht Treaty established a deepening of European integration with the European Monetary Union (EMU) and occurred just before another enlargement by Austria, Finland and Sweden. NGEU was applauded as another step of deepening integration after the demands of several member countries to establish a fiscal capacity at the EU level in response to the European debt crisis. Before another debt crisis could occur due to the economic and fiscal effects of the COVID-pandemic, member states decided to establish NGEU.

The rationale of these responses to further steps of economic integration is reminiscent of a general pattern of reactions to globalization. As is well-known from international economics, opening economies to free trade is overall welfare enhancing, but also creates groups of winners and losers within a country depending on comparative advantages and factor endowments. Rodrik (1998) argues and presents evidence that more open economies have bigger governments in order to compensate the potential losers of abolishing protectionist measures and thus increase the support for free trade agreements. European integration and the history of EU structural funds offers additional evidence in this regard.

Applying the political economics approach to EU structural funds, we argue that EU member states maximize their own self-interest, i.e., financial transfers. Accordingly, the establishment of such transfers programs at the EU level provides particular incentives to member states: Each country is ultimately striving to become a net recipient of the EU budget. Interest groups aim at receiving EU transfers such that a common pool problem emerges (Osterloh et al., 2009).

Rodden (2002) analyzes the EU's relationship between votes and the allocation of funds. According to his results, small EU member states are systematically overrepresented. This goes along with a substantial loss of relative vote shares among the larger EU members, like Germany for instance. It is a common pattern of federal integration that the comparably smaller states fear negative effects of economic integration the most. Thus, they negotiate favorable voting schemes and above average transfers of funds (Rodden, 2004). Moreover, Rodden (2002) reveals a pattern of systematic sacrifice of voting power in turn for an increased commitment of integration by smaller states. Moreover, Rodden (2002) as well as Aksoy and Rodden (2009) report evidence for a significant relationship between voting power in the European Parliament or the Council and directed funds. This applies to total funds for the years of 1977 to 1999 and is particularly meaningful for regional and agricultural development (Rodden, 2002).

Apart from an above-average allocation of funds being directed towards smaller member states, participatory benefits are often the product of compromises in negotiations on EU policies. This may result in legislative overrepresentation of small EU states (Rodden, 2004). This is seconded by Groot and Zooneveld (2013), who find that the EU accession round of smaller East European countries in 2004 and 2007 delivered more electoral power to countries with smaller and poorer population. Similarly, EU member countries with larger economies are most likely to violate EU law, whereas the smaller states are more likely to comply with regulations (Börzel et al., 2010). The best compliers are small states with efficient bureaucracies (Börzel et al., 2010). However, compromises at the EU level may also sanction Euroscepticism in national parliament such that the funds received by a country decline (Sadeh et al., 2022).

To increase the small states negotiation power, they often form coalitions to jointly foster their interests, for example, as the 'cohesion bloc' including Greece, Ireland, Portugal, and Spain; Finland, Denmark, and Sweden as the 'Nordic bloc' and the Franco-German coalition at the core of the EU Council of Ministers decisions (Hix & Hoyland, 2022).

Aside coalition formation, conflicts naturally persist in EU legislative decision-making. Analysing the dimension of conflict in the EU Council of Ministers, Bailer et al. (2015) show that conflictive interactions are considerably shaped by country-level redistributive interests and less by ideological factors like left-right positioning of member states' governments. In connection with this, Hagemann et al. (2019) bring in an additional factor on EU decision-making: Governments being under attack at home do not solely consider their policy preferences and negotiation techniques but also, quite importantly, use EU decision-making to send signals to their domestic

audience. This may be particularly true for climate policy, as this is considered to be a particularly contested issue.

Overall, drawing on the political economics literature of legislative EU decision-making, several mechanisms in the formation of EU policies may be explained. Therefore, it provides a useful framework to assess the compatibility of EU cohesion and climate policy.

5 Conflicts between EU Cohesion and Climate Policies

The European Union's (EU) cohesion and climate policies have several potential conflicts and challenges when it comes to aligning their goals and objectives. First, these conflicts are a result of balancing economic development and social cohesion objectives with the imperative to combat climate change. Indeed, even a conflict between both policy objectives or between the instruments that are used may emerge. There are two major difficulties which may arise. First, less performing regions within the EU may be left behind on the pursuit to transition to climate neutrality such that climate policy leads to a conflict regarding the catch-up process of cohesion policy. Second, cohesion policies may countervail climate policy by, for instance, directing cohesion funds towards EU regions which heavily depend on fossil fuels. By this, cohesion policy contradicts the phasing out of fossil fuels and transition to renewable energy sources.

Cohesion policy traditionally aims at reducing economic disparities between EU regions by promoting economic growth and job creation. Some of the respective development projects may not be aligned with climate objectives, potentially leading to increased greenhouse gas emissions. For example, large infrastructure projects funded by cohesion policy, such as transportation and energy, do not necessarily prioritize sustainability and climate resilience, such that they result in increased greenhouse gas emissions and vulnerability to climate change impacts. Cohesion policy often emphasizes short-term economic growth without sufficient consideration of long-term sustainability and climate resilience leading to investments that are not in line with the EU's Green Deal.

Moreover, different EU regions may have varying levels of commitment to climate action and sustainability, leading to uneven implementation of climate policies. Some regions may be more receptive to green development while others resist such changes. Such regional inconsistencies potentially result in conflict between the benefiting regions and those that suffer from net benefit losses.

There may be conflicts in allocating the EU budget between cohesion policy and climate policy. Therefore, balancing the funding needs for reducing regional disparities and addressing climate change can be challenging.

Climate policies may sometimes result in economic disruptions, particularly in regions heavily reliant on high-emission industries. Cohesion policy aims at mitigating these social and economic disruptions, potentially slowing down the transition to a low-carbon economy.

Thus, coordinating and integrating the efforts of various EU institutions, member states, and regional authorities to ensure that cohesion policy and climate policy are mutually reinforcing can be a challenge. Therefore, a close monitoring is needed to prevent dual institutional structures with an overlap of competences and ultimate loss in efficiency from a political economics perspective.

This points to a second, more fundamental problem for the alignment of cohesion and climate policies. According to the Tinbergen rule, each policy goal should be targeted by one particular, independent instrument. Although EU structural funds comprise several different instruments, the overall ambition of their compatibility with climate policy objectives is probably mistaken. A violation of the Tinbergen rule often results in failure to meet each of the formulated policy goals, and the number of potential conflicts between cohesion and climate policies mentioned above characterizes as to how such failures might emerge.

Climate policy will only be successful if there is a broad international coordination for the reduction of Carbon emissions. The necessity for such coordination originates from the nature of climate change mitigation as a global public good. Public good provision entails free rider behavior. Each individual contribution to public good provision by a country reduces the incentives to contribute for other countries. If coordination between a group of countries, like the EU, is successful because of the coordination technology the EU decision-making process offers, the incentives to contribute for other countries in the world are further diminished.

This fundamental public good mechanism is the basis for the creation of climate clubs that should provide incentives to participate in the effort to contain climate change (Nordhaus, 2015). The idea of climate clubs emphasizes the necessity to use the price mechanism and, indeed, the EU Emissions Trading Scheme (ETS) constitutes such a mechanism. If it were possible to internationally coordinate mitigation efforts via a minimum price of carbon, a provision of this global public good could be possible. Such a policy induces structural change,

but ensures that less carbon leakage occurs because of relocation of emission intensive industries to other countries. Attenuating the necessary structural changes by subsidizing carbon-intensive industries would only be counter-productive.

Third, political economics considerations should play a role. In order to ensure that transfers from the structural funds continue to flow, member states have incentives to use any new political argument that emerges. For instance, whereas the ERDF started as a policy instrument to reduce regional disparities, it meanwhile aims at innovation and environmental sustainability such that the criteria for access may have changed, but member states' motivation to receive funds has not. Similarly, climate policy goals may inform the criteria for eligibility of structural funds without changing member states' considerations at all. This may end up in a struggle between the Commission and individual member states about the compatibility of individual measures undertaken with transfers from the structural funds.

6 Possible Synergies between Climate and Cohesion Policy

We describe the possible trade-off between EU cohesion policy, which aims at equalizing the different levels of economic development of the regions, and the promotion of effective climate protection under the umbrella of cohesion policy. However, there are also several strands of potential synergies between EU cohesion and climate policy.

First, further harmonization of economic competition within the EU is crucial. Governments around the world are using subsidies to support the transition towards a carbon-neutral economy. In some cases of market failure, green subsidies can be useful (Kammer, 2023). This may be the case, for example, when the price of carbon emissions is too low compared to their actual cost to society. Green subsidies also exist in the EU. However, the use of subsidies should be carefully targeted to correct market failures and not discriminate against an arbitrary group of firms. The risk of engaging in a global arms race with green subsidies is too great, which would lead to a deterioration of the conditions in competition in global trade and ultimately to geopolitical fragmentation (Kammer, 2023). The EU is discussing a 'Green Deal Industrial Plan for the Net-Zero Age' (European Commission, 2023). This implies a further (temporary) relaxation of EU competition law (Kammer, 2023). EU policymakers should therefore ensure that the corresponding green subsidies do not discriminate against particular firms and/or regions, as climate policy would thereby deteriorate the cohesion goals.

The EU is responsible for the allocation of extensive funds (Farole et al., 2011). A second important pillar is therefore characterized by the conditioning of funding with regard to the consideration of climate protection measures. Within the EU, climate targets are consistently taken into account in various sectors and activities supported by cohesion funds. This so-called climate mainstreaming could perhaps combine both EU climate and cohesion policy.

In addition, cohesion policy plays an important role in strengthening the resilience of regions to the effects of climate change (Nekvasil & Moldan, 2016). This does not only apply to preparing for natural disasters, but also to industrial change. For example, as a result of climate change, several regions in the EU that have relied on coal mining for their prosperity are now facing structural change. These now structurally weak regions are heavily dependent on the allocation of EU funds. If cohesion funds are linked to climate targets, the region in question will experience a shift towards a green economy. In this example, cohesion and climate policy can go hand in hand.

Finally, when economic convergence is achieved and there is an appropriately high carbon price in place, unleashing economic competition within the EU (through the removal of trade barriers) will incentivize companies to invest exclusively in carbon-neutral goods and services. Ultimately, this enables a combination of effective cohesion and climate policy within the EU.

7 Conclusion

While the EU has several challenges to tackle, choosing effective cohesion and climate policies are crucial for two reasons: first, to successfully cope with the climate crisis, and second, to prevent losing cohesion among EU member states along the transition to a climate friendly economy. How do the EU's cohesion and climate policy affect each other? Are they pulling into the same direction? Is the EU's approach of combining both policies, i.e., conditioning structural funds on climate restrictions, successful?

We use a political economics point of view to answer these questions. We find that cohesion and climate policies both attract a significant share of attention within all of EU's structural funds. In addition, both climate mainstreaming and allocating funds directly towards climate projects are aligned with the EU's goals on cohesion and climate. However, from a political economics perspective, net benefit maximization among EU member countries is to be expected. Moreover, the numerous stakeholders on local, national, and supranational levels

may distort the solution-finding process within the political arena of EU institutions. This may deteriorate the projected credibility on climate ambitions among EU member states. Therefore, a critical assessment of future actions by the EU and its member states regarding their efforts on cohesion and climate policy are recommended and a uniform and stringent solution, like an adequately high CO2 price, might be preferable to comprehensive subsidy policy under the umbrella of the structural funds.

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