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Resilience of the EU ETS to contextual disturbance: the case of EU enlargement and its impact on ETS policymaking dynamics

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ABSTRACT

The European Union (EU) Emissions Trading System (ETS) has been established for more than 15 years, but limited attention has been given to how the changing political environment may affect the policy. We address this gap by investigating how the EU enlargement after 2004 affected the ETS and how the effects have been buffered. We develop a framework of institutional resilience to investigate how the established norms and institutional constellation of the EU legislative triumvirate have been instrumental for buffering the effects of the enlargement on ETS policymaking. We find that the existing power structure and functional complementarity of the EU legislative settings have fostered a consensus-building atmosphere in the ETS decision-making to accommodate preference heterogeneity and to absorb the compositional impact after the enlargement. The findings highlight the importance of contextual factors and institutional settings in ETS analysis and suggest a new perspective for assessing dynamic ETS performance.

KEYWORDS European Union Emissions Trading System (EU ETS); EU enlargement; institutional resilience; Actor-Centred Institutionalism; environmental legislation

Introduction

As the EU's flagship climate policy, the EU ETS has been in operation for more than 15 years during which it has experienced several challenges. While the 2008 economic crisis has been considered the most significant challenge (Declercq *et al.* 2010, Laing *et al.* 2013), little attention has been given to date to how the change of the political environment may also affect the ETS.

In 2004, the EU experienced a major expansion when 10 countries joined it. In 2007, Bulgaria and Romania also joined the EU. As the EU ETS Directive was approved in 2003, the new member states (NMSs) did not participate in the policymaking process and had to accept it for accession. The ETS did thus not reflect their interests. Compared with old member

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states (OMSs), NMSs faced less pressure from international climate commitments and had concerns about economic impact of climate policy (Skjærseth and Wettestad 2008). They considered economic development a higher political priority than environmental protection (Homeyer 2004). It was feared that in the face of the burden of implementing hundreds of environmental *acquis communautaire* after the enlargement, NMSs would be reluctant to introduce ambitious environmental legislation (Burns *et al.* 2012). Their weak administrative capacity and inefficient bureaucratic systems also caused concerns over their abilities to comply with EU environmental regulations (Skjærseth and Wettestad 2007).

The liberal intergovernmentalist 'leader-laggard' theory (H"é"éritier 1995, Skjærseth and Wettestad 2007) suggests that the EU environmental governance reflects the interests of the member states and the structural balance between the leading and laggard members in terms of their ambition in environmental protection. The NMSs were expected to strengthen the laggard group, weakening political support for ambitious EU environmental policy. The changes in the balance of power among the member states could alter the European Council and the Council of the European Union's (the Council hereafter) stances and create policy gridlock.

According to the Lisbon Treaty, the European Council shall define the general policy directions and priorities while the Council, together with the European Parliament (the EP hereafter), adopts laws following the European Commission's (the Commission hereafter) initiatives. Research has examined the roles of both Councils in EU climate policy after the enlargement. Wurzel *et al.* (2019) argued that as the European Council has no formal competence in the details of climate policymaking, it has mostly exerted its structural leadership by forging compromises and progressing negotiations among EU institutions. This leadership was evident during the 2020 climate and energy package negotiations when the differences between NMSs and OMSs could not be resolved at the Council level, and were then tackled by the European Council through compromised solutions. However, the resistance of NMSs on the issues of emissions trading and effort sharing has nevertheless weakened the positions of both Councils in the negotiations (Oberthür and Dupont 2011).

Some research has also examined technical aspects of how the Council has coped with the influence of NMSs. It has been suggested that the institutions within the Council, such as the Presidency and the Permanent Representatives Committee, smoothed the legislative process in the face of larger number of members and greater heterogeneity of national interests (Parízek *et al.* 2015, Toshkov 2017, Wurzel *et al.* 2019). Those mechanisms have bureaucratised the Council's legislative power and reduced the influence of individual member states. Warntjen (2017) has argued that the

Council has made compromises in its amendments to address member states' concerns and requests, and ensure the decision-making capacity of the EU.

Besides the intergovernmentalist speculation, some literature has also examined the EP, where the national background of members can make a difference in legislation. Scully *et al.* (2012) suggested that although NMS members of the EP (MPs) were more right-wing than OMS MPs, there were no major differences in their attitudes towards EU policies, and they voted in line with their transnational political groups rather than national interests. Burns *et al.* (2012) also found that transitional political identities were key for shaping MPs' voting behaviours, while adding that the EP's stance on environmental policy became less radical after the enlargement despite a higher rate of securing amendments to legislation (see also Burns 2019).

Although the effects of the changing composition of the co-legislators on EU environmental policy have been researched, the literature overlooks the strategic functions of supranational EU institutions, especially the Commission and the interactions among the EU legislative triumvirate (the Commission, EP and Council). Within the EU legislative settings, where no single institution can monopolise the policymaking process, the examination of a single EU institution cannot fully account for the overall EU policy dynamics. There is thus a need for more comprehensive examination of the overall EU legislative framework.

There is also a gap in research on the effects of the enlargement on the EU ETS. While some effects of the enlargement have been addressed in the literature, such as the policy compromises in Phase 3 (Braun 2014, Skjærseth 2018), the failure to include the aviation sector (Wurzel *et al.* 2017) and its interactions with the changing economic context (Bocquillon and Maltby 2017), limited attention has been given to whether the general ETS policymaking has been affected by the enlargement.

To address these gaps, we examine how the EU ETS has buffered the effects of the enlargement to avoid policy gridlock by focusing on the institutional dynamics of the EU environmental legislative setting. We adopt an Actor-Centred Institutionalist perspective and develop a framework of ETS resilience to discern how the formal and informal institutional settings of the EU ETS policymaking have dampened the effects of the enlargement. The analysis suggests that the decentralised legislative power among the EU triumvirate, their established norms and the prevalence of trilateral contacts have created a decision-making atmosphere by which the EU ETS can accommodate more heterogeneous interests post-enlargement and avoid policy gridlock through consensus-building and compromise-making. The next section elaborates the framework of ETS

resilience and research methods. Section three presents the empirical findings. Section four discusses the results and relate them back to the literature. Section five concludes.

ETS resilience framework and methods

Our ETS resilience framework builds on the concept of institutional resilience and uses the analytical strategy of Actor-Centred Institutionalism (ACI). ETS resilience refers to the ability of the ETS to cope with *disturbances* and to maintain its vital *functions* (Adger 2000, Ostrom 2008). Disturbances include sudden changes in the ETS's operational context that affect its functions. The EU enlargement is a disturbance as it changed the ETS's policymaking environment, but disturbances also include other political-economic events, such as the 2008 economic crisis or the Brexit.

Functions refer to the effects of the ETS on climate mitigation, which are often assessed quantitatively using a series of economic criteria (Laing *et al.* 2013, Muuls *et al.* 2016). However, as the enlargement mainly affected the EU institutional setting as opposed to the 2008 economic recession that impacted the ETS market outcomes, we will follow a qualitative assessment approach focusing on the ETS policymaking after the enlargement. Bocquillon and Maltby (2017) and Skjærseth and Wettestad (2007) assessed in qualitative way how the enlargement affected EU climate policymaking process and output. The approach focuses on the ETS policymaking process and performance. The experience of the EU ETS in the past decade has shown that the ETS functions depend on proper regulatory intervention (Boute and Zhang 2019). Thus, whether the ETS policymaking has been disrupted by the enlargement should be a crucial aspect of ETS resilience assessment.

ACI helps better understand how the EU ETS policymaking has adapted to the enlargement. It considers that policies are outcomes of interactions between intentional actors. These interactions are structured, and the outcomes are shaped by the characteristics of the institutional settings within which they take place (Scharpf 1997, Mahoney and Thelen 2010). The ACI focuses on two variables: actor characteristics and actor constellation (Scharpf 1997, p. 44).

Actor characteristics are the preferences, perceptions and abilities of an actor in relation to a specific problem. When confronted with the problem, an actor will determine its strategies by perceiving the cause, the associated outcome and its related interests (ibid). The actor-constellation refers to the interrelationships of all actors, portraying how actors have been institutionalised in a particular order that constrains their interacting strategies (Ostrom 2008, Mahoney and Thelen 2010). The constellation is framed by the broader institutional setting of both formal and informal institutions.

Formal institutions refer to the legally set procedures underpinned by official rules, while informal institutions include practices developed by actors during their daily interactions, such as social norms and traditions (Scharpf 1997).

From the viewpoint of ACI, the analysis of EU ETS resilience should focus on how the enlargement has affected the characteristics of relational actors in the ETS policymaking, and how the effects have been buffered by the actors and the actor-constellation of the EU institutional settings. To do so, we first need to explain the actors and actor-constellation of the EU ETS policymaking (Figure 1). The formal institutional setting of EU ETS legislation is the Ordinary Legislative Procedure (OLP) (Council of the EU 2016). In the OLP, the Commission is the only institution entitled to initiate legislation on the ETS. Its proposal will be submitted to the EP and the Council for approval. The EP and the Council both have three rounds of legislative reading and tabling of amendments on the proposal. Both the EP and the Council need to approve the proposal. Thus although the Commission controls agenda-setting, it needs to consider the co-legislators' positions when drafting its proposals. The European Council has no formal competence in the ETS legislation, but can set general policy priorities and provide impetus to influence the policy.

Also informal institutional settings are relevant for the ETS policymaking. An example is trilogues – the trilateral contacts and negotiations among the EU triumvirate during the legislative process. Its aim is to enhance the efficiency of legislation by facilitating common understanding between the co-legislators. In the meetings, representatives of the EU triumvirate clarify their positions, identify major differences in views and search for commonly agreed text. Trilogues can be regarded as a formal institution with informal attributes. The mechanism is formal, as it is established and explained in EU legislation (Council of the EU 2016). However, it is also informal, as trilogues are carried out through informal contacts and the number, frequency and practical conduct of the negotiations are not formally set.

Informal settings also exist in the Commission and the Council. As the OLP is time-consuming for interest trade-offs and compromises, the Commission sometimes acts as a broker to influence the opinions of stakeholders (Nugent 2002). The initiation of the EU ETS has been an example of this theory (Skjærseth and Wettestad 2010a). Although environmental proposals are decided by qualified majority voting (QMV) in the Council, there is a tendency for quasi-unanimity among member states, sometimes with compromises. In the intra-Council negotiations, the Presidency has also played a mediating role to secure progress (Hayes-Renshaw 2002).

The formal and informal institutional settings of EU legislation ensure that no single institution can control ETS legislation and provide multiple channels for stakeholders to influence ETS policymaking. In the

Commission, the Directorate-General Climate Action (DG CLIMA) needs to consult stakeholders and coordinate interests of other DG departments. In the EP, the Environment Committee (ENVI) is responsible for the ETS, but the Industry Committee (ITRE) has competence over some aspects. MPs can also table their views directly in the plenary. In the Council, delegations of member states provide channels for national interest groups to input views. There are trilogues to coordinate the positions of the three EU institutions and facilitate a common ground for all stakeholders. As a result, the EU ETS institutional setting presents a policymaking atmosphere of consensus-building and compromise-making, which constitutes the actor-constellation in our ETS resilience analysis.

Our depiction of the policymaking atmosphere has some similarities with the multi-level reinforcement framework, but focuses more on the formal legislative process of the EU triumvirate institutions and on the strategic functions of compromise-making. The multi-level reinformcement framework was used by Schreurs and Tiberghien (2007) to explain why the EU could maintain its climate leadership despite the setbacks in global cooperation and domestic sceptics. Its multi-level governance perspective covers a range of actors at different levels of the EU, and focuses on the general climate policy directions and priorities, suggesting that the EU institutional setting creates a competitive process of mutual reinforcement, through which the Community could put forward its climate targets and actions. However, as we focus solely and more narrowly on the ETS, our attention is on the EU triumvirate institutions and their interactions, and on how institutional socialisation and policy compromises have been crucial for sustaining the ETS in the face of more heterogeneous national interests.

Based on the above ETS resilience framework, we have used a qualitative research strategy drawing from both primary and secondary data sources such as the formal records of EU institutions, contemporaneous media reports, existing literature and 17 semi-structured interviews with stakeholders from the EU legislative triumvirate, NGOs, industries and academics conducted during 2018–2019.

Existing written records were sorted and evaluated based on the reputation and relevance of their sources. The interviewees were sampled through a process of discovery in the field and by using referral sampling strategy. We secured an even coverage of interviewees across stakeholder groups. Semi-structured interviews were carefully crafted and conducted to address the institutional background of the interviewees and their roles in the ETS. The interview data were transcribed verbatim, and then coded and categorised based on their relevance. They were analysed through a combination of narrative analysis and critical discourse analysis. The anonymity of interviewees has been maintained.

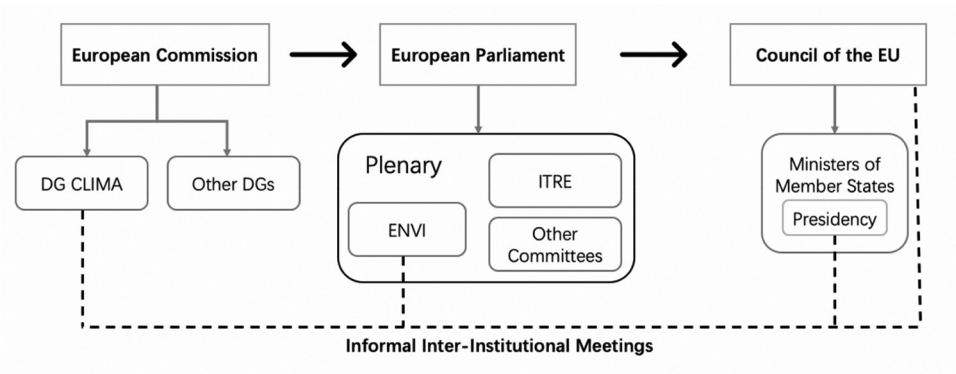

Figure 1. Actors and actor-constellation of EU ETS policymaking.

Empirical findings

1. Institutional dynamics

The most obvious impact of the enlargement on EU legislation was the compositional changes and socio-economic considerations it brought to the EP and the Council, potentially perturbing the negotiating atmosphere and affecting decision-making (Juncos and Pomorska 2008). In the EP, the fear was that NMS MPs could vote for their national interests, hindering ambitious environmental legislation. In the Council, NMSs together could also possibility block legislation through QMV (Skjærseth and Wettestad 2007). It is thus important to examine whether the enlargement has affected the internal power dynamics and decision-making standpoints of the co-legislators.

Although the voting behaviour of the EP has been less radical after the enlargement (Burns *et al*. 2012), the evidence suggests that NMS MPs did not align with their national interests and were instead integrated into their transnational party groups (Schmitt and Thomassen 2009). Interviews with the EP and relevant stakeholders confirmed that MPs usually voted with their transnational party lines rather than with national interests on ETS matters (Interview 6; 10; 13):

> At the committee level, MPs usually follow their party positions, whereas at the plenary level they sometimes follow their national positions. But this is not only restricted to new MPs but happens in general. MPs from old member states also sometimes follow their national interests and oppose progressive ETS policy. For example, some Italian MPs were also concerned about their national interests in the recent ETS [Phase 4] policy. (Interview 10)

> There was no major divide between those MPs from old and new member states. Their voting preference was largely shaped by their party differences, not national identities "…"…"…"…of course sometimes some MPs voted with their national interests, but not at a big scale. Most of MPs still stick to their party positions. (Interview 13)

A laggard group of NMS MPs did thus not materialise in the EP, and ideological identities rather than national interests informed the MPs' voting behaviour. The institutional settings of committees and rapporteurs have also mitigated the compositional impact. The EP organises its legislative work through specialised standing committees drafting amendments to the plenary and appointing teams to negotiate with the Council. The ENVI holds key responsibility for the ETS, but the ITRE acts as an associated committee on some issues. Within committees, rapporteurs are appointed to handle legislative proposals, draft recommendations on behalf of the EP, lead negotiations with other institutions and report the committees' opinions to the plenary (Council of the EU 2016).

The committees and rapporteurs have somewhat centralised the power of the EP in legislation. Before the EP adopts its position in the plenary, its opinions have already been crafted by the rapporteur and discussed with key stakeholders. In this process, the committee and the rapporteur will coordinate with the Commission and the Council through trilogues. Political groups can input their views through shadow rapporteurs. By doing so, the committee can process different interests at a smaller scale before the plenary. This can expedite the EP's decision-making process and dilute the influence of NMS MPs in the plenary, as now the EP's legislative views have been largely pre-cooked by a group of specialised MPs at the committee level:

> There are a few cases that opposite opinions are expressed in the plenary like in the backloading policy. But usually parties prefer to express their opinions in the committee rather than in the plenary. (Interview 12)

There is also little evidence suggesting the impact of compositional change on decision-making of the Council. First, the NMS members have followed the Council's voting culture. Although environmental legislation only requires QMV, in practice it has often been used as a leverage to persuade resisting members. NMSs were less likely to vote against the majority than OMSs (Hosli *et al.* 2011). The members would search for a compromise before voting rather than dissent formally (Interview 17). The expansion of members in the Council has also changed the negotiating routine: member states have difficulty in influencing the Council individually but have to find enough allies to table amendments (Hagemann and De Clerch-Sachsse 2007).

Second, NMSs had different views on energy and climate change and did not form a laggard bloc as expected. The Visegrád countries of Czech Republic, Hungary, Poland and Slovakia are often considered a homogenous group given their geographical proximity, common socialist past and economic development priorities. However, their positions concerning the ETS are different. While Poland called for an EU intervention on the surging carbon price and sought to block the Market Stability Reserve (MSR) in the European Court (Morgan 2018, Carbon Pulse 2018), Czech Republic supported a more stringent MSR in Phase 4 (MacDonald 2017):

> We should notice that Central and Eastern European Countries (CEECs) also fell apart [on climate policymaking] "…"… "…"… they expressed different views about the MSR (Interview 11)

Third, trilogues have been used to persuade resisting member states. In them, the EU triumvirate searches for a compromise text based on different positions. The agreed text is then used in the intra-Council negotiations to convince resisting members:

> The benefits of increased contacts among them (the EU triumvirate) are obvious. They can negotiate a proposal that is widely accepted by all, and when you hand this proposal to the Parliament and Council, you can convince them that the text was already negotiated and accepted by the other institutions. (Interview 17)

No gridlock has materialised in the European Council either. In theory, a member state can hinder the ETS by blocking the broader policy package. In practice, however, the EU's 2020 and 2030 climate packages have tightened up the ETS. In 2008, the European Council approved compromises to progress the negotiation deadlock between the co-legislators on the 2020 package that includes compensations in the ETS (Council of the EU 2008). In 2014, it again issued instructions on the ETS reform to continue the compensations until 2030 (European Council 2014).

The Commission faced both opportunities and challenges regarding the ETS after the enlargement. The compositional expansion made it more difficult for the EP and the Council to have a single voice in decision-making. This strengthened the Commission's role as a mediator that could strategically smooth the policymaking process. However, with more heterogeneous interests, it was also challenging for the Commission to accommodate all stakeholders and advance policy initiatives. Hence, the Commission has had to make compromises at times to secure approval:

> The EU ETS is a product of the political realities, so when making policies you need to take into consideration the political feasibility "…"… "…"… this is why we proposed backloading and market reserve instead of a regulatory price to correct the system. (Interview 3)

The Commission has thus become more powerful but less ambitious in the ETS (Interview 2; 6; 15). To reconcile the positions between the co-legislators and advise them on technical issues, it needs to participate in every step of their decision-making. The trilogues have strengthened this close connection, and now the three EU institutions know each other much better. The Commission can now draft proposals by including expected views of the co-legislators to secure approval (Interview 3; 5).

The Commission also gained more power in ETS implementation (Wettestad 2009, Bausch *et al.* 2017). The EU ETS was initially designed as a decentralised system, in which the overall ETS ambition emerged in a bottom-up way as member states proposed their own National Allocation Plans (NAPs). However, the decentralised system proved problematic. First,

it raised concerns about competitiveness and free-riding. Many countries proposed generous NAPs due to economic considerations, which caused disputes with the Commission. The dispute over the NAP II process was particularly fierce: several NMSs sued the Commission for slashing their suggested NAPs (Borowski and Petrus 2007).[1] The generous NAPs also resulted in significant overallocation that led to the price crash in both Phase 1 and 2.

Second, the decentralised system proved administratively cumbersome. Member states struggled with data accuracy. The situation was aggravated by industrial lobbying and conflicts with other ministries especially in NMSs (Skjærseth and Wettestad 2007, Moore and Jordan 2020). The Commission also faced a considerable workload. Member states often submitted their NAPs late and incomplete – the Commission had to assess more than 20 NAPs sometimes without reliable data (Wettestad 2009). These difficulties led to the ETS reform for Phase 3: the Commission centralised the competence for cap-setting and allocation. The Commission was thus a clear beneficiary after the enlargement and the reform:

> About the centralisation, I haven't heard any critique on it. This is a guarantee to the concerns of competitiveness among member states, and I haven't heard any suggestion to go back to decentralisation. (Interview 5)

To conclude, our findings suggest that the enlargement did not substantially change the characteristics of the relational actors in ETS legislation. The new members were socialised into the established norms instead of forming a laggard group. Moreover, the trilogues have centralised the power of legislation by facilitating agreement on legislation at an earlier stage of the co-legislators' decision-making, which could be used as a leverage to persuade resisting members. The dissent of NMSs in the European Council has also been compensated to avoid gridlock in the ETS. The Commission has been instrumental in smoothing the ETS policymaking via trilogues, and it also gained more competence in ETS implementation.

2. Policy dynamics

A key reason for smooth ETS legislation after the enlargement is that NMSs' interests have been compensated. An example is the derogation of Article 10c of the ETS Directive allowing less developed countries to give free allowances to existing power plants in Phase 3 (European Union 2009). Eight NMSs opted to use the derogation.[2] As the power sector in NMSs heavily relies on coal, the derogation was designed to solict the support of NMSs by delaying the phase-in of auctioning of their power plants and incentivise investment

in their energy systems. However, the derogation has been exploited by the lignite- or coal-powered plants in some NMSs (European Environment Agency/EEA 2018).

NMSs have also been compensated financially. In Phase 3, 10% of the auctioned allowances were distributed to the least wealthy members for market solidarity and economic growth. The revenues were used for decarbonisation investment and climate adaption. Two percent of the allowances were given as a 'Kyoto Bonus' to countries who had reduced their emissions by at least 20% in 2005. All nine eligible countries were NMSs, as it was easier for them to meet the criteria.[3] The solidarity measures came from the Commission to compensate for the NMSs' outdated energy sector:

> There are thresholds for Article 10, and member states know that it was not given for free but with conditions. Considering that CEECs have lower costs of carbon mitigation and many outdated facilities, the inflow of those funds is also a good thing for them. (Interview 5)

Solidarity measures will be retained in Phase 4 (European Union 2018). The least wealthy countries will hold 10% of auctioned allowances for market solidarity, and the derogation will be prolonged until 2030. A Modernisation Fund is also established from 2% of the total allowances to assist the energy transition in 10 lower-income NMSs[4]:

> About the modernisation fund, there was difference between the MPs from Eastern and Western members. MPs from CEECs widely asked for compensations in the ETS to compensate the economic gap. About the solidarity policies, as least the Commission thought it is necessary. That is also why it was in the Commission's proposal. (Interview 10)

> Although those solidarity measures make compromises to new member states, they also increase the influence of the ETS. (Interview 11)

The compensation measures were pre-cooked among EU institutions to ensure that NMSs would not block the ETS legislation. In 2008, the European Council put forward compromised solutions in the ETS to mollify the coalition of many NMSs headed by Poland (Council of the EU 2008, Skjærseth 2018). In the negotiations of ETS Phase 4 legislation, compensation measures were pre-cooked by the European Council and the trilogues of the EU triumvirate to compensate coal-intensive NMSs (European Council 2014, Wettestad and Jevnaker 2019).

The enlargement also amplified the problems of overallocation and price collapse in the ETS. At first, as almost all countries over-allocated allowances compared to what were actually needed, carbon price collapsed in 2007 (Skjærseth and Wettestad 2010b). NMSs contributed to this as they could

allocate excess allowances while still complying with their Kyoto targets. For instance, the three Visegrád countries allocated 10% more allowances than their actual emissions in 2005 (World Wild Fund/WWF 2006).

The overallocation resulted windfall profits that undermined market fairness and effectiveness. During 2008–2019, windfall profits from freely overallocated allowances in the European energy-intensive industries were worth 1.6 billion euros (de Bruyn *et al.* 2013). The European power sector also made windfall profits when they received free allowances (Laing *et al.* 2013). However, overallocation and price collapse after 2008 were largely due to economic recession and policy deficiencies (NAPs and free-allocation) – the enlargement only amplified their effects (European Commission 2012, Bocquillon and Maltby 2017). Although some NMSs were overgenerous in their NAPs, it would be unfair to impute the overallocation to them as most member states did the same.

In the later backloading and MSR policymaking, the enlargement had only a marginal impact. The backloading proposal was first rejected by the EP, but the amendment shows this was mostly because of a fear of frequent market intervention. In Council negotiations about the MSR in 2014, Poland was the only opponent, which did not hinder policy adoption (Council of the EU 2014). In the ETS Phase 4 legislation, the impact of the enlargement swelled, as some NMSs opposed further enhancing the ETS ambition. But the final legislation shows that the opposition did not block an ambitous ETS reform, as the opponents could not create a gridlock and their interests were included in the trilogues and then compensated by generous solidarity measures (European Union 2018, Wettestad and Jevnaker 2019).

Discussion

Our findings indicate that the EU ETS has been resilient to the EU enlargement, as the ETS policymaking has not been blocked and the policy has been tightened up over time. The compositional impact has not changed the stances of the EU triumvirate, and NMSs' interests have been compensated through compromised solutions to avoid policy gridlock. It is important to set these findings to the context of ETS policymaking atmosphere underpinned by the EU's formal and informal institutional settings.

Under the OLP, the decentralised legislative power among the EU triumvirate can dilute the compositional impact through their established norms. In the EP, the impact was buffered by the established ways and the institutions of committees and rapporteurs. NMS MPs were socialised into their transnational party groups instead of forming a laggard group (Scully *et al.* 2012). The ENVI committee and rapporteurs helped dilute the

compositional changes of the plenary by moving the negotiations of different political groups to the committee level, thereby enhancing its legislative efficiency. In the Council, the voting behaviours of NMSs also aligned with the prevailing culture. It is rare for NMSs to vote against the majority (Hosli *et al.* 2011). If they did so, they were unlikely to succeed in blocking a policy under QMV, as exemplified in the Phase 4 legislation (Wettestad and Jevnaker 2019). Moreover, the European Council provides an arena to address the NMSs' concerns at an earlier stage, which forms detailed instructions for the later ETS policymaking.

The analysis of the institutional dynamics resonates with the literature that the enlargement did not slow down the EU environmental legislation or create a policy gridlock (Parízek *et al.* 2015, Toshkov 2017, Burns 2019, Deters 2019, Wurzel *et al.* 2019). But we also examined how supranational EU institutions have adapted the ETS legislation to the enlargement. To the co-legislators, the trilogues have reallocated their decision-making power to a group of representatives attending meetings. In early negotiations, representatives seek a compromise before formal legislative reading. Once the compromise is reached, it is endorsed by both sides, and brought back to intra-institutional negotiations to persuade resisting members.

As trilateral contacts facilitate a better understanding across EU institutions, the Commission can draft proposals reflecting the expected stances of the co-legislators to secure approval. In the MSR policymaking, the Comission's initiative was even tightened up by the co-legislators through amendments (Wettestad and Jevnaker 2019). Thus the Commission and the trilateral contacts have been instrumental in buffering the compositional impacts within the co-legislators. This resonates with the Neofunctionalist reasoning that stresses the importance of functional cooperation and complementarity of EU institutions and the entrepreneurial leadership of the Commission (Sandholtz and Stone Sweet 1998, Skjærseth and Wettestad 2010a).

The findings indicate two tendencies in EU ETS policymaking. On the one hand, the decentralised legislative power of the EU triumvirate provides more channels for stakeholders to input interests and help forge compromises. On the other hand, the trilogues have reallocated EU legislative power to representatives in the triumvirate, which has caused questions about the accountability and transparency of EU legislation, especially with regard to the EP as the only directly elected EU institution (Brandsma 2019). Compromises at the early stage can also weaken the environmental ambition of the EP's amendments. Burns *et al.* (2012) argued that despite improved adoption record, the EP's amendments in environmental legislation had been less radical as they were the product of a compromise with the Council. However, this argument is less compelling on the ETS, as even

before the enlargement the EP failed to secure most of its key proposed amendments when confronting with the Council in the first ETS Directive negotiations (Skjærseth and Wettestad 2008).

The somewhat contradictory tendencies of decentralised and centralised power have fostered a consensus-building and compromise-making atmosphere of ETS policymaking to expedite the legislative process and accommodate heterogenous national interests. This has resulted in several changes in the ETS. Forging compromises is an essential means to settle the different opinions and priorities of NMSs. Also, policy compromises have been forged before the formal legislative processs to ensure that NMSs would not block the formal ETS legislation. Interviews with stakeholders suggested that compensations are widely welcomed and considered a necessary solution to push forward the ETS and to avoid policy gridlock (Interview 2; 3; 4; 5; 6; 8; 9; 14; 16).[5] The high acceptance on the ETS compensations reflects a common idea shared by EU stakeholders that the ETS is crucial to underpin the EU's global climate leadership, and that it is worth it to make concessions to strengthen the policy. This is echoed by the fact that both the ETS policymaking of Phase 3 and 4 were prompted by key international climate summits – the 2009 Copenhagen and the 2015 Paris Conferences – as the EU needed a flagship to demonstrate its leadership (Skjærseth 2018, Wettestad and Jevnaker 2019).

Yet, the enlargement has interacted with other factors and amplified their effects on the ETS. In Phase 1 and 2, it aggravated the problem of overallocation and caused political battles over the NAPs. The expansion of members also increased the administrative workload, which led to the ETS reform in Phase 3 (Wettestad 2009). Second, the enlargement interacted with the changing economic context after 2008, exacerbating the crisis of price collapse (Bocquillon and Maltby 2017). In combination with the carbon price collapse after the economic downturn, the ETS policies towards NMSs further undermined the price incentives for low-carbon transition in them.

The findings indicate that the characteristics of relational actors in ETS legislation have not fundamentally altered after the enlargement, and the actor-constellation of ETS legislation has been instrumental for buffering the effects. The institutional settings of EU legislation ensure a consensus-building and compromise-making atmosphere. This constellation further shapes the characteristics and behaviours of the EU triumvirate. First, new members were institutionalised into the established norms of the co-legislators. Second, legislative work has been centralised and bureaucratised to expedite the policymaking process. Last, policy compromises were made to accommodate NMSs' interests to avoid policy gridlock. As a result, the enlargement caused no major policy disruptions to the ETS, although it interacted with other factors and amplified their effects in the ETS market.

Our empirical findings make several contributions to the literature. First, they confirm that the enlargement only resulted in limited effects in the EU co-legislators, demonstrating that new members were institutionalised into the established norms of the EU institutions and did not alter their environmental stances. Second, the findings add to the understanding of how the supranational EU institutions have strengthened the ETS resilience. The functional complementarity among the EU triumvirate has fostered a consensus-building atmosphere of ETS policymaking to accommodate preferences heterogeneity. Third, the article also advances the concept of institutional resilience and ACI perspective in ETS studies.

However, there are limitations to our analysis. First, our analysis only focuses on the general post-enlargement ETS policy trajectories. Yet the impact of the enlargement on the ETS may vary, as the EU triumvirate and member states face varying priorities in different ETS topics. Second, we only pay attention to the strategic functions of compensation measures in the ETS. However, as a part of the EU's broad climate package, the increased acceptance of NMSs on the ETS is also related to the compromises of other policy elements, such as the renewable energy, carbon capture and storage and effort sharing directives.

Conclusion

The EU enlargement was an institutional and political challenge to the EU environmental policy. Did it cause a halt of EU environmental legislation, and how the EU coped with it? Existing literature points to the established norms and socialising functions of the co-legislators, suggesting that the enlargement only had modest effects on EU environmental policy. However, limited attention has been given to the broad institutional settings and power structure of EU legislation. We proposed an ETS resilience framework to capture the importance of the functional constellation and complementarity of the EU legislative triumvirate, finding that the contradicted tendencies of decentralised and centralised power have created a consensus-building and compromise-making atmosphere of ETS policymaking that has been instrumental in buffering the effects of the enlargement. It helps reconcile heterogenous interests and foster policy compromises in the new political context. This has been furthered through solidarity measures compensating NMSs. As a result, the EU ETS has successfully buffered the effects of the enlargement to avoid policy gridlock.

For the EU environmental policy, the enlargement is a typical challenge of how to accommodate heterogeneous priorities. In the EU ETS, this challenge was successfully managed through institutional socialisation, established legislative norms and compensation policies. Our analysis helps understand

the complexities of institutional adaption and policymaking. For the EU ETS, challenges are still ahead. The EU has recently proposed the Fit for 55 climate package, but its ambition may face difficulties from the ongoing pandemic and the increasing cleavage with some member states. Its experience with the enlargement provides insights for the future.

Notes

1. In 2009, the European Court of First Instance annulled the EC's decisions to lower the NAPs of Poland and Estonia (Case T183/07 EC Commission v Poland (2009), Case T263/07 EC Commission v Estonia (2009)).
2. The eight countries that decided to use the derogation term were Cyprus, Czech Republic, Estonia, Hungary, Lithuania, Poland, along with Bulgaria and Romania.
3. The nine countries eligible for the 'Kyoto Bonus' were Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia. Poland and Romania together accounted for more than half of the share.
4. The ten lower-income countries are Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia.
5. In the interviews, some EU officials and NGOs expressed worries about the misuse of the policies in fossil fuel-related industries in Poland. But they still support solidarity measures, adding that more strict benchmarks and reviews are needed though (Interview 2; 5; 6)

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References

Adger, W.N., 2000. Social and ecological resilience: are they related? *Progress in Human Geography*, 24, 347–364.

Bausch, C., Gorlach, B., and Mehling, M., 2017. Ambitious climate policy through centralisation: evidence from the EU. *Climate Policy*, 17 (sup 1), 32–50.

Bocquillon, P. and Maltby, T., 2017. The more the merrier? Assessing the impact of enlargement on EU performance in energy and climate change policies. *East European Politics*, 33 (1), 88–105.

Borowski, C., and Petrus, M., 2007. *Countries to sue EU commission over CO2 limits*. Reuters. Available from: https://www.reuters.com/article/uk-emissions-czecz-poland-idUKL2573157920070525 [Accessed 20 February 2022].

Boute, A. and Zhang, H., 2019. Fixing the emissions trading scheme: carbon price stability in the eu and China. *European Law Journal*, 25 (3), 333–347.

Brandsma, G., 2019. Transparency of EU informal trilogues through public feedback in the European Parliament: promise unfulfilled. *Journal of European Public Policy*, 26 (10), 1464–1483.

Braun, M., 2014. EU climate norms in East-Central Europe. *Journal of Common Market Studies*, 52 (3), 445–460.

Burns, C., 2019. In the eye of the storm? The European Parliament, the environment and the EU's crises. *Journal of European Integration*, 41 (3), 311–327.

Burns, C., Carter, N., and Worsfold, N., 2012. Enlargement and the environment: the changing behaviour of the European Parliament. *Journal of Common Market Studies*, 50 (1), 54–70.

Carbon Pulse, 2018. *Poland minister calls for EU ETS intervention following price spike*. Carbon Pulse. Available from: https://carbon-pulse.com/58672/ [Accessed 20 February 2022].

Council of the EU, 2008. *Energy and climate change – elements of the final compromise 17215/ 08*. Brussels: General Secretariat of the Council.

Council of the EU. 2014. *Informal Meeting of EU Environment Ministers and Informal Joint Meeting of EU Environment and Labour Ministers on 16-17 July 2014*. Presidency Summary, 16-17 July, Milan.

Council of the EU, 2016. *Guide to the ordinary legislative procedure*. Brussels: The Council of the European Union.

de Bruyn, S., Juijn, D., and Schep, E., 2013. *Additional profits of sectors and firms from the EU ETS 2008-2019*. Delft: CE Delft. May 2021.

Declercq, B., Delarue, E., and William, D. 2010. Impact of the economic recession on the European power sector's CO2 emissions. *TME Working Paper - Energy and Environment*, *WP EN2010-08*.

Deters, H., 2019. European environmental policy at 50: five decades of escaping decision traps? *Environmental Policy and Governance*, 29 (5), 315–325.

European Commission. 2012. *The state of the European carbon market in 2012*. Brussels, 14 November 2012, COM (2012) 652 final.

European Council, 2014. *Conclusions on 2030 climate and energy policy framework SN 79/14*. European Council: Brussels, 23 and 24 October 2014.

European Environment Agency/EEA, 2018. *Trends and projections in the EU ETS in 2018: the EU Emissions Trading System in number*. Luxembourg: Publications Office of the European Union.

European Union, 2009. *Directive 2009/29/EC of The European Parliament and of the Council Of 23 April 2009: amending directive 2003/87/EC so as to improve and extend the Greenhouse gas emission allowance trading scheme of the community*. Brussels: European Union.

European Union, 2018. *Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March 2018 amending directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and decision (EU) 2015/1814*. Brussels: European Union.

Hagemann, S. and De Clerch-Sachsse, J., 2007. *Old rules, new game: decision-making in the Council of Ministers after the 2004 enlargement*. Brussels: Centre for European Policy Studies.

Hayes-Renshaw, F., 2002. The Council of Ministers. *In*: J. Peterson, and M. Shackleton, eds. *The institutions of the European Union*. New York: Oxford University Press, 47–70.

H"é"éritier, A., 1995. Leaders and laggards in European clean air policy. *In*: F. van Waarden, and B. B. Unger, eds. *Convergence or diversity? The pressure of internationalization on economic governance institutions and policy outcomes*. Aldershot: Avebury, 278–306.

Homeyer, I.V., 2004. Differential Effects of Enlargement on EU Environmental Governance. *Environmental Politics*, 13 (1), 52–76.

Hosli, M., Mattila, M., and Uriot, M., 2011. Voting in the Council of the European Union after the 2004 enlargement: a comparison of old and new member states. *Journal of Common Market Studies*, 49 (6), 1249–1270.

Juncos, A. and Pomorska, K., 2008. Does size matter? CFSP committees after enlargement. *Journal of European Integration*, 30 (4), 493–509.

Laing, T., *et al*. 2013. *Assessing the effectiveness of the EU Emissions Trading System*. centre for climate change economics and policy working Paper No. 126/Grantham Research Institute on Climate Change and the Environment Working Paper No. 106.

MacDonald, P., 2017. *EU ETS reform: European countries outbid the parliament, giving hope for the long-term future of the ETS*. Ember. Available from: https://ember-climate.org/commentary/2017/03/01/eu-ets-reform-european-countries-outbid-parliament-proposals-tighten-flagship-eu-climate-policy-giving-hope-long-term-future/ [Accessed 20 February 2022].

Mahoney, J. and Thelen, K., 2010. *Explaining institutional change: ambiguity, agency, and power*. Cambridge: Cambridge University Press.

Moore, B. and Jordan, A., 2020. Disaggregating the dependent variable in policy feedback research: an analysis of the EU Emissions Trading System. *Policy Sciences*, 53 (2), 291–307.

Morgan, S., 2018. *Poland's anti-emissions trading Bid struck down by EU court*. EURACTIV. Available from: https://www.euractiv.com/section/emissions-trading-scheme/news/polands-anti-emissions-trading-bid-struck-down-by-eu-court/ [Accessed 20 February 2022].

Muuls, M., *et al*. 2016. Evaluating the EU Emissions Trading System: take it or leave it? An assessment of the data after ten years. *Grantham Institute Briefing Paper No, 21*. Available from: https://www.imperial.ac.uk/media/imperial-college/grantham-institute/public/publications/briefing-papers/Evaluating-the-EU-emissions-trading-system_Grantham-BP-21_web.pdf [Accessed 20 February 2022].

Nugent, N., 2002. The commission's services. *In*: J. Peterson, and M. Shackleton, eds. *The institutions of the European Union*. Oxford: Oxford University Press, 141–163.

Oberthür, S. and Dupont, C., 2011. The Council, the European Council and international climate policy. *In*: R. Wurzel and J. Connelly, eds. *The European Union as a leader in international climate change politics*. London: Routledge, 74–91.

Ostrom, E., 2008. Developing a method for analysing institutional change. *In*: S. Batie, and N. Mercuro, eds. *Alternative institutional structures: evolution and impact*. London, UK: Routledge, 48–76.

Parízek, M., Hosli, M., and Plechanovová, B., 2015. Avoiding paralysis: the eastern enlargement and the Council of the European Union. *Journal of European Integration*, 37 (6), 649–665.

Sandholtz, W. and Stone Sweet, A., 1998. *European integration and supranational governance*. Oxford: Oxford University Press.

Scharpf, F., 1997. *Games real actors play: Actor-Centred Institutionalism in policy research*. Oxford: Westview Press.

Schmitt, H. and Thomassen, J., 2009. The European party system after enlargement. *In*: J. Thomassen, ed. *The legitimacy of the European Union after enlargement*. Oxford: Oxford University Press, 23–43.

Schreurs, M.A. and Tiberghien, Y., 2007. Multi-level reinforcement: explaining European Union leadership in climate change mitigation. *Global Environmental Politics*, 7 (4), 19–46.

Scully, R., Hix, S., and Farrell, D.M., 2012. National or European parliamentarians? evidence from a new survey of the members of the European parliament. *Journal of Common Market Studies*, 50 (4), 670–683.

Skjærseth, J.B., 2018. Implementing EU climate and energy policies in Poland: policy feedback and reform. *Environmental Politics*, 27 (3), 498–518.

Skjærseth, J.B. and Wettestad, J., 2007. Is EU enlargement bad for environmental policy? confronting gloomy expectations with evidence. *International Environmental Agreements*, 7, 263–280.

Skjærseth, J.B. and Wettestad, J., 2008. *EU emissions trading: initiation, decision-making and implementation*. Ashgate: Aldershot.

Skjærseth, J.B. and Wettestad, J., 2010a. Making the EU ETS - the European commission as an entrepreneurial epistemic leader. *Global Environmental Change*, 20, 314–321.

Skjærseth, J.B. and Wettestad, J., 2010b. Fixing the EU ETS - understanding the post-2012 changes. *Global Environmental Politics*, 10 (4), 101–123.

Toshkov, D.D., 2017. The impact of the Eastern enlargement on the decision-making capacity of the European Union. *Journal of European Public Policy*, 24 (2), 177–196.

Warntjen, A., 2017. Why no gridlock? Coping with diversity in the Council of the European Union. *Journal of Contemporary European Research*, 13 (1), 963–979.

Wettestad, J., 2009. European climate policy - toward centralised governance. *Review of Policy Research*, 26 (3), 311–328.

Wettestad, J. and Jevnaker, T., 2019. Smokescreen politics? Ratcheting up EU emissions trading in 2017. *The Review of Policy Research*, 36 (5), 635–659.

World Wild Fund/WWF, 2006. *WWF's assessment of national allocation plans (NAPs)*. Brussels: World Wild Fund.

Wurzel, R.K.W., Connelly, J., and Liefferink, D., 2017. *The European Union in international climate change politics*. London: Routledge.

Wurzel, R.K.W., Liefferink, D., and Di Lullo, M., 2019. The European Council, the Council and the Member States: changing environmental leadership dynamics in the European Union. *Environmental Politics*, 28 (2), 248–270.

Appendix: Interview List

No.	Category	Date
1	Academic	April 2018
2	NGO	May 2018
3	EU Official	May 2018
4	NGO	May 2018
5	EU Official	June 2018
6	NGO	June 2018
7	Industry	June 2018
8	Industry	June 2018
9	Industry	June 2018
10	EU Official	June 2018
11	Academic	July 2018
12	NGO	July 2018
13	Media	July 2018
14	Industry	August 2018
15	Media	September 2018
16	Industry	July 2019
17	Academic	July 2019