

Stalling the engine? EU climate politics after the 'Great Recession'

Investigating the impact of economic shocks on EU climate policy-making in three case studies

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DOCTORAL DISSERTATION

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To my family, and to Julia.

Abstract

This dissertation investigates the impact of the economic and fiscal crisis starting in 2008 on EU climate policy-making. While the overall number of adopted greenhouse gas emission reduction policies declined in the crisis aftermath, EU lawmakers decided to introduce new or tighten existing regulations in some important policy domains. Existing knowledge about the crisis impact on EU legislative decision-making cannot explain these inconsistencies. In response, this study develops an actor-centred conceptual framework based on rational choice institutionalism that provides a micro-level link to explain how economic crises translate into altered policy-making patterns. The core theoretical argument draws on redistributive conflicts, arguing that tensions between ‘beneficiaries’ and ‘losers’ of a regulatory initiative intensify during economic crises and spill over to the policy domain. To test this hypothesis and using social network analysis, this study analyses policy processes in three case studies: The introduction of carbon dioxide emission limits for passenger cars, the expansion of the EU Emissions Trading System to aviation, and the introduction of a regulatory framework for biofuels. The key finding is that an economic shock causes EU policy domains to polarise politically, resulting in intensified conflict and more difficult decision-making. The results also show that this process of political polarisation roots in the industry that is the subject of the regulation, and that intergovernmental bargaining among member states becomes more important, but also more difficult in times of crisis.

Zusammenfassung

Diese Dissertation untersucht den Einfluss der in 2008 beginnenden globalen Wirtschaftskrise auf die Prozesse der EU-Klimapolitik. Während die Zahl der verabschiedeten Gesetze zur Treibhausgasreduktion nach Krisenausbruch insgesamt sank, entschieden die EU-Gesetzgeber, in mehreren wichtigen Politikfeldern neue Regulierungen einzuführen oder existierende zu verschärfen. Bestehendes Wissen zum Einfluss der Krise auf EU-Gesetzgebungsprozesse kann diese Inkonsistenzen nicht erklären. Daher entwickelt diese Arbeit ein auf Rational-Choice-Institutionalismus basierendes konzeptionelles Gerüst, das auf der Mikro-Ebene eine kausale Verbindung zwischen Wirtschaftskrise und veränderten Politikprozessen herstellt. Das zentrale theoretische Argument beruht auf Verteilungskonflikten innerhalb der regulierten Wirtschaftsbranchen: Die Spannung zwischen „Nutznießern“ und „Verlierern“ einer geplanten Regulierung intensiviert sich in Krisenzeiten und setzt sich im politischen Raum fort. Diese Hypothese wird an drei Fallstudien mittels sozialer Netzwerkanalyse getestet. Die drei Fallstudien untersuchen politische Entscheidungsprozesse in den folgenden EU-Politikfeldern: Kohlenstoffdioxid-Emissionsgrenzen für PKW, die Ausweitung des Emissionshandels auf Flugverkehr und die Einführung eines Regulierungsrahmens für Biokraftstoffe. Die wichtigste Erkenntnis der Untersuchung ist, dass makroökonomische Schocks eine Polarisierung der politischen Interessen innerhalb eines Politikfeldes auslösen, dadurch Konflikte intensivieren und letztlich Entscheidungsfindungen erschweren. Die Ergebnisse zeigen zudem, dass dieser Polarisierungsprozess in der regulierten Wirtschaftsbranche wurzelt. Außerdem werden Verhandlungen zwischen den Regierungen der Mitgliedsstaaten in Krisenzeiten wichtiger, aber auch schwieriger.

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Abbreviations

This list contains in-text abbreviations as well as actor abbreviations from the Network Graphs.

A4A	Airlines for America
ACEA	European Automobile Manufacturers Association
ACI EUROPE	Airports Council International Europe
AEA	Association of European Airlines
AECC	Association for Emissions Control by Catalyst
ALDE	Alliance of Liberals and Democrats for Europe
ANFIA	Associazione Nazionale Filiera Industria Automobilistica
AOA	Airport Operators Association
BEUC	Bureau Européen des Unions de Consommateurs
BMW	Bayerische Motoren Werke AG
BP	British Petroleum
BRFT	Biodiversity Research and Training Forum
CAAC	Civil Aviation Administration of China
CARS21	Competitive Automotive Regulatory System for the 21 st Century
CATA	China Air Transport Association
CEPI	Confederation of European Paper Industries
CEO	Corporate Europe Observatory
CER	Community of European Railway and Infrastructure Companies
CNDC	Centre National de Coopération et Développement
COM	European Commission
COPA – COGECA	Comité des organisations professionnelles agricoles – Comité general de la cooperation Agricole de l'Union européenne
DG AGRI	Directorate – General for Agriculture and Rural Development
DG CLIMA	Directorate – General for Climate Action
DG DEVCO	Directorate – General for International Cooperation and Development
DG ENTR / ENTERPRISE	Directorate – General Enterprise and Industry
DG ENV / ENVI	Directorate – General Environment
DG JUST	Directorate – General for Justice and Consumers
DG MARKT	Directorate – General Internal Market and Services
DG MOVE	Directorate – General Mobility and Transport
DG RTD	Directorate – General for Research and Innovation
DG TAXUD	Directorate – General Taxation and Customs Union
DG TRADE	Directorate – General for Trade
DG TREN	Directorate – General Transport and Energy

EAA	European Aluminium Association
EBB	European Biodiesel Board
EBAA	European Business Aviation Association
EBIO	European Bioethanol Fuel Association
EC	Council of the European Union
ECA	European Cargo Alliance
ECJ	European Court of Justice
ECR	European Conservatives and Reformists
EDF	Électricité de France
EEA	European Environment Agency
EEB	European Environment Bureau
EGE	European Group on Ethics
ELFAA	European Low – Fare Airlines Association
EP	European Parliament
EP AGRI	European Parliament Committee on Agriculture and Rural Development
EP ENER	European Parliament Committee on Energy
EP ENVI	European Parliament Committee on Environment, Public Health and Food Safety
EP ITRE	European Parliament Committee on Industry, Research, Telecommunication and Energy
EP REGI	European Parliament Committee
EP TRAN	European Parliament Committee
EPP	European People’s Party
EPP - ED	European People’s Party – European Democrats
ePURE	European Renewable Ethanol Association
ERA	European Regions Airline Association
ETS	Emission Trading System
EU	European Union
EUCAR	European Council for Automotive Research and Development
EuropaBio	European Association for Bioindustries
EUROPIA	European Petroleum Refiners Association
EWP	European Water Partnership
FIA	Fédération Internationale de l’Automobile
FIAN	Food First Information and Action Network
FoEI	Friends of the Earth International
Greens / EFA	The Greens / European Free Alliance
GRR	Grupo de Reflexión Rural
GUE - NGL	European United Left – Nordic Green Left
IACA	International Air Carrier Association

IATA	International Air Transport Association
IATP	Institute of Agriculture and Trade Policy
ICAO	International Civil Aviation Association
ICCT	International Council on Clean Transportation
IEA	International Energy Agency
IFPRI	International Food Policy Research Institute
IIED	International Institute for Environment and Development
ILUC	Indirect Land Use Change
IMACE	European Margarine Association
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IPPR	Institute of Public Policy Research
JAMA	Japan Automobile Manufacturers Association
JRC	Joint Research Council
KAMA	Korea Automobile Manufacturers Association
KSA	Kingdom of Saudi Arabia
LOT	Polskie Linie Lotnicze
MEP	Member of the European Parliament
MTU	MTU Aero Engines
NUPI	Norwegian Institute of International Affairs
OECD	Organisation for Economic Cooperation and Development
PBL	Netherlands Environmental Assessment Agency
PSA	Peugeot S.A.
RFA	US Renewable Fuels Association
RICANADA	Renewable Industries Canada
SAS	Scandinavian Airlines
S & D	Socialists & Democrats
T & E	Transport & Environment
UCSUSA	Union of Concerned Scientists USA
UFOP	Union zur Förderung von Öl- und Proteinpflanzen
UITP	International Association of Public Transport
UK	United Kingdom
UK HoC	United Kingdom House of Commons
UN	United Nations
UN - FAO	United Nations Food and Agriculture Organization
UN - WFP	United Nations World Food Programme
UNICA	Brazilian Sugarcane Industry Association
UPS	United Parcel Service

US / USA	United States of America
US HoR	United States of America House of Representatives
VDA	Verband der Automobilindustrie
VDB	Verband der Deutschen Biokraftstoffindustrie
VW	Volkswagen
WI	Worldwatch Institute
WWF	World Wildlife Fund

1 Introduction

*Prosperity blurs a truth that hard times make clearer:
The choice made among conflicting policy proposals
emerges out of politics.'*

Peter Gourevitch
Politics in Hard Times, 1986, p. 17

During the global financial crisis in 2007 and 2008, the European Union (EU) suffered from a steep economic downturn. Soon after, a government debt and banking crisis starting in late 2009, followed by a long period of austerity policy, provided another acid test to the EU and its member states. This 'Great Recession' had severe implications for the European Union's (EU) climate change policy: Previously an international frontrunner, the EU curbed its efforts to reduce greenhouse gases and adopted less -and less ambitious- climate policies overall. However, EU lawmakers decided to introduce new or tighten existing regulations in some policy domains. Existing knowledge about the crisis impact on EU legislative decision-making cannot explain these inconsistencies. While less policies were proposed and passed, we do not yet understand the reasons why other policies withstood the general trend and 'survived' the economic crisis. To get a complete picture of EU climate politics, it is indispensable to fully grasp the complex, often inconsistent and interlocked linkages between economic shocks and climate policy outputs. Therefore, this study puts focus on the processual aspects of EU climate politics and enquires the following research question:

How did the 2008-2010 economic crisis affect EU climate policy-making processes?

EU climate policy in times of crisis has the intricate task to reconcile the demand for short-term reliefs for troubled economies and long-term sustainability transitions. The tension emerging from these rivalling policy goals seems to have deepened the cleavage between environmental forerunners and laggards (Skovgaard, 2014). While theories largely agree that 'external shocks' open windows of opportunities, it remains unclear which of the many diverse actors involved in EU climate policy-making are most successful in seizing this opportunity and why. As a result, scholars

are confronted with the conceptual puzzle why in response to economic shocks, environmental standards are sometimes raised (Vogel, 1995) or contrarily dismantled (Korte & Jörgens, 2012).

To solve this puzzle, this study makes the case that our understanding of EU climate politics in hard times can be improved by focusing on the decision-making processes that ultimately produce policy. Since interest representation in the EU is increasingly understood as a collective endeavour (Klüver, 2013), the study takes an actor-centred perspective and focuses on the coalitions actors forge based on shared political goals. In doing so, the study explains how changes in the coalition patterns result in changed policy outputs. As Gourevitch (1986, p. 17) pointed out, ‘in prosperous times it is easy to forget the importance of power in the making of policy, [...] in difficult economic times [...] patterns unravel, economic models come into conflict, and policy descriptions diverge.’

1.1 Setting the scene: EU climate policy-making during the economic crisis

The notion ‘the economic crisis’ refers to a complex multidimensional chronology of events that involves closely interlinked macroeconomic, sovereign debt, and banking crises (Hodson & Puetter, 2013; Shambaugh, Reis, & Rey, 2012; Walter, 2013; for a concise overview see Tosun, Wetzel, & Zapryanova, 2014)¹. When the crisis broke out in Europe in autumn 2008, it raised a pivotal question for EU climate policy-makers: How to reconcile two competing political goals and cope with the ‘double crisis’ of an economic downturn and climate change (Bina & La Camera, 2011; Edenhofer & Stern, 2009)? On the one hand, the EU was eager to keep its reputation as a frontrunner in climate policy (Kilian & Elgström, 2010; Parker & Karlsson, 2010; Schaik & Schunz, 2012; R. Wurzel & Connelly, 2010). On the other hand, the European Commission serves as agency of the member states (Lenschow, 2010) and has to consider their demand for economic relief. The challenge became even more difficult because EU environmental policy has always had both an economic and ecological purpose: On the one hand, policies such as emission limits, emission trading, and biofuel regulations serve as a tool to structure the common market (Jachtenfuchs, 1996) and ‘level the playing field’ (Lenschow, 2010, p. 309) for trade. Equally, these regulations are an essential part of the EU’s political response to the ‘super wicked problem’ of climate change (Levin, Cashore, Bernstein, & Auld, 2012) and part of the EU’s international commitment.

¹ A more detailed chronology of the economic crisis is provided in the research design.

Despite this intriguing puzzle and despite being the EU's former flagship policy project, scholars of the EU largely neglected the impact of the economic crisis on this policy field (Burns & Tobin, 2016). Before the crisis broke out, EU environmental policy was generally characterised by a trend towards expansion, deepening and institutionalisation Lenschow (2010). This trend had gained momentum particularly after 2005 (Boasson & Wettestad, 2013; Lenschow, 2010), but was thwarted by the crisis, possibly because former environmental leaders such as Germany 'shy away from imposing extra costs' (Lenschow, 2010, p. 315) on industries. The crisis thus constitutes a 'serious constraint to developing environmental policy' (Lenschow, 2010, p. 328). Due to the crisis, 'issues of climate change and the related challenges are deemed less urgent, and have slipped further down on the political agenda' (Boasson & Wettestad, 2013, p. 2). Skovgaard (2014) observes that the crisis has deepened the division between those actors that see climate change policy as detrimental respectively beneficial to economic growth, causing a deadlock in EU emission reduction target negotiations. After the crisis outbreak, the European Commission's role in climate policy has changed 'from a supporter to a brakeman' (Bürgin, 2015), acting 'hypocritically' by decoupling patterns of talk, decision and action (Knill, Steinebach, & Fernández-i-Marín, 2018). As a result, the Commission published significantly less (and less ambitious) environmental policy proposals after 2010 than before, causing the longest period of environmental regulatory inactivity since the early 1980s in the years 2011 to 2013 (Čavoški, 2015; Gravey & Jordan, 2016; Steinebach & Knill, 2016). Also Geels (2013) finds that in the immediate aftermath of the crisis outbreak (2008-2010) 'green growth' policies prevailed, but later (2010-2011) the crisis exerted negative influence on sustainability transitions, causing a slow-down. Taken together, there is profound evidence that in response to the economic crisis, the European Union withdrew climate change mitigation its status as flagship political project, heralding a period of regulatory inertia. However, the next section will assess why this is only a part of the whole picture.

1.2 Empirical contribution: Insights from three case studies

Did a substantial climate policy survive the economic crisis?

The brief review above makes clear that most scholars focus on investigating crisis effects on policy outputs, leaving two blind spots in the literature: First, while studies show that there is a drop in the number of proposed and passed environmental legislation, the EU's legislative activity did not drop to zero: It still adopted a remarkable amount of environmental regulation, among them also cases

of clear regulatory tightening. In other words, by simply counting policy outputs, we can learn what did *not* happen, while we learn little about the crisis impact on those regulatory projects that ‘survived’, and why some regulatory survived, while others faded. Second, while most studies focus on studying the crisis impact on policy outputs, there is hardly any work on the impact on the politics that precede these outputs. Therefore, the main motivation for this study to improve and broaden the empirical knowledge on EU policy-making processes during times of economic hardship, and to research the survival conditions of climate mitigation policies.

Through which linkages does an economic crisis impact on policy-making?

A second shortcoming in empirical literature is more severe and also more difficult to address. As demonstrated above, there are good descriptions of both the economic crisis and how EU climate policy output patterns changed in consequence. What is missing, however, is a systematic account of the nexus between both macro-phenomena (Burns & Tobin, 2016). This causal relationship appears to be a complex one, producing often contradictory policy outputs: In response to economic crises, new environmental policies are either not drafted or drafted, adopted or not adopted, while existing regulations are dismantled, expanded, tightened, or kept unchanged (Bauer, Jordan, Green-Pedersen, & Héritier, 2012; Gravey & Jordan, 2016; Jordan, Bauer, & Green-Pedersen, 2013; Knill, Steinebach, Hanschmann, Bianculli, & Juanatey, 2014; Korte & Jörgens, 2012; Steinebach & Knill, 2015, 2016; Vogel, 2009). There are many good observations of the results of policy-making in times of crisis, but little on the actual policy process that bears them. Why do EU policy-makers choose to postpone or even dismantle greenhouse gas emissions reduction regulations in some cases, while they decide to expand others? How did the economic crisis affect the policy preferences of single actors, and in result policy choice? In the words of Peter Gourevitch, to understand policy choices ‘we must understand the politics that produce them’ (1986, p. 19). To investigate the process that links economic shocks and policy outputs on a micro-level and from an actor-centred angle, this study employs three detailed analytical case studies. They constitute the core of the dissertation and scrutinise each one policy process before and after the outbreak of the economic crisis.

Case 1: Emission limits for passenger cars

The economic crisis had a *strong impact* on the European car industry. However, not all manufacturers were affected to an equal extent. Generally, market shares of light cars were decreasing stronger than those of heavy, emission-intense cars. Along the same cleavage, regulatory preferences are assumed to diverge: Depending on the product portfolio, emission limit regulations are assumed to cause differential costs across the industry. Manufacturers that mainly produce heavy-engine cars generally face higher investments in research and development in order to meet emission goals than manufacturers of lighter cars (ten Brink, 2010). The pre-crisis policy decision, Regulation (EC) No 443/2009, was decided upon in December 2008, and stipulated a binding 130 g/km goal for carbon dioxide emissions. The policy debate started in 2005, when a voluntary agreement by carmakers turned out to be ineffective and lasted until the final policy decision in December 2008. The after-crisis outbreak policy decision, Regulation (EU) No 333/2014, was decided upon in February 2014, stipulating the conditions for reaching a 95 g/km target. The policy debate started in Spring 2012 and lasted until February 2014.

Case 2: The inclusion of aviation into the Emission Trading Scheme (ETS)

The crisis had a *strong impact* on European air carriers. The inclusion of aviation into the ETS meant that aircraft operators must pay allowances for all commercial flights landing at and departing from any airport in the EU (Scheelhaase, Grimme, & Schaefer, 2010). In contrast to most EU countries, the regulation caused strong opposition among non-EU countries such as the United States, China, Canada, Russia and Japan because their airlines were supposed to be subject of the Directive, too (Lan, 2011). Another cleavage is expected to emerge between low cost and regional airlines and network carriers, the latter facing a substantially lower financial impact (Scheelhaase & Grimme, 2007). The pre-crisis policy decision, Directive 2008/101/EC, extended the ETS to aviation. It was decided upon in August 2008, while the policy debate started in 2006. The after-crisis outbreak policy decision, Regulation (EU) No 421/2014, modified the ETS conditions for aircraft operators. It was decided upon in early 2014, with the policy debate starting in 2012.

Case 3: A regulatory framework for biofuels

In contrast to the other two industrial branches, the crisis did *not* have a major impact on the EU biofuel industry. Therefore, this case study serves as counterpart to the other two case studies and

allows making causal claims by comparison. While both the car and the aviation sectors crashed in late 2008 and 2009, the biofuel sector continued its growth. Industry reports agree that the stagnation since 2010 is explained by a variety of factors such as regulatory uncertainty, increased imports and increasing prices for vegetables, the economic crisis explicitly not being considered a major factor (EurObserv'ER, 2013; Flach, Bendz, Krautgartner, & Lieberz, 2013; Kirchner, 2011; Martins & Gay, 2014). The conflict lines in this policy domain are assumed to emerge between the fossil fuel industry and countries such as Poland and the UK on the one side, and the biofuel industry on the other side. The pre-crisis policy decision, the Renewable Energy Directive, stipulated that 10% of transport fuels in EU member states must come from renewable sources until 2020. It was decided upon at 9 December 2008, the policy debate starting in 2006. The after-crisis outbreak policy decision is a reform of the Renewable Energy Directive approved by Council on 13th July 2015, limiting crop-based biofuels to 7% of the overall fuel consumption. The policy debate on this reform started in 2012.

1.3 Theoretical contribution: Insights from an actor-centred perspective

While it is clear that economic shocks can open windows of opportunity for policy entrepreneurs, it is not yet fully understood why some actors seize this opportunity successfully and others do not. The success or failure of crisis exploitation is highly dependent on contextual factors and relationships with other actors (Klüver, 2011, 2013; Klüver, Braun, & Beyers, 2015). Therefore, one reason for the lack of empirical work on the crisis-policy nexus is a lack of applicable theory that takes into account the relational, institutional, and economic context of EU policy-making. More precisely, theoretical literature on the subject suffers from three main shortcomings: First, it puts focus on quasi-constitutional, history-making political decisions like international climate treaties, neglecting the bulk of policy-making that occurs on systemic and subsystemic level. Second, a broad range of explanatory approaches emphasises the role of deliberation, discourse, issue framing and interpretation in explaining policy outputs. However, apart from major international agreements, EU climate policy-making is usually neither very visible nor salient in public discourse due to its highly technical nature. Therefore, explanations drawing on issue framing and public opinion lack causal leverage when it comes to analysing the day-to-day EU policy-making routine. Finally, equally popular theoretical perspectives drawing on beliefs as drivers of policy-making have limited explanatory power because beliefs as 'glue' of coalition-building are too inert and inflexible for the volatile and cross-cutting conflict lines that characterise EU policy-making. Thus, the

available theoretical toolbox inclines scholars to describe phenomena on a macro-level and to study policy fields with a high crisis proximity, for instance financial market regulation, neglecting other policy fields (Burns & Tobin, 2016).

Developing a conceptual framework

To remedy this deficit, this study develops a conceptual framework based on rational choice institutionalist assumptions that focuses on actors, their political preferences and strategies. This framework allows analysing actor dynamics in legislative processes from a dynamic, ‘networked’ perspective. This way, differences in policy-making patterns before and after the outbreak of the crisis can be observed, analysed and compared, thereby drawing causal inference. The core theoretical argument draws on redistributive conflicts, arguing that conflicts between ‘beneficiaries’ and ‘losers’ of a regulatory initiative intensify during economic crises, spill over to the policy domain and eventually cause political polarisation of entire policy domains. By putting emphasis on the role concrete material interests, this study contributes to two larger theoretical debates: The dialectic of interests and ideas in politics, and a comeback of intergovernmentalism in the post-crisis EU.

Interests versus ideas in crisis-shaken Brussels

The former of these two debates is a paradigmatic one in political science and refers to the dialectic of interests and ideas as driver of politics. This discussion has been held between proponents of constructivist and positivist researchers under many different labels and in numerous fields (Bevir & Rhodes, 2005, 2006; Goldstein, 1993; Hall, 1997; McAnulla, 2006; Scott, 2013). Essentially, both strands of literature deal with the question ‘how order is created and how change is possible’ (Blyth, 1997, p. 244). Always, however, the central conflict is about ‘whether political contests and outcomes are driven first and foremost by the material realities that they purport to shape or by ‘ideas’ (cognitions, beliefs, norms, tacit knowledge, models) that people have in their heads and that exist quite independently of those material realities’ (P. ’t Hart & Tindall, 2009b, p. 345).

Interests...

In political economy (and the present study deals with the nexus between economy and politics), scholars like Gourevitch (1977, 1986), Kurth (1979) and Ferguson (1984) highlighted early that not all business actors within an economy have the same regulatory preferences, and that these interests

can change depending on the general economic conditions and a firm's stage in the product cycle (Hall, 1997, p. 177). Peter Gourevitch (1986, p. 21) was the first to provide an account of 'politics in hard times', arguing that 'in an economic crisis, [...] actors, affected by their situation, evaluate alternative policies in relation to the likely benefits or costs'. In consequence, crises are challenging existing actor coalitions, 'making politics and policy more fluid' (1986, p. 22). Regarding the European Union, proponents of this theoretical perspective argue that actor positions towards EU policies 'have mainly reflected concrete economic interests rather than other general concerns' (Moravcsik & Schimmelfennig, 2009, p. 70). Indeed, a growing body of empirical evidence suggests that decision-making in the EU is considerably shaped by redistributive conflicts (Aksoy, 2010; Bailer, Mattila, & Schneider, 2015; Hosli, Mattila, & Uriot, 2011; Kauppi & Widgren, 2004; Zimmer, Schneider, & Dobbins, 2005).

...and ideas

The emergence of a broad range of approaches in political science drawing on ideas is commonly referred to as 'ideational turn' (Blyth, 1997) or similar. In political economy, the importance of ideas in explaining outcomes varies: Some approaches assign ideas a relevant, but subordinate role to material interests in explaining outcomes (Goldstein & Keohane, 1993), while others argue that ideas are central for actors in shaping political preferences or selecting policies (Fligstein, 1993; Goldstein, 1993; P. M. Haas, 1992; Sikkink, 1991). Other scholars such as (Blyth, 1997) go even further and reject such an instrumental take on ideas entirely because they constitute 'the most basic meaning systems' of individual and collective action (Hall, 1997, p. 184f.). Regardless of these differentiations, several influential theories of the policy process have emerged, sharing the fundamental notion of economic crises as 'exogenous shocks' that, to a varying extent, have the potential to challenge the belief systems, dominant policy paradigms or policy images of actors in the policy arena, eventually leading to policy change (Baumgartner & Jones, 1993; Birkland, 1997; Capano, 2009; Nohrstedt & Weible, 2010; Sabatier, 1988). Regarding the European Union and its handling of the economic crisis, scholars of the ideational perspective argue that the crisis 'has developed and intensified largely because the clash in EU leaders' ideas make it difficult for them to coordinate agreement sufficiently well...' (Schmidt, 2014, p. 206). This study will advance the debate by discussing in how far economic crises affect the role of interest and ideas in EU climate policy-making. That said, the main goal of this study is *not* to compare the explanatory power or applicability of different theories. Rather, it acknowledges that the empirical findings of this study

need to be assessed in light of overarching theoretical debates, and that in turn, these debates benefit from new empirical evidence.

The EU in times of crisis – a comeback of intergovernmentalism?

A second theoretical debate that emerged in the aftermath of the economic crisis asks if the EU fell into a pattern of ‘new intergovernmentalism’, or whether it was able to maintain its supranational institutional character (Bickerton, Hodson, & Puetter, 2015a, 2015b, 2015c; Falkner, 2016a; Hennessy, 2014; Puetter, 2011; Schimmelfennig, 2015). Proponents of new intergovernmentalism like Puetter (2011) argue that after the outbreak of the economic crisis, the most urgent issues were dealt with at highest level in the European Council or smaller or bilateral configurations, in the Eurogroup or the ECOFIN council, while the Commission was less visible. In contrast, other scholars stress that no EU competencies were re-nationalized (Falkner, 2016a) and suggest that the crisis empowered supranational actors (Kudrna, 2016; Laffan & Schlosser, 2016).

The empirical evidence fuelling this debate, however, is strongly biased towards economic and fiscal policy. With the exception of a comprehensive cross-case study by Falkner (2016a, 2016b) and her colleagues (e.g. Slominski, 2016), all of these contributions focus on EU policy fields with a high ‘crisis proximity’. To gain a more representative overview on crisis impact on EU governance, researchers need to collect empirical insights on a more diverse selection of policy fields. In that regard, EU climate policy is a particularly interesting case because it is caught in the middle between high economic relevance (through costly regulation for important business branches) and a non-economic long-term policy goal (climate change mitigation). Looking at such a ‘balancing’ policy field and focusing on actor constellations in the policy process, this study can contribute novel insights on current EU governance modes. A strong European Commission that is able to shepherd an environmentally ambitious proposal through the policy-making process would, for instance, indicate a rather supranational mode. In contrast, the Council of the European Union being the main stage of the policy process would suggest a stronger role of intergovernmentalism.

1.4 Methodological contribution: Insights from comparative network analysis

Last but not least, this study is motivated by contributing to recent methodological improvements in public policy research that have can advance studies of the policy process and interest representation. Most importantly, the research design applies a derivative of social network analysis

developed by Leifeld (2011) in order to map actor constellations and their development over time in the policy process.

A comparative small-n research design

Due to a small number of available cases and in order to balance the demand for ‘deep’ insights into political processes and for causal inference, the study uses a small-n design comprising three cases arranged within a difference-in-differences design. This design sets the pre-post crisis outbreak differences within each case into relation with the differences across cases. Inferring causal claims is possible because cases vary on the explanatory variable (the crisis impact). The policy processes within each case study are analysed using preference network analysis. Based on statements regarding their policy preferences that actors make in selected media sources, this approach creates network graphs of the policy debate. This special application of network analysis enables researchers to specify and compare the role of actors, their interrelations, actor constellations and conflict structures in the policy-making process before and after the outbreak of the crisis, as well as across cases. Also, it allows for measuring several parameters such as within-group cohesion, between-group polarisation, and the flexibility of political preferences over time.

This research design advances the use of network analysis in studying policy-making in two ways. First, to this point, this approach of network analysis has been only used to measure political discourses (Fisher, Leifeld, & Iwaki, 2013; Hurka & Nebel, 2013; Leifeld, 2011, 2013; Leifeld & Haunss, 2012). In this study, this method will be applied to map policy-making processes, focusing on the involved actors, their political preferences, and the coalitions they forge based on common preferences. In doing so, this study not only applies this kind of network analysis to a novel subject; it also demonstrates its applicability from a rational choice institutionalist angle and within a positivist, comparative research design. Second, unlike previous applications, the present study uses this kind of network analysis in combination with qualitative methodological instruments like documents analysis and interviews. The newspaper articles that serve as sources for the quantitative network analysis were also analysed qualitatively, complemented by the analysis of further documents like preparatory acts and position papers, but also interviews with Commission officials that were actively involved in one or more of the policy-making processes under scrutiny. The combination of quantitative network analysis with these qualitative instruments is able to provide

a precise description of policy processes while safeguarding the interpretability of the collected evidence from a theoretical viewpoint.

1.5 Structure of the dissertation

The study is structured along the following chapters: Chapter 2 pinpoints the study and its theoretical claims in the wider theoretical landscape. Based on this localisation, it presents the conceptual framework and the key argument of the study: The economic crisis polarises the political strategies of business actors within regulated industries, causing a spill-over to the policy domain and making political decision-making more difficult.

Chapter 3 presents the research design, providing the reader with a manual of the empirical setup of this study. It explains how the research design draws causal inference based on a small number of selected cases that vary on the explanatory variable, provides a detailed description of the methods used for this purpose, and how data are collected and structured.

Chapter 4, 5 and 6 present analytical case studies on policy processes before and after the crisis outbreak in three policy domains: Carbon dioxide emission limits for passenger cars; the inclusion of aviation into the emission trading system; and a regulatory framework for biofuels. To facilitate the reading, all case studies follow the same structure. They begin with an assessment of the crisis impact on the investigated policy field, its regulatory context and history. Then, each policy process is analysed chronologically, guiding the reader through the decision-making process and highlighting relevant occurrences and phenomena of interest along the way. The final section of each case study summarises the results, draws a comparison of the pre- and post-crisis policy processes and tests the hypotheses.

Chapter 7, the final chapter of this dissertation, is split into two parts. The first part summarises the case study findings and takes a comparative perspective on the results. This is an important element of the study because the research design draws causal inference by comparing cases within a difference-in-differences design. The second part discusses the findings in light of a larger empirical, theoretical and methodological context and locates the findings in the literature. It also addresses the study's conceptual and methodological limitations and provides an outlook on how this study can inform future scholarship, sketching avenues for further research.

2 Theory

‘As the desire and the means for a particular political preference increase, the likelihood grows that political entrepreneurs will devise mechanisms that can surmount the obstacles to collective action’.

Ronald Rogowski

Commerce and Coalitions, 1989, p. 4

In the aftermath of the economic crisis, policy-makers slowed down the expansion of the EU climate policy portfolio (Boasson & Wettestad, 2013; Bürgin, 2015; Čavoški, 2015; Geels, 2013; Gravey & Jordan, 2016; Lenschow, 2010; Steinebach & Knill, 2016). However, there is no systematic account of the processual determinants that caused this slow-down. In addition, we know little about those policies that ‘survived’ the crisis, and why. I argue that these blind spots in the research agenda result from deficits in the theoretical literature. An actor-centred perspective on the micro-level of the policy process can remedy these shortcomings, enabling researchers to estimate the causal effect of economic shocks on political decision-making.

The first section of this chapter will review theoretical accounts of the EU policy-process and carve out the reasons for their limited applicability. Three main deficits are identified throughout the various theoretical approaches: A biased focus on history-making political decisions, while neglecting routine policy-making; the pivotal role attributed to discourse and public attention, which is often not as important in EU politics; and finally, a problematic emphasis on beliefs instead of interests. The subsequent section will lay the theoretical foundations for a conceptual framework. In the final section, this framework is rolled out in detail, establishing a theoretical argument and deriving empirically testable hypotheses.

2.1 Deficits of existing accounts of EU policy change in times of crisis

In studying the crisis impact on the EU, research focused particularly on policy fields with a high ‘crisis proximity’ (Nohrstedt & Weible, 2010), i.e. areas where an economic shock has an immediate impact, such as fiscal, monetary and economic policy. There is, however, a research gap on ‘the mechanisms that [...] link a crisis to post-event learning and policy change or, alternately, to continuation of the status quo’ (Nohrstedt & Weible, 2010, p. 4). Often, changes in the political

sphere are implicitly attributed to ‘the crisis’ without further specification, although the causal chain between an economic shock and political change is long: Put simply and applying Lasswell’s (1956) simple model of the policy cycle, political actors have to recognise an economic shock, assess its relevance for a given policy field, evaluate the need for action, develop and select policy options, engage in the decision-making process, adopt and eventually implement policies. This processual aspect is neglected in literature. Much research remains on an analytical macro-level, while missing to establish a micro-level link that takes into account the political decision-making process. Most likely, the scarcity of detailed explanations of the linkage between the economic crisis and policy outputs is owed at least in parts to the lack of applicable theoretical work on the subject. This seems surprising at first, given the abundant theoretical work on the role of exogenous shocks on the policy process (Birkland, 1997; Boin, ’t Hart, & McConnell, 2009; Howlett & Ramesh, 2002; Kingdon, 2002; Nohrstedt, 2005, 2010; Sabatier & Jenkins-Smith, 1999; Weible, Sabatier, & McQueen, 2009) and the sophistication of theories of EU policy-making and integration (for an overview, see Pollack, 2010). Below, this chapter points at three major shortcomings in theory and explains why they are problematic for research interested in the crisis-policy nexus.

2.1.1 Biased focus on history-making decisions

The first of the identified deficits in theoretical literature on EU politics in times of crisis refers to the emphasis on paradigmatic shifts in policy subsystems triggered by an external shock. By their scope, political decisions can be roughly classified as history-making decisions, policy-setting and policy-shaping decisions (Peterson & Bomberg, 1999). While history-making decisions are decisions at super-systemic level, policy-shaping and policy-setting decisions occur at systemic and sub-systemic level and constitute the bulk of EU legislation.

Decision levels in integration theories

The most successful and common theory of EU integration, liberal intergovernmentalism (LI) (Moravcsik, 1993a), has its strength in explaining quasi-constitutional decisions or even Treaty reforms that ‘redefine the EU’s competence or alter its institutions (Peterson & Bomberg, 1999, p. 4). These decisions usually occur at ‘high-political junctures, moments when new high-level deals make it possible for specific linkages and interdependencies to become important’ (Ross, 1995, p. 12). A recent example of liberal intergovernmentalism applied to history-making decisions economic crisis is provided by Schimmelfennig (2015), analysing the creation of the European

Stability Mechanism and the banking union in context of the eurozone crisis. Unlike such super-systemic bargains, the bulk of decisions in EU environmental policy-making consists mainly of decisions at systemic or sub-systemic level, for example the introduction of new emission limits or setting prices for emission certificates. Moravcsik himself (1995, p. 613 footnote) concedes that ‘the restriction of LI applications to ‘grand bargains’ is a theoretically justified first step’ and that LI is focused ‘on major decisions in the history of the E[U]’ (1993b, p. 517). Such history-making decisions are taken by the EU member states in intergovernmental bargaining: They decide the extent to which competencies are shifted to supranational level. However, at non-constitutive level of EU policy-making, the supranational institutions play a key role (especially the European Commission with its exclusive right of initiative). Therefore, the theoretical toolbox provided by liberal intergovernmentalism is largely inapplicable to EU environmental policy-making. While this study endorses the importance of bargaining, particularly among member states, it treats supranational and non-institutional actors as equally relevant subjects of analysis. The other classic EU integration theory, neo-functionalism (E. B. Haas, 1964), explains integration with spill-overs: Responsibilities are shifted to supranational level if they can’t be addressed appropriately on lower levels. For instance, Niemann and Ioannou (2015) explain the integrative steps in the Economic and Monetary Union (EMU) after the Eurozone crisis using neo-functionalism. However, political decisions about the allocation of competencies on certain levels are super-systemic decisions. Therefore, also neo-functionalism misses the target when it comes to explaining political decision-making below quasi-constitutional level. The bulk of EU environmental policy-making deals with systemic or sub-systemic decisions, not with matters of integration.

Decision levels in theories of policy change

Besides integration theories, theories of policy change constitute another set of theories that is frequently applied in EU policy analysis. Theories of policy change share the notion of external shocks as ‘focusing events’ (Birkland, 1997) that enable major policy change. In the advocacy coalition framework, externally triggered policy change is the result of shifts in the power balance of different belief-based coalitions (Sabatier & Jenkins-Smith, 1999; Weible et al., 2009), while the policy subsystem adjustment model (Howlett & Ramesh, 2002) emphasizes the new attention that focusing events draw on a policy sector. Similarly, the multiple streams framework (Kingdon, 2002) and the punctuated equilibrium framework (True, Jones, & Baumgartner, 2007) highlight the impact of external shocks on agenda setting, enabling major policy change. Taken together,

theories of policy change understand focusing events as creating windows of opportunity for paradigmatic, profound policy change. What is missing however, is a good explanation of incremental policy change or the lack of policy change. In EU environmental politics, incremental policy is the norm rather than the exception. Here, even just incremental policy change often requires intense bargaining: The legislative procedures of the EU are designed to balance different interests by offering opportunities for votes and coordination within and between the Commission, the member states (in the Council) and the Parliament. In EU environmental politics, this procedure is additionally complicated due to the highly technical character of most environmental regulation, necessitating the inclusion of business actors, NGOs and researchers with the respective expertise into the policy process. This fragmented, multi-level, interdependent character of EU environmental policy-making makes paradigmatic policy shifts in response to an external shock, as theories of policy change predict, unlikely.

The problematic suddenness of 'focusing events'

Another aspect that is often missing when discussing the impact of external shocks on policy-making is that many of these events are not actually sudden. According to theories of policy change, external shocks or 'focusing events' have the defining feature of being sudden. Oil spills, natural disasters and school shootings are frequent examples. However, an economic crisis often evolves over weeks and months, and a subsequent period of recession can last for years. Theories of policy change would profit from integrating also 'creeping catastrophes' (see Schneider, Leifeld, & Malang, 2010) such as the 2008-2010 economic and fiscal crisis into their explanatory frameworks. Taken together, integration theories as well as theories of policy change have limitations in explaining how an economic shock affects the incremental day-to-day policy-making in EU environmental politics because both have their strengths in explaining supra-systemic policy decisions, respectively major policy change in consequence of sudden focusing events.

2.1.2 The role of discourse and public attention

Acknowledging that EU policy-making is characterised by incremental policy change and negotiation, it appears obvious to look into theoretical work that emphasises the role of discourse, deliberation, issue framing and public attention in policy-making. This strand of literature emphasises that 'economic downturns and other forms of social crisis are all in the eye of the beholder', which is why the public perception and interpretation of a crisis determine its impact on

policies, and not the crisis as such (P. 't Hart & Tindall, 2009a, p. 24). Consequently, a crisis constitutes an opportunity for actors to construct their own competing 'crisis narratives' (Kuipers, 2005) and to engage in 'framing contests' (Boin et al., 2009) over the dominant interpretation.

Framing contests during the economic crisis

This explanatory approach has been applied also to analyse the 'Great Recession' and its impact on EU policy-making. For example, Crespy and Schmidt (2014, p. 1098) argue that a Franco-German agreement regarding the 2012 EMU reform has been possible only because leaders of both countries overcame their initially detrimental positions, stemming from 'contrasting ideational and institutional contexts', using 'justificatory discourses invoking different norms and values'. In other words, policy change as a reaction to the economic crisis has been enabled because important political actors managed to settle their framing contest that otherwise would have led to a stalemate. Another example is given by Skovgaard (2014), scrutinising EU climate policy-making during the economic crisis from a framing perspective, finding that the crisis has deepened the division between those actors that frame climate change policy as detrimental respectively beneficial to economic growth, causing a deadlock in EU emission reduction target negotiations.

These approaches rightfully argue that also economic shocks are subject to interpretation (P. 't Hart & Tindall, 2009a). Undoubtedly, the way leaders frame problems and solutions in the discourse is an important explanatory factor. The framing of an issue determines the composition of actor coalitions with similar interests and the conflict between such coalitions in the decision-making process. However, an important condition of policy framing explanations is the existence of an attentive public audience that legitimates policy frames. Arguably for this reason, literature on framing processes focuses on cases with a high public visibility and salience (for examples concerning EU reactions to the 2008-2010 economic crisis see Bürgin, 2015; Crespy & Schmidt, 2014; Fletcher, 2009; Mylonas, 2012; Skovgaard, 2014). Environmental policy-making in the EU achieves such high visibility only on rare occasions, for example during the negotiation of international climate agreements (see Skovgaard, 2014). However, the bulk of EU environmental policy-making occurs on systemic or sub-systemic levels, where salience is lower and therefore public discourse and framing matter less. Here, politicians do not have to legitimise their position vis-à-vis an attentive public audience. Especially during the decisive phase of policy formulation, environmental policy is a highly technical matter that is often comprehensible only to professionals

working on the specific issue. Therefore, the policy debate takes place within a small network of policy-makers and experts, rather than in a broad discourse. This is even more the case in times of economic crisis, when environmental and climate issues slip down on the political agenda. Taken together, despite the undisputed importance of issue framing, explanatory approaches focusing on interpretation and discourse have weaknesses in explaining the impact of an economic shock on EU climate policy making in cases with low public visibility and salience. When discussing explanations that emphasise issue framing, another problematic aspect becomes apparent, as the next section will show.

2.1.3 The emphasis on beliefs instead of interests

Issue framing affects policy-making through its influence on how individuals shape their beliefs (Nelson & Oxley, 1999). Framing a crisis in a specific way is necessary in order to change the beliefs that underlie a policy at least to some extent, in order to achieve policy change eventually (Boin et al., 2009). This section briefly sketches the theoretical literature that focuses on the role of beliefs in explaining policy-making in times of crises and carves out problematic aspects in the light of this study.

Beliefs

Beliefs can be described as involving two main aspects (Slembeck, 1997): Normative beliefs (defining what ought to be), and positive beliefs (the perception of the world ‘as it is’). Ultimately, beliefs are the building blocks of ideologies, defined as ‘coordinated and integrated sets of ideas, beliefs, and conceptions, which present a more or less coherent view of the nature and structure of the socio-economic system’ (Samuels, 1977, p. 470). Political science literature commonly distinguishes between different layers of beliefs that together compose the ideology, or ‘belief system’ of an actor: Deep core beliefs that are deeply rooted in the personality structure, policy core beliefs regarding ‘fundamental policy positions’ (Sabatier, 1987, p. 667) and secondary aspects that refer to specific policies and their calibration. While different typologies of belief systems vary in detail, they all rank various types of beliefs according to their degree of internalisation, adjustability and issue specificity (Leifeld, 2011, p. 13).

Belief systems

Several theoretical frameworks drawing on advocacy coalitions (Sabatier & Jenkins-Smith, 1999), discourse coalitions (Hajer, 2003; Sabatier & Jenkins-Smith, 1993), epistemic communities (P. M. Haas, 1992) or knowledge regimes (Fischer, 1993) conceptualise policy-making as interactions among coalitions held together by common belief systems or ideologies. Policy change is the result of actor coalitions that ‘are able to take advantage of political conditions to translate their strong beliefs about policy into ideas, which are turned into policy’ (Gieve & Provost, 2012, p. 61).

External shocks

In this context, economic crises are conceptualised as ‘external shocks’ to the policy domain that can lead to a redistribution of resources, the exploitation of a minority coalition (through issue framing, see above) and changes in the dominant coalition’s belief system through learning (Albright, 2011; Nohrstedt & Weible, 2010; Weible et al., 2009). Gieve and Provost (2012) provide an exemplary application of this theory in context of the 2008-2010 economic crisis, demonstrating how an ideological consensus of financial regulation emerged among policy-makers and economists.

The greatest merit of these approaches is the fruitful conceptualisation of the EU policy process in terms of domains and actor networks, rather than institutions. Understanding what drives actors to forge coalitions and the ‘glue’ that keeps them together clearly has advanced studies of the policy process. However, what is missing in the debate is an account of policy change in volatile policy venues such as the EU where stable, belief-based coalitions are rare. Here, policy domains are characterised by a great variety of actors and constantly changing conflict lines. Opposing actors in one policy dossier might be allies in another one. Accordingly, actor coalitions in EU policy-making are very volatile, whereas belief-based coalitions are stable because beliefs are deeply rooted in individuals’ cognition and thus hard to change. For this reason, this study seeks to advance the debate on belief systems in EU policy-making by arguing that that common preferences regarding a specific policy, and not common normative convictions are the ‘glue’ that holds actor coalitions together. An actor can have different preferences, depending on the specific policy proposal that is currently on the negotiation table. Accordingly, conceptualising actor coalitions as being based on common, issue-dependent policy preferences fits better with the volatile and cross-cutting conflict lines in EU environmental policy-making.

2.1.4 Interim conclusion

This section discussed theoretical literature on the nexus between economic shocks and EU environmental policy and identified three main shortcomings: First, integration and policy change theories have their strengths in addressing political decisions of super-systemic, or constitutional range, respectively in explaining disruptive, major policy change. EU environmental policy-making, however, commonly bears incremental policy change at systemic or sub-systemic level. Second, a broad range of approaches emphasises the role of deliberation, discourse, issue framing and interpretation. However, apart from major international agreements, EU climate policy-making is usually neither very visible nor salient in public discourse. Therefore, issue framing and public opinion lack explanatory power in this context. Finally, theoretical perspectives drawing on beliefs as drivers of policy-making have limited explanatory power because beliefs as ‘glue’ of coalition-building are too inert and inflexible for the volatile and cross-cutting conflict lines that characterise EU policy-making.

Thus, the available theoretical toolbox inclines scholars to focus on studying the macro-level or on policy fields with a high crisis proximity, for instance financial market regulation. What is missing is a theoretical account of the micro-level causal linkage between the two macro-phenomena, economic shock and policy change (Nohrstedt & Weible, 2010). The following section lines out the theoretical foundations of a framework capable to address this conceptual and empirical gap.

2.2 Towards a conceptual framework – theoretical foundations

To study the micro-level linkage between economic shocks and EU environmental policy-making, how should a conceptual framework look like? An actor-centred rational choice approach can overcome the shortcomings of the approaches discussed above. Such an approach focuses on actors as the most essential entities in a policy process, conceptualising their preference formation, actions and interactions in rationalist terms.

What is driving policy change? Putting focus on actors

The section above argued that prevalent conceptualisations of the crisis-policy nexus that emphasise the role of discourse and beliefs struggle with explaining crisis-induced policy change in

volatile, fragmented EU policy domains with low public visibility and salience. A more fitting conceptual framework must be fine-grained enough to capture these characteristics. Since issue-based coalitions are assumed to change under crisis conditions, it must also allow for a fine-grained analysis of the evolution of network patterns in a policy domain over time. An approach that meets these criteria is an actor-centred perspective that understands network dynamics as the aggregate of individual action. From this angle, crisis-induced policy change is seen as the aggregate result of changes in the preferences and strategies of the actors in a policy domain. This way, an actor-centred perspective responds to the criticism that existing theoretical approaches tend to select supra-systemic policy decisions as cases, offering a toolbox to look into policy processes at systemic or sub-systemic level.

What is driving actors? Putting focus on preferences and strategies

Having put actors in the middle of attention, a second important ingredient is a theory to explain their preference formation, actions and interactions ('Handlungstheorie', Schimank, 2004). As addressed above, prevalent approaches argue that actions, interactions and ultimately policy choices are driven by belief systems. In response to the shortcomings discussed above, this study conceptualises actor behaviour in terms of rational choice theory. Accordingly, political preferences are seen as result of rational calculation, and interactions between actors are seen as strategic behaviour with the goal to attain these preferences. This approach explains EU policy-making in times of economic hardship more accurately than approaches based on stable beliefs and discourse because it is able to account for volatile, fragmented and issue-based policy domains. The following section will present the conceptual framework and the core argument of this study, based on these two basic theoretical elements.

2.2.1 An actor-centred perspective on the crisis-policy nexus

Figure 2-1 provides a causal diagram of the analytical macro- and micro-levels in this study. From an actor-centred perspective, a policy is the result of 'intentional action by actors who are most interested in achieving specific outcomes' (Scharpf, 1997, p. 36). Following this definition, the key to understand the impact of an economic shock on policy-making lies in understanding the impact on actor preferences and strategies (the situational mechanism).

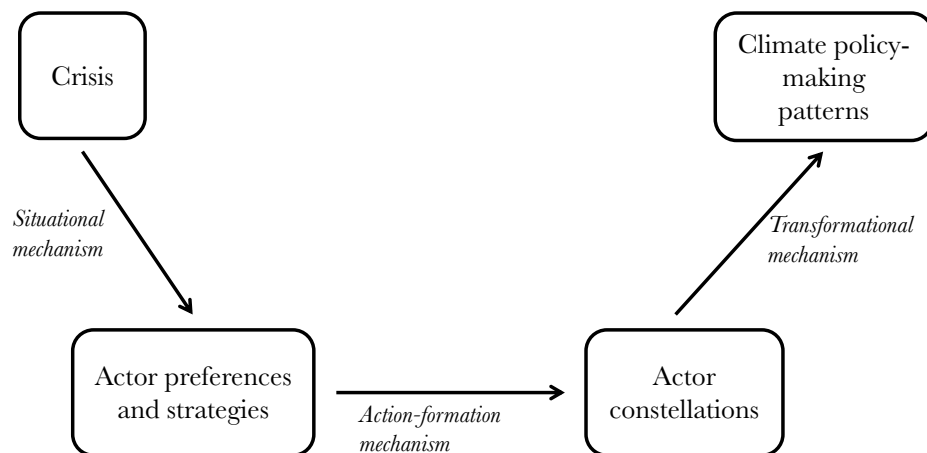


Figure 2-1: Causal diagram of analytical macro- and micro-levels.

However, actors never act in isolation. As policies are the result of an interactive process, one needs to analyse the constellations actors are engaged in. The underlying assumption of this study is that actors in EU policy-making forge coalitions based on common interests, rather than based on, for instance, common beliefs. Consequently, crisis-induced changes in actors' preferences, respectively in their strategic behaviour, entail changes in the constellations that actors form (action-formation mechanism). Eventually, as policies are the result of actors interacting in a constellation, altered actor constellations bring about different policy outputs (transformational mechanism).

To conclude, the causal path outlined above provides a model of how two macro-phenomena – an economic shock and consequent policy change – are linked on the micro-level. It can also serve as an analytical guideline throughout the analysis. What is missing yet is an action-guiding theory: How do actors shape their preferences, what strategies do they choose to realise these preferences, and what does that mean for coalition-building? The following section will introduce rational choice institutionalism and argue why it is a fitting choice as action-guiding theory for this study.

2.2.2 Rational choice institutionalism as action-guiding theory

Rational choice institutionalism (RCI) is 'a methodological approach that explains both individual and collective outcomes in terms of individual goal-seeking under constraints' (Snidal, 2002, p. 74). Actors have a 'fixed set of preferences' in a transitive order and behave 'entirely instrumentally so as to maximise the attainment of these preferences' (Hall & Taylor, 1996, p. 944 f.). In doing so, they behave strategically and in expectation of how other actors are likely to behave. It is the role

of institutions to structure these strategic interactions, by ‘affecting the range and sequence of alternatives on the choice-agenda or by providing information and enforcement mechanisms that reduce uncertainty about the corresponding behaviour of others and allow gains from exchange, thereby leading actors toward particular calculations and potentially better social outcomes’ (Hall & Taylor, 1996, p. 945). In terms of RCI, an economic crisis can be understood as changing the constraints under which actors choose their strategy, affecting their interactions and in result, collective policy choices.

The European Union from a rational choice institutionalist view

RCI is part of the family of neo-institutionalist approaches that ‘have arguably become the dominant approaches to the study of European Integration’ (Pollack, 2009, p. 141). As such, RCI has informed -implicitly or explicitly- a large part of empirical research on EU policy-making. The rationalist version of the new institutionalisms emphasises the formal and (to a lesser extent) informal institutional constraints that actors face when making their choices: Institutions are seen as ‘rules’ of the game, and ‘organisations’ are the players (North 1990). Originating in research on American political institutions, scholars applied different incarnations of this approach in studies on the EU since the late 1980s (e.g. Garrett & Tsebelis, 1996; Scharpf, 1988; Tsebelis, 1994). In context of EU policy-making, RCI puts focus on the interactions between the Council, the Commission and the European Parliament to understand the EU legislative process (Garrett & Tsebelis, 1996). Due to the plurality of actors and their varying interests, RCI scholars see the EU as a system of ‘interlocking politics with detrimental effects on the efficiency of policy-making’ (Falkner, 2016b, p. 954). This account of EU politics is a fruitful perspective and the reason why it was chosen as action-guiding theory of the conceptual framework.

Why rational choice institutionalism?

To explain actor behaviour, RCI focuses on their interests and the strategies they choose to attain them. This conceptualisation of an individual’s motivation for action crucially differentiates RCI from approaches that see norms or beliefs as drivers of individual action and collective behaviour. Leaving fundamental theoretical debates aside, a focus on interests instead of beliefs seems the more plausible line of argument in the specific context of this study. This is the case mainly for one theoretical and one empirical reason: The theoretical reason is that it is arguably more conclusive

to assume that an economic shock affects first and foremost concrete interests of political actors, not their belief systems. This is particularly the case in the EU, where environmental regulations have always served as tools to structure the common market (Jachtenfuchs, 1996) and ‘level the playing field’ (Lenschow, 2010, p. 309) for trade. The empirical reason is that a growing strand of literature indicates that decision-making in the EU is considerably shaped by redistributive conflicts (Aksoy, 2010; Bailer et al., 2015; Hosli et al., 2011; Kauppi & Widgren, 2004; Zimmer et al., 2005). Hence, an interest-based account of decision-making seems most fitting to the EU polity. Another advantage of RCI is its compatibility with social network analysis, as the next section will discuss.

2.2.3 Rational choice institutionalism through a ‘networked’ perspective

This study focuses on actors as main entities in EU policy-making and utilises RCI as theory to explain actor behaviour. But how do actors interact? According to which constellations of common interests do they forge coalitions? How do these patterns change in times of crisis, and why? In order to make this final element of the causal chain presented in Figure 2-1 accessible for empirical analysis, this study applies network analysis, an established analytical approach in EU policy analysis that is frequently combined with RCI (e.g. Adelle, Jordan, & Benson, 2015; Beyers & Kerremans, 2004; M. Braun, 2009; Bunea, 2013; Pappi & Henning, 1999). While there are different approaches to use network analysis, this study conceptualises policy processes as interactions within and among interest-based actor networks. This section briefly introduces network analysis and sketches the most important scholarly debates on this approach concerning this study, before assessing its compatibility with rational choice as underlying theoretical rationale.

The underlying assumption of this perspective is that a great deal of EU policy-making occurs in formal and informal policy networks that involve a multiplicity of actors, among them also lobbyists, activists, researchers, and regional authorities (Kassim, 2003; Peters & Pierre, 2003). This viewpoint on EU politics gives network analysis the ability to account for the highly fragmented and sectorised multi-level polity of the EU, where policy-making needs to address various sectors and conflicting objectives (M. J. Smith, 1993, p. 7; see also Kohler-Koch & Eising, 1999; H Wallace, 1996). While there is no consensus if the EU is governed *by* or *in* networks (Börzel & Heard-Lauréote, 2009),

policy networks play a pivotal role in the EU policy process due to their coordination capacities², as the next section argues.

To what extent is EU policy-making coordinated through networks?

The EU policy process offers a ‘relatively open market for influence and access’ (Peterson & Bomberg, 1999, p. 23). Such ‘open competition for scarce resources leads to shifting coalitions...[and] few ‘frozen’ cleavages that lead to permanent coalitions’ (Wessels, 1997, p. 36). In this unstable environment, ‘issue networks’ that form around specific topics, rather than stable ‘policy communities’ (Peterson & Bomberg, 1999, p. 23) emerge. Despite these networks are often structured along political conflict lines (Beyers & Kerremans, 2004), they are ‘the only real option’ (Peters, 2003) to coordinate sectors such as EU environmental policy with its cross-cutting, multi-level and continuously changing conflict lines because they are most likely to mediate conflicting interests (Peters & Pierre, 2003, p. 593). As Braun (2009) illustrates by the case of the EU Emission Trading Scheme adopted in 2003, policy networks and their ability to share and manage knowledge are essential to develop and negotiate novel and very technical environmental policies. Networks constitute a structure that fosters trust and loyalty (Thompson, 2003, p. 30), helping to build a ‘functional interdependence among actors who operate cooperatively to problem-solve and reach agreement on matters of mutual interest’ (Adelle et al., 2015, p. 474). This may come, however, at the price of shifting responsibility (Thompson & Pforr, 2005) and accountability (Papadopoulos, 2006). To conclude, it is the merit of network analysis to have unveiled the informal, relational aspects of EU policy-making. However, as every analytical perspective, network analysis has limitations.

Limitations of a ‘networked’ perspective

This brief -and by no means exhaustive- overview showcases that the notorious, obfuscated variety of policy network literature (cf. Börzel, 1998) with regard to theory, scope and methods prevails also in EU studies. As a common denominator, most scholars share the notion of the EU as a ‘networked organisation’ (Sbragia, 2000) in one way or the other. While the difficulties of delineating EU policy networks have been noted early on (Kassim, 1994), more recent

² Another important aspect of EU policy network literature analyses their role in policy implementation. This literature is not discussed here as it is irrelevant to the scope of this study.

methodological advancements enable researchers to not only capture various kinds and aspects of policy networks, but also to observe their development over time (e.g. Leifeld & Haunss, 2012). Two other persistent criticisms of network analysis are the negligence of institutions (Kassim, 1994) and a lack of explanatory power (Dowding, 1995). However, both criticisms can be addressed by embedding network analysis into an institutionalist explanation of how actors (individual or composite) behave in a network. For rational institutionalism, the compatibility with network analysis has been demonstrated already at an early stage by scholars of the Max-Planck-Institute for the Study of Societies, modelling individual actor behaviour according to rational choice and the interactions among those actors as networks (Mayntz & Scharpf, 1995; Scharpf, 1997, 2000). While Mayntz, Scharpf and their colleagues applied a rather narrow and game-theoretic conceptualisation of rationality in their work, Hertting (2007) suggests a ‘thinner’ concept of rationality to explain the emergence and persistence of governance networks. Regardless of these conceptual intricacies, the combination of network analysis and institutional theory enriches the analysis by treating networks as ‘critical mediating variables that affect the distribution of power, the construction of interests [...], and the dynamics of interaction’ (Ansell, 2008). The conceptual framework of this study subscribes to this notion of network analysis, utilising it as a lens through which to look at actor constellations in the EU policy-making process.

2.2.4 Interim conclusion

To this point, this chapter discussed in three steps several theoretical aspects of EU policy-making in times of crisis: At first, the chapter identified three main shortcomings in theoretical literature on the nexus of economic shocks and EU policy-making that impeded research from establishing a micro-level causal linkage between both macro-phenomena. These three shortcomings are a bias towards analysing history-making decisions, an overemphasis on framing, discourse and deliberation, and an inapt focus on beliefs and ideology. The subsequent sections discussed what it takes to remedy these shortcomings and argued that an actor-centred perspective, rational choice as action-guiding theory, and conceptualising interactions in terms of policy networks are an effective response to the deficits that allows formulating appropriate assumptions on the behaviour and preference formation of different actor types under economic shock. These three elements – actor-centeredness, RCI, and policy networks- are likewise the theoretical foundation that the conceptual framework of this study rests upon. The remainder of this chapter will establish this conceptual framework and derive empirically testable hypotheses.

2.3 Conceptual framework

Within the institutional framework provided by the EU legislative procedure, a variety of actors attempt to shape policy outputs in their favour. Hereby, actors form coalitions and coordinate their actions based on common strategic preferences (not on common normative convictions). Policy preferences of actors are conceptualised as rationally shaped and dominated by economic interests. This is, in short, the underlying logic of the conceptual framework. The remainder of this chapter applies these basic assumptions to EU climate policy-making in times of crisis. It specifies how different kinds of actors shape their policy preferences and choose strategies to attain them. Furthermore, the chapter assesses how these choices are affected by an economic crisis, and how these individual changes add up to changes in the coalition patterns of a policy domain.

The crucial role of preferences and strategies

Political preferences of the actors in a policy domain and the strategies they choose to attain these preferences are at the core of the conceptual framework. RCI assumes that actors have a fixed set of preferences and behave strategically to achieve these preferences, whereas institutions provide the rules according to which actors interact strategically (Hall & Taylor, 1996, p. 944 f.). Accordingly, policy preferences of actors are conceptualised as rationally shaped and dominated by economic interests. An economic shock is assumed to change the extensive calculations that actors make (Hall & Taylor, 1996, p. 945) when choosing their strategies. These calculations are mainly about the ‘who-pays-what’, about the redistributive effect of a climate regulation.

The role of redistributive conflicts and polarisation

Without forestalling the detailed explanation provided below, the crucial role of redistributive conflicts should be addressed already at this point. This study argues that an economic shock causes a polarisation of both preferences and strategies within a policy domain. Polarisation means that actors become less flexible in accepting a policy that deviates from their preferred policy. In aggregate, polarisation of individual preferences adds up to the polarisation of a policy domain: As actors form coalitions based on common preferences, there is less common ground between different coalitions to reach a compromise. This way, a crisis reinforces already existing redistributive conflicts among the actors in a policy field. In other words, a crisis intensifies the

conflicts about who has to carry the costs of a regulation. The increasing polarisation between ‘beneficiaries’ and ‘losers’ of regulatory tightening starts within the regulated economic or industry branch, but soon spills over to the EU political sphere, causing a polarisation of policy networks and resulting in lowest common denominator compromises. Importantly, this does not necessarily imply less environmentally ambitious policy outputs, as also proponents of strict environmental regulation intensify their efforts to attain a favourable policy. Investigating the nexus between economic shocks and politics, a plausible starting point for theorising actor preferences and strategies are those actors that constitute the economy: Businesses and their lobbies.

2.3.1 Preferences and strategies of business actors

Over the past two decades, the EU has increasingly become a venue for business to achieve its overarching goal: To create and preserve competitive advantages (Lawton, McGuire, & Rajwani, 2013). Large firms play a prominent role in the EU policy process and act with much political sophistication to gain access to policy fora (Coen, 1997). Business lobby groups are widely seen as the most powerful European lobbyists (Mazey & Richardson, 2003), have contacts across the entire European Commission (Grant, Matthews, & Newell, 2000) and clearly outnumber other lobby groups (Greenwood, 2011). In EU environmental policy, their role is even more important as businesses are both carrying the costs of a regulation and the responsibility for its implementation. Businesses often have a high level of expertise that would be very costly for political actors to develop, thereby exerting influence through asymmetrical knowledge (Broscheid, 2006). While business is considered the ‘elephant in the room’ in EU climate policy-making (Grant, 2011), climate policy is ‘more directly related to the economic interests of industries than are many other environmental policies’ (Boasson & Wettestad, 2013, p. 11). In a study on lobbying success in EU environmental policy, (Bunea, 2013, p. 566) found ‘additional evidence of the power of business over outcomes in a policy area where higher levels of regulation bring about concentrated costs on specific economic agents such as car producers or airlines operators’. Despite this remarkable influence, business has not prevented the emergence of coherent and effective environmental EU policies (Grant, 2013). This is commonly explained by the ideological framework of ecological modernization or ‘green growth’, according to which environmental protection and climate change mitigation is a potential source of economic growth (Weale, 1992). However, acknowledging that the ‘green growth’ paradigm is challenged during times of economic hardship (Skovgaard, 2014) this explanation fails to explain why some firms choose to support strict environmental regulations

during crises. A more promising explanation focuses on the redistributive effect of a regulation, i.e. on the distribution of relative gains and losses among competitors caused by a regulation.

Relative gains and losses....

Already Ronald Rogowski (1989, p. 4) proposed that ‘beneficiaries of a [policy] change will try to continue and accelerate it, while the victims of the same change will endeavour to retard or halt it’, and that ‘as the desire and the means for a particular political preference increase, the likelihood grows that political entrepreneurs will devise mechanisms that can surmount the obstacles to collective action’. Moreover, firms not only apply political strategies to improve their own competitive advantage, they also engage in lobbying in order to raise costs for competitors, damaging their competitiveness (McWilliams, Fleet, & Cory, 2002).

When it comes to environmental regulations, firms assess their economic effects when formulating their political strategies (Meckling, 2015). Regulations, and particularly environmental regulations, typically cause costs to those businesses that are subject to the regulation. However, these costs are most likely not distributed equally across the businesses in the regulated industry. As market participants are different with regard to their product cycle, product portfolio, market position, technology, etc., they have ‘different compliance costs under the same regulation’ (Meckling, 2015, p. 21). For instance, company A has to invest little to meet a new regulatory standard because it already has invested in new technology, or because its products are not affected by the regulation. Company B has to invest more than company A because it uses outdated technology or has a different product portfolio. Therefore, company A faces less regulatory costs than company B that has to invest more. The new regulatory standard thus causes a competitive advantage for company A over company B, despite both companies face absolute costs. In other words, the new regulation imposes a relative gain for company A and a relative loss for company B, ‘relative’ referring to a company’s costs compared to other company’s costs. Thus, when making assumptions on how material interests of firms determine their political strategy regarding environmental regulation, one needs to consider how a ‘regulation affects a firm not just in absolute terms but compared to competitors’ (Meckling, 2015, p. 21).

...as drivers of corporate strategy

Relative gains and losses emerging from regulations are crucial for (1) how businesses shape their regulatory preferences and strategies, and (2) how these preferences and strategies may change during economic hardship. What can be said about (1) the political choices of corporate actors in climate politics? In congruence with RCI, Jonas Meckling (2015, p. 19) theorises that ‘basic material interests of firms are translated into strategies in the context of institutional environments’³. He puts forward a typology of four ideal corporate political strategies, depending on a regulation’s distributional effects and perceived regulatory pressure (Table 2-1):

		Distributional effect	
		Cost < Benefit (Gains)	Cost > Benefit (Losses)
Perceived regulatory pressure	High	Support	Hedge
	Low	Abstain	Oppose

Table 2-1: Typology of corporate political strategies. Source: Meckling, 2015.

The way a regulation allocates relative gains and losses across an industry is described as its *distributional effect*. If the benefits of the competitive advantage outweigh the costs of the regulation, a firm faces relative gains. If there is no competitive advantage caused by the regulation, or if it is outweighed by the regulatory costs, a firm faces relative losses. Regulatory pressure emerges from the multiple, overlapping institutional fields firms operate in, such as industry associations, national cultural and regulatory contexts (Levy & Rothenberg, 2002, p. 176), and may be exerted by regulators, customers, competitors and environmental interest groups (Delmas & Toffel, 2004). Firms interpret this ‘multi-layered institutional environment and its mixed signals with regard to demand for regulatory action on a given environmental issue’ (Meckling, 2015, p. 22). Because regulatory pressure is subject to a firm’s interpretation, it is conceptualised as *perceived regulatory pressure*.

³ While conceptualising actors and their formulation of choices and strategies as rational, Meckling applies a sociological institutionalist notion of institutional environments as ‘organisational fields’, ‘a collection of contextual factors or conditions affecting organisation structures or processes’ (Scott, 2013, p. 36).

A firm opposes a regulatory initiative if it expects it to cause relative losses, while it perceives no strong pressure for further regulation. If it expects relative losses and the perceived regulatory pressure is too high to oppose a policy, firms apply a hedging strategy: They seek to minimise compliance costs or to level compliance costs across the industry. In contrast, if the regulation is expected to cause relative gains and the perceived regulatory pressure is high, a firm is supportive of a regulatory initiative. If, however, the firm does not perceive regulatory pressure while expecting relative gains, it abstains from involvement in the policy process.

If firms pursue strategies as suggested in the above typology, (2) how do these strategies change if an economic crisis puts firms into an economically more difficult situation than before the crisis? Put simply, each firm has a preference regarding the design of the regulation that can be located on a scale of environmental ambitiousness (Figure 2-2). These preferences represent the best cost-benefit ratio the regulation can achieve for the company. The strategies identified by Meckling (2015) above serve to attain these preferences. As political decision-making involves bargaining, actors' utility functions comprise also bargaining outcomes other than their most preferred outcome. The more distant from the most preferred outcome, the more is an actor's cost-benefit ratio changed to the worse. In times of economic hardship, relative gains become more valuable and relative losses more damaging. Therefore, the range of acceptable outcomes around the most preferred outcome is assumed to diminish (Figure 2-2). In other words, in times of crisis, companies become less willing to accept a regulation that deviates from their preferred regulation. In consequence, the industry is less likely to agree on a common position, and more likely to become fragmented. This lays the ground for political polarisation in the policy domain.

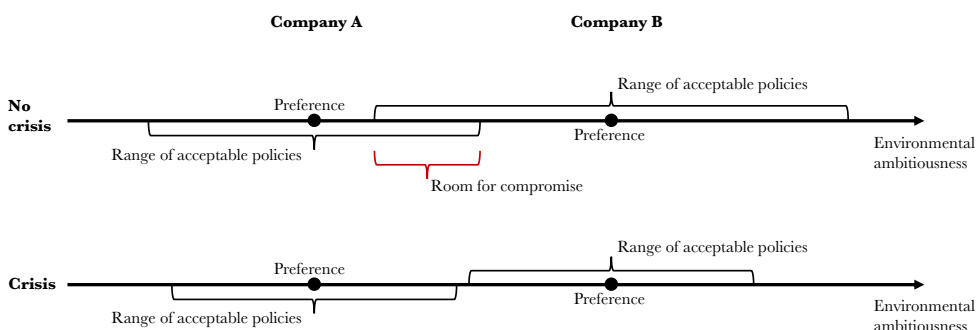


Figure 2-2: Actor preferences and strategies before and during an economic crisis.

How does an economic crisis affect the political strategies of business actors displayed in Table 2-1? Arguably, during an economic crisis, business actors perceive regulatory pressure as being lower than during economically relaxed periods: Elected politicians are likely to prioritise prompt crisis responses over environmental long-term concerns because job losses and economic hardship endangers their re-election. Also the European Commission de-prioritised environmental regulation, as the strongly decreased number of policy proposals after the crisis outbreak suggests (Steinebach & Knill, 2016). Crisis countermeasures such as car scrapping schemes were designed to stimulate consumption and make it easier for industries to overcome the economic crisis. In such a political climate, firms are assumed to feel encouraged to demand less regulatory burden or at least no further costly regulation.

Regarding distributional effects, a polarising development is assumed⁴: Additionally imposed regulatory costs become less bearable, and additional competitive advantages more valuable than before the crisis. From that follows that ‘opposers’ will continue to pursue their strategy while ‘hedgers’ may shift to an opposition strategy because additional costs must be avoided more urgently and because the perceived regulatory pressure declines. However, ‘supporters’ will stick to their strategy because they claim their benefits more decisively than before. Also, they have no reason to claim decreased perceived regulatory pressure because this would undermine their goal to optimise benefits. Taken together, the strategies chosen by companies in the policy-making process trend towards opposing and supporting. In other words, the crisis ‘increased the stakes’ (Clift & Woll, 2012, p. 320) of business actors involved in the policy-making process, making them less flexible in accepting relative losses caused by environmental regulation. The following hypothesis is put forward:

H1: After the outbreak of the economic crisis, business actors expecting relative gains (relative losses) from climate regulation initiatives support (oppose) such initiatives more insistently than before.

⁴ I presented this argument first in a paper for the International Conference on Public Policy, Milan, July 2015 (Hanschmann, 2015). A modified version of the conference paper was published in an edited volume later on {Citation}.

2.3.2 Preferences and strategies of member state governments

Despite member states play a key role in the EU legislative process, we know surprisingly little about which member states are most influential, and why (Golub, 2012). What is known is that business lobbies maintain particularly close and routinized relationships with national governments, resulting in stable, tightly integrated policy networks (Peterson & Bomberg, 1999). While they can lobby the European Commission directly, this is not possible for the Council of the European Union, consisting of member states. As the Council plays a key role particularly in the later stages of the EU policy-making process, lobby groups usually target it via national governments (Eising & Lehringer, 2010; Mazey & Richardson, 1993, 2003). One of the cases analysed in this study, the adjustment of carbon dioxide emission limits for passenger cars to 130 g/km, serves as an example for Bernhagen and Mitchell (2009, p. 160) to describe such lobbying through ‘the national route’.

From ‘leaders and laggards’ to ‘green protectionism’?

Literature commonly describes the Council as being divided into environmental ‘leaders’ and ‘laggards’ (Andersen & Liefferink, 1997; P. M. Haas, 1993; Héritier, van Waarden, & Unger, 1994; Holzinger, 1994; Sbragia, 1996). However, Lenschow (2010, p. 315) argues that the slowdown in EU environmental policy caused by the 2008-2010 financial crisis can be attributed to former environmental leaders such as Germany that now ‘shy away from imposing extra costs’ on industries. In line with liberal intergovernmentalism, Steenblik (2009) observes that national governments attempt to shape environmental regulations to the benefit of domestic industries. This phenomenon is known as ‘green protectionism’ and increasingly observed in the EU since the outbreak of the economic crisis.

How did the crisis affect the preference formation of national governments and the role of business therein? National governments arguably consider concerns of business actors in the aggregation process even more than before the crisis outbreak. This is assumingly the case for two reasons. First, national governments have an interest in maximising national welfare. National welfare is threatened if specific industrial sectors suffer from crisis-induced economic hardship. Therefore, governments pay special attention to the political preferences of these industries (Clift & Woll, 2012) and avoid imposing additional burdens on them (Lenschow, 2010). Second, business actors under economic pressure not only receive more attention from the government, they also invest more resources in lobbying to make themselves heard (Adelino & Dinc, 2014). In consequence, national

governments take their national industries' policy preferences into consideration to a greater extent in times of crisis. Thus, the following hypothesis is put:

H2: After the outbreak of the economic crisis, national governments will align their preferences regarding climate-relevant regulations to those of domestic business actors to a greater extent than before.

2.3.3 Preferences and strategies of the European Commission

The previous two sections derived hypotheses for business actors and national governments by making a redistributive argument. The European Commission, however, is assumed to be detached from the logic described above. While the European Commission is clearly a lobbying target of business, it has no immediate incentive of maximising the welfare of particular member states; rather it has to account for multiple, also conflicting interests at different levels while fulfilling its roles as agent of the member states and as political entrepreneur. This section lines out how the European Commission shapes its environmental policy preferences in times of crisis.

Having the exclusive right to propose new policy, the European Commission is at the centre of EU climate policy-making. However, it struggles with its own internal organisational fragmentation and coordination (Larsson & Trondal, 2006; Schön-Quinlivan, 2013): While the Commission is legally one single body, it is composed of a plethora of Directorates, units and other branches. Political leadership is provided by the College of Commissioners, whereas Commissioners are appointed by member states. The College works on the basis of collegiality, decisions are taken collectively. While Commissioners have to take an oath of independence from their country, this independence is questionable (Schön-Quinlivan, 2013; Wonka, 2007). Member state governments are inclined to appoint Commissioners who share the party affiliation of the current government and are considered politically reliable based on their earlier performance in the political arena (Wonka, 2007). Each Commissioner is heading a Cabinet, his political office. The Cabinet has considerable power as it filters the contact to the Commissioner and is the first access point for lobby groups, other European institutions and national governments (Schön-Quinlivan, 2013). The influence of a single Commissioner in charge of a policy initiative increases strongly if the Council signals no clear policy preference, and in absence of a commonly shared political imperative (Bürgin, 2015).

As head of a Directorate General, Commissioners are also responsible for covering a specific policy field. Comparable to a ministry, DGs are the vertical administrative services of the Commission for managing a specific policy field and are therefore directly involved in policy-making (Schön-Quinlivan, 2013). The DG primarily responsible for drafting a proposal has great influence over the content (Hartlapp, Metz, & Rauh, 2013). Furthermore, each DG has its own political views, agendas, and administrative cultures (Hartlapp et al., 2013). Therefore, the DGs for Environment and those for Enterprise, Transport or Energy frequently engage in turf battles, which may result severe conflicts within the College of the Commissioners and ‘prevent coordinated and effective environmental policy’ (Lenschow, 2010, p. 312).

The delicate role(s) of the European Commission

In addition to this internal fragmentation, the European Commission faces the challenge of striking a balance between establishing climate policy as one of the EU’s flagship political projects and acting as agent of the member states (Lenschow, 2010). Moreover, as a relatively small administrative body, the European Commission has a strong demand for outside information (Broscheid, 2006) and relies on technical information and advice to produce policy proposals (Coen & Richardson, 2009). Therefore, the Commission is in close dialogue with interest groups. Hardly surprising, interests and views of the business lobby are seen as deeply embedded into the European Commission (Coen, 2007; Mazey & Richardson, 2003). In consequence, the Commission faces verification costs as lobbyists might exaggerate and misrepresent information (Grossman & Helpman, 2001). Also, the repeated attempts by the Commission to coordinate industrial input and to integrate industries in the implementation are not always successful (Lenschow, 2010). The structural power of business (Lindblom, 1982) -derived from its ability to deliver economic success- mirrors also within the European Commission: Compared to other Commission branches, economic players such as DG Enterprise are equipped with particular influence (Adelle & Anderson, 2013).

During the policy process, the Commission plays two roles: As an environmental policy entrepreneur that initiates proposals, and as a policy manager that shepherds an initiative through the legislative process (Knill, Eckhard, & Grohs, 2016; Schön-Quinlivan, 2013). To balance these two roles, the Commission uses its power strategically to pursue its -often ambitious- environmental

policy goals (Knill & Liefferink, 2007; Weale et al., 2000; Windhoff-Héritier, Knill, & Mingers, 1996), taking advantage of its quasi-monopoly of legislative proposal and withdrawal (Jupille, 2007), manipulating asymmetries and coaling with member states or business actors (Liefferink, 1997; Weale, 1992) Thus, despite gatekeeping powers, the Commission engages in a ‘game of give and take’ (Schön-Quinlivan, 2013, p. 100) with other actors. The drafting of a policy proposal takes place within this dynamic and fragmented institutional setting, which is affected by an economic crisis.

The European Commission in times of crisis

Assessing how an economic crisis might affect the Commission’s preference formation, three aspects need to be considered: First, the issue of climate change presumably slips down on the Commission’s political agenda (Steinebach & Knill, 2016), while combating the symptoms of the economic crisis becomes the most central issue. Second, from that follows that the influence of business actors is assumed to increase because the crisis supports their claim for avoiding regulatory burden. This is particularly true for those firms and industries that employ a large workforce and are cornerstones of member states’ economies. Third, the Commission is not only lobbied by interest groups, but also by member states (Panke, 2012). Hardly surprising, Commissioners tend to act in favour of their country of origin (Gehring & Schneider, 2016; Thomson, 2008; Wonka, 2008). For these reasons, also the influence of member states over the Commission assumingly increases during an economic crisis.

Business lobbies have higher stakes during economic hardship, just as the member states that depend on their industries. Both member states and business actors are assumed to have greater influence in the Commission than before an outbreak of an economic crisis. This way, the conflict in the industry and in the policy domain between ‘beneficiaries’ and ‘losers’ is carried into the Commission and reflects in its power struggles. Importantly, this does not necessarily mean that regulatory proposals become less environmentally ambitious: For example, some firms might expect relative gains from planned regulation because they can easily adopt a new industry standard and might support DG Environment in defending its draft regulation against DG Enterprise. Polarisation within the Commission can potentially depend on a variety of factors, such as the topic of the specific policy proposal, the Directorate Generals entrusted with the drafting, the current Commission agenda and its priorities, nationality and party affiliation of the responsible

Commissioners, size and political orientation of the Directorate Generals, and so on. This variety of factors prohibits a prediction of precise conflict lines for each case. The empirical analysis will unveil the exact conflict lines for each single case later on and allow making statements on the role of the Commission in post-crisis environmental policy-making for further research. Therefore, the following general hypothesis is put forward:

H3: After the outbreak of the economic crisis, political polarisation within the European Commission is stronger than before.

2.3.4 Preferences and strategies of the European Parliament

The European Parliament is commonly considered the ‘greenest’ among the EU institutions (Burns, 2013; Lenschow, 2010). However, the introduction of the co-decision procedure and the increase in formal power decreased the Parliament’s willingness and ability to adopt radical environmental amendments and introduced a more conciliatory behaviour (Burns, 2013; Burns & Carter, 2010; Burns, Carter, & Worsfold, 2012; Lenschow, 2010), because it can now be held accountable for decisional failure (Holzinger, 1994). As a result, Burns et al. (2012) find that between 1999 and 2009, the European Parliament proposed fewer ‘green’ amendments, and that the more ambitious an amendment, the less likely it is adopted by the Council. Nevertheless, the Parliament typically votes along ideological rather than national conflict lines (Hix, Noury, & Roland, 2007), and in some cases overcomes political dissent in order to increase its influence vis-à-vis the two other legislative institutions (Jupille, 2004). Within the Parliament the political group that has the strongest environmental ambitions is the Group of Greens/European Free Alliance. The group is larger than green groups in most national Parliaments (Lenschow, 2010), and it is the most cohesive EP group with the fewest defections (Burns, 2013).

The European Parliament works in a Committee structure: When the Commission proposes legislation to the Parliament, the conference of Committee chairs allocates the responsibility for the file to a Committee (Burns, 2006). Either one Committee takes the lead and other Committees are allowed to draft an opinion, or two (or more) Committees take joint responsibility and coordinate their work. Within a Committee, so-called Rapporteurs are charged with drafting an opinion and devising amendments. Being responsible for consulting with the Commission and the Council,

political groups within the Parliament, and interest groups, Rapporteurs play an important role in the policy-making process. The Environment Committee is the ‘green’ policy driver of the Parliament (Lenschow, 2010) and has become one of the Committees most involved in legislative procedures (Maurer, 2003) creating an enormous workload for its members and incentivising them to reach early compromises (Lenschow, 2010). Given the cross-sectoral character of environmental policy, the Environment Committee frequently shares responsibility with other Committees. As Committees vary strongly with regard to their composition and preferences (McElroy, 2006; Yordanova, 2009), shared responsibility can lead to coordination problems (Judge & Earnshaw, 2011) and weakened Parliament reports (M. P. Smith, 2008). Concerning environmental legislation, the Industry Committee dilutes environmental policy proposals in most cases (Burns, 2013). Nevertheless, sharing responsibility among Committees can facilitate finding a consensus the plenary can agree on (Settembri & Neuhold, 2009). The growing need to form coalitions within and beyond the Environment Committee and between the EU institutions caused the Parliament to generally follow the Commission agenda of ecological modernization (Burns, 2013). While the Commission remains the most important target of lobbying efforts, the European Parliament and particularly its Committees are increasingly being targeted (Lelieveldt & Princen, 2011) by both environmental and business lobbyists (Rasmussen, 2015; M. P. Smith, 2008) but also by member state governments (Panke, 2012). The political groups of the EP are inclined to different interest groups: While business lobbies often have overlapping political preferences with the EPP, ECR and ALDE, NGOs share their preferences rather with the S&D, Greens and GEU/NFL (Beyers, Bruycker, & Baller, 2015). Successful business lobbying is most likely if the issue is highly technical, business federations are internally united, environmental interest are diffuse, and mainstream Committees are responsible for handling the proposal (Rasmussen, 2015, p. 380), circumstances that are frequent in EU environmental policy-making.

The European Parliament in times of crisis

How do environmental policy preferences and strategies of the European Parliament develop when the EU is undergoing an economic crisis? Arguably, there is a similar trend towards stronger polarisation like in the European Commission. Due to their remarkable influence in the policy process (Mamadouh & Raunio, 2003), Committee chairs, Rapporteurs and Shadow Rapporteurs are valuable targets of lobbying efforts (Mahoney, 2007; Marshall, 2010, 2015; Yordanova, 2011; Yoshinaka, McElroy, & Bowler, 2010). National governments (Panke, 2012) as well as national and

European lobby groups (Bouwen, 2004) exploit their access to those decision-makers within the Committees, and arguably extend their lobbying efforts in times of crisis. Moreover, Committee members are also regularly elected MEPs that have to consider the economic situation in their constituency, which might lead to a more ‘green protectionist’ voting behaviour. For these reasons, the specific composition of policy preferences within an industry is assumed to reflect in the preference formation of the responsible Committees. Again, this does not mean necessarily that the Parliament adopts a more environmentally lenient position, since also those parts of an industry that prefer a strict regulation may increase their lobbying efforts. Just as within the European Commission, the exact conflict lines vary across cases and depend on multiple factors, such as which and how many Committees are involved and the party affiliation and nationality of Committee members, heads of Committees, rapporteurs and shadow rapporteurs. For this reason, a more general hypothesis is put forward:

H4: After the outbreak of the economic crisis, political polarisation within the European Parliament is stronger than before.

2.3.5 Preferences and strategies of environmental groups

The number of environmental lobby groups in Brussels has increased over the years, and so has their number of access points to policy-makers. The EU acknowledges that public interest groups such as environmental NGOs can enhance their democratic credentials (Eising & Lehringer, 2010), gives them access in a consistent and transparent way (Adelle & Anderson, 2013), and even provides funding for many of them (Lenschow, 2010). ‘Green’ lobby groups are often seen as morally superior to the business lobby (Greenwood, 2003) and typically enjoy high levels of public support (Adelle & Anderson, 2013). The bulk of lobbying activities is carried out by ten major environmental groups called ‘Green Ten’, among them the European Environment Bureau (EEB), the World Wide Fund for Nature (WWF), Friends of the Earth Europe (FOEE), Greenpeace, and Transport and Environment (T&E). Just as other political actors, environmental lobby groups build alliances, coalitions and networks in the EU policy-making process (Long & Lorinczi, 2009). The ‘glue’ that holds these actor constellations together is the goal to achieve a common goal in a specific issue, rather than common values (Warleigh, 2000; R. K. W. Wurzel & Connelly, 2010). This allows green NGOs to forge coalitions also with wider public interest groups or even business lobby groups (Adelle & Anderson, 2013).

Compared to business interest groups, environmental groups have the disadvantage of representing diffuse interests (Bunea, 2013). Despite having increasingly gained access to policy-makers, green NGOs have difficulties in achieving their preferences and in shifting policy outcomes to their favour (Dür & Bièvre, 2007). As regards lobbying strategies, environmental groups can choose between lobbying decision-makers that have similar or opposing views (Gullberg, 2008a, 2008b), for instance DG Environment or DG Enterprise. While lobbying actors with opposing views is seen as rational, but very resource-intensive and difficult (Adelle & Anderson, 2013), lobbying ‘friends’ can provide them with support for a strong ‘green’ stance (Long & Lorinczi, 2009; Warleigh, 2000). On the other hand, an excessive focus on DG Environment is seen as a limitation for lobbying by ‘green’ groups (Hontelez, 2005; Mazey & Richardson, 1993). Another distinction of ‘green’ lobbying strategies differentiates between ‘inside’ and ‘outside’ lobbying (Grant et al., 2000). ‘Inside’ strategies aim at gaining access to and consulting decision-makers, while more aggressive ‘outside’ strategies involve campaigns and events to raise public attention. While both strategies are not mutually exclusive (Greenwood, 2003; R. K. W. Wurzel & Connelly, 2010), some groups like WWF and Birdlife International apply rather an ‘inside’ approach, while groups such as FOEE and Greenpeace act more confrontational (Grant et al., 2000; Greenwood, 2003). However, even the most aggressive groups participate in the policy-making process and become ‘tamed’ (Adelle & Anderson, 2013) by their incorporation into the political decision-making process (Greenwood, 2003).

As regards policy preferences and strategies, ‘green’ lobby groups have the overarching goals of environmental preservation and climate change mitigation. From these general goals, they derive policy-specific goals. Typically, they reject policies that they consider as damaging to the environment. When it comes to environmental regulations, they usually push for the strictest possible policy option, or for the strictest possible calibration of a policy instrument. The goals of environmental preservation and climate change mitigation are unconditional of economic circumstances because they constitute a norm per se. Environmental lobby groups typically face no trade-offs between environmental and economic or social policy goals because they have the single purpose of lobbying for the environmental cause. Therefore, it is assumed that the political preferences of environmental groups remain unchanged by the event of an economic crisis:

H5: After the outbreak of the economic crisis, environmental lobby groups pursue the same political strategy as before.

2.4 Actor constellations in EU climate policy-making

The previous sections demonstrated that EU environmental policy domains consists of various actor types with different policy preferences, different logics of preference formation and different strategies to attain their preferences. In the policy-making process, these actors are assumed to interact with each other in order to increase the changes of a favourable policy output. What can be said about the interactions among these actors, and how they change in times of crisis?

Issue networks as coordinative mechanism in a fragmented polity

EU policy-making takes place in a multi-layered, ambiguous and open-ended governance setting (L. Hooghe, 1997). In addition, environmental policy is a cross-cutting policy field that affects a wide range of other policy areas (Schön-Quinlivan, 2013). Hardly surprising, EU environmental policy is therefore frequently considered fragmented (Michelle Cini, 1997; Peterson & Bomberg, 1999) and particularly unpredictable, unstable and chaotic (Adelle, Jordan, & Turnpenny, 2013). In this dynamic and fragmented environment, issue-specific coalitions and networks have become the principal dynamic of EU policy-making (Adelle et al., 2013; Long & Lorinczi, 2009; Warleigh, 2000; R. K. W. Wurzel & Connelly, 2010).

Importantly, actor coalitions in EU environmental policy-making are assumed to be based on preferences regarding specific *issues* – not on deeper beliefs. The difference is that issue-specific coalitions are forged and dissolved relatively easily, whereas belief-based ‘advocacy coalitions’ in the sense of Sabatier are more stable because beliefs are harder to challenge. Thus, if an economic shock changes the opportunity structures for actors to achieve a preference, their strategies change as well: The set of acceptable policies apart from the most preferred policy becomes smaller and in consequence, actor coalitions change: They become more polarised.

Polarisation: From the industry to the policy domain

Earlier it was argued that a proposal for environmental regulation is likely to cause differential costs across the European industry that is affected the regulation: Some firms or national industries can meet the new regulatory standards with few investments, while others face high costs. The stronger

the variation of these relative gains and losses emerging from a regulatory proposal, the more difficult it is to find a political compromise on how the specifications of this regulation should distribute these relative gains and losses. An economic crisis increases these stakes that governments and business have in policy-making (Clift & Woll, 2012), and the higher the stakes, the harder intergovernmental bargaining becomes (Schimmelfennig, 2015).

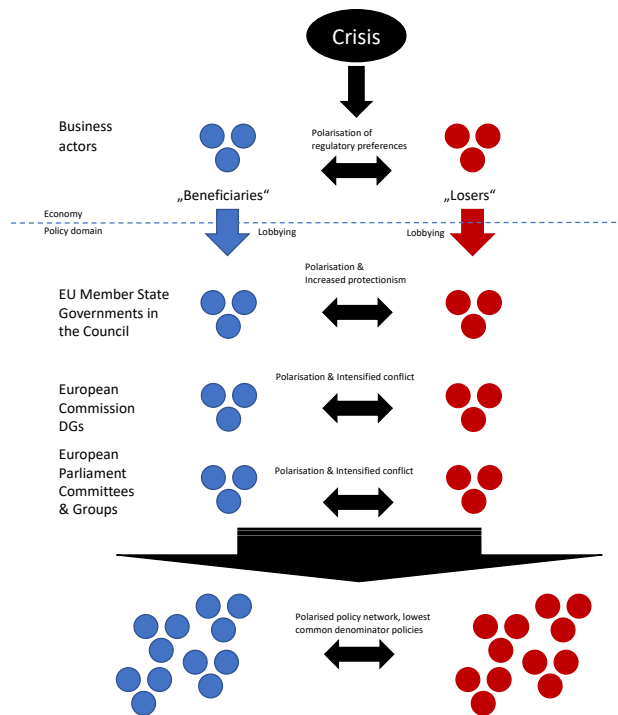


Figure 2-3: Schematic illustration of the polarising dynamic in the policy domain.

In terms of actor constellations, such intensified bargaining should lead to polarisation in the policy network (Figure 2-3). Polarisation is assumed to contain two aspects: A stronger cohesion within coalitions, and a greater gap between coalitions: After the outbreak of an economic crisis, the cohesion within an actor coalition intensifies. Actors that have a common position exchange information among each other and have the same contacts. In order to achieve a favourable outcome, they pronounce their commonalities, rather than differences. In contrast, their touching points with actors from the opposite ‘camp’ become fewer, as the common ground for possible compromise diminishes. Lowest common denominator compromises are the result: Assuming that an economic crisis causes the emergence of two opposing ‘camps’, transaction costs increase since the policy preferences are more distant: ‘The difficulty of reaching negotiated agreement increases

with the heterogeneity of member state conditions, interests, and preferences' (Scharpf, 2006, p. 851).

H6: After the outbreak of the economic crisis, political polarisation in the policy domain is stronger than before.

2.5 Conclusion

This chapter established a conceptual framework to study the impact of economic crises on EU environmental policy-making. Why was this necessary, at all? The reason is that existing theoretical work does not provide a micro-level explanation of the causal linkage between economic shocks and EU policy outputs. The actor-centred, rational-choice-inspired framework presented here fills this gap by conceptualising EU environmental policy-making as driven by preference-based coalitions. In doing so, it provides an alternative to belief-based approaches that emphasise discourse and deliberation, but fail to account for the volatile, fragmented nature of EU policy-making.

The key message: Redistributive conflicts matter!

The key argument presented in this chapter draws on redistributive conflicts within the industries regulated by a legislative initiative. In order to meet a regulatory standard, some firms have to invest more than others, facing a competitive disadvantage. While these conflicts exist at all times, they intensify during an economic crisis, because relative gains and losses vis-à-vis competitors weigh heavier during hard times. The conflict within the regulated industry spills over to the policy domain on different paths. Most importantly, crisis-shaken member states in the Council of the European Union take sides with their domestic industries, engaging in 'green protectionism'. Also the European Commission and the European Parliament undergo intensified conflicts internally during the policy-making process. As actors of different backgrounds form coalitions based on their preferences, and as they become more insistent on realising their preferences, the common ground for compromise diminishes. However, while agreeing on a final policy becomes more difficult, this does not necessarily mean that policies become less environmentally ambitious during hard times. If business actors that benefit from a strict regulation manage to transmit their position into the policy-making process, regulatory tightening is still possible.

Hypotheses

This section proposed a model of how and economic shock affects EU climate policy-making. The hypotheses formulated above serve the purpose to make this model testable with empirical observations. Hypothesis 1 lays the foundation of the conceptual framework, specifying how redistributive conflicts within the industry intensify in hard times. Hypotheses 2 to 5 describe how this intensified conflict spills over to member state governments, the European Commission, the European Parliament and environmental lobby groups, and how it affects their political preferences and strategies. Eventually, hypothesis 6 concludes the conceptual framework by stating how the alterations of preferences and strategies of different actor types aggregate into a macro-level effect of the economic crisis: A more polarised policy domain. The next chapter presents the research design that operationalises these hypotheses in order to make them empirically testable.

3 Research Design

The previous chapter established a conceptual framework and generated hypotheses concerning the impact of the economic crisis on EU climate policy-making. The aim of such hypotheses is to make falsifiable theoretical statements about empirical phenomena. Therefore, hypotheses should be tested using empirical data. It is the purpose of a research design to structure the process of collecting, aggregating and assembling these data in a way that allows making precise descriptions of the phenomena of interest and, eventually, generating causal inference.

This chapter is structured as follows: The first section presents the case selection strategy, defining what a case is, and explaining the rationale according to which cases are selected. It also describes the operationalisation of the independent variable. The next section operationalises the overarching concept ‘political polarisation’ into three measurable concepts: Degree of flexibility, degree of congruence, and degree of conflict. The final section presents preference network analysis, highlighting the graph-theoretical foundations as well as the specific types of networks, the visualisation techniques and clustering algorithms that are included into the analysis. Special attention is paid to the selection of data sources and to strategies to avoid biases when collecting these data. Finally, the section explains how qualitative data are used to complement the network analysis.

3.1 Why choosing a small-n design?

This study chooses a research design that inquires only three cases. Leuffen (2007, p. 148) identifies two common reasons for selecting such a small-n research design: ‘First, data properties might restrict the number of available cases. Second, methodological objectives such as getting a better grip of causal processes or mechanisms can incite a researcher to choose a small-n approach’. Both reasons inform the choice of a small-n design also in this study. As the case selection section (below) will specify in more detail, potential cases need to meet two criteria: First, a high within-case comparability (i.e. policy processes in a policy field before and after the crisis outbreak must be comparable), and second, variation across cases on the explanatory variable of interest (economic crisis). A rigorous application of these criteria limits the pool of available cases to those three selected for this study.

3.2 Case selection

3.2.1 Defining a case

In this study, a case is defined as an *EU policy domain in which at least two comparable policy decisions, one before and one after the outbreak of the crisis are taken in order to impose a regulation on an industrial branch with the goal to contribute to climate change mitigation*. This definition can be dissected into several elements that, taken together, define the universe of eligible cases:

Policy domain

A policy domain is ‘identified by specifying a substantively defined criterion of mutual relevance or common orientation among a set of consequential actors concerned with formulating, advocating, and selecting courses of action (that is, policy options) that are intended to resolve the delimited substantive problem in question’ (Knoke & Laumann, 1982, p. 256). Classic policy domains are e.g. education, health, or foreign affairs. In the present study, the policy domains are defined by the industrial branch that is subject to the policy decisions made in the domain.

Comparability

To assess the impact of the crisis on a policy domain, two *comparable* policy decisions must have occurred, one before and one after the outbreak of the crisis. Under ideal conditions, two observed policy decisions would differ only in regard to the timing relative to the crisis outbreak. As reality does not offer these conditions, they need to be relaxed. While they still differ with regard to the timing relative to the crisis outbreak, they are comparable in important criteria. ‘Comparable’ means that there is a high overlap of the sets of actors engaged in both policy decisions, that both policy decisions need to find a balance between economic and sustainability goals, and that both decisions were made within a period of ten years (to warrant comparable contextual factors).

Policy decisions

The policy decisions of interest are regulations that impose a burden on the regulated industries. The reason is that the crucial mechanism of redistributive conflicts within the regulated industry can only be at work if a regulation imposes costs on firms. Therefore, the policy decisions should impose command-and-control or market-based instruments. For the same reason, voluntary

agreements, reporting and monitoring procedures etc. are not relevant to this study. Also, the policy decisions need to be substantial; consolidations of previous legal texts etc. are irrelevant.

Relevance for climate change mitigation

Finally, the selected policy domains should be of relevance to the declared goal of the EU to contribute substantially to climate change mitigation. That is, in the policy domain, policy decisions are made with the superordinate goal to reduce greenhouse gas emissions, increase the share of renewable energy, or improve energy efficiency⁵.

3.2.2 Case selection strategy

Selecting cases according to variation on the explanatory variable (i.e. the economic crisis) allows for a difference-in-differences research design (Gangl, 2010): Causal inference (i.e. the effect of the explanatory variable on the observed outcomes) can be estimated by comparing the before-after-differences of cases with high crisis impact (car emissions and aviation emission trading) and low crisis impact (biofuels). Such a design can be also expressed formally:

$$DD = (\hat{y}_{Car,Avi}^{Post} - \hat{y}_{Car,Avi}^{Pre}) - (\hat{y}_{Bio}^{Post} - \hat{y}_{Bio}^{Pre})$$

The pool of available cases according to the criteria defined in the previous section is provided in the annex. From this pool, cases are selected according to the following two criteria that allow for a difference-in-differences estimator: First, only cases with high within-case comparability are taken into consideration. That is, the policy decisions within the policy domain should be comparable according to the criteria defined above. Moreover, the selected cases should vary on the explanatory variable of interest, that is, the impact of the crisis. Variation on the explanatory variable is necessary in order to establish causal inference (King, Keohane, & Verba, 1994, p. 140): Only by comparing cases with and without crisis impact it is possible to rule out effects of historical time as rival explanation. This criterion is particularly challenging as the crisis was a ubiquitous occurrence and only few industrial sectors remained unaffected. One way to solve this problem would be to find climate policies outside the EU, in a country with no crisis impact. This solution is unfeasible

⁵ Those are the key targets of the 2020 Climate and Energy Package.

because the crisis was a global event. Also, the political processes of the EU are hardly comparable with other political systems. A second option would be to analyse subsequent EU climate policy decisions in the past, without a crisis between the decisions. This solution is unfeasible because a variety of contextual factors (e.g. different institutional rules) would make such cases incomparable to more recent cases. A third option is to find an EU policy domain where the regulated industry was less affected by the crisis than other industries. The latter solution is chosen, by comparing climate regulations in economic sectors that were strongly affected by the crisis (passenger car industry and aviation) with a branch that was affected by the crisis only to a minor extent (biofuel industry).

3.2.3 Operationalisation of the independent variable

In this research design, the explanatory variable of interest is the economic crisis⁶. As mentioned earlier, ‘the crisis’ is best understood as a sequence of events in different venues and on varying levels. To facilitate the operationalization, this study defines the beginning of the crisis in Europe to 15th September 2008, when the collapse of the US investment bank Lehman Brothers ‘triggered the worst financial crisis since 1929’ (Baldwin & Wyplosz, 2012, p. 528), requiring government interventions to bail out banks both in EU and non-EU countries (Tosun et al., 2014, p. 197). The following section justifies the choice of this threshold date.

The ‘Great Recession’ – a brief chronology

The starting point of what is mostly referred to as ‘the economic crisis’ or ‘Great Recession’ was the collapse of the subprime mortgage market in the United States in 2007 and the subsequent freezing of interbank markets (Baldwin & Wyplosz, 2012, p. 528)⁷. In Europe, the ECB’s first emergency liquidity measures were necessary in August 2007 (Hodson & Puetter, 2013, p. 369). However, it was not before Autumn 2008 that the crisis gained momentum: On 15 September

⁶ Potentially, there are rival explanations to a crisis impact for explaining the observed outcomes. Three possible rival explanations were identified: Decreased issue salience, cyclical policy-making, and legislative inactivity. In the theory chapter it has already been pointed out that decreased issue salience is incapable of explaining policy change in fields with low public visibility, and therefore is unfeasible as explanans. Also cyclicity fails to explain the observations: The period of regulatory inactivity between 2011 and 2013 is the longest since the early 1980s (Steinebach & Knill, 2016), suggesting a disruption of common patterns. Also, it is unlikely that policy cycles in all policy domains under scrutiny are synchronous. Finally, also legislative inactivity by the European Commission as described by Bürgin (2015) fails to explain the whole picture, as the European Council has gained importance in the legislative process during the economic crisis (Schwarzer, 2012).

⁷ A comprehensive review of the crisis impact on the EU is provided by Tosun, Wetzels, & Zyprianova (2014).

2008, the bank Lehman Brothers went bankrupt, triggering a worldwide financial crisis. Hungary was the first EU member state seeking financial assistance by the IMF, the ECB and the World Bank on 27 October 2008 (Hodson & Quaglia, 2009). In 2009, the ECB had to put into place additional measures to respond to the global financial crisis (Hodson & Quaglia, 2009, p. 943). Despite these efforts to bail out European banks, budget deficits kept on growing drastically, particularly in Ireland, Greece, Spain, and Portugal (Hodson, 2010). In combination with negative economic growth and increasing public debt, this caused the Eurozone debt crisis in 2009 (Baldwin & Wyplosz, 2012). Especially Greece ‘served as the catalyst for the crisis of the Euro’ (Tsoukalis, 2011, p. 26). As other Eurozone members feared contagion (Zahariadis, 2012), the no-bail-out clause of the Maastricht Treaty was ignored (Scharpf, 2012). In May 2010, the European Council agreed on a rescue mission for Greece, involving the EU, the ECB and the IMF (Tosun et al., 2014). Cyprus, Ireland, Portugal, and Spain were bailed out little later. On 26 July 2012, Mario Draghi, President of the ECB, announced that ‘the ECB is ready to do whatever it takes to preserve the Euro’⁸, introducing a policy of low interest rates that remains in place until today. Obviously, an economic crisis of this magnitude has implications for virtually every aspect of the EU.

The pre-crisis policy decisions in the car emission and biofuel cases were agreed upon in early December 2008, that is, roughly ten weeks after the date defined as crisis outbreak. The decision to tolerate this temporal overlap is justified for the following reasons: First, especially in the realm of highly technical emission regulations, a great deal of the negotiations is conducted by a relatively closed community of highly specialised civil servants in the Commission and the Council that is less responsive to external shocks than ‘high politics’. This kind of institutional inertia and resilience is the reason why attention to the economy by the European Council did not peak before 2010 (Alexandrova, Carammia, Princen, & Timmermans, 2014). Second, although the negotiations end shortly after the outbreak of the crisis, the by far greatest share of the observations used for the discourse network analysis is generated before the outbreak. An observation period of at least two years before the crisis outbreak, compared with merely ten weeks at the end of the decision-making process, warrants that enough untreated data points will be collected to interpret the network graphs as untreated⁹. Finally, the legislative procedure in the EU follows an inflexible schedule. The

⁸<http://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html>

⁹ In the dataset collected for the pre-crisis decision in the car emissions case, only 29 out of 385 observations occurred after 30th September 2008. In the biofuels case, 35 out of 499 occurred after 30th September 2008.

decisive period of the negotiations does not take place at the end: Under the ordinary legislative procedure, the European Parliament and the Council cannot change the wording of the joint text in the third reading. Therefore, negotiations between European Parliament and Council need to agree on core topics earlier.

3.3 Concept specification of 'political polarisation'

An economic shock diminishes the flexibility of businesses to depart from their most preferred policy option, causing political polarisation within the industry. This polarisation spills over to the EU policy domain, hampering the policy process. This is, in short, the theoretical argument presented in this study. Thus, the notion of 'political polarisation' is pivotal for any further analysis and requires specification. As a theoretical concept, 'political polarisation' is composed of three sub-concepts (Figure 3-1). The first one is located on actor level and is described as 'flexibility'. It refers to actors' flexibility to accept outcomes other than their most preferred policy. The second one, 'congruence', is located on coalition level. It refers to the cohesion of actors within the same coalition. The third and final one, 'conflict', is located on domain level. It refers to the distance between different coalitions regarding their political preferences. Taken together, these three sub-concepts provide an encompassing and empirically measurable account of political polarisation. The next sections describe these three sub-concepts and their operationalisation.

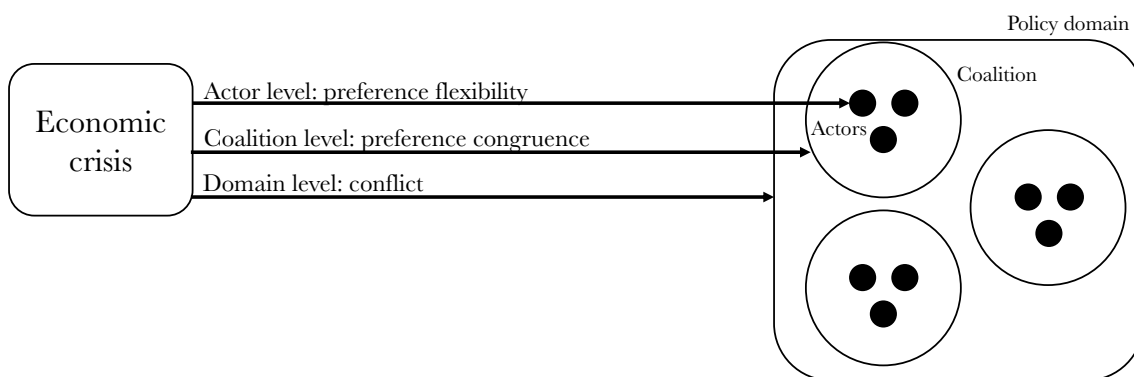


Figure 3-1: Concept specification.

3.3.1 Flexibility

If the EU plans a new environmental regulation or the amendment of an existing one, businesses affected by the regulation as well as political actors are assumed to have a preference regarding the environmental ambitiousness of the regulation (as described in the chapter above). As all actors act strategically, they have a set of acceptable outcomes of the policy-making process that departs from

their most preferred regulation. This set of acceptable outcomes is assumed to shrink after the outbreak of the economic crisis, leading to lowest-common-denominator compromises and a hampered policy-making process.

Here, the readiness of actors to depart from their most preferred policy outcome is called flexibility. Highly insistent actors are very inflexible in their strategic behaviour and insist on their most preferred policy. Hence, flexibility is measured by the number of potential elements of the envisaged regulation that an actor supports. If an actor sticks to the initially expressed most preferred outcome over the entire policy process, he is very inflexible. In contrast, if an actor signals acceptance for multiple regulatory designs of various environmental ambitiousness, he is flexible. A decrease in flexibility of actors in the policy domain is the foundation of wider polarisation on coalition- and domain level.

3.3.2 Congruence

While flexibility refers to individual actors, political polarisation affects actor coalitions through increased congruence of shared political preferences. In other words, an economic crisis leads to stronger cohesion within coalitions heralding the same or similar policy preferences. Here, coalitions are defined as a 'set of actors that share the same policy goal' (Baumgartner, Berry, Hojnacki, Leech, & Kimball, 2009, p. 6).

Assumingly, business actors that have the same or a similar preference engage in coalition-building to a greater extent during an economic crisis: They depend more on a favourable regulation than under economically relaxed conditions. As coalition-building increases the likelihood of lobbying success, they are more willing to forge coalitions with actors that have similar or the same policy goals. This is particularly true for those actors that previously supported or opposed a policy only silently, because the incentive to invest resources in lobbying was too low. Coalition-building is additionally facilitated because the set of acceptable policies shrinks, and like-minded actors agree more easily on a common strategy. In these coalitions, the preferences of single actors are bundled and communicated consistently vis-à-vis decision-makers and the public. Therefore, after the outbreak of the crisis, it is expected that actors within a coalition have a higher overlap of policy goals than before and commonly agree or disagree to a wider range of topics.

3.3.3 Conflict

Just as cohesion among like-minded actors grows in times of crisis, conflict grows among coalitions with opposing goals. The decreasing flexibility of actors to accept policies other than their most preferred one facilitates coalition-building with allies, but it makes finding compromises with political opponents more difficult because the set of policies they can commonly subscribe to diminishes. Therefore, a policy domain’s division into distinct clusters is expected to be stronger after the outbreak of the economic crisis.

3.4 Operationalisation

The previous section described how the notion ‘political polarisation’ is subdivided and operationalised into three concepts: Flexibility, congruence and conflict (Figure 3-1). A methodological approach to measure these concepts needs to be able to assess actors, their political preferences, and the constellations actors form based on common preferences. The following section will explain how this is achieved using a derivative of social network analysis, supported by qualitative document analysis. Table 3-1 shows the three theoretical concepts to be measured, and their respective operationalisation. The indicators are measured using preference network analysis, which is introduced in the next subsection.

Level	Theoretical Concept	Concept Specification	Operationalisation
Actor	Degree of flexibility	Number of potential policy elements an actor supports. The greater, the more flexible	Number of supported policy elements of key actors
Coalition	Degree of congruence	Number of concepts that two or more actors commonly agree or disagree on. The more, the higher the degree of congruence	Visualised in congruence network graphs (Layout algorithm: MDS)
Policy Domain	Degree of conflict	Between-group polarisation in the decision-making process	Number and size of clusters in a network graph (clusters determined by Girvan-Newman clustering algorithm)

Table 3-1: Operationalisation of theoretical concepts.

3.4.1 Preference network analysis

The specific kind of network analysis applied in this study shall be called ‘preference network analysis’¹⁰. This method allows analysing the evolution of actor constellations subject to actors’ political preferences over time. Based on statements regarding actors’ policy preferences that they make in the media, this approach creates network graphs of the policy debate.

In short, the process from coding to network printing is as follows: With a software tool, the actor statements are coded. In their statements, actors refer to concepts (e.g. an emission limit). If an actor refers to a concept in a positive or negative way (support/rejection), an edge with a positive or negative connotation is drawn between the actor and the concept. If this is done for several actors and several statements, an ‘affiliation network’ is computed. A model of a simple affiliation network is provided in Figure 3-2.

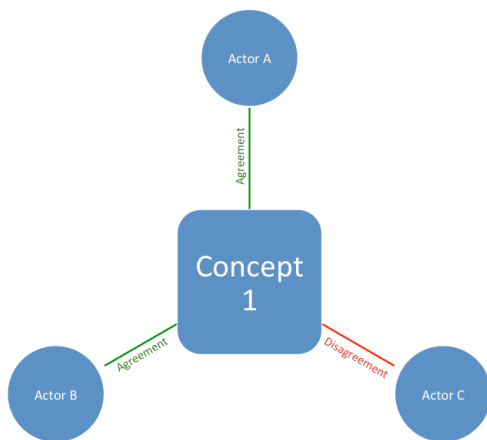


Figure 3-2: Model of an affiliation network.

However, the focus of this research is not on whether actors agree or disagree with certain concepts. More relevant are the constellations of actors based on whether they commonly or disagree with concepts. It is therefore desirable to have network graphs that display only the actor constellations (based on joint support/rejection of concepts), but without showing the concepts. This is achieved by converting the affiliation networks into ‘congruence networks’. Congruence networks display the actor constellations based on joint support or rejection of concepts. The higher the overlap of

¹⁰This approach was originally developed in order to study political discourses in policy domains (Leifeld, 2011), but it is suitable to study policy processes as well. To this aim, the coded actor statements are understood as expression of their political preference, not as a policy frame.

attitudes towards concepts, the shorter are the edges between actors, and vice versa. A model of a simple congruence network is provided in Figure 3-3. While this paragraph presented a short overview on the network computing procedure, the following subsections guide through the technical details.

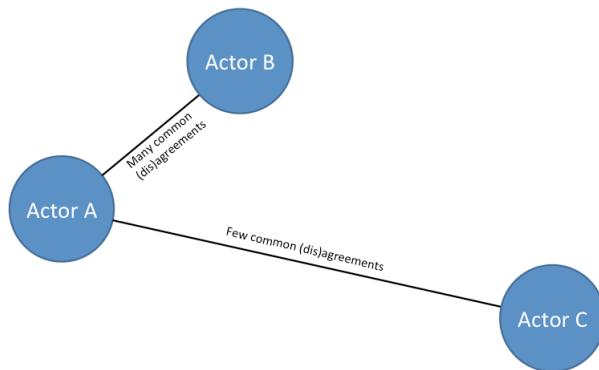


Figure 3-3: Model of a congruence network.

3.4.1.1 Foundations

The software *Discourse Network Analyzer*¹¹ developed by Philip Leifeld is used for importing text data, manual encoding of actor statements, and the export of resulting concept and actor maps as several network types. The quantitative and formal approach to preference network analysis in this study follows the approach of Leifeld (2011) and operationalizes the policy debate during the legislative decision-making process as sets of organisational actors, groups of actors and sets of concepts (Schneider & Ollmann, 2013, p. 163). These actors make statements in the media. A statement is ‘a text portion where an actor utters his or her policy preferences in a positive or a negative way’ (Leifeld, 2013, p. 173). In addition to direct statements made by actors, this study takes into account also text portions where a political preference is clearly attributed to an actor, without actually quoting the actor. Thus, a statement is a text portion that contains an actor, a concept, and a binary information about agreement or disagreement. For example, the statement by the German chancellor Angela Merkel ‘at a moment when we sit together for days to talk about employment, we also need to be careful not to weaken our own industrial base’ (‘Emissions impossible?’, 2013)

¹¹ <https://github.com/leifeld/dna/>

could be coded as follows: Actor: ‘German government’; concept: ‘No further regulatory tightening’; Agreement: Yes.

The multiple relations between actor and concepts are formalised using graph theory (Leifeld, 2013; Schneider & Ollmann, 2013). A graph G consists of nodes from a set of actors $A = \{a_1, a_2, \dots, a_m\}$ and/or from a set of concepts $C = \{c_1, c_2, \dots, c_n\}$. When a statement is made, a relation between an actor and a concept is established. These relations are expressed as edges between nodes $E = \{e_1, e_2, \dots, e_n\}$. An illustration of the basic preference network model is given in Figure 3-4. Additionally, a dummy variable indicates whether an actor agrees or disagrees with a concept: $R = \{r_1, r_2, \dots, r_l\}$, with $l = 2$ for the relations’ agreement/disagreement. For a longitudinal study, $T = \{t_1, t_2, \dots, t_k\}$ describes a set of discrete time steps (e.g. months). This notation allows computing several network types. For reasons of readability, the case studies only include congruence networks. As congruence networks build upon affiliation networks, both network types are explained in detail in the next sections.

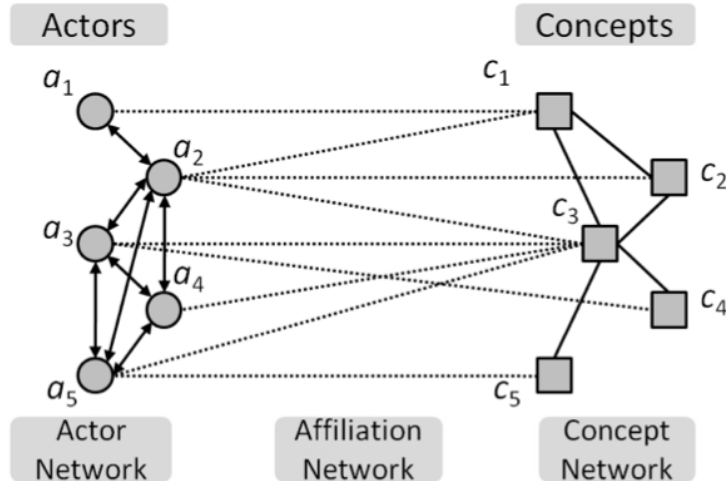


Figure 3-4: The preference network model. Source: Leifeld, 2011, p. 83.

3.4.1.2 Affiliation networks

A statement establishes ‘a relation between an actor and a concept’ (Leifeld, 2011, p. 79). This relation is ‘modelled as an edge $e_{r,t}^{aff}(a, c) \in E_{r,t}^{aff}$ in a bipartite graph’¹² (Leifeld, 2013, p. 174). Bipartite graphs (like in Figure 3-4) are graphs in which the vertices (i.e. the ‘nodes’ in the network) belong to two independent sets (here: actors and concepts). They are modelled as $G_{r,t}^{aff}$ (Leifeld, 2013, p. 174). For each agreement relation, and for each time slice t , one such bipartite graph is established:

$$G_{r,t}^{aff} = (A, C, E_{r,t}^{aff}) \quad (1)$$

Positive and negative affiliation graphs can be expressed in one ‘single multiplex network’ (Leifeld, 2013, p. 174), that is, in a network graph with multiple types of relations. In such a graph, ‘only edges between actors and concepts are allowed, not within the set of actors or within the set of concepts’ (Leifeld, 2013, p. 174). Accordingly, a be an actor and a' another actor, while c be a concept and c' another concept:

$$\{a, a'\} \notin E_{r,t}^{aff} \wedge \{c, c'\} \notin E_{r,t}^{aff} \quad (2)$$

The affiliation networks are provided only in the appendix. However, their calculation is necessary because congruence networks build upon the network data of affiliation networks.

3.4.1.3 Congruence networks

This study is not mainly interested in the relationship between actors and concepts, but rather in the coalitions actors forge based on common attitudes towards concepts. However, given the confusing graphical illustration of an affiliation network, it is difficult to see whether two or more actors have common policy preferences. Therefore, a congruence network is calculated. According to the underlying logic, ‘the more concepts two actors agree (or both disagree) on, the more similar they are in terms of preferences or concepts’ (Leifeld, 2013, p. 174). Thus, a congruence network is a graph in which actors are linked to other actors with an edge, ‘and in which the edge weight

¹² ‘aff’ refers to affiliation network.

between these actors represents the number of common concepts' (Leifeld, 2013, p. 174). The more common agreement or disagreement to concepts, the higher the edge weight and the shorter the edge between two actors in the network. A congruence network can be interpreted as a map of the policy debate and the involved coalitions. Based on the assumption that coalitions can be measured in terms of their similarity of policy preferences, clusters of nodes in this network represent political coalitions. According to Leifeld (2013, p. 175), the notation of congruence networks is as follows: G_t^a is a graph¹³ with actors represented by the vertices A and with edges $e_t \in E(G_t^a)$:

$$G_t^a = (A, E_t^a) \quad (1)$$

Furthermore, 'edges have a weight attached to them, such that a denotes the source vertex of an edge, a' denotes the target vertex, and w_t denotes the weight of the edge between source and target' (Leifeld, 2013, p. 175). As it is part of the set of edge weights W_t , $w_t(a, a') \in W_t$ is the edge weight between a and a' . Also, 'actors do not have a subscript t because the model assumes they are present in all time periods. Only the presence or absence of statements (or edges) may vary over time' (Leifeld, 2013, p. 175).

$$\forall e_t: e_t = \{a, a', w_t\} \quad (2)$$

Leifeld (2013, p. 175) describes the computing of edge weights as follows: 'In the affiliation graph of equation (1), a neighbour is an adjacent vertex of another vertex. Neighbours of concepts must be in the set of actors and vice versa, as required by equation (2). The set of neighbours of vertex a in the affiliation network is denoted as $N_{G_{r,t}^{aff}}(a)$. It contains all concepts actor a refers to in the affiliation matrix. Hence, it is defined as the set of concepts that are incident with an edge containing a as a source or target vertex. $E_{r,t}(a)$ denotes the set of edges incident with a '.

$$N_{G_{r,t}^{aff}}(a) = C \in E_{r,t}^{aff}(a) \quad (3)$$

¹³The 'a' stands for adjacency graph, a graph that visualises the content of an adjacency matrix. The congruence networks in this study are adjacency graphs.

An edge weight takes into account the neighbours in the affiliation network. In equation (4), the ‘edge weight between a and a’ is determined by computing the intersection of their sets of neighbours and counting the elements of this intersection. This is done for both relations (agreement and disagreement), and both counts are summed up.’ (Leifeld, 2013, p. 175).

$$w_t(a, a') = \sum_{r=1}^1 |N_{G_{r,t}^{\text{aff}}}(a) \cap N_{G_{r,t}^{\text{aff}}}(a')| \quad (4)$$

The edge weight between two actors is thus the number of concepts they both refer to in the same way (Leifeld, 2013, p. 175). Therefore, the edge weight can be interpreted as a measure for similarity in the policy debate: The more similar the preferences of two actors, the higher is their edge weight, and clusters in the graph can be interpreted as coalitions (Leifeld, 2011, p. 58). When interpreting the graphs, it is important to keep in mind that the distance between two actors is determined by their common agreement or disagreement with concepts. However, not all actors respond to all concepts. In contrast, most actors refer only to a very small number of concepts. This might result in graphs where actors with seemingly similar preferences (e.g. Audi and Volkswagen) are distant from each other. The reason is not that they have fundamentally different preferences: Rather, media recorded their statements concerning different concepts. When such a puzzling distant between two similar actors occurs, a look into the affiliation networks provided in the annex is helpful. The affiliation networks clearly show which actors refer to which concept in a supportive or rejecting way.

3.4.1.4 Visualisation

The software ‘Discourse Network Analyzer’ is able to export network data in formats readable for all established network visualisation programmes. The network data collected for this study are visualised using the software application *visone*¹⁴. The algorithm used to visually produce the graphs is stress-minimisation. Stress-minimisation, a multidimensional scaling technique applied to graph-theoretic distances, is the most common way to visualise network graphs (Brandes & Mader, 2012, p. 99). It has an ‘intuitive and adaptable objective function’ and obtains clearly arranged layouts (Brandes & Pich, 2009, p. 219). Stress-minimisation seeks to represent shortest-path distances as

¹⁴ <https://visone.info/>

well as possible. However, being an iterative method, stress minimisation depends on a good initialisation, that is, by the preceding network layout (Brandes & Mader, 2012). Therefore, stress-minimisation is preceded by Classical Scaling, a metric multidimensional scaling technique (MDS) (Torgerson, 1965) that resembles stress minimisation, but treats all distances equally. The combination of stress minimisation and metric MDS is the procedure recommended by *visone* for general-purpose network visualisation.

3.4.1.5 Cluster analysis

The computed congruence networks show the actor constellations that actors in the policy domain form during the policy-making process. One of the main assumptions of this study is that the economic crisis leads to a polarisation of coalitions in the policy network. As specified by the concept ‘conflict’ above, one indicator of polarisation is the distance between coalitions: If coalitions are close, there is a certain overlap of preferences, and agreeing on a compromise is less difficult than with large distances between coalitions. If the distance between coalitions based on different policy preferences has increased, this should be visible in the network, and also measurable using a clustering algorithm.

The purpose of clustering algorithms is to identify community structures in networks (Despalatović, Vojković, & Vukicevic, 2014). This study employs the Girvan-Newman method (Girvan & Newman, 2002), one of the most frequently used clustering algorithms in social network analysis (Yang, Algesheimer, & Tessone, 2016). This algorithm iteratively removes those edges with the highest betweenness scores, that is, edges with the highest number of shortest paths that go through them (Despalatović et al., 2014). Betweenness scores are calculated for every single edge in the network, and then the edge with the highest score is removed. This procedure is repeated until no edges remain (Newman, 2004). In other words, the algorithm removes those actors that are most ‘in between’ different clusters and serve as ‘bottlenecks’ between clusters. This way, the algorithm breaks down the overall network into smaller communities, unveiling the cluster patterns. In this study, these cluster patterns are visualised as a light blue background behind the actor coalitions in the congruence networks.

3.4.2 Data collection

It takes indirect evidence to reconstruct political processes because to a large extent, decision-making occurs behind closed doors (Leifeld, 2011). Sources for indirect evidence should meet the following criteria: First, they must contain statements by actors (or a clear attribution of a policy preference to an actor), making them participants in the policy debate. Second, they should constitute a common forum for all involved actors. Third, since the research goal is to learn about the policy-making process, the source should provide statements only of relevant actors, not of individual citizens. Fourth, the source should provide statements over several points of time. While these criteria are mandated by the research question, a final criterion is for practical and cost-efficiency reasons: The data sources should be accessible in an online full-text archive.

3.4.2.1 Sources

Newspaper articles meet the required criteria for data sources¹⁵. They constitute a common forum that makes actor statements visible for everyone. Still, they have an entry barrier for individual citizens, while relevant political actors can disperse their opinions in the policy domain (Leifeld, 2011). Also, actors make statements in the media at different points in time. Finally, newspaper articles are accessible in full-text archives online. Since this dissertation is interested in the policy process on EU-level, national newspapers are unsuitable because they do not constitute a forum that is used by EU policy-makers from all member states, and because they would report from a national perspective that could bias the data sample. Therefore, it is necessary to only consider genuinely European publications. Publications that explicitly focus on EU affairs in the time period of interest are *New Europe*, *Euractiv*, *European Voice*¹⁶, and *EUobserver*. While *New Europe* is an established newspaper, the archive contains not enough articles for a network analysis, as a trial run showed. *Euractiv* is among the most read online publications in the EU, but sponsorship by a number of large corporations (among them from the aviation and car industry) raises concerns about its objectivity in climate debates. In contrast, *European Voice* was widely considered the most important newspaper focusing on European affairs. However, since it was published only weekly, it might

¹⁵ The most commonly used archival sources are position papers and press releases, Parliamentary protocols and newspaper articles. Position papers and press releases do not constitute a common forum in the policy debate and are not available for every relevant political actor. Also, they do not cover temporal variation and lack an index or guidance for selecting actors (Leifeld, 2011). Parliamentary protocols, on the other hand, are too exclusive since only policy insiders are included. Also, the burden to enter a hearing is comparatively high, so the number of records might be too low for a network analysis (Leifeld, 2011).

¹⁶The archive of *European Voice* is still retrievable and moved to <http://www.politico.eu>.

summarise and aggregate news too strictly, while statements of minor actors might go by the board. Therefore, the daily online newspaper *EUobserver* will complement *European Voice* as a second source. The use of more than one source is a common strategy analysing policy debates (e.g. Leifeld & Haunss, 2012; Schneider & Ollmann, 2013). Both sources offer free access to the online archive.

3.4.2.2 Avoiding biases

Data gained from newspaper articles are prone to potential biases at three stages of coding: record coding, data coding, and indexing (Woolley, 2000)¹⁷. This section explains through which strategies these biases are avoided.

Record coding refers to the process of journalists that aggregate real-world events into written text (Woolley 2000). Every record (here the newspaper article) is necessarily incomplete compared to the universe of real-world events and represents a selection based on implicit or explicit selection rules. This is problematic, given that the present study is interested in the real-world preferences of actors, rather than those perceived by media. By selecting *European Voice* and *EUobserver* as sources, the following record coding biases are avoided: First, as both new outlets have international staff and are concerned only with EU-related topics, bias stemming from a national perspective is avoided. Another source of bias are ideological backgrounds of journalists that shape their perception and reporting of events. While both selected media outlets have a reputation of being independent, this bias can never be fully ruled out. However, the ownership structures and the reputation of both sources suggest that in aggregate, they produce a balanced, unbiased dataset: During the period of observation, *European Voice* was part of the Economist Group until 2013. Interrupted by a short ownership of the French holding Selectcom Finance, the news outlet was bought by a joint venture of Politico and Axel Springer SE in December 2014 and rebranded as *Politico Europe* in April 2015. Publications of both the Economist Group and Axel Springer SE have a reputation of being rather business-friendly. In contrast, *EUobserver* is known for focusing on topics such as civil society and environmental protection. As a non-profit organisation, a part of its funding comes from foundations such as the Dutch Adessium Foundation, which supports non-profits with respective goals. The equal use of both data sources warrants that the data sample is

¹⁷ Calculating the inter-coder reliability was considered as additional reliability check. However, as data were coded only by the author, it would have been necessary to hire a second coder to code a sample dataset. Given the substantial amount of time and resources that would have been necessary for this reliability check, the idea was abandoned.

not biased towards one ideological stance. Also, both sources do not receive EU funding. As an additional safeguard against ideological bias, only statements of articles published in the Politics or Business section of the medium are coded, while opinion pieces are excluded from the sample. Furthermore, it is possible that the network graphs may bias the representation of the actual policy-making process because media may under- and over-represent specific actor types. In a network graph, mediagenic actors have higher edge weights than actors that make fewer statements. If the researcher considers this a bias rather than a feature of the data, the software tool Discourse Network Analyzer provides a normalisation procedure to approximately correct for this bias.

Data coding describes the process of converting unstructured text found in newspaper articles into machine-readable variables (Leifeld, 2011). The software application *Discourse Network Analyzer* is used because it facilitates the coding process and the conversion of statements into network data. More precisely, this software helps to import text data, to manually encode statements of actors, and to export the resulting concept and actor maps as several network types (Leifeld, 2011). Validity problems are avoided by four measures. First, longitudinal coding consistency is ensured by multi-pass coding, that is, by periodical checks of previously coded statements and by using a checklist of already coded categories for new statements (Leifeld, 2011). Second, the software provides combo boxes for categories and actors. By letting the user choose from existing categories and actors, this function avoids typing errors, which would result in a faulty network. Third, the software provides a regular expressions search engine. By a keyword search after the coding procedure, it can be checked whether statements have been omitted (Leifeld, 2011). Fourth, another software function reports self-contradictions of persons and/or organisations over time. This function lists all actor-concept combinations where the actor expressed agreement and disagreement with the concept. It helps thus to detect coding errors and to differ between errors and a change of policy preferences (Leifeld, 2011).

Indexing describes the assembling and aggregation of newspaper articles into an archive. Service providers such as *LexisNexis* offer indexed media collections, but these may be incomplete (cf. Deacon, 2007; Woolley, 2000). Also, databases like *LexisNexis* ‘are likely to produce different counts than would be produced ‘by hand’ (Woolley, 2000, p. 164f.). These errors are avoided by using the full-text online archives of *EUobserver* and *European Voice*. While *EUobserver* published only online and archives all publications, *European Voice* mirrors and archives the content of its printed version.

3.4.3 Flexibility analysis

As explained above, the concept ‘flexibility’ refers to how flexible actors are in their political strategy. The assumption is that actors are less flexible after the outbreak of the economic crisis. To measure the degree of flexibility with as little bias as possible, the following data processing procedure is applied: The data used for the analysis are actor statements collected for the network analysis (see above). For each case, there are two datasets, each one for the before-crisis and after-crisis outbreak. The variables needed for the analysis are the organisation, the ‘concept’ (e.g. ‘include ILUC-factors’), and a binary variable (yes/no) if the actor agrees or disagrees with the concept.

As a first step, all statements are deleted that express a disagreement, i.e. that are coded with ‘no’ on the binary variable. This is because at this point, the focus is on policy positions that an actor supports: To understand his political flexibility, one needs to know about what he wants, not what he does not want. Subsequently, all actors are deleted from the dataset that have made less than 5 positive statements. This is necessary because a potentially large numbers of actors with just one or two positive statements (that were hence unimportant in the policy debate) would bias the mean value: The reason these actors express only one positive policy preference is not that they are particularly inflexible, but that they were mentioned by media only once. The number of five statements proved as a feasible value in repeated trials. As a third step, all statements were deleted that referred to concepts that do not specifically concern the concrete policy that is about to be adopted. For example, general political claims like ‘cars need to remain affordable’ or suggestions for an alternative policy (‘fuel tax’) were deleted. This is necessary because the focus of this analysis on actor’s political flexibility regarding the policy that is currently on the negotiating table. Thus, the final dataset entails actors that made at least five statements, only statements that refer to concepts that are about the specific policy that is in the making, and only statements that express support for these concepts. The mean value of supported statements in the pre-crisis policy process is then compared to that of the post-crisis policy process. If the mean value has decreased, it indicates that actors in the policy domain became less flexible in their political strategy. Like with the network analysis, a difference-in-differences comparison with the untreated case (biofuels) shows if this effect is crisis-induced.

3.4.4 Qualitative data analysis

The more than 2000 actor statements collected for the network analysis are a valuable dataset that yields relevant information beyond the coded variables that can be analysed also from a qualitative perspective with the aim to refine and extend the analytical scope of the present study. Therefore, statements coded for the quantitative dataset are included into the analysis when regarded as highlighting or clarifying the stance or behaviour of an actor or a coalition in the network. In other words, while quantitative data tell the reader *what* network participants prefer and *whom* they ally with, qualitative data yield information about *why* they formed their preference. Hence, by including qualitative data, the analysis becomes more elaborate because it considers contextual and motivational factors. Using the same example as above, the qualitative information contained in the statement by the German chancellor Angela Merkel ‘at a moment when we sit together for days to talk about employment, we also need to be careful not to weaken our own industrial base’ (‘Emissions impossible?’, 2013) enriches the analysis by highlighting (1) the information that she referred to the crisis in justifying her action, and (2) the information that she uses economic and social arguments in a protectionist way to justify the German government’s policy preference.

3.4.4.1 Policy documents and interviews as complementary data sources

In addition to the actor statements collected for the network analysis, policy documents such as position papers as well as preparatory acts were studied with the aim to gain a more encompassing picture of the policy processes and get a deeper understanding of actors’ policy preferences. Furthermore, interviews with three officials of the European Commission were conducted between May and July 2016. All three officials were actively involved all three cases of this study, either as staff members in the involved Directorate Generals or in the Secretariat General.

3.5 Datasets

Datasets were collected for each the pre- and post-crisis policy debate in all three case studies¹⁸. Each dataset consists of coded actor statements made in these policy debates. In a previous step, all

¹⁸ A previous version of the dataset on car emissions was analysed for my master theses at Leiden University and Universität Konstanz in 2014, for a conference paper (Hanschmann, 2015) and a resulting book chapter (Hanschmann, 2017) from different theoretical angles and with different research interests. For this dissertation, the dataset was recoded.







articles in the newspaper archives mentioned above containing relevant actor statements were selected by applying different search queries. The examination period begins with the first newspaper article that explicitly referred to the respective upcoming policy process and ends with those articles reporting about the final policy decision being made.

In total, more than 2100 actor statements were coded. Table 3-2 reveals that the overall distribution of statements throughout the datasets is relatively balanced, while the number of statements in the publication *European Observer* is consistently smaller than in the *European Voice*.

Source	Car Emissions					Aviation ETS					Biofuels					Total
	EV	(%)	EO	(%)	Total	EV	(%)	EO	(%)	Total	EV	(%)	EO	(%)	Total	
Before	219	(57)	166	(43)	385	198	(65)	106	(35)	304	304	(61)	195	(39)	499	1188
After	210	(85)	37	(15)	247	226	(67)	112	(33)	338	340	(86)	54	(14)	394	979
Total	429	(68)	203	(32)	632	424	(66)	218	(34)	642	644	(72)	249	(28)	893	2167

Table 3-2: Summary of the actor statement dataset.

To facilitate the reading of the network graphs, actors were assigned to different categories¹⁹. Table 3-3 contains these categories and also provides the colour scheme according to which actor types will be marked in the network analysis. The spider chart in *Figure 3-5*, indicating the percentage of coded statements for each actor category, illustrates that despite some variation, policy debates mainly took place among three types of actors: EU institutions, national governments and representatives of the industry affected by the legislative initiative.

Actor group	Node colour
Industry	
National governments or institutions	
EU bodies	
Environmental NGOs	
Other NGOs	
EP political groups	

¹⁹ Statements of MEPs were not coded unless they held a European Parliament office, for example as a Rapporteur or head of Committee.

Transnational/Science/Other actors ●
 Other Business actors ●

Table 3-3: Actor groups and assigned colours.

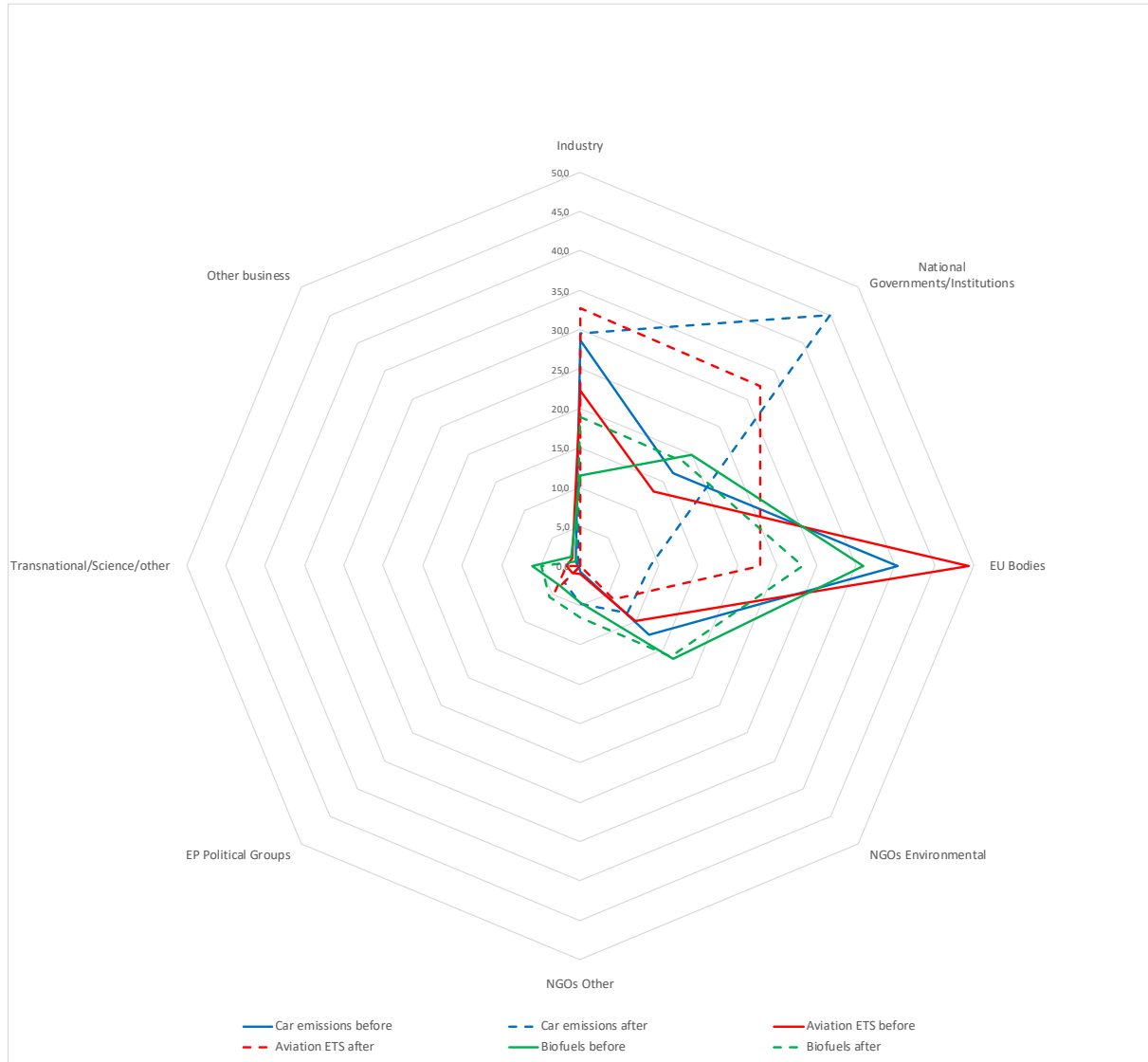


Figure 3-5: Percentage of statements coded for each actor group.

4 Case study 1: The introduction of carbon dioxide emission limits for passenger cars

The first analytical case study is about the introduction of carbon dioxide emission limits for passenger cars. It was selected as the first case study because on the one hand, it matches the theoretical expectations in the most essential aspects; on the other hand, some of the findings are surprising and largely unaddressed by existing research. This chapter, and also the other two case studies, is structured as follows: The first section provides a point of departure for the analysis, describing the main characteristics of the policy field and the regulatory history therein. It also explains in how far and to what extent the European car industry was affected by the economic crisis. The next two sections give a detailed account of the policy process before, respectively after the outbreak of the economic crisis. The timeline of the policy process provides the structure of these sections. The chapter will be concluded by a comparative review of both policy processes and a hypotheses check, setting the findings in context with the conceptual framework. As environmental policies are a very technical matter, Table 4-1 provides a list of frequently used technical terms that will be used throughout the chapter. Also the other two case studies will be accompanied by such a list.

Term	Explanation
Derogations for 'niche' manufacturers	<p>Independent manufacturers selling between 1000 and 10,000 vehicles per year and which cannot or do not wish to join a pool can propose their own emissions reduction target which is subject to approval by the Commission. The Commission decides on the basis of a set of agreed criteria, which include the manufacturer's emissions reduction potential.</p> <p>Manufacturers selling between 10,000 and 300,000 cars per year can apply for a fixed target of a 25% reduction from their 2007 average emissions for the period 2012 to 2019, and a 45% reduction from the 2007 level as of 2020.</p> <p>Manufacturers selling less than 1000 new cars per year in the EU, as well as special purpose vehicles, such as vehicles built to accommodate wheelchair access, are excluded from the scope of the legislation.</p>
Eco-innovations	<p>Under the test procedure used for vehicle type approval, certain innovative technologies cannot demonstrate their CO₂-reducing effects when being type approved. Manufacturers can be granted emission credits equivalent to a maximum emission saving of 7g/km per year for their fleet if they equip vehicles with innovative technologies, based on independently verified data. These eco-innovation credits will be maintained for the 2021 target.</p>
Penalty payments for excess emissions	<p>If the average CO₂ emissions of a manufacturer's fleet exceed its limit value in any year from 2012, the manufacturer has to pay an excess emissions premium for each car registered. This premium amounts to €5 for the first g/km of exceedance, €15 for the second g/km, €25 for</p>

the third g/km, and €95 for each subsequent g/km. From 2019, the cost will be €95 from the first gram of exceedance onwards.

Phasing-in	<p>The EU fleet average target of 130g/km is phased in between 2012 and 2015. The share of each manufacturer’s newly registered cars complying with the limit value curve must be an average of</p> <ul style="list-style-type: none">• 65% in 2012,• 75% in 2013,• 80% in 2014, and• 100% from 2015 onwards. <p>A shorter phase-in period will apply to the target of 95g/km: The share of each manufacturer’s newly registered cars complying with the limit value curve must be an average of</p> <ul style="list-style-type: none">• 95% in 2020 and• 100% in 2021.
Pooling	<p>Manufacturers can group together to form a pool which can act jointly in meeting the emissions target. In forming a pool, manufacturers must respect the rules of competition law and the information that they exchange should be limited to average specific emissions of CO₂, their specific emissions targets, and their total number of vehicles registered.</p>
Super-credits	<p>When calculating the average fleet emission, extremely low-emitting cars (below 50 g/km) are counted as</p> <ul style="list-style-type: none">• 3.5 vehicles in 2012 and 2013,• 2.5 vehicles in 2014,• 1.5 vehicles in 2015, and• 1 vehicle from 2016 to 2019. <p>Super-credits also apply in the second stage of emission reductions, from 2020 to 2023. For this second step there will be a cap on the scheme’s contribution to the target of 7.5g/km per manufacturer over the three years. Each low-emitting car is counted as</p> <ul style="list-style-type: none">• 2 vehicles in 2020,• 1.67 in 2021,• 1.33 in 2022 and• 1 from 2023.
Weight-based emission limits	<p>Emission limits are set according to the mass of vehicle, using a limit value curve. The curve is set in such a way that a fleet average of 130 g/km CO₂ is achieved by 2015 and 95 g/km CO₂ per km by 2021.</p> <p>The limit value curve means that heavier cars are allowed higher emissions than lighter cars while preserving the overall fleet average. Only the fleet average is regulated, so manufacturers are still able to make vehicles with emissions above the limit value curve provided these are balanced by vehicles below the curve. Since manufacturers of larger vehicles profit from a steeper slope, the gradient of the curve was repeatedly subject of the negotiations.</p>

Table 4-1: List of frequently used technical terms, case study 1. Source: European Commission.

4.1 Description of the policy field

4.1.1 Regulatory history

For the first time, the European Union committed itself to limit and reduce greenhouse gas emissions in 1992 within the United Nations Framework Convention on Climate Change. In 1995, road transport contributed half of the transport carbon dioxide emissions and about 12% of the total carbon dioxide emissions in the EU (European Commission, 1995), with emissions strongly increasing. In consequence, the European Union soon took aim at car emissions as a potential source of emission reductions. The Environment Council in December 1994, seconded by the European Parliament, called upon the Commission to investigate potential savings in fuel consumptions that would equate a 120 g/km carbon dioxide emission reduction by 2005. The European Commission published a Community Strategy for reducing carbon dioxide emissions from cars in 1995. Besides improved consumer information and fiscal measures to promote fuel-efficient cars, the main pillar of the strategy was to make voluntary agreements with the car industry to reduce emissions (European Commission, 1995). The European Parliament urged the Commission to go beyond voluntary commitments, and in response the Commission concluded to consider legislation in case negotiations with carmakers were unsuccessful (ten Brink, 2010).

Voluntary agreements

With the Commission keeping up pressure and repeating its ‘threat’ of binding legislation, the European Automobile Manufacturers Association (ACEA) was the first industry association to sign a self-commitment in 1998 (ten Brink, 2010). The Japanese and Korean Automobile Manufacturers Associations (JAMA and KAMA) followed in 1999. These voluntary agreements aimed at reducing average specific emissions from newly registered passenger cars to 140 g/km carbon dioxide within 10 years, representing an average 25% reduction. Initially, carmakers made progress in reducing their fleet emissions. The increasing market share of vehicles with lower emissions resulted from technological improvements and efforts to make cars more fuel-efficient by car producers, an increased demand for fuel-efficient vehicles, tax incentives by member states, and improved labelling (ten Brink, 2010). While starting from strongly varying levels, carbon dioxide emissions levelled over time and decreased to 157.2 g/km for ACEA, 159.1 g/km for JAMA, and 161.1 g/km for KAMA, with an overall average of 157.7 g/km in 2007 (ten Brink, 2010). This meant that producers clearly failed to meet the target they committed themselves to.

Additional measures

While voluntary agreements with car producers aimed at cutting emissions at the supply side, improvements in consumer information and fiscal measures aimed at increasing demand for emission-saving and fuel-efficient cars. Directive 1999/94/EU on carbon dioxide labelling of vehicles required mandatory labels clearly visible on vehicles in showrooms and on promotional materials, indicating emissions and fuel consumption. Member states applied a wide range of different fiscal measures to reduce emissions from passenger cars, among them petrol and diesel taxes, registration and annual circulation taxes, congestion charging and road pricing, subsidies for low emission vehicles and scrapping schemes for old cars (ten Brink, 2010). The European Commission also started collecting and monitoring relevant data. In order to better track the development of emission reductions, Decision 1753/2000/EC set up a monitoring mechanism to collect annual data on specific carbon dioxide emissions, the number of vehicle registrations, and technical data such as mass and power to engine capacity (ten Brink, 2010). The results were collected in an annual Joint Report, edited by the Commission and automobile associations, and submitted to the Parliament and the Council.

Towards a mandatory target

These annual Joint Reports enabled the European Commission to closely monitor progress towards the voluntary target. Already in 2002 and 2003, DG Environment carried out a first study to look into alternative policy options, followed by DG Enterprise in 2006. DG Environment also conducted an impact assessment of different policies in 2005. In 2005 and 2006, discussions started on whether the EU should apply binding targets on the car industry in order to meet the objective of 120 g/km carbon dioxide by 2012. These discussions mounted in the publication of two parallel Commission Communications, one evaluating the results of the Community Strategy to reduce carbon dioxide emissions from passenger cars, and the other on CARS 21 ('Competitive Automotive Regulatory Framework for the 21st Century') (European Commission, 2007a, 2007b). The publication marks the beginning of the pre-crisis policy debate of this case, eventually leading to Regulation 443/2009, setting a target of 130 g/km carbon dioxide.

4.1.2 The impact of the economic crisis on the European car industry

Apart from housing and finance, no industry in the EU was smitten by the crisis more strongly than the automotive sector (Pavlinek, 2012), and with the exception of banking, no business sector saw larger government intervention (Van Biesebroeck & Sturgeon, 2010)²⁰. Due to the automotive industry's sensitivity to business cycles and high investments in development and production, the crisis affected all segments and regions of the global vehicle production (Pavlinek, 2012). Saturated vehicle markets of developed economies such as the EU were particularly affected, despite governmental efforts to stimulate demand for new vehicles (Stanford, 2010). Since saturated vehicle markets are characterised mainly by replacement demand, consumers are likely to postpone purchases of new vehicles during periods of economic uncertainty (Dicken, 2011).

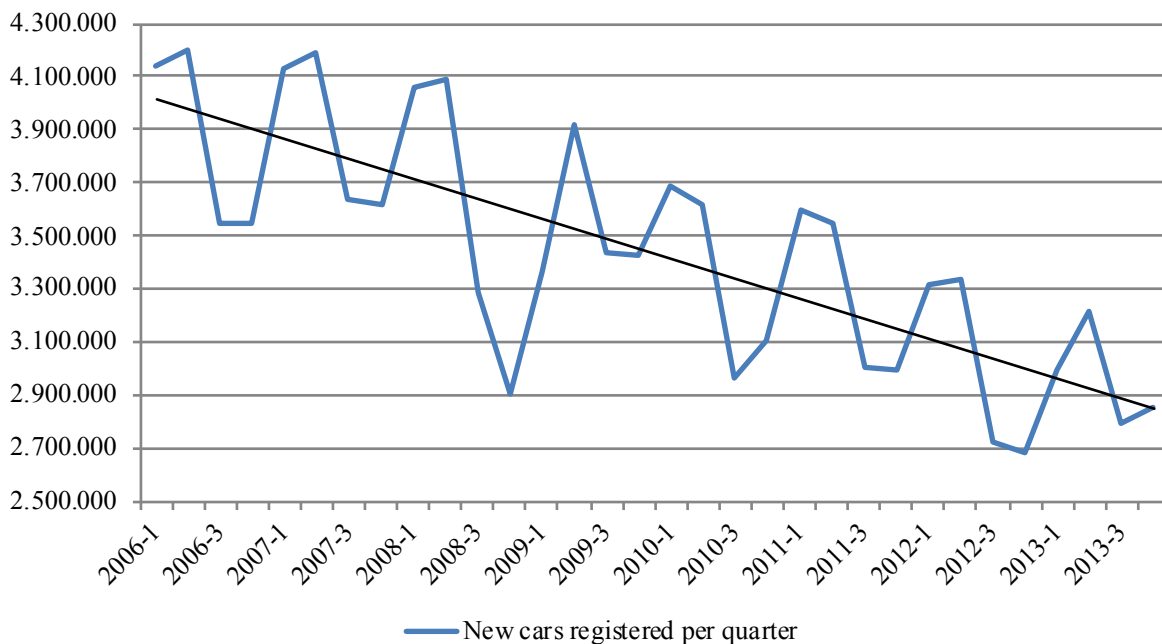


Figure 4-1: Passenger car registrations per quarter in the EU-27, 2006-2013. Source: (ACEA, 2014)

The drastic drop in car sales in the second half of 2008 displayed in Figure 4-1 caused temporary plant closures, layoffs, and low rates of capacity utilisation, while car producers reported problems with access to credit financing (Leheyda & Verboven, 2013). The interim stabilisation in 2009 was reached partly due to car scrapping schemes (Leheyda & Verboven, 2013), but the decrease continued in 2010.

²⁰ Parts of this paragraph on the impact of the crisis on the car industry including the two figures have already been used for conference paper and for a resulting book chapter ((Hanschmann, 2015, 2017)).

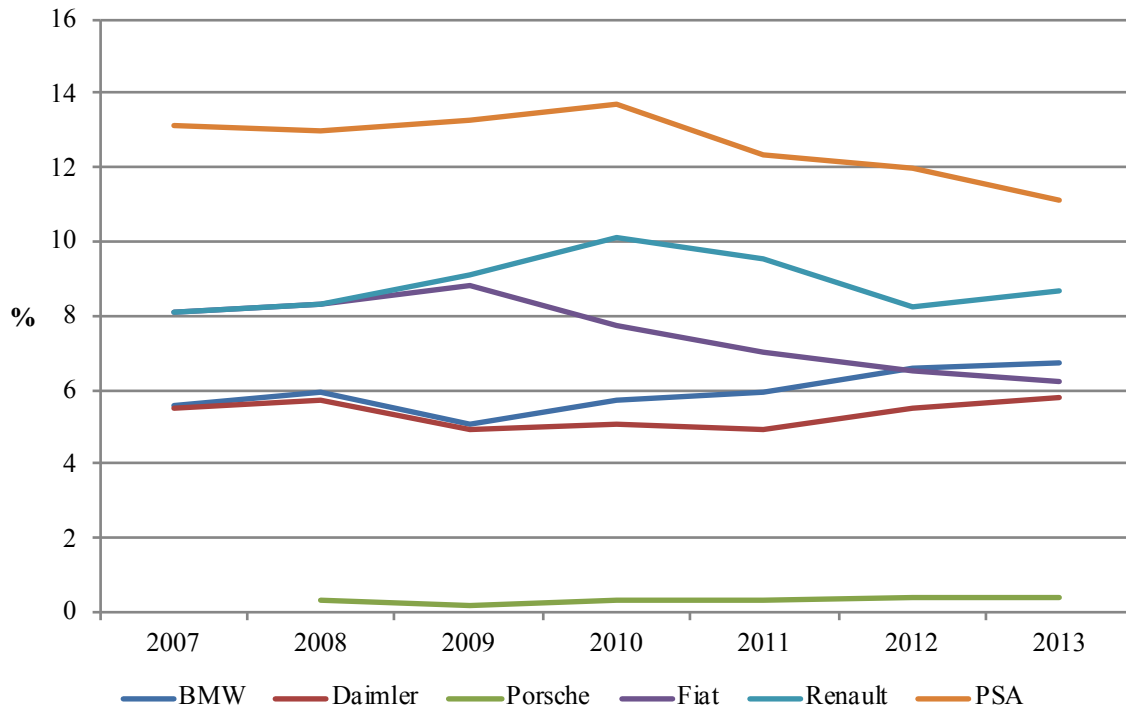


Figure 4-2: EU market shares of selected manufacturers of light and heavy passenger cars. Source: ACEA, 2014.

The market share figures presented in Figure 4-2 suggest that European car manufacturers were affected by the crisis to a different degree. Renault, Fiat and PSA, producers with relatively low average fleet emissions, lost market shares during the post-crisis period, while the producers of emission-intense cars like Daimler and BMW were able to expand their market shares. These business trends play an important role in the policy-making process, as the analysis will show.

4.2 Analysis of the policy-making process before the outbreak of the economic crisis (Regulation (EC) No 443/2009)

The policy-making process of the 130g/km target for carbon dioxide emissions draws the picture of a policy domain that is clearly dominated by the industries' interests. The reason for a lack of political polarisation is not the lack of different policy preferences – it is the dominance of the industry, that in turn strongly depends on favourable regulatory conditions. Table 4-2 provides a timeline of the legislative process. To structure the analysis, the section is divided into two sub-sections: The policy process before and after the publication of the Commission proposal. This division into two periods of the legislative process will be kept also in the two other case studies.

Date	Event/Document	Main content
07/02/2007	Commission Communication: <i>Results of the review of the Community Strategy to reduce CO₂ emissions from passenger cars and light-commercial vehicles</i>	Mandatory 130 g/km by 2012 target for average new car fleet; additional reduction of 10 g/km by other technological improvements and by an increased use of biofuels.
19/12/2007	Commission Proposal: <i>Setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO₂ emissions from light-duty vehicles</i>	Mandatory 120 g/km by 2012 target for average new car fleet; 130 g/km for new passenger cars; additional reduction of 10 g/km by other technological improvements and by an increased use of biofuels.
09/06/2008	French-German agreement	Both countries support 120 g/km goal; considering phasing-in; agreement on weight-based limits; super-credits.
02/09/2008	EP Industry Committee vote	130 g/km by 2015; phasing-in between 2012 and 2015; reduced fines.
25/09/2008	EP Environment Committee vote	130 g/km by 2012; additional 95 g/km goal by 2020.
01/10/2008	French Council Presidency's proposal	130 g/km by 2015; phasing-in between 2012 and 2015; super-credits.
01/12/2008	Inter-Institutional agreement between member states and EP	130 g/km by 2015; phasing-in between 2012 and 2015; additional reduction of 10 g/km by other technological improvements and by an increased use of biofuels; reduced penalties; super-credits; pooling; additional 95 g/km goal by 2020.
17/12/2008	EP First Reading	Approval of Inter-Institutional agreement
06/04/2009	Council approval of EP First Reading position	
23/04/2009	Signature of EP and Council Presidents	

Table 4-2: Timeline of the legislative process before the outbreak of the economic crisis, case study 1.

4.2.1 Analysis of the policy-making process before the publication of the Commission proposal on 19 December 2007

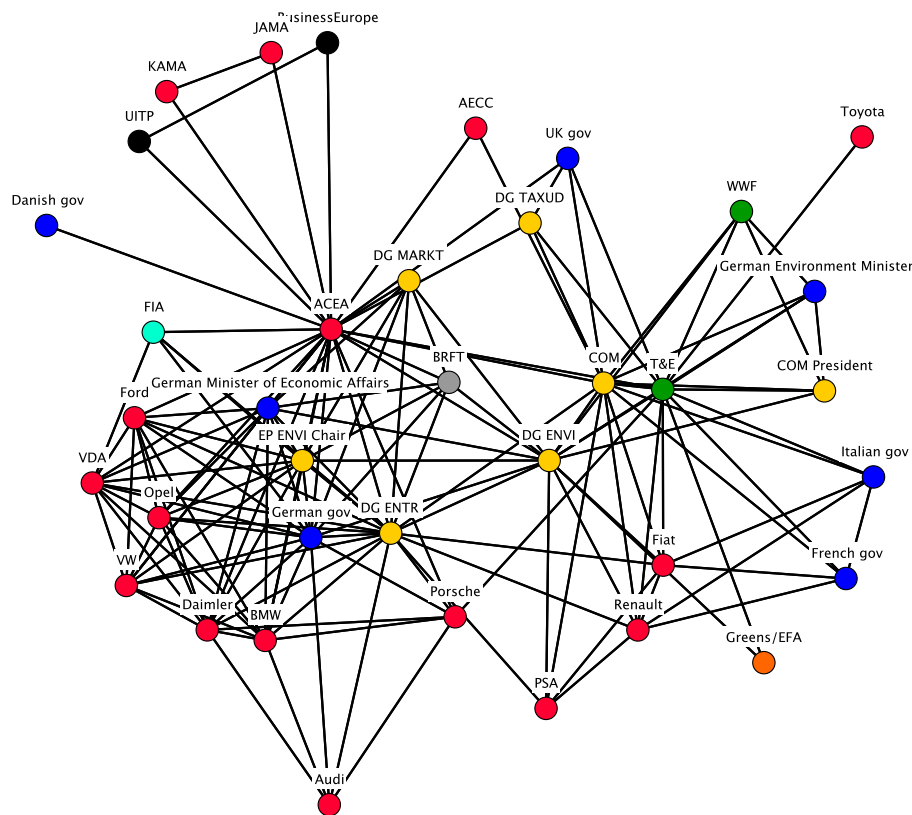
'It's regulation more than anything else that dictates the market.'

Paul Nieuwenhuis

Centre of Automotive Industry Research, University of Cardiff

European Voice, 23/09/2004

From the beginning, the policy domain before the crisis outbreak was dominated by the ‘German’ coalition of carmakers and their political allies. Network Graph 4-1 displays the policy domain before the publication of the Commission proposal on 19 December 2007. The graph has two outstanding characteristics. First, actors from the car industry (red nodes) are clearly the largest actor group and played a key role at this stage of the policy process. Second, the ‘German’ cluster is clearly visible on the left side of the network. Its high internal density (i.e. short edges between the nodes) indicates a high overlap of political preferences. The remainder of this section will carve out why this coalitions of actors was so dominant and what consequences this dominance had for the policy formulation.

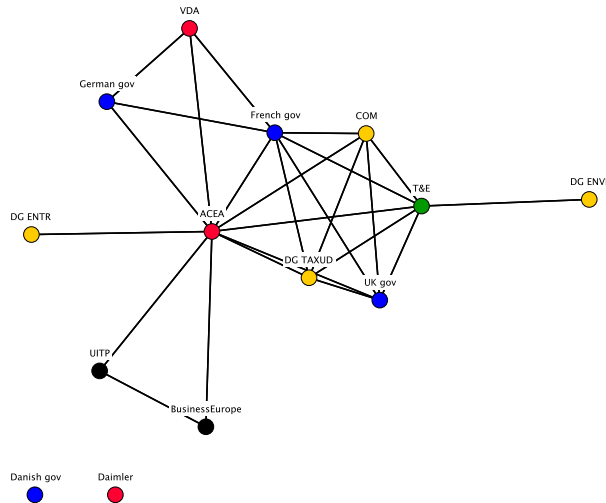


Network Graph 4-1: The policy domain before the publication of the Commission proposal, Regulation (EC) No 443/2009.

A failed Commission proposal on carbon dioxide-based car taxes, CARS 21 and the ‘integrated approach’

The political debate on binding measures to reduce car carbon dioxide emissions began with a failed Commission proposal. The European Commission considered a car tax linked to the level of carbon dioxide emissions as a market-based policy measure. Network Graph 4-2 below shows the

actor constellation in the political debate on carbon dioxide-based taxes for cars and the so-called ‘integrated approach’. Both policy instruments would have been less cost-intensive for the automotive industry, and accordingly, Network Graph 4-2 indicates first differences in the policy domain. Actors like DG Enterprise (led by the German Commissioner Verheugen), the German government, VDA and ACEA were in support of such measures, while environmental lobby groups like T&E and DG Environment (and its Greek Commissioner Dimas) were sceptical. Under the lead of the Directorate General for Taxation, the Commission published a policy proposal in July 2005, providing member states with rules for a carbon dioxide-based calculation of car taxes, replacing conventional registration taxes. EU fiscal legislation requires unanimity in the Council, setting high barriers for the European Commission to introduce taxation-based measures. Particularly countries with high car registration taxes such as Denmark were reported to oppose the draft legislation (‘Kovacs seeks support for green car-taxation regime’, 2005). Even the European Automobile Manufacturers’ Association (ACEA) was cautiously positive, because car taxes shift the burden away from producers to drivers (‘Carmakers “taxman must help us cut CO2”’, 2006). However, also within the Commission, the idea of carbon dioxide-based emissions was not uncontested. Environment Commissioner Dimas preferred binding emission limits as a more efficient tool (‘Europe failing to catch up with US car emission cuts’, 2006). The European Parliament approved the Commission proposal with amendments. Nevertheless, the hurdle of unanimity for tax-related legislation in the Council was too high. In November 2007, the Economic and Financial Affairs formation of the Council concluded that despite ‘converging views’ on the need to use fiscal measures to mitigate emissions, ‘different views were expressed on how to achieve this objective, and in particular on the need for a Community initiative in this field’ (Council of the European Union 2007). This conclusion meant the end of the initiative. However, the political ambition to adopt binding measures to reduce the carbon dioxide output of cars remained high – just as the carmakers’ ambition to avoid them.



Network Graph 4-2: The policy domain, debate on carbon dioxide-based taxes and the ‘integrated approach’. Regulation (EC) No 443/2009.

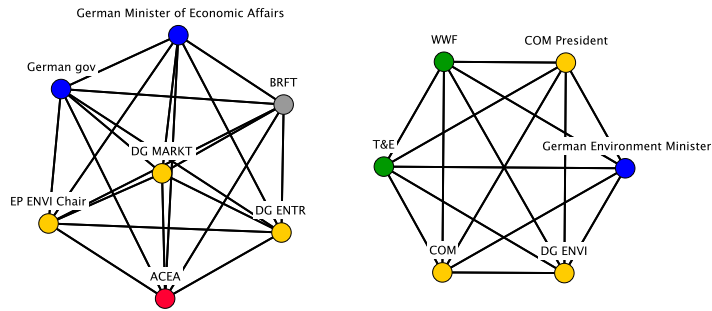
The high number of car manufacturers in Network Graph 4-1 reflects their strong ties with EU decision-makers. Core element of this relationship was the high-level group ‘Competitive Automotive Regulatory System for the 21st century’ (CARS 21). This task force was convoked by the Commission in 2005 in order to bring key stakeholders of the industry together and make policy recommendations for a regulatory framework for the European automotive industry. Chaired by Enterprise and Industry Commissioner Günter Verheugen, the task force included among others the Transport and Environment Commissioners, responsible ministers from Germany, the United Kingdom, France, and Italy, CEOs of car companies and industry association representatives, as well as one trade union representative and one environmental NGO.

Regarding carbon dioxide emissions, the final report of the task force ‘strongly endorses’ an ‘integrated approach’, meaning that reductions would be achieved by all stakeholders (manufacturers, fuel producers, customers, drivers, public authorities, etc.) with complementary measures, rather than just improvements in car technology (European Commission, 2006a). Obviously, such an approach would unburden the car industry and distribute the costs among a larger number of actors. A list of policy recommendations comprised the promotion of alternative fuels, carbon dioxide base taxation of vehicles and fuels, the promotion of ‘eco-driving’ (low-emission driving behaviour), improved consumer information, and traffic control and management systems. The list also briefly mentions that the automotive industry is committed to going beyond the levels of current voluntary commitment, while stressing in the same sentence that carbon

dioxide reductions should be reached by a combination of measures. The report also stressed the need for ‘extensive stakeholder involvement’ for future impact assessments. Enterprise Commissioner Verheugen was avidly supporting the ‘integrated approach’, stating that ‘it is perhaps not possible or technically feasible to reach the carbon dioxide emission target by just looking at car engines and the car industry’ (‘Commission set to confirm CO2 legislation for carmakers’, 2007). In contrast, Environment Commissioner Dimas preferred allocating the main responsibility to car manufacturers. Also environmental NGOs criticised the ‘integrated approach’ as an attempt by manufacturers to shy away from responsibilities and obfuscating responsibilities. Thus, already at this early point in time, the two main coalitions of the policy domain had emerged - German opponents and ‘southern’ proponents of a strict regulation. However, Network Graph 4-2 also shows that the trenches between these two camps were not yet deep – it still shows the policy domain as one cluster, although with different poles.

Beyond voluntary targets

While the debate on the ‘integrated approach’ and tax-based measures was still relatively uncontroversial, it quickly boiled down to the crucial -and more dividing- question: Are mandatory reduction targets necessary to achieve meaningful reductions of carbon dioxide emissions? Network Graph 4-3 indicates that the answer to this question left little room for ambiguity and compromise: The policy domain was divided into two coalitions that answered this question with yes or no. Still in May 2006, a spokesman of Verheugen said that binding legislation ‘is currently not on the agenda’ (‘Carmakers risk missing greenhouse gas targets’, 2006). Quite the opposite, Environment Commissioner Dimas actively supported mandatory targets and undertook efforts to convince the College of Commissioners of their necessity. Since Commission President Barroso was also inclined to support a binding target, Verheugen wrote a letter to the Commission President, pointing out that environmental leadership must not come at expense of the member states’ economies. He therefore opposed mandatory targets, arguing that ‘our growth and jobs priority must not be endangered’ (‘Commissioners squabble over how to make cars greener’, 2007). The conflict between Dimas and Verheugen, showcasing the goal conflict between economic and environmental priorities, engraved over time and became subject of close media attention (see conclusion).



Network Graph 4-3: The policy domain, debate on the necessity of binding measures, Regulation (EC) No 443/2009.

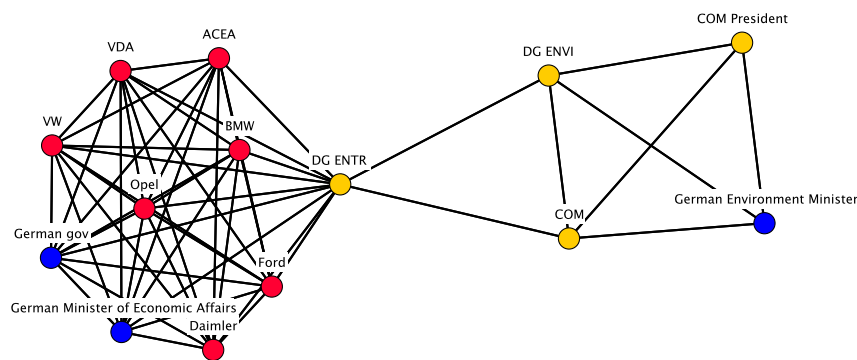
Given the pivotal role of Germany in the EU automotive industry, a split within the German government regarding the question of mandatory targets received strong attention. Environment minister and social democrat Sigmar Gabriel sided with Dimas, stating that binding legislation against carbon dioxide emissions was necessary. The conservative economy minister Michael Glos, in contrast, demanded that Dimas’ plans against the German car industry needed to be stopped (‘German EU presidency struggles with climate change’, 2007). This example demonstrates that in the before-crisis policy decision, there was still room for competing interests that not necessarily prioritised the national economic interests above all other interests. In the post-crisis policy decision, a German minister opposing the interests of a German carmaker would have been very unlikely, as further analysis will show.

Towards a mandatory reduction target

On several occasions, the institutions of the European Union reiterated their objective to achieve a 120g/km carbon dioxide emissions reduction from passenger cars until 2012. In June 2006, European Council unanimously confirmed that the average new car fleet should achieve carbon dioxide emissions of 120 g/km by 2012. So did the Commission in its Energy Efficiency Action Plan concluded in October 2006, adding that ‘it will if necessary propose in 2007 legislation to ensure that the 120g/km target is achieved by 2012 through a comprehensive and consistent approach’.

However, as pointed out above, the topic was more controversial than these statements imply. As An intense argument broke out between the Environment Commissioner and Commission President Barroso on the one side, and Enterprise Commissioner Verheugen, Germany and

German carmakers on the other side. At this time, Germany held the rotating chair of the Council of the European Union, which gave the German government additional power as it had the right to set the agenda of the Council. Environment Commissioner Dimas preferred a mandatory emission limit for passenger cars equal to the 120g/km target set out in the Community Strategy, holding only the car manufacturers accountable. In contrast, Enterprise Commissioner Verheugen preferred a higher figure and the ‘integrated approach’ suggested by CARS 21 in case a mandatory target could not be avoided (see above). He was backed by the German car industry, whose CEOs wrote a joint letter to the Commission, urging it to drop the 120 g/km target (‘German EU presidency struggles with climate change’, 2007). Verheugen resisted Dimas’ plans to introduce a mandatory target so insistently that President Barroso had to postpone a vote on the package in the College of Commissioners a week earlier. Also the German government reportedly signalled it would not support a blunt 120g/km goal, leaving no room for cars with higher emission outputs (‘Brussels backs down on green limits for car producers’, 2007). The German Chancellor Merkel called for ‘ambitious, but different goals for reductions in the different markets for various automobiles’ (‘EU environment chief in fresh attack on Germany’, 2007), certainly to the content of the German car industry, which reflects also in Network Graph 4-4. Directed to the German government, Commission President Barroso stated that ‘we cannot simply tailor our criteria to the wishes of individual member states’ (‘Brussels backs down on green limits for car producers’, 2007).



Network Graph 4-4: The policy domain, debate on a 120 g/km target, Regulation (EC) No 443/2009.

Eventually, the Commission announced setting a mandatory emission limit on 7 February 2007 in a Communication outlining the Commission’s position on the CARS 21 final report. The suggested policy approach sought to strike a balance between a binding emission limit and the ‘integrated approach’: The Commission announced that it will ‘propose a legislative framework ... to achieve the EU objective of 120 g/km carbon dioxide, focusing on mandatory reductions of the emissions

of carbon dioxide to reach the objective of 130 g/km for the average new car fleet by means of improvements in vehicle motor technology, and a further 10% reduction of 10 g/km of carbon dioxide, or equivalent if technically necessary, by other technological improvements and by an increased use of biofuels' (European Commission, 2007a, p. 10). The suggested technological improvements contributing to the 10% sub-target were minimum efficiency requirements for air-conditioning systems, compulsory fitting of accurate tyre pressure monitoring systems, maximum tyre rolling resistance limits, and the proliferation of gear shift indicators.

Weight-based emission limits

In addition, the Commission considered so-called weight-based emission limits. According to this calculation method, not every vehicle type has to achieve the average emission limit. Rather, specific emission limits are set as a function of the mass of a vehicle, using a limit value curve. Figure 4-3 displays a schematic illustration of a weight-based emission limit curve. A flat curve would set the same emission limit for every car, independent of its weight. The steeper the curve, the more emissions are allowed for heavier cars, and the stricter the limits for light cars become. This approach gives the car producer leeway on how to meet the average emission limit. For car manufacturers, especially those producing mainly heavy cars, a weight-based approach therefore has the advantage of allowing to keep their heavy-engine vehicles, while meeting the fleet average emission limit through producing a number of low-emission cars.

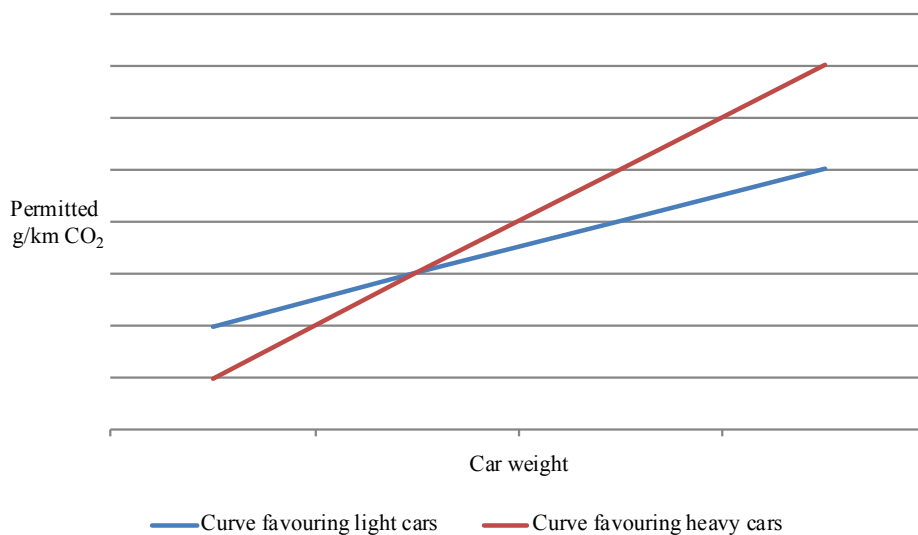
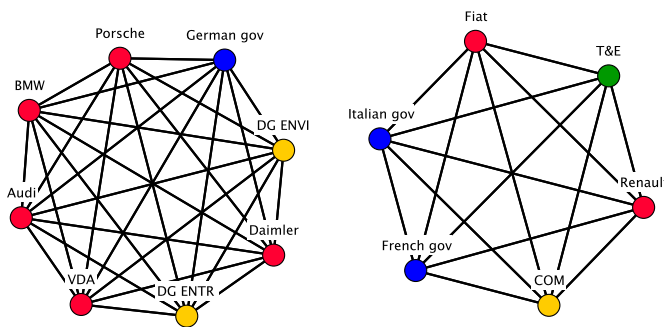


Figure 4-3: Model of weight-based emission limit value curves

Network Graph 4-5 visualises the two coalitions in the debate on this policy instrument. Representatives of German car manufacturers, such as Audi CEO Rupert Stadler, came out in support of a weight-based approach (‘Europe’s cars may get weight-based emissions allowances’, 2007). In contrast, French and Italian car manufacturers rejected a weight-based calculation and supported one limit regardless of the weight (‘Verheugen speaks out for big German car makers’, 2007). The German and the French government backed the political preferences of their domestic car industries. The French environment minister Borloo said that ‘nothing justifies giving a bigger right to pollute to the buyer of a bigger vehicle (‘France at loggerheads with Germany over car pollution’, 2007). German Chancellor Merkel, in contrast, insisted that different cars should have different limits, stating that ‘it cannot possibly be that we create a general obligation under which all cars, regardless of the segment in which they are produced, have to follow the same standards’ (‘Merkel backs car lobby against EU emissions law’, 2007). Also Enterprise Commissioner Verheugen supported a weight-based approach (‘Brussels seeks flexibility in car emissions plan’, 2007).

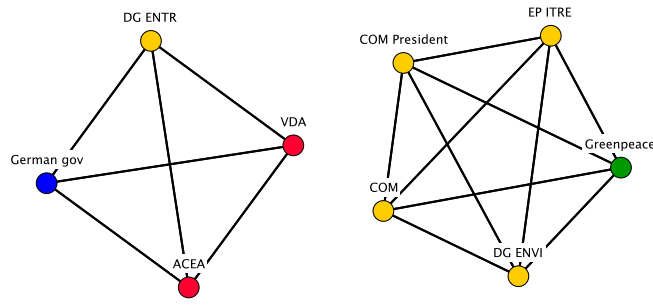


Network Graph 4-5: The policy domain, debate on weight-based emission limits, Regulation (EC) No 443/2009.

Financial sanctions

A final major question the Commission had to decide on before proposing legislation was whether car manufacturers exceeding the emission limit should be fined with a certain amount of penalty per exceeded gram carbon dioxide. Network Graph 4-6 displays that this debate was divided along the same lines as the previous debates on other policy instruments. Reportedly, Commission President Barroso, Environment Commissioner Dimas, and Enterprise Commissioner Verheugen had an intense argument on the issue in November 2007. While Barroso thought that manufacturers should ‘pay some kind of compensation’, Verheugen ‘refused to talk about sanctions, he dismissed the whole thing as a farce’, according to an EU official (‘Commissioners battle over CO2 rules on cars’, 2007). While environmental NGOs were supporting penalties, the ACEA

thought the idea as such is wrong, but if implemented, fines should not exceed €20 per excess gram (‘Brussels faces criticism over car emissions plan’, 2007). The German government supported penalties up to €30, while the European Commission was reported to consider fines around €90.



Network Graph 4-6: The policy domain, debate on financial sanctions, Regulation (EC) No 443/2009.

The Commission proposal

Eventually, the Commission published a legislative proposal on 19 December 2007. The proposal was the result of a collaboration of the Environment and Enterprise departments. However, only Environment Commissioner Dimas attended the presentation, while Enterprise Commissioner Verheugen was reported to boycott the event despite his attendance being scheduled (‘Commission in turmoil over car emission proposals’, 2007). Also the French Transport Commissioner Barrot and the Italian Justice Commissioner Frattini rejected the proposal (‘Commission in turmoil over car emission proposals’, 2007), delivering an example of lacking independence of their countries, as addressed in the conceptual framework (Schön-Quinlivan, 2013; Wonka, 2007).

The draft Regulation sets average carbon dioxide emissions for new passenger cars at 130 g/km from 2012 onwards, to be achieved by means of improvements in vehicle motor technology. Another 10 g/km should be achieved by additional measures according to the ‘integrated approach’ (see above). While the average limit is set at 130 g/km, the specific limits are a function of the vehicle weight. The steepness of the curve that determines the specific emission limits (see Figure 4-3 above) was closer to that demanded by German carmakers, rather than that of Italian and French manufacturers (‘Luxury carmakers set to suffer most from proposed carbon fines’, 2007). An additional concession to carmakers is the so-called pooling. If two or more carmakers form a pool, the pool is treated as if it is one manufacturer. This would allow manufacturers of emission-intense cars to team up with manufacturers of low-emission cars in order to avoid penalties. The Commission proposal also set out a penalty scheme for manufacturers that fail to

meet their target from 2012 onwards. Each exceeding gram carbon dioxide emission is multiplied by the number of cars newly registered and by the excess emission penalty for the respective year. The proposed excess emissions penalty is €20 in 2012, €35 in 2013, €60 in 2014, and €95 from 2015 onwards. The phasing-in of the penalties was a concession to Germany, according to a Commission official ('Luxury carmakers set to suffer most from proposed carbon fines', 2007).

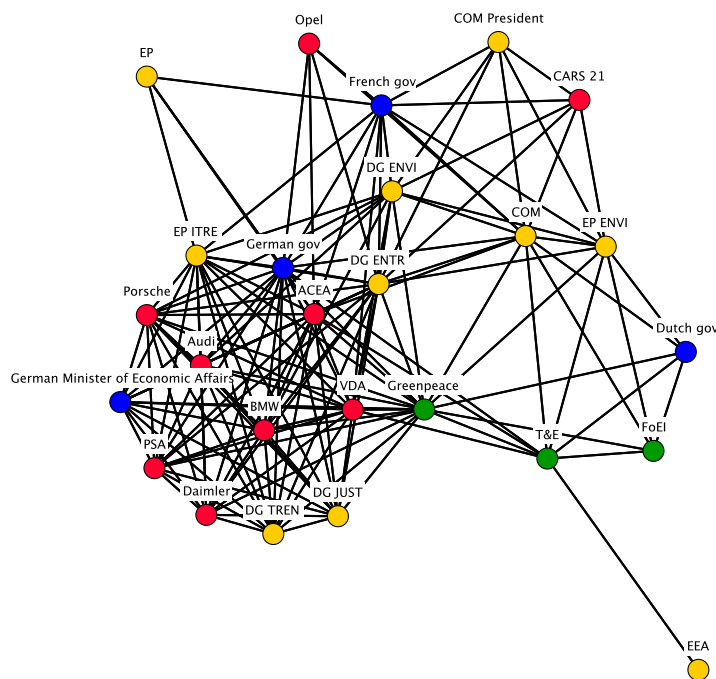
The Commission proposal was criticised by virtually all sides. Environmental NGOs criticised it for being not ambitious enough, with Greenpeace complaining about the absence of long-term targets, the weight-based calculation method, too low emission limits, and too many loopholes for high-emission cars. While German car manufacturers such as BWM described the proposal as 'naïve' and favouring producers of smaller cars, the French carmaker Peugeot criticised it as anti-ecological, anti-social, anti-economical and anti-competitive ('EU unveils controversial plans to make cars greener', 2007).

The German government heavily criticised the proposal, with Chancellor Merkel saying 'I believe this is industrial policy at the expense of German carmakers' ('Commission in turmoil over car emission proposals', 2007). The German economy minister Glos even accused the Commission for staging a war of destruction against the German car industry, while the social-democrat environment minister Gabriel pointed out that 'French and Italian carmakers are the only ones that benefit' ('Luxury carmakers set to suffer most from proposed carbon fines', 2007). German centre-right MEPs were even threatening to deny the Commission President Barroso a second office term, with the MEP Werner Langen saying that 'the question of whether Barroso is taking into account the legitimate interests of the German industry will help decide whether we back him for a second term in office' ('Commission in turmoil over car emission proposals', 2007).

Taken together, it becomes clear already at this point that the conceptualisation of EU policy processes in terms of interest, rather than ideas, was the right choice: The entire legislative process to this point was about material interests of industries and member states, and how to strike a balance between these interests. In contrast, the overarching purpose of this exercise to mitigate climate change hardly played any role.

4.2.2 Analysis of the policy-making process after the publication of the Commission proposal on 19 December 2007

The Commission proposal served as negotiating basis in the further decision-making process. As an overview, Network Graph 4-7 shows the policy domain from the proposal publication until the adoption. It indicates that after the publication, the policy debate was dominated by a coalition of actors that rejected the draft legislation as too strict on car manufacturers of heavy cars. This coalition consisted mainly of German carmakers and the ACEA, industry-friendly Commission services, and the German government. Actors that favoured the Commission proposal did not emerge as a coalition with a similarly high density as the ‘German’ coalition. The main opponent in the negotiations for Germany was France. The graph also shows some surprising ties: For example, Greenpeace is part of the cluster of the car industry. The reason is not that such unlikely partners actually forged a coalition; rather, they commonly agreed or disagreed to specific policy items at discussion. In this case, both German carmakers and Greenpeace criticised the 130 g/km target, but from different directions: For the former it was too strict, for the latter too soft.



Network Graph 4-7: The policy domain after the publication of the Commission proposal, Regulation (EC) No 443/2009.

The French-German agreement

After the Commission had published the proposal, it was up to the Council to discuss the draft. It soon became clear that France and Germany emerged as the two main opponents in the Council,

and that the policy initiative would fall through if these two players would fail to come to an agreement. While Germany heavily criticised the Commission proposal, the French government preferred changing it as little as possible. The French government was additionally motivated to achieve a compromise because it was about to hold the Council presidency in the second half of 2008, when the legislation should be adopted. Since politicians at highest level of both countries had been pointing out the differences of their policy preferences very clearly at several occasions, many observers feared a long-lasting deadlock in the Council. However, just three months after the publication of the Commission proposal, in March 2008, the French President Sarkozy announced that France and Germany would soon issue a common position ('Sarkozy and Merkel find agreement on key EU issues', 2008). In a textbook example of liberal intergovernmentalism, the two countries set up a joint working group at highest level to achieve a bargain. Again, the two countries' positions in these negotiations were closely aligned to those of its respective national industries. For instance, the German Association of the Automotive Industry (VDA) said that for the negotiations, the government had 'taken on board' the German car industry's concerns ('Merkel to support car industry on carbon tax', 2008). Besides lower fines for excess emissions and a later date for the regulation to come into effect than 2012, the VDA demanded being allowed to count so-called 'eco-innovations' towards the target. Eco-innovations are technological improvements that are not yet included in the standard EU emission test cycle for type approval but can prove emission savings based on innovative data.

Eventually, France and Germany agreed on supporting the Commission overall target of 120 g/km carbon dioxide. The joint declaration published on 9 June 2008 is written in a rather vague language, with details to be worked out by the environment ministers. France gave in to the German demands of introducing eco-innovations and more importantly, a substantial phasing-in. France also gave up resistance against the weight-based method to calculate vehicle-specific emission limits. The joint declaration also suggests watering down the penalty scheme in a way to not punish minor deviations from the emission limits. In turn, Germany accepted to include a statement in support of a long-term target between 95 and 110 g/km carbon dioxide, which the German car industry rejected ('Germany, France agree on car emissions', 2008). The German Chancellor Merkel praised the agreement as an 'important breakthrough' and a 'giant step forward' that has been achieved after 'initially our positions were very, very far apart' ('Merkel and Sarkozy claim unity on car emissions', 2008). The deal struck by France and Germany was the tipping point

in the policy process. After the agreement, the main controversies had been gapped. The role of this agreement is analysed in greater detail in section 4.4, where Network Graph 4-13 clearly shows how Germany and France became more proximate in the network after the agreement.

The European Commission was not enthusiastic about the suggested dilution of the proposal. A spokesman of the Commission President said that he was ‘not surprised’ of the German attempts to lower the emission limit and delay of the entry into force (‘Merkel to support car industry on carbon tax’, 2008). Nevertheless, Environment Commissioner Dimas indicated he could accept that it is up to the member states to decide how strongly heavy cars are burdened by emission limits, as long as the overall goal remained untouched (‘Dimas: it’s up to member states to agree on burden sharing’, 2008; ‘Environment commissioner softens approach to German car makers’, 2008). His colleague, the German Enterprise Commissioner Verheugen, even called for postponing the entry into force for three years. In contrast, the Rapporteur for the file in the European Parliament, the Italian social democrat Sacconi, criticised the idea of a phasing-in, stressing that the Commission proposal ‘is quite balanced and I don’t think we have to object on to it head on’ (‘Merkel to support car industry on carbon tax’, 2008).

Long-term targets

The support for a long-term target expressed in the joint position by France and Germany (see above) picked up a debate that has been smouldering for a while within the Council and the European Parliament. Remarkably, the Commission proposal did not suggest any emission target for the time after 2012. However, there was support for the idea among many national delegations in the Council, among them the United Kingdom and the Netherlands, who had been advertising a 95 g/km target for 2020 since months (‘Dutch call for longer-term carbon targets’, 2008). The same target was proposed by the Slovenian Council presidency in June 2006, referring to ‘a vast majority of delegations’ that favoured the introduction of long-term targets. While environmental NGOs demanded an even more ambitious long-term goal of 80 g/km carbon dioxide emissions (‘EU states set for clash over CO₂ caps for cars’, 2008), German car manufacturers remained opposed also after the long-term target had been concluded by the environment ministers (‘MEPs set for clash over car emissions’, 2008). Also the ACEA claimed that a 95 g/km is impossible to achieve (‘EU states set for clash over CO₂ caps for cars’, 2008).

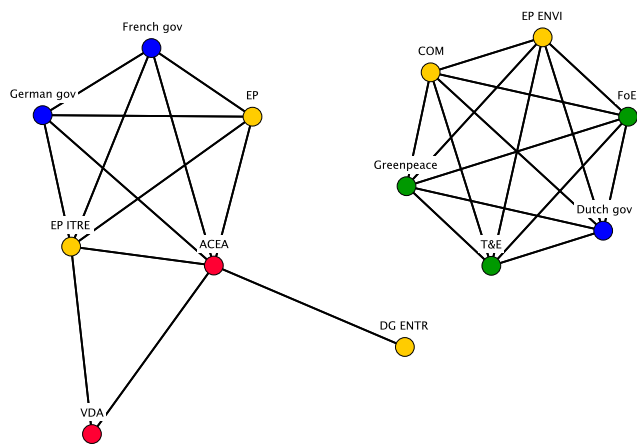
Votes in European Parliament Committees

The votes in the European Parliament marked the beginning of the final phase of the decision-making process. Network Graph 4-8 (below) displays the policy domain in this period, showing that there was still considerable controversy. While the Environment Committee was responsible for drafting the Parliament's response to the Commission proposal, it was obliged under the 'enhanced co-operation procedure' to consider the Industry Committee's opinion. Under this procedure, the Environment Committee has to accept amendments drafted by the Industry Committee, if these are 'of industry competence'. This term must be defined commonly by members of both Committees and is therefore uncertain and subject to inter-Committee negotiations. Network Graph 4-8 shows that the two responsible committees were embedded into coalitions with opposing views.

On 1st September 2008, the Industry Committee in the European Parliament held a vote on proposed amendments to the Commission proposal. The Rapporteur was Werner Langen, a German conservative MEP. Hardly surprising, his draft amendments included a postponement of the entry into force from 2012 to 2015 and fines rising from €10 to €40 instead of €20 rising to €95 for each exceeding gram carbon dioxide emissions. The draft also falls short of a binding long-term target and suggests a voluntary one, instead. With the votes of conservative and liberal members, the Industry Committee voted to phase in the emission limit, applying for 60% of the fleet in 2012 and rising to 100% until 2015. Fines should be reduced to 'no more than €40'. While the Greens, Socialists and the left wing (GUE-NGL) voted against the draft, they managed to include a mandatory long-term target of 95 g/km by 2020, as proposed by the Council Presidency. Environmental NGOs described the result of the vote as a 'bad compromise' making the legislation 'completely meaningless' ('MEPs back easier targets for car industry', 2008). In contrast, the German car industry was pleased with the result, apart from the long-term target. A VDA speaker praised the Industry Committee for 'trying to keep the industry's interest' ('MEPs set for clash over car emissions', 2008).

The Environment Committee voted on the amendments on 25 September 2008. In large parts, the result follows the Commission proposal. Like the Industry Committee, the Environment Committee confirms the overall 120 g/km emission limit and an additional 10% reduction achieved through alternative measures. Also the long-term target of 95 g/km from 2020 onwards,

as suggested by the Council Presidency, was accepted. More precisely, the Commission is asked to present a new proposal by the end of 2014 on how to achieve this target, preceded by an impact assessment, a cost-benefit analysis, and considering technical developments. However, the Committee voted to reject the Industry Committee’s proposal to phase in the emission limits from 2012 to 2015, a proposal that had been kept by the Italian Socialist Rapporteur Guido Sacconi. The Committee also rejected Sacconi’s compromise on excess fines, that would have set penalties to €50 per excess gram of carbon dioxide, instead following the Commission’s tougher proposal. Moreover, the revenues should be earmarked for investments in the development of emission-reducing technology. While accepting the Commission’s proposal to calculate specific emission limits based on the vehicle weight, the Committee asked the Commission to investigate alternative parameters such as the carbon footprint. The Committee also voted to allow eco-innovations (see above) to count towards the emission limit. In total, the result of the vote goes beyond the draft amendments tabled by Rapporteur Sacconi, because his fellow Socialist MEPs sided with Green and left MEPs. While environmental NGOs were pleased with the outcome, the ACEA strongly criticised it for endangering the future of European car production (‘MEPs stick with strong line on CO2 emissions from cars’, 2008).



Network Graph 4-3: The policy domain, period from the EP votes to the adoption, Regulation (EC) No 443/2009.

Inter-institutional negotiations

In the final stage, the three legislative EU institutions met in a so-called ‘Trilogue’ to negotiate a final compromise. The next attempt to introduce a phasing-in of the emission limit was undertaken by the French Council Presidency. In its proposal for a Council position, it suggested a phasing-in from 2012 to 2015, with 60% of the fleet having to meet the target in 2012 – exactly what the Industry Committee of the European Parliament had proposed a few weeks earlier. Besides, the

French compromise proposal suggested reduced penalties of €25 per excess gram carbon dioxide between 2012 and 2015, and €80 after 2015. While a majority of member states was reported to support the French proposal, some countries – most prominently the Netherlands – were worried about the lack of environmental ambition and advertised the introduction of a long-term target of 95 g/km from 2020 onwards ('Three-way talks over carbon cuts', 2008).

The compromise deal struck by Council, EP, and Commission negotiators closely followed the French proposal. It proposed the phasing-in from 2012 and 2015 as in the French draft. Similarly, the penalty scheme has been diluted: From 2012 to 2015, fines would start from €5 for the first excess gram, rising to €15 for the second gram and €25 for the third. The full penalty of €95 applies only to cars that exceed the limit with four grams or more. Only from 2015 on, the €95 penalty would apply from the first excess gram. However, the final compromise also included the long-term emission limit of 95 g/km from 2020 onwards. In addition, so-called super-credits were included silently in the final text. The idea behind super-credits is that, when calculating the average fleet emission, extremely low-emitting vehicles can be weighted higher than other cars. Cars emitting less than 50 g/km could now be counted as 3.5 cars in 2012 and 2013, 2.5 cars in 2014 and 1.5 cars in 2015 when calculating the fleet average. Media reports overwhelmingly attributed the dilution of the proposed legislation to the German car industry and to the German government. Both environmental campaigners and the European Commission were not satisfied with this negotiation outcome ('Car companies win dilution of EU emissions law', 2008).

The final policy – diluted, but yielding a surprise

To conclude, the final compromise was a watered-down version of the already diluted French-German agreement. A diluted penalty scheme and a super-credit scheme took the edge off the regulation. Taken together, the final policy reflects the dominance of the German-dominated European car industry throughout the policy-making process, in which blunt economic interests were at the centre of the negotiations. While there was still considerable controversy, as Network Graph 4-8 shows, the final deal was reached relatively swiftly with a majority in the Council lead by France and Germany and by a majority in the Parliament. Critics of the final solution were not able to oppose such a strong majority. There is, however, a surprising feature in the final text: In return for closely following the line of the French Council Presidency's proposal, negotiators of the European Parliament managed to implement a mandatory long-term reduction target of 95 g/km

by 2020. Apparently, Council negotiators accepted the goal with a certain levity, given the distant time horizon. The next section, however, will show how this long-term reduction target triggered a large conflict among member states, different branches of the European car industry, and the EU institutions, resulting in a strong polarisation of the policy domain.

4.3 Analysis of the policy-making process after the outbreak of the economic crisis (Regulation (EU) No 333/2014)

‘At a moment when we sit together for days to talk about employment, we also need to be careful not to weaken our own industrial base.’

Angela Merkel, Chancellor of Germany
European Voice, 4th July 2013

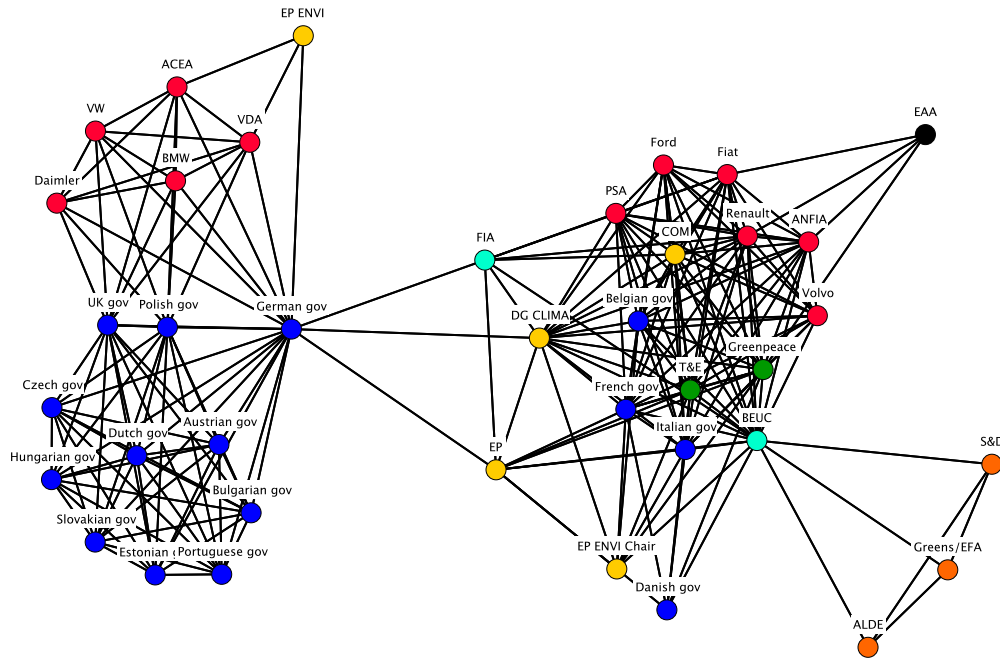
As described in the previous section, Regulation (EC) No 443/2009 set a long-term target of 95 g/km carbon dioxide emissions. More precisely, the text stipulated that ‘by 1 January 2013, the Commission shall complete a review of the specific emission targets...and of the derogations..., with the aim of defining: The modalities for reaching, by the year 2020, a long-term target of 95 g/km in a cost-effective manner; and the aspects of implementation of that target, including the excess emissions premium’ (i.e. the penalties) (European Parliament, Council of the European Union, 2009). Furthermore, such a review should be accompanied by an impact assessment investigating the impact on the car industry and dependent industries. Also, if necessary, the Commission is asked to amend the regulation in a way ‘which is as neutral as possible from the point of view of competition, and which is socially equitable and sustainable’. In other words, the follow-up legislation of Regulation (EC) 443/2009 was not about *what* target should be reached, but *how* to reach a target already set²¹. Table 4-3 below provides the timeline of the legislative process.

²¹ Unlike in the pre-crisis policy process, relatively few actor statements could be collected for the period before the publication of the Commission proposal. The lack of data suggests that due to the technical nature of negotiating regulatory modalities instead of overarching goals, industry actors have considered the active participation in a public debate during the drafting period of the Commission proposal not a promising strategy.

Date	Event/Document	Main content
11/07/2012	Commission <i>amending Regulation (EC) No 443/2009 to define the modalities for reaching the 2020 target to reduce CO₂ emissions from new passenger cars</i>	Maintain 95g/km CO ₂ for 2020 target; Maintain weight-based limit; maintain slope curve of 60% with 2006 as baseline fleet; Super-credits for cars emitting < 35 g/km CO ₂ (factor 1.3; introduction between 2020 and 2023; limited to 20.000 vehicles/manufacturer); update of derogations for ‘niche’ manufacturers; Maintain eco-innovations; Maintain 95 Euro/km fine.
24/04/2013	EP Environment Committee vote	Super-credits for cars emitting < 50 g/km CO ₂ ; 68-78g/km for a 2025 target.
07/06/2013	German proposal submitted to the member states	‘banking’ of super-credits earned before 2015 to use them after 2020.
24/06/2013	Inter-institutional agreement between Irish Council Presidency and Parliament	Maintain 95g/km CO ₂ for 2020 target; no 2025 target; super-credits factor raised to 2 instead of 1.3 and for cars < 50 g/km instead of 35; no ‘banking’ of super-credits.
24/06/2013	Personal intervention by Merkel to undo 06/24/2013 deal	German government does not accept deletion of super-credit ‘banking’ and wants to postpone the target to 2024.
05/11/2013	EP negotiators reject compromise proposal by Lithuanian Council Presidency	The compromise would have postponed the target to 2023; 95 /km averaged across fleet; expansion of super-credits from 2023 to 2024 and ‘banking’.
12/11/2013	Counter-offer by EP negotiators	Expansion of super-credits to electric vehicles and/or phasing-in of penalties for non-compliance.
26/11/2013	Inter-institutional agreement between Council and Parliament	95g/km CO ₂ target for 2021, with 95% of a fleet to meet the target in 2020; weight-based limits; from 2019 on, 95 Euro/g fine from the first gram of exceedance; maintenance of eco-credits; Maintenance of super-credits (from 2020 to 2023; factor 2 in 2020; 1.57 in 2021; 1.33 in 2022; 1 from 2023); derogations for ‘niche’ manufacturers.
25/02/2014	EP First Reading	Adoption of 26/11/2013 text
05/04/2014	Signature by Council and EP President	Adoption

Table 4-3: Timeline of the legislative process after the outbreak of the economic crisis, case study 1.

The conceptual framework suggests that after the outbreak of the economic crisis, the policy domain is more strongly polarised than before. The collected data clearly confirm this assumption. As an overview, Network Graph 4-9 displays the policy domain of the entire policy-making process leading to the adoption of Regulation (EU) 333/2014 (a comparison with pre-crisis network graphs follows in the conclusion).



Network Graph 4-9: The policy domain, Regulation (EU) No 333/2014.

The graph looks quite different than the overview graph of the period after the publication of the Commission proposal in the pre-crisis policy decision (Network Graph 4-7). While the largest part of actors in Network Graph 4-9 appeared already in the pre-crisis policy domain, some actors are new because now they were mentioned in the analysed sources as making statements. The most striking difference in aggregate is that unlike in the policy debate before the outbreak of the crisis, two distinct actor coalitions emerged in the debate. These coalitions have a high degree of internal cohesion, that is, a high overlap of preferences. Thus, both actor clusters can be understood as actual coalitions with a common interest. In contrast, there are hardly any links between the two actor clusters, meaning that the two coalitions have almost no policy preferences in common. While the network graphs on debates on single policy items and in specific periods of the pre-crisis decision-making process also show a strong polarisation into two separated clusters, the policy domain as a whole was unified enough (around a French-German coalition) to allow for a swift adoption. However, Network Graph 4-9 suggests that unlike before the crisis outbreak, these controversies could not be gapped in an effective way. Taken together, this graph indicates a high degree of political polarisation, as predicted by hypothesis H1. The actor cluster on the right consists of actors that preferred a legislation that interprets the ramifications set in Regulation (EC) 443/2008 rather strictly, meaning an environmentally ambitious policy. It mainly consists of those European car manufacturers that can easily comply with strict emission standards and thus have a

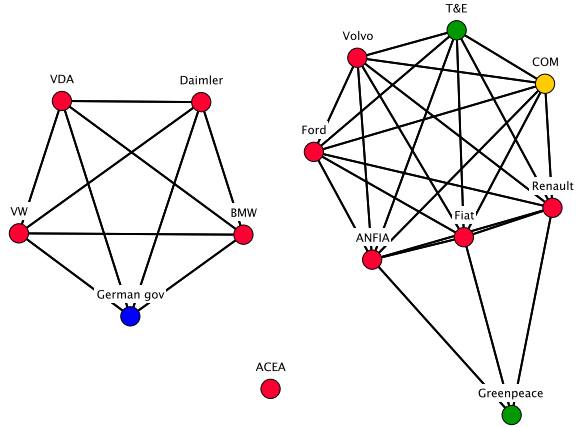
competitive advantage over those who cannot. Unlike their German competitors, French and Italian car manufacturers were generally supportive of stricter emission limits, with the vice-president of Renault stating in the European Parliament on 10 July 2012: ‘Yes, we can reach 95 gram, there is no problem, we have the technology’ (‘Commission proposes vehicle emissions limits for 2020’, 2012). The Italian and French governments, home of small-engine manufacturers like Fiat and PSA, are also part of this cluster, just like the European Commission itself and environmental NGOs.

The division within the ACEA – a ‘toothless tiger’

The actor cluster to the left in Network Graph 4-9 is a coalition of German carmakers and several European governments, particularly the German government. It is visualised in two sub-clusters because both actor types, manufacturers and governments, participated in the debate at different points of time and discussed different policy items. Nevertheless, they had the same underlying policy preferences. This coalition opposed a strict interpretation of the legal provisions and lobbied heavily for a watered-down proposal. The appearance of the EP Environment Committee is unexpected at first sight but is explained by its surprising vote for an expansion of the super-credit scheme, just as demanded by German car manufacturers (see below).

To take a closer look, graphs before and after the publication of the Commission proposal are computed. Network Graph 4-10 below displays the policy debate before the publication. It reveals that at this stage of the decision-making process, the public debate was dominated by a conflict within the European car industry that at this time suffered from a severe crisis. One coalition in the debate consisted of German carmakers and the German government, the other of the Commission, green interest groups and French and Italian carmakers. Also Volvo and Ford appear in this coalition, but there was only one statement coded each for them. Importantly, the ACEA is not part of any coalition. The reason is that it had been blocked by an internal deadlock for a long time. Unlike at the 95 g/km negotiations, the ACEA was somewhat a ‘toothless tiger’ because intense internal conflicts impeded its members from agreeing on a common strategy. Media reported ‘bitter exchanges at ACEA meetings’ with strong tensions arising from ‘declining sales that many French and Italian companies are suffering, while German luxury vehicle manufacturers are faring much better’ (‘On the right road?’, 2012). German and Italian car manufacturers accused each other of being unfair. For example, the president of the Italian carmaker association ANFIA complained

that the planned changes of the proposal would ‘favour just one country’ (‘Germany fights against Italy over car emissions’, 2012). By the same token, German voices described the Commission proposal as a ‘gift to struggling French and Italian carmakers’ (‘Commission proposes vehicle emissions limits for 2020’, 2012). As Network Graph 4-10 visualises, Italian and French car producers found allies in environmental and consumer lobby groups. For example, Greenpeace accused BMW and Daimler of ‘asking French and Italian carmakers to do the reductions in their place, instead of doing their fair share to move us on’ (‘Germany fights against Italy over car emissions’, 2012). The ACEA’s internal blockade meant that it lost its role as a dominant actor in the policy domain: The number of statements recorded for the ACEA declined strongly, compared to the 130 g/km negotiations (cf. *Figure 3-5*). The division within the industry and the ACEA corroborates the central theoretical assumption of this study: Manufacturers of low-emission cars supported a strong regulation because they could meet the requirements more easily than manufacturers of heavy cars, benefitting from a competitive advantage that would soothe their economic troubles and help them to regain market shares. By the same token, manufacturers of heavy cars lobbied fiercely for a soft regulation to avoid additional burdens. This evidence suggests that the actors in the policy domain behaved more conflictive than before. This is in clear contrast to the pre-crisis policy process: Before the outbreak of the economic crisis, the ‘German’ coalition of carmakers dominated the industry’s lobbying, while the ‘southern’ manufacturers remained largely silent in the policy debate. The dynamics and intensity of this conflict within the industry could not be observed before the outbreak of the economic crisis, indicating a crisis-induced intensification of conflict among business actors with diverging policy preferences as predicted by hypothesis H1.



Network Graph 4-10: The policy domain before the publication of the Commission proposal, Regulation (EU) No 333/2014.

Delaying the Commission proposal

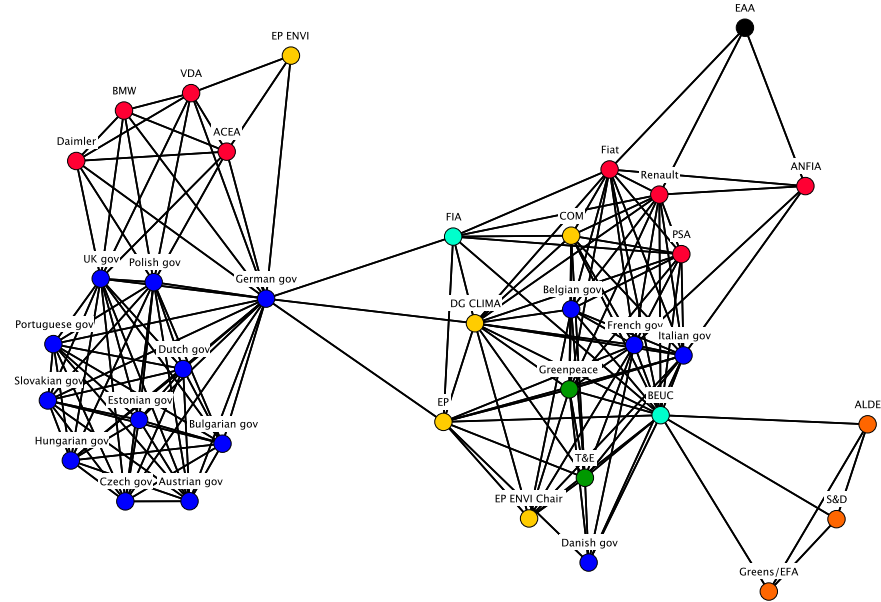
From the beginning on, news outlets described the German car lobby's efforts with terms such as 'frantic' or 'furious'. In fact, the German lobby successfully exerted pressure on the European Commission to change the draft Commission proposal, causing a delay of the publication in June 2012. While a previously leaked draft of an early version of the proposal was praised by environmental NGOs for the absence of loopholes and exemptions ('New car emissions limit from 2020', 2012), the published version was toned down in decisive points (European Commission, 2012b). The main bone of contention was that achieving the 95 g/km target required an adjustment of the emission limit value curve (Figure 4-3; for a more detailed explanation see section above). While German manufacturers preferred a steep slope, manufacturers of small cars lobbied for a flatter slope. The German lobby was also upset because the Commission proposed 2009 as base for the curve; this way, all emission savings achieved by German manufacturers between 2006 and 2009 would not have been taken into account. In the end, German manufacturers partially got their will: The curve base was set back to 2006 instead of 2009, and the curve factor was set to 0.0333 instead of 0.0296 as initially planned by the Commission (although Germany would have preferred maintaining the existing factor of 0.0457 set in Regulation 443 (EC) 2009). Climate Commissioner Connie Hedegaard argued that the proposal is a compromise that asks 'all manufacturers to make the same relative effort to reduce their car emissions' ('Commission proposes vehicle emissions limits for 2020', 2012). Apart from the curve gradient, the Commission also had toned down the language regarding long-term targets for 2030 and 2040, now merely stating that 'the industry benefits from indications of the regulatory regime that would apply beyond 2020' and suggesting conducting a review until 2014. Furthermore, the Commission proposal suggested maintaining the penalty for excess emissions at €95 per gram. Unlike a previous draft, the final Commission proposal also included the introduction of a so-called super-credit scheme, reportedly due to pressure from Germany. Super-credits had already been included in the 130 g/km legislation, but without any controversy. The idea behind super-credits is that when calculating the average fleet emission, extremely low-emitting vehicles can be weighted higher than other cars. According to the Commission proposal, new passenger cars emitting less than 35 g/km can be counted as 1.3 cars in the period between 2020 and 2023. This rule would be applicable for

up to 20.000 cars per manufacturer. Greenpeace criticised super-credits as an ‘accounting trick’ allowing car manufacturers to bypass the emission limit (‘Concessions and exemptions’, 2012).

The remarkable vote of the EP Environment Committee

Network Graph 4-11 displays the policy domain after the publication of the Commission proposal. It closely resembles the graph displaying the entire policy process (Network Graph 4-9) because most statements were coded in this period. The next step in the legislative procedure after the publication of the proposal was the vote in the European Committee. Network Graph 4-11 indicates that remarkably, the Environment Committee is part of the coalition opposing tougher emission standards. The Environment Committee is known as the ‘green driver’ of the Parliament usually votes to toughen up climate regulations instead of diluting them (Lenschow, 2010). Not this time: The vote of the EP Environment Committee was scheduled on 24 April 2013. The Rapporteur of the file, the German centre-right MEP Thomas Ulmer, headed the Committee. In Ulmer’s constituency Mosbach live many employees of a large Audi production plant in the nearby city of Neckarsulm. It is therefore hardly surprising that his draft proposal suggested a considerable expansion of the super-credit scheme, because ‘it is larger vehicles that generally play a pioneering role in vehicle technology’ (‘MEPs clash over car emissions’, 2013). In fact, the Committee voted to raise the threshold for cars eligible for super-credits from 30g/km to 50g/km carbon dioxide (Committee on the Environment, Public Health and Food Safety, 2013). While the Commission proposed to account super-credits by the factor of 1.3 from 2020 on, the Committee voted for an earlier phasing-in, with a factor of 3.5 in 2012 and 2013, and a factor of 2.5 in 2014 and 2015. From 2016 to 2023, the factor should be 1.5. Also, the Committee proposal scraps the maximum number of 20.000 cars per manufacturer eligible for super-credits. However, the Committee went beyond the Commission proposal regarding a long-term target, suggesting a target within an ‘indicative range’ of 68g/km and 78g/km carbon dioxide from 2025 onwards. Nevertheless, the vote was heavily criticised by environmentalists. Greenpeace criticised that ‘MEPs have fallen into the trap set by carmakers’ (‘MEPs vote to extend “supercredits” for car emissions’, 2013), and Transport & Environment calculated that the additional concessions would raise the emission limit effectively to 97.5 g/km. Also the European Commission warned that a super-credit scheme should only be applied in a limited way (‘MEPs vote to extend “supercredits” for car emissions’, 2013). In contrast, the VDA praised the expanded super-credit scheme as an ‘intelligent form’ of incentives for the industry, but concluded that the vote ‘represents only a small improvement’ and demanded

further adjustments (Verband der Automobilindustrie, 2013). Taken together, the Committee vote is a remarkable example of how an economic crisis affects voting behaviour in the Parliament and how in times of crisis, also Environment Committee members are inclined to protect the economic interests of their constituency. Instead of following the Commission’s line of ecological modernisation as in most cases (Burns, 2013) Rapporteur Ulmer’s proposal clearly bears the signature of the German car industry and suggests he had been lobbied.



Network Graph 4-11: The policy domain after the publication of the Commission proposal, Regulation (EU) No 333/2014.

Germany derails the legislative process

The conceptual framework of this study expects increased levels of political polarisation among EU member state governments. According to the EU law-making process, the Council internally decides on its common position before initiating inter-institutional negotiations with the Parliament, often with intense discussions in the respective preparatory bodies and sometimes even at highest level. The increased polarisation in this post-crisis outbreak policy process, however, reached levels that derailed the usual procedure and caused a chaos. The conventional Council-internal procedure was scrambled by the German delegation, which undertook enormous efforts to convince the Council of a further dilution of the proposal even after the Council had agreed on a common position. The Council had given the Irish Council Presidency a mandate to start negotiations with the European Parliament on 15 May 2013, and informal Trilogue meetings took place on 22 May, 3 June, and 24 June. Despite the advanced stage of negotiations and despite the Council Presidency was given a mandate, a proposal drafted by the German delegation was leaked

in early June, suggesting allowing car manufacturers to ‘bank’ the super-credits they had earned before 2015 under the previous regulation, and apply them after 2020. The green NGO Transport & Environment described the proposal as a ‘desperate attempt by Germany to gain support for discredited banking proposals that have been rejected in the Parliament and by a large majority of member states’ (‘Germany continues to block emissions deal’, 2013).

In the compromise agreed on by MEPs and member state representatives, brokered by the Irish Council Presidency on 24 June 2013, the option of ‘banking’ super-credits was missing. The compromise also scrapped the EP’s amendment to introduce super-credits for the period between 2015 and 2020. Instead, it raised the accounting factor to 2 cars in 2020, 1.67 cars in 2021, and 1.33 cars in 2022, while the Commission had proposed a flat 1.3 factor for the same period. However, the compromise adopted the Parliament’s position regarding the threshold for super-credit eligibility (50 g/km as in the previous regulation instead of 35 g/km as proposed by the Commission). Also a long-term target for the time after 2025 was scrapped. Taken together, the compromise text struck a balance between the Commission proposal and concessions to the German car industry, whose position has been brought into the negotiation through the Parliament’s position.

It was widely expected that the deal would be rubber-stamped by the member states ahead of a meeting of EU permanent representatives in the Council on 27 June, given that Germany, still opposing the deal, lacked a qualified majority to block the decision. In a highly unusual move, however, the German chancellor Merkel personally called the Irish prime minister Enda Kenny one night ahead of the meeting, requesting him to put the vote off the agenda and postpone until after the German Parliamentary election in September 2013 (‘Germany seeks to undo car emissions deal’, 2013). This incident is confirmed by Commission sources interviewed for this study. A delay would give Germany additional time to gather more votes against the compromise among other member states. Network Graph 4-11 shows that indeed, Germany managed to collect further allies: the Netherlands, the United Kingdom, Portugal, the Czech Republic, Slovakia, Austria and Hungary could be won over to postpone the vote (‘Germany blocks car CO2 limit deal’, 2013). Slovakia and the Czech republic were reported to support Germany, and Poland and Bulgaria offered support in exchange for support in other issues (‘Germany seeks to undo car emissions deal’,

2013). Germany also put hopes in having more influence over the upcoming Lithuanian Council Presidency than over the Irish.

The behaviour of the German government was criticised in particular by Italy and France ('Germany blocks car CO2 limit deal', 2013) as well as by many other actors. The Italian delegation, with support by France, raised serious objections against putting the issue off the agenda, arguing that this would damage the Council's position in future negotiations with the European Parliament ('Germany continues to block emissions deal', 2013). Transport & Environment stated that 'it's unprecedented in EU environmental policymaking that the pressure of one country delays a vote in an attempt to overturn a fairly-negotiated agreement' ('Germany blocks car CO2 limit deal', 2013). Greenpeace complained that Merkel was 'not afraid of hijacking democratic processes and bully other governments to pamper a few high-end carmakers' ('Germany blocks car CO2 limit deal', 2013). When Germany also managed to convince the new Lithuanian Presidency of not addressing the issue at the next Council meeting on 17 July 2014, even the Commission expressed concerns 'about the integrity of the Council's process' ('Germany continues to block emissions deal', 2013). Merkel justified the blockade of the legislative process with a statement that symbolises the difference between the 130 g/km and the 95 g/km negotiations: 'At a moment when we sit together for days to talk about employment, we also need to be careful not to weaken our own industrial base' ('Emissions impossible?', 2013).

After the German intervention

Germany did not give up its fierce resistance against the proposal, despite it had become clear that its plans to expand the super-credit scheme would not find enough support. The Lithuanian Presidency scheduled a new vote on the file for 4 October 2013. One week before, the German delegation distributed a proposal to member states, coming up with an entirely new approach to circumvent the emission limit. According to the leaked paper, Germany suggested to phase-in the emission limit because 'the issue of flexibility has not yet been sufficiently addressed' ('Germany tries new objection as car CO2 vote returns', 2013). The phase-in would apply the emission limit only to 80% of new cars in 2020, 85% in 2021, 90% in 2022, 95% in 2023, and 100% only in 2024. If the Council adopted these plans, negotiations with the Parliament would start from new, postponing the dossier into a Second Reading. It would then become difficult to adopt the legislation within the current Parliament and Commission election period, giving manufacturers

more time to improve technology and lower their fleet average emissions. France and Italy were reported to reject the plans. According to a diplomatic source cited in the *European Voice*, it was ‘unprecedented to introduce something like this after a deal has been concluded. No other country would behave this way’ (‘Germany tries new objection as car CO₂ vote returns’, 2013).

Also the scheduled vote on 4 October was postponed following pressure by Germany, with support of Poland and the United Kingdom, the latter being reported to offer Germany support in exchange for Germany agreeing to oppose plans for an EU cap on bankers’ bonuses (‘Car CO₂ vote bumped up to ministers’, 2013). Italy was reported to strongly oppose any concession to the German car industry, while France did not oppose a delay of the target, but any disproportional benefit to German manufacturers (‘Car CO₂ showdown at environment council’, 2013). The next opportunity to schedule the vote was the Environment Council meeting on 14 October 2013 in Luxembourg, in the hope that the conflict could be settled at ministerial level. But also this vote was postponed because Germany gathered enough qualified votes to veto the decision. In the meantime, the United Kingdom, Poland, Hungary, Slovakia, and the Czech Republic came out in support of Germany (‘Car CO₂ vote delayed’, 2013). Italy, Denmark and Belgium strongly opposed the German plans, as also Network Graph 4-11 shows. The Italian Environment Minister Andrea Orlando criticised Germany, saying that ‘[the original negotiating mandate] was approved by all of us by qualified majority. We understand that this does pose some problems for some member states. In the past, Italy too has had to accept outcomes as part of negotiations, our industry has had to sacrifice sometimes too’ (‘Car CO₂ vote delayed’, 2013). The German environment minister Altmayer tried to calm the waves by stressing that Germany also wants to achieve a deal in the first reading, and that this deal can be made on basis of the compromise achieved with the Parliament in June (‘Car CO₂ vote delayed’, 2013). This meant that Germany would eventually agree also to minor changes, since major changes would require new inter-institutional negotiations. In fact, the Environment Council voted on 14 October 2013 to open the deal struck with the European Parliament and negotiate about including a phasing-in of the emission limit. MEP Thomas Ulmer, who lead the negotiations for the Parliament, warned the Council that only marginal changes would be possible for a compromise in First Reading (‘Member states assess German damage to institutional trust’, 2013). The decision was harshly criticised by environmental campaigners and also Climate Commissioner Hedegaard, who called the German proposal ‘not acceptable’ (‘Germany gets its way on EU car emissions’, 2013).

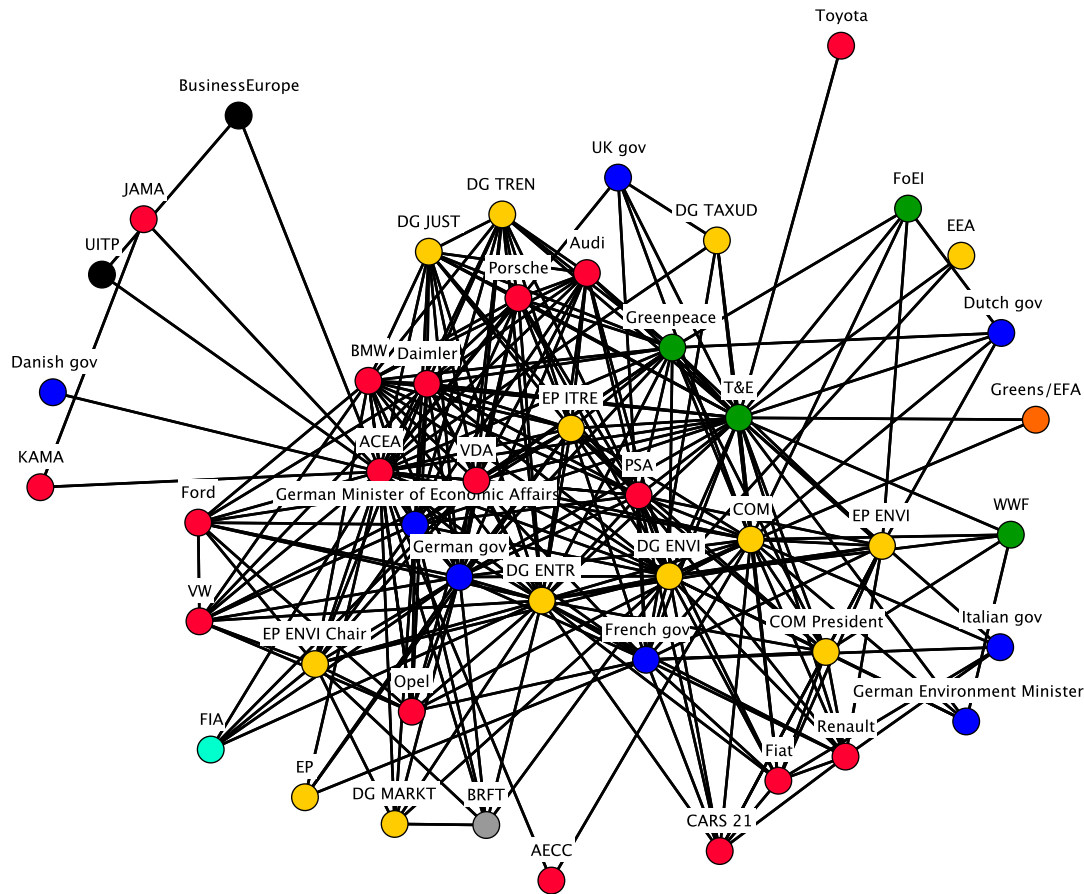
The Lithuanian Presidency scheduled renewed negotiations with Parliament representatives. Its first proposal to the EP was a phasing-in of the emission limit from 2022 to 2020, accompanied by an expanded super-credit scheme (four instead of three years) and the possibility to ‘bank’ super-credits. The Lithuanian Presidency drafted this proposal after bilateral talks with some member states, provoking protests by Italy, France, Spain, and Denmark, who feared being side-lined (‘Lithuania pushes car CO₂ compromise’, 2013). France and Italy particularly opposed a mere expansion of the super-credit scheme, as German manufacturers would benefit disproportionately from it (‘MEPs to give counter-offer on car CO₂’, 2013). Since this proposal fulfilled almost all demands of the German government, Transport & Environment accused the Lithuanian Presidency of ‘playing a dangerous game of poker’ and prompted the Presidency to ‘come to their senses and stop trying to please Germany’ (‘Lithuania pushes car CO₂ compromise’, 2013). Not surprisingly, EP negotiators rejected the compromise offer because only the EPP and ECR supported a delay of the emission limit in the plenary (‘MEPs reject Lithuanian offer on CO₂’, 2013; ‘MEPs to give counter-offer on car CO₂’, 2013). Instead, Rapporteur Thomas Ulmer drafted a counter-offer. It also included a phasing-in but would give carmakers the choice of either being exempt from penalties for 7.5g/km carbon dioxide 2020-23 or receiving a 7.5 g/km equivalent of super-credits. However, also this counter-offer was rejected by the S&D, ALDE and Green Parliamentary groups.

Eventually, MEPs and member states found a compromise on 26 November 2013. The final deal included just a minimal phase-in of 95% of a fleet meeting the emission target in 2020 and 100% already in 2021. Also an expansion of super-credits to electric vehicles found its way into the final text. On 25 February 2014, the EP plenary voted to adopt the legislation. The final version, not more than a face-saving compromise for the Germans, was commented by the Climate Action Commissioner Hedegaard with a simple and relieved ‘Ende gut, alles gut’ (‘Car CO₂ limits agreed’, 2014).

4.4 Conclusion

The policy debate before the outbreak of the economic crisis

Network Graph 4-12 shows the policy network of the entire policy-making process before the outbreak of the economic crisis.



Network Graph 4-12: The policy domain of the entire policy process before the crisis outbreak, Regulation (EC) No 443/2009.

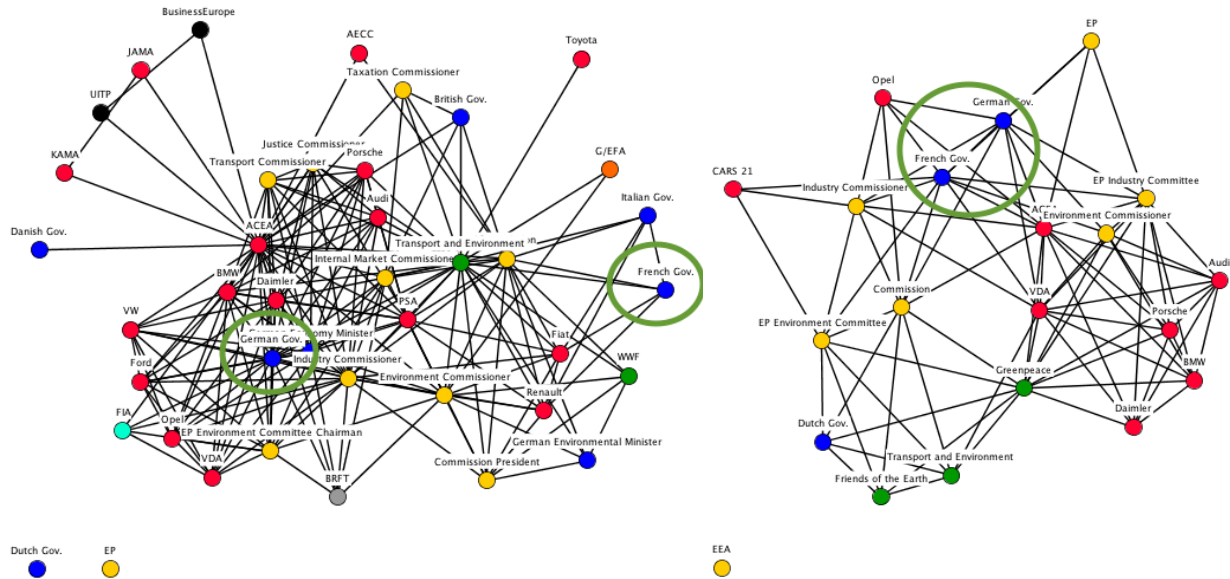
The protagonists of the dominant coalition in the policy debate were German premium manufacturers, the ACEA, the German government, and the Enterprise Commissioner²². Why did no distinct anti-pole to the ‘German’ advocacy coalition emerge in the policy debate? According to the conceptual framework, producers of light cars, predominantly from France and Italy, had a more favourable cost-benefit ratio: It was easier and less costly for them to meet the proposed emission targets than it was for manufacturers of emission-intense cars. They therefore had less incentive to spend resources on lobbying and convincing their national governments to act. They also failed to enforce their preferences within the ACEA, given that the ACEA practically represented the interests of Daimler and BMW. In contrast, both the quantitative and qualitative assessment of the statements suggests that the German industry lobbied intensively. From that

²² Environmental NGOs Greenpeace and Transport & Environment have short links to certain German car manufacturers because they both expressed opposition against the emission limit. However, while environmental NGOs opposed it because it was too lax, German carmakers rejected it because they saw it as too strict.

follows that the ‘southern’ car manufacturers -and consequently their governments- did not experience enough economic pressure to invest political resources in influencing the policy-making process. For the German manufacturers the case was different because their emission-intense cars demanded higher investments in research and development. This finding is in line with the underlying argument of this study: Economic pressure crucially determines the behaviour of participants in the policy-making process of environmental regulations.’

The final compromise deal struck by Council, EP, and Commission negotiators closely followed the proposal that the French Council Presidency had made after inter-governmental consultations with the German government. The incentive for the French government to make concessions to Germany that were unfavourable for French carmakers was that it held the rotating chair of the Council Presidency and wanted to pass the legislation successfully. Given that the French (and Italian) car industry had fewer efforts to make to achieve the goals, the political price to keep the proposal off the agenda would have been disproportionately high for France. The French government’s efforts to push the proposal is an example of the ‘true power of the chair’ (Tallberg, 2004): the Council Presidency can shape EU policy by prioritising issues on the Council agenda. This observation also corroborates Warntjen’s (2007) claim that the Presidency has a positive and statistically significant impact on environmental policies.

The inter-governmental consultations between Germany and France were the pivot in the policy process, as Network Graph 4-13 below illustrates. The network on top illustrates the policy debate before the French-German agreement, where Germany and France are far apart from each other because they share no policy preference. The second network below shows the policy debate after France and Germany had agreed on a joint position. It clearly shows how proximate both countries have become, and how they commonly form a ‘bridge’ between proponents and opponents of the regulation. While the two countries’ policy preferences were initially far apart, they managed to agree on a common position with relatively little friction, given the immense economic impact of the policy. Also, it is a quite unusual approach and not very respectful vis-à-vis the institution of the Council of the European Union to set up a bilateral working group and hold inter-governmental high-level negotiations concerning an EU policy, accompanied by a joint declaration and high public attention.



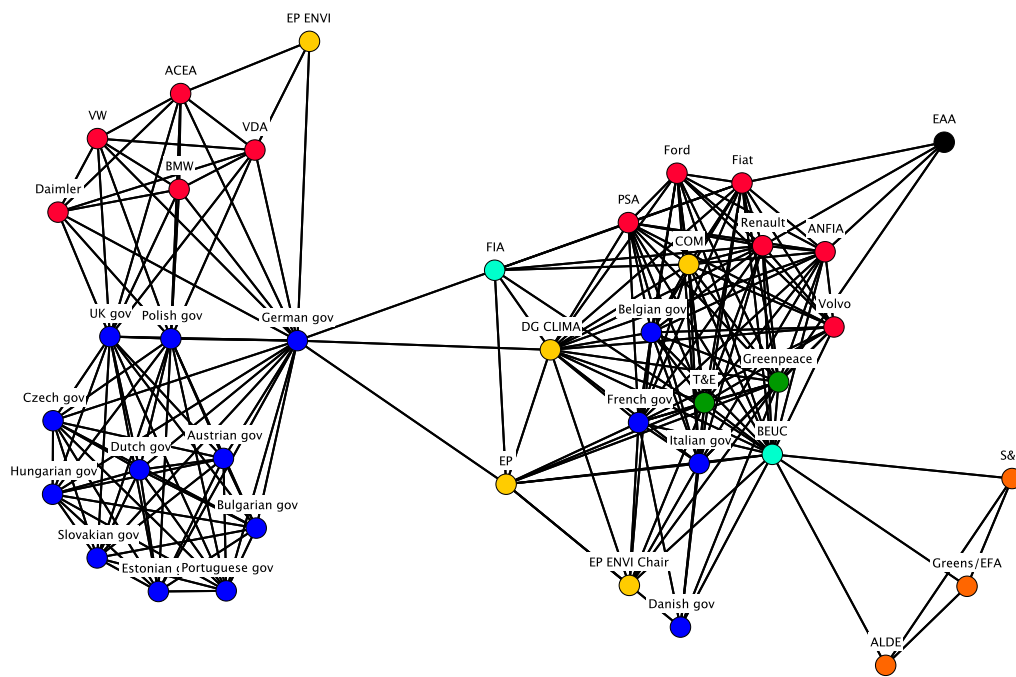
Network Graph 4-13: The policy domain before and after the French-German agreement, Regulation (EC) No 443/2009.

Another discussion that characterised the negotiations of the 130 g/km emission limit was the conflict between the Enterprise Commissioner Günther Verheugen and the Environment Commissioner Stavros Dimas. Their public row attracted great media attention and even serves as a showcase for Commission-internal turf battles and the difficulty of complying with environmental policy integration (cf. Lenschow, 2010, p. 313). The conflict gained additional salience as Verheugen, a German politician, openly defended policy solutions that favoured manufacturers such as BMW and Daimler. Verheugen made no secret out of the fact that he was siding with German carmakers and the German government. Still in summer 2006, Verheugen’s spokesman said that ‘binding legislation is not on the agenda’ (‘Carmakers risk missing greenhouse gas targets’, 2006). Just as binding legislation turned out to be inevitable, Verheugen proposed a 130 g/km limit, while Stavros Dimas favoured 120 g/km by 2012 (‘Commission targets oil companies’ emissions’, 2006). Quite the opposite, Verheugen wanted to avoid regulatory burden for the car industry, arguing that ‘it is perhaps not possible or technically feasible to reach the carbon dioxide emission target by just looking at car engines and at the car industry’ (‘Commission set to confirm CO2 legislation for carmakers’, 2007). Dimas, on the other hand, insisted that ‘we had an agreement that the car industry promised to fulfil and we now need legislation to keep that agreement’ (‘Commission heads for compromise over car emissions’, 2007). The dispute between Verheugen and Dimas peaked in December 2007, when Verheugen refused to attend a press conference to

present the Commission proposal ('Brussels spars with Berlin over car emissions', 2007). Given that Verheugen initially rejected any binding legislation, the 130+10 g/km target can be seen as closer to Dimas' position. In fact, Dimas declared that this target is still 'the most ambitious programme anywhere in the world' ('Partial victory for Dimas in CO2 spat', 2007). Also, the fact that Verheugen openly admitted to support the German position corroborates Hooghe's (2005, p. 887) finding that national factors are prominent in shaping Commission administrator's attitudes.

The policy debate after the outbreak of the economic crisis

Network Graph 4-14 shows the entire debate of the policy decision after the outbreak of the economic crisis. While the network in the policy-process before the outbreak of the crisis has only one nucleus with a high density, embedded into a rather fuzzy environment, this network is clearly divided into two actor coalitions, with high degrees of internal density and very few links to the other actor coalition. As explained in the previous section, the split within the left actor coalition between business actors and member states can be explained by the different stages of negotiations. Overall, the network is strongly polarised: The two actor clusters share hardly any common ground, while they share many preferences with their allied actors.



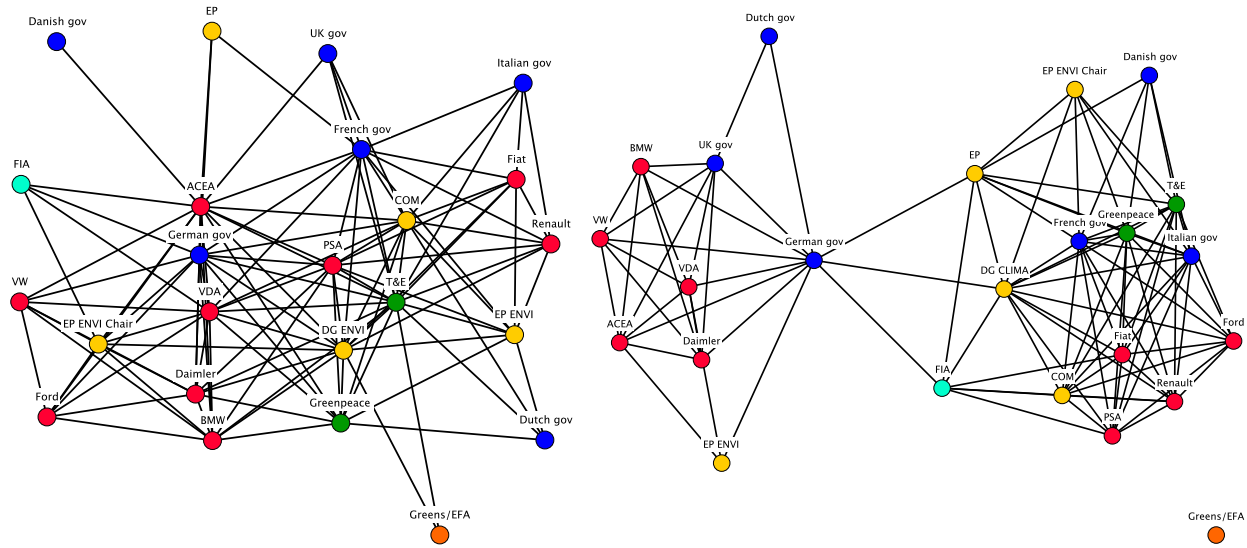
Network Graph 4-14: The policy domain of the entire policy process after the crisis outbreak, Regulation (EU) No 333/2014.

The network also clearly shows the dominating role Germany played during the negotiations. The German government lobbied the Commission intensively before the publication of the Commission proposal and managed to include a super-credit scheme. Throughout the policy-process, it undertook great efforts to further water down the text, ignoring the established EU law-making procedure and jeopardising the integrity of the Council of the European Union. While Germany certainly succeeded to include several relaxations for manufacturers, the final outcome falls short of the far-reaching German demands. Despite the bi-polarised and conflictive actor structure, the 95 g/km target was implemented without substantial concessions to the industry; rather, some ‘sweets’ were included to make the bitter pill of cost-intense technology digestible. This corroborates the notion of an institutional setting of environmental policy-making that ‘prevents a rolling back even at times of little political enthusiasm during [...] periods of economic recession’ (Lenschow, 2010, p. 328).

Not only the behaviour of the German car lobby became more aggressive. Another important observation is that, unlike in the pre-crisis policy decision, French and Italian carmakers and governments stood up more insistently against the German attempts to dilute the proposal. Figure 4-2 suggests that Italian and French carmakers had more difficulties to cope with the crisis effects than their German rivals. Arguably, the declining market incentivised these manufacturers, to forge a closer coalition that opposes the German competitors more decidedly than before the crisis. They could not afford to not defend the competitive edge they would gain vis-à-vis manufacturers of heavy-engine cars from a strict emission regulation. The mechanisms through which the economic crisis caused the polarisation of the policy network are explained in greater detail below.

4.4.1 Comparison and hypothesis check

Network Graph 4-15 compares the policy domain during the decision-making processes before (left) and after the outbreak of the economic crisis. To ensure greatest possible comparability, this graph shows only actors that played a role in both policy processes. Actors that appeared in only one of the two decision-making processes were removed.

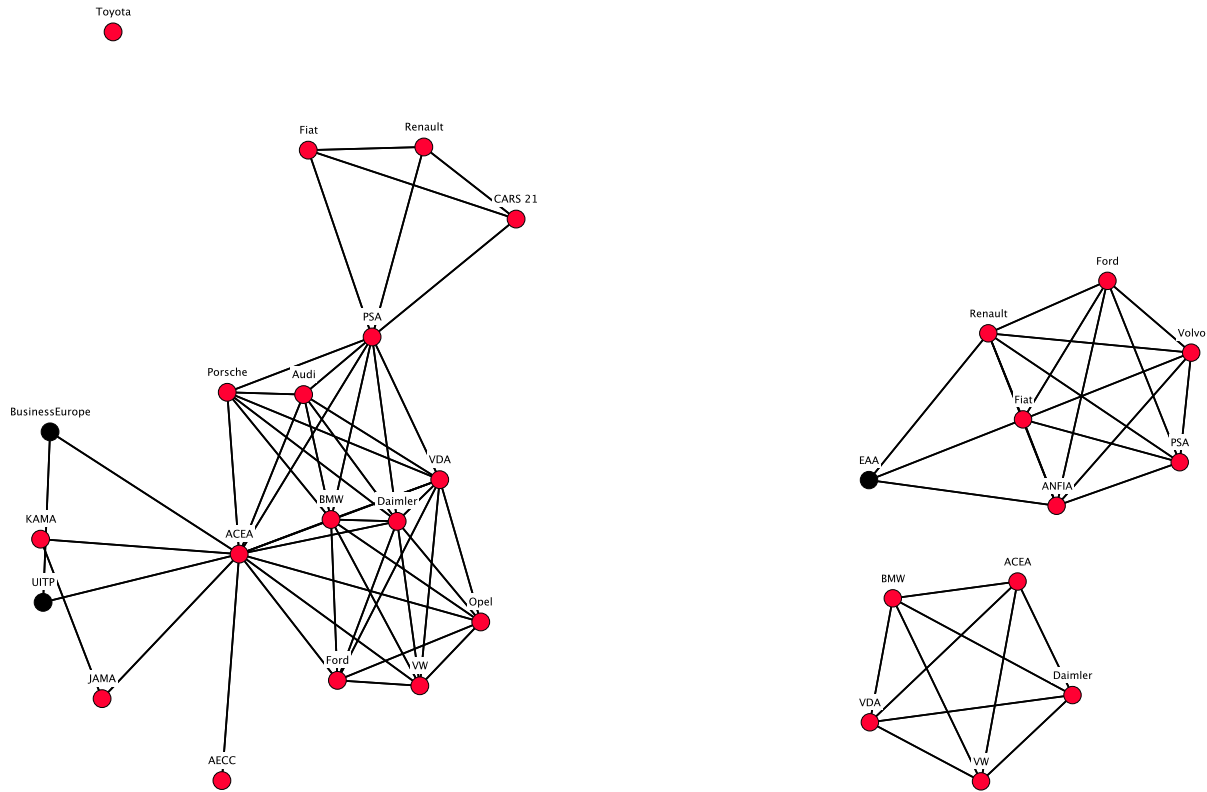


Network Graph 4-15: The policy domain of Regulation (EC) No 443/2009 (left) and Regulation (EU) No 333/2014, only actors that appeared in both policy processes.

The comparison of both policy networks clearly shows that the network after the outbreak of the crisis is polarised into two actor clusters, in contrast to the network before the outbreak of the crisis, which has only one nucleus, with a rather diffuse periphery. As the hypothesis check below shows, these observations are largely in line with the theoretical expectations.

H1: After the outbreak of the economic crisis, business actors expecting relative gains (relative losses) from climate regulation initiatives support (oppose) such initiatives more insistently than before.

This hypothesis suggests that distributional effects of a regulation within an industry explain the choice of companies’ political strategies in a policy process, and that the economic crisis polarises the policy process by ‘increasing the stakes’ (Clift & Woll, 2012, p. 320) both for manufacturers of high-emission and low-emission cars. Network Graph 4-16 ‘zooms’ into the congruence before (left) and after the crisis outbreak, showing only car industry actors (red) and actors of other industries (black).



Network Graph 4-16: Industry actors, Regulation (EC) No 443/2009 (left) and Regulation (EU) No 333/2014.

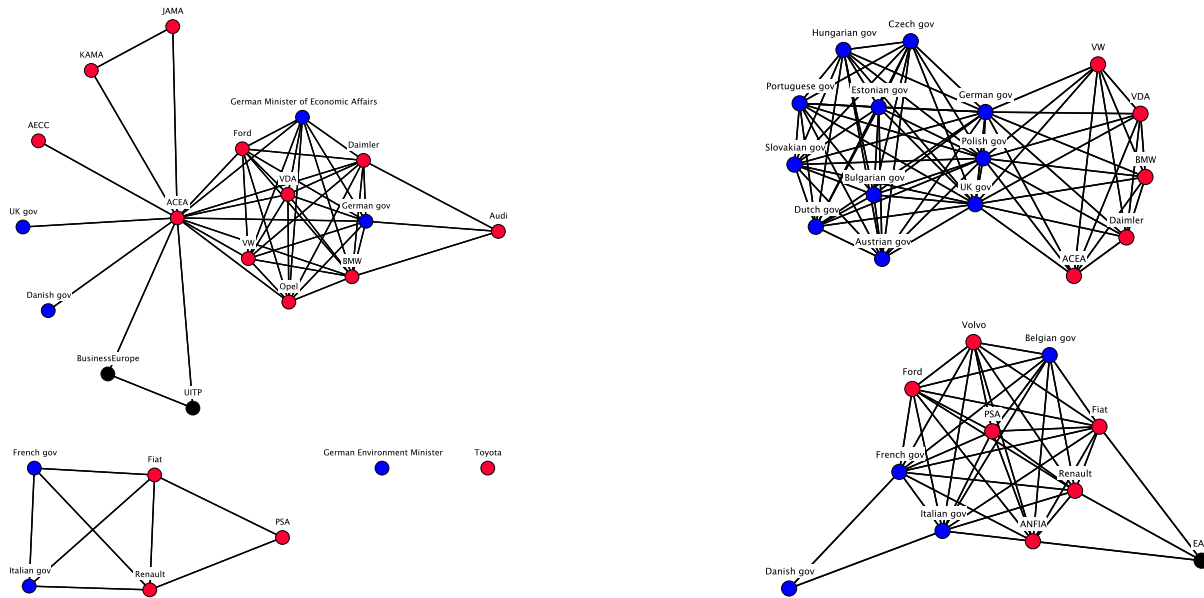
Network Graph 4-16 shows that before the outbreak of the crisis (the network to the left), the network is dominated by a cluster in the middle, consisting mainly of German car manufacturers. Actors in this coalition produce car fleets with a high average emission value. This means that they have to undertake greater efforts and face higher compliance costs to meet an emission limit regulation than manufacturers of lighter vehicles, hence facing a negative distributional effect. The German car lobby was very vocal and present in the policy process, initially choosing a strategy of total opposition against any mandatory target. Still in January 2007, the CEOs of BMW, DaimlerChrysler and Volkswagen as well as those of Ford and Opel jointly wrote a letter to the Commission, urging it to drop its plans of a 120g/km target. When the political pressure became too high to avoid a mandatory target, the German car lobby shifted its strategy towards watering down the existing plans and including as much as reliefs and exceptions into the regulation as possible. In contrast, European manufacturers of mainly low-emission vehicles such as Renault, Fiat and PSA hardly played a role in the policy debate. They seemingly also failed to advocate their position within the Association of European Carmakers (ACEA), which adopted a position close to that of the German car industry. From that follows that the competitive advantage emerging from the emission limit regulation vis-à-vis manufacturers of emission-intense cars was not valuable

enough for them to intensify lobbying for a strict regulation. Taken together, while both ‘camps’ of car manufacturers were facing different distributional effects from the 130 g/km emission limit, none of them took a particularly insistent position towards the proposal.

Just as in the policy debate concerning the 95g/km emission limit, the expected distributive effects within the regulated industry were unequal. However, the post-crisis outbreak network of business actors (the two clusters to the right in Network Graph 4-16) looks clearly more polarised and divided into two entirely separated actor clusters with no preference overlap at all. How can the striking difference to network of the pre-crisis policy debate be explained? Looking at the actor cluster at the top, consisting mostly of manufacturers of mainly low-emission cars, it becomes apparent that this cluster has a high density, i.e. almost all of the possible links actually exist. This observation, along with the higher number of statements made by actors in this cluster, allows the conclusion that the role of this actor coalition has become more active, compared to its role in the policy debate before the outbreak of the economic crisis. It has also become more insistent and pushed actively for a strict implementation of the 95g/km emission limit, as for example the Vice President of Renault Philippe Doublet made clear in a speech to the European Parliament: ‘Yes, we can reach 95 grams, there is no problem, we have the technology. But if we do not have regulation, the car industry will not follow at the right speed’ (‘Commission proposes vehicle emissions limits for 2020’, 2012). Also within the ACEA, formerly dominated by German carmakers, the ‘southern’ manufacturers blocked a common position (see above). The quote by Doublet discloses the shift of strategy: Before the outbreak of the economic crisis, manufacturers of light cars could afford not pushing for a strict regulation and the competitive advantage emerging from a strict regulation. In a more challenging economic situation and facing sales declines (see Figure 4-2), these carmakers started to actively push for a regulation that would have the best possible distributive effect on them. However, also the ‘German’ coalition of carmakers, displayed in the second actor cluster, became more assertive. Its lobbying was described with words such as ‘frantic’ and ‘furious’, causing a delay of the Commission proposal. Also the draft amendments by the German MEP Thomas Ulmer in the environment Committee and the highly unusual blocking of a done deal by the German government indicate that manufacturers of emission-intense cars geared up their lobbying efforts and were more insistently defending their policy preferences. Therefore, hypothesis 1 is accepted.

H2: After the outbreak of the economic crisis, national governments will align their preferences regarding climate-relevant regulations to those of domestic business actors to a greater extent than before.

This hypothesis suggests that after an economic shock, national governments will pay greater attention to domestic industries. In a congruence network, this would mean that the link between an industry actor and the government of its country of origin (or countries where it has a meaningful number of employees) becomes shorter after the outbreak of the economic crisis. Network Graph 4-17 displays the coalition of national governments and industry actors during the 130g/km and 95g/km negotiations. As becomes apparent in the top cluster of the 130g/km negotiations to the left, the German government maintained a close relationship to the German car industry also before the outbreak of the economic crisis. This is due to the crucial role of the automotive industry to the German economy and its close personal ties to German politics, fostered by a neo-corporatist institutional setting. It is worth noting that also other German actors in critical positions advocated the interests of the German car lobby, for instance the social democrat Enterprise Commissioner Günter Verheugen (during the 130 g/km negotiations) and the conservative EP Rapporteur Thomas Ulmer (during the 95 g/km negotiations). In contrast, while the French and Italian governments supported a regulation along the lines of the Commission proposal, they did not appear in the debate as particularly vocal advocates of their domestic car industries. Particularly France had an ambivalent role. While it was initially supporting a policy position close to that of its car industry, it took over the rotating Council Presidency in the second half of 2008. The French government had incentives to make concessions to Germany that were unfavourable for French carmakers, because it wanted to successfully pass the legislation during its Presidency. Given that the French (and Italian) car industry had fewer efforts to make to achieve the goals, the political price to keep the proposal off the agenda would have been disproportionately high for France.



Network Graph 4-17: Industry actors and national governments, Regulation (EC) No 443/2009 (left) and Regulation (EU) No 333/2014.

Again, the situation changed drastically during the policy process after the outbreak of the economic crisis, as the two clusters to the right in Network Graph 4-17 show. A high-level Commission official interviewed for this study described this policy-making process as being based on ‘pure, brutal member state interest’. The cluster at the top, consisting most importantly of the French and Italian government and French and Italian carmakers, has evolved to a coalition with a very high internal density and a high preference overlap. Both countries, severely weakened by the economic crisis, now actively advocated their domestic industries, threatened by mass layoffs. Also, this ‘southern’ coalition directly attacked Germany and openly urged it to bear the costs of an ambitious environmental regulation. For instance, the Italian environment minister said that Germany had to accept a costly regulation, stressing that ‘in the past, Italy too has had to accept outcomes as part of negotiations, our industry has had to sacrifice sometimes too’ (‘Car CO2 vote delayed’, 2013).

Also the ‘German’ coalition, displayed in the cluster to the down right, had a high density and acted cohesively. The German government also managed to rally support in the Council for its efforts to dilute the proposal. Therefore, the German government is displayed in the graph at the interface of a group of countries, many of them hosting production sites, and the lobby of German car manufacturers. The German efforts to torpedo the 95g/km target mounted in the attempt to undo

a done inter-institutional deal, an act that has been described as unprecedented and jeopardising the EU law-making procedures. A Commission official interviewed for this study confirmed that during the negotiations, member state governments acted very much on behalf of their car manufacturers. The difference to the ‘southern’ coalition is that the ‘German’ coalition behaved quite cohesively already in the policy decision before the outbreak of the economic crisis. Therefore, hypothesis H2 is partially accepted: It correctly predicted the change of the ‘southern’ coalition of carmakers and governments. The ties between industry and governments in the ‘German’ coalition, however, have been very close already before the outbreak of the economic crisis, and it is not possible to objectively state whether they have become even closer, despite the lobbying of the German government has been extraordinarily aggressive.

H3: After the outbreak of the economic crisis, political polarisation within the European Commission is stronger than before.

In line with the theoretical expectation that the increased political polarisation within the regulated industry spills over into policy domain, one should expect an increased polarisation among European Commission branches that propose, respectively oppose a strict application of the 95 g/km limit. The data in this case study, however, could not confirm this assumption for two reasons: First, the European Commission was strongly polarised in the policy process before the economic crisis because Environment Commissioner Dimas and Enterprise Commissioner Verheugen fought each other in an intensity that is rarely seen in EU politics. This unusually high conflict intensity in the before-crisis policy process prohibits a meaningful comparison with the after-crisis policy process.

A second reason is that in the post-crisis policy process, the actual goal of 95g/km was already set. The policy goal was therefore no object of contention, rather the instruments to achieve the goal and their calibration. For this reason, the European Commission was not a key actor of the policy process; rather, the main conflicts lines were between member states. Also, the German car lobby managed to delay and dilute the Commission proposal before publication, evidently without prompting notable resistance. All in all, Commission was not in the driving seat in this legislative process, as the quote by a Commission official describing the policy process as ‘pure, brutal member state interest’ illustrates. The Commission even had to express concerns ‘about the integrity of the

Council’s process’ (‘Germany continues to block emissions deal’, 2013). The spider chart in Figure 4-4 shows the percentage of statements made in both car emission policy processes, confirming how member states and the Commission switched their role as most central actors.

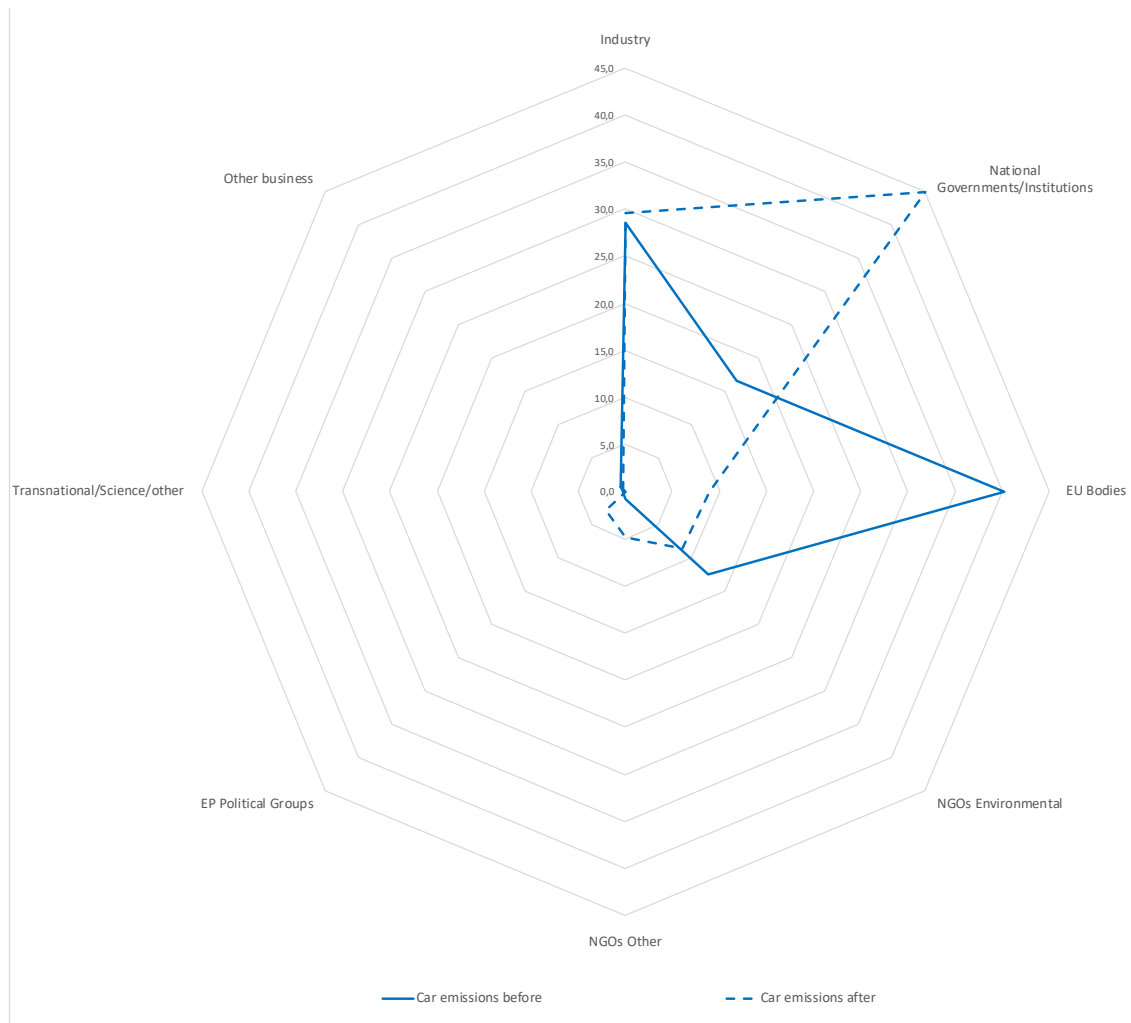


Figure 4-4: Percentage of coded statements for each actor group, case study 1.

H4: After the outbreak of the economic crisis, political polarisation within the European Parliament is stronger than before.

Before the outbreak of the economic crisis, car emission policy-making within the European Parliament took place within the usual boundaries and along typical patterns: The Environment Committee proposed environmentally ambitious amendments to the Commission proposal, the Industry Committee took a less ambitious stance. The final deal struck in the inter-institutional negotiations between Commission, Council and EP closely resembled the proposal made by the

EP Industry Committee, watering down the Commission proposal. This pattern is observable in many EU environmental policy processes.

The policy process after the outbreak of the economic crisis deviated from this pattern in some important aspects: The EP Environment Committee voted for a draft so weakened it even received acclaim by the German car industry. The Rapporteur of the of the Environment Committee, the German conservative MEP Thomas Ulmer, had a constituency heavily depending on a car plant, and hardly surprising, he suggested some substantial reliefs for car manufacturers. The Environment Committee was split: Socialist, liberal, and green Committee members rejected his approach, while EPP and ECR backed it. Eventually, the Committee voted to follow his suggestions to a large extent. Through EP representatives, some of the German car industry's most urgent demands found their way into the final legislative compromise in the inter-institutional negotiations between Commission, Council and Parliament. In that sense, there was a clear spill-over of crisis effects from the industry into the European Parliament. While the network data collected for this case study are too scarce for telling if the polarisation among EP political groups and Committees was stronger than before the outbreak of the economic crisis, it becomes apparent that the conflict intensity that increased in the policy domain in total also increased within the Parliament. H4 is therefore cautiously accepted.

H5: After the outbreak of the economic crisis, environmental lobby groups pursue the same political strategy as before.

This hypothesis is clearly accepted. In both the policy process before and after the outbreak of the crisis, environmental lobby groups lobby for a strict version of the emission limit policy. They also pursued the same strategy in both policy processes, criticizing weak proposals and amendments, and praise tougher ones. In both decision-making processes, they did not manage to influence the final policy output or to influence actors in the policy domain in any way (in contrast to the biofuel domain, as will be shown later).

H6: After the outbreak of the economic crisis, political polarisation in the policy domain is stronger than before.

According to the conceptual framework, the political polarisation spilling over from regulated industries affects multiple kinds of actors within a policy domain, eventually leading to a politically

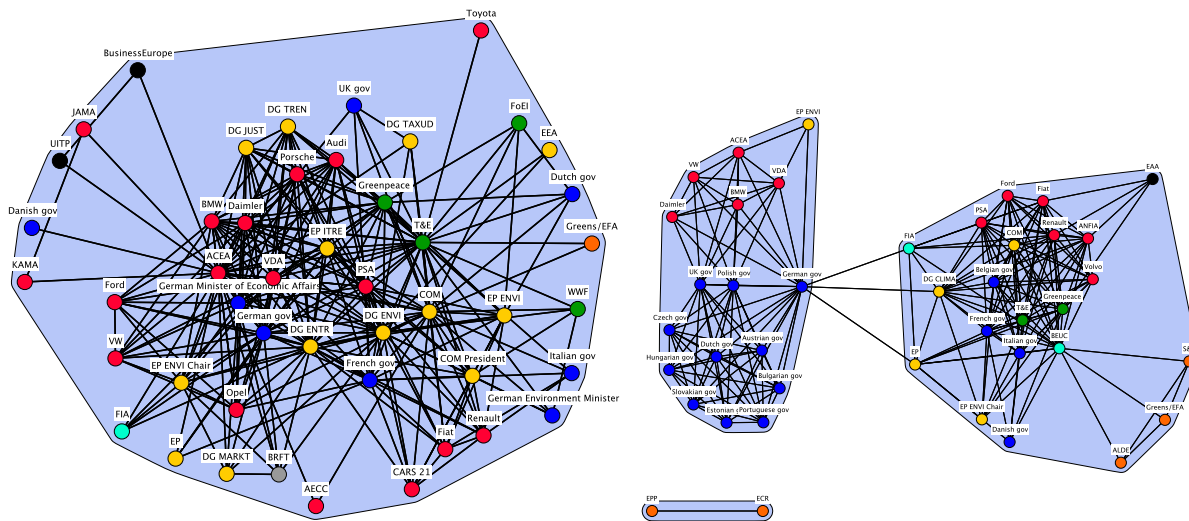
polarised policy domain as a whole. In the domain of EU emission limits for passenger cars, this is clearly the case. Taking a look on the behavioural changes on individual actor level, it becomes apparent that the strategic behaviour of key actors has changed: In line with the theoretical expectation, they became less flexible in their political preferences and supported a smaller number of policy items that were on the negotiating table.

Before crisis outbreak		After crisis outbreak	
Actor	Supported concepts	Actor	Supported concepts
ACEA	6	BEUC	4
Commission	8	DG CLIMA	3
DG ENTR	4	Fiat	3
DG ENVI	8	German Gov.	6
EP ENVI	4	Italian Gov.	2
EP ITRE	3	Renault	3
French Gov.	5	T&E	4
German Gov.	5		
T&E	5		
VDA	3		
Mean	5,1	Mean	3,6

Table 4-4: Policy items supported by key actors, case study 1.

The key finding of this case study is that the economic crisis caused a polarisation of preference-based actor coalitions. The case study thus confirms the most important assumptions of the conceptual framework: Policy domains can be conceptualised as preference-based actor clusters, and an economic crisis polarises these clusters. Network Graph 4-18 visualises the clusters that were computed by the cluster analysis (see chapter Research Design). In the policy process before the outbreak of the economic crisis (left), only one cluster was computed, containing also some peripheral actors. After the outbreak of the economic crisis, the policy domain fell apart into two large clusters of proponents and opponents of a strict regulation, as discussed above²³. Taken together, the results of this case study are confirmative of the key assumption that an economic shock causes political polarisation.

²³ The small cluster consisting of two nodes is an artifact.



Network Graph 4-18: Cluster analysis, Regulation (EC) No 443/2009 (left) and Regulation (EU) No 333/2014.

4.4.2 Impact of the economic crisis

Throughout the previous sections, it became clear that the policy processes before and after the outbreak of the economic crisis differ strongly in multiple aspects. In how far can the observed changes be attributed causally to the economic crisis? Several actor statements indicate that it was the economic shock that informed a great part of the observable actor preferences and strategies. For instance, an anonymous German government official criticised the Commission proposal for the 95g/km target as a ‘gift to struggling French and Italian carmakers’ (‘Commission proposes vehicle emissions limits for 2020’, 2012). Even the German chancellor Angela Merkel justified the fierce German opposition against the deal struck between Council and Parliament with the economic crisis: ‘At a moment when we sit together for days to talk about employment, we also need to be careful not to weaken our own industrial base’ (‘Emissions impossible?’, 2013). Also in the European Parliament, the economic crisis changed usual patterns of decision-making: The environment Committee, usually the most environmentally ambitious EU body in the policy-making process, actually further watered down the Commission proposal. Also the conducted interviews with Commission officials leave no doubt that it was the economic crisis that caused the observed phenomena in the policy domain of car emission limits. Taken together, the collected evidence clearly suggests that the economic crisis caused political polarisation and provided elucidating insights into how economic shocks are linked to changes in political action patterns.

The next case study will show if the gained findings will hold true also in policy domains within a more global setting.

5 Case study 2: The inclusion of aviation into the Emissions Trading System

This case study takes place in about the same time period as the previous one, investigating the EU's efforts to extend its emission trading scheme on aviation. Both case studies are about prominent EU policies to combat climate change, and both industries were strongly affected by the economic crisis. Therefore, the hypotheses formulated in the conceptual framework should apply also for this case study. Table 5-1 provides a list of the most frequently used technical terms in this chapter in order to facilitate the reading.

Term	Explanation
Cap and Trade	Emission trading mode. A cap is set on the total amount of certain greenhouse gases that can be emitted by airlines covered by the system. The cap is reduced over time so that total emissions fall. Within the cap, airlines receive or buy emission allowances which they can trade with one another as needed. After each year a company must surrender enough allowances to cover all its emissions, otherwise heavy fines are imposed. If an airline reduces its emissions, it can keep the spare allowances to cover its future needs or else sell them to another company that is short of allowances.
Chicago Convention on International Civil Aviation	Agreement drafted in 1944 by 54 nations establishing the core principles of international air transport and the ICAO.
Earmarking	Reserving a certain amount of tax or emission trading revenue for specific budget purposes, e.g. measures against climate change.
Intra-EU flights	Flights within the EU
International flights	Flights between an EU country and a non-EU country
Mutual agreement	Requirement for international regulations between two ICAO member states. Abolished at the 37 th ICAO assembly 2010. Thus, the ICAO no longer considered it necessary that the EU must reach bilateral agreements with non-EU states in order to include flights from these countries into the ETS.
Non-CO ₂ emissions	Aviation emissions other than CO ₂ , such as NO _x and SO ₂ increase the impact of aviation on climate change at least by factor 2. They also impact cloud formation, ozone generation, and methane reduction.
Auctioning (distribution method)	Allowances are auctioned among airlines.
Benchmarking (distribution method)	Allowances are allocated based on an emissions factor, e.g. industry average emissions, emissions of the industry leader, best available technology (BAT) etc.
Grandfathering (distribution method)	Allowances are allocated based on an airline's historical emissions.

Table 5-1: List of frequently used technical terms, case study 2. Source: European Commission.

5.1 Description of the policy field

5.1.1 Regulatory history

The air transport sector consists of a very heterogeneous set of actors with complex interdependencies (Meersman & Van de Voorde, 2008). Just as the automotive sector, aviation is a cross-cutting policy field, covering aspects such as manufacturing, airports, traffic management, safety standards and security. Compared to other transport modes, aviation emissions were regulated relatively late. A distinctive feature of aviation and its regulation is its supranational character. The United Nations Framework Convention on Climate Change (UNFCCC, adopted in 1992) treats aviation emissions differently than emissions from other transport modes: Due to lacking consensus on whether and how to account for greenhouse gas emissions from international flights, only emissions from domestic flights are part of the parties' national emission totals. As a result, international aviation is not part of the emission limitations set out in the Kyoto Protocol. The parties merely agreed that developed countries must pursue the limitation or reduction of aviation emissions through the ICAO, without specifying how, how much, and until when.

The ICAO – a sluggish giant

The International Civil Aviation Organization (ICAO) is a UN agency consisting of 193 member states, among them all EU member states. The ICAO deals with issues concerning the international administration and governance of aviation. In 2004, the ICAO declared it as one of its environment goals to 'limit or reduce the impact of aviation greenhouse gas emissions on the global climate' ('Assembly Resolutions in Force (as of 8 October 2004)', 2005, p. I38). Every three years, the ICAO assembly adopts a revised and updated version of a Consolidated Document that specifies its policies and practices concerning climate change mitigation and environmental protection. Having almost 200 member states, the ICAO has obviously difficulties in agreeing on binding policies: In 2004, it decided to not pursue further efforts to install an aviation-specific emission-trading system. The EU condemned this decision, as it decided already in its 2002 Sixth Community Environment Action Programme to undertake unilateral steps against aviation emissions if the ICAO did not agree to do so. Accordingly, the EU member states placed a reservation on this resolution and reserved their right to apply market-based measures on a non-discriminatory basis. As a reaction, the ICAO in 2007 endorsed the option for member states to account emissions from international aviation into domestic trading schemes, whereby states are urged not to force emission trading upon

airlines from other member states unless on the basis of mutual agreement. Taking a further step, it was decided at the 2010 ICAO assembly to develop a ‘framework for market-based measures’. Eventually, it took the ICAO until October 2016 to finally agree on a ‘global market-based measure’ in which 66 states, representing 86.5% of the international aviation activity, will participate voluntarily from 2021 onwards.

Unilateral efforts by the European Union

In reaction to the passiveness of the ICAO and in order to meet the EU’s obligations stipulated in the Kyoto Protocol, the Commission proposed an emission trading Directive in 2001, suggesting a mandatory cap-and-trade scheme (COM (2001) 581). Two years later, the European Parliament and the Council passed Directive 2003/87/EC, establishing the ETS from 2005 onwards as a main pillar of the EU climate strategy. The ETS intends to reduce ‘greenhouse gas emissions in a cost-effective and economically efficient manner’ (European Parliament, Council of the European Union, 2003b, p. 32). It sets a maximum (‘cap’) on the total amount of greenhouse gases that the currently more than 11.000 installations covered by the scheme are allowed to emit. Emission allowances are then either auctioned, allocated for free or traded. If an installation emits more greenhouse gases than it is allowed to, it must acquire additional allowances. Conversely, installations that emit less than it is allowed to, it can sell their surplus allowances. Overall, the allowance prices have been lower than intended, partly because the demand decreased during the economic crisis.

Having played a leading role in climate negotiations under the UNFCCC (Grubb, Vrolijk, & Brack, 1999) and unsatisfied with the ICAO’s continuing inertia, the European Commission argued in a 2005 Communication titled ‘Reducing the Climate Change Impact of Aviation’ that after 2012, international aviation should be considered in the EU climate change policy. Simultaneously, under the new Environment Commissioner Stavros Dimas, it started to assess in how far aviation could be included into the recently introduced Emissions Trading System (ETS) by commissioning a report (Wit, Boon, Cames, Deuber, & Lee, 2005) and conducting a public consultation (European Commission, 2005a) in early 2005. In November 2008, the European Parliament and the Council passed Directive 2008/101/EC, including aviation activities into the ETS from 2012 on. The policy-making process of this Directive is the pre-crisis policy decision of this case and will be scrutinised in detail below.

The economic crisis – headwind for the EU

Under the effect of the worldwide economic crisis, it soon became apparent that non-EU states opposed the EU's unilateral approach to trade aviation emissions. The opposition became the stronger the closer the date of entry into force came. The controversy escalated at the ICAO council meeting in November 2011. A group of 26 states, among them Brazil, China, India, Japan, Qatar, Russia, and the USA, launched a declaration which was later adopted by the ICAO council. The declaration described the inclusion of international aviation into the EU-ETS as discriminatory and violating international law and urged 'the EU and its member states to refrain from including flights by non-EU carriers to/from an airport' within EU territory (International Civil Aviation Organization, 2011, p. 4). Giving in to the pressure, the European Parliament and the Council adopted Decision (377/2013/EU) to 'stop the clock' by temporally exempting flights to or from non-EU territory. After an intense argument and acknowledging that the ICAO agreed in September 2013 on a timeline to eventually install a global emissions trading mechanism, the EU decided in April 2014 to permanently exempt foreign airlines from the obligation to pay for carbon dioxide emissions they emit (Regulation (EU) 421/2014). The decision-making processes leading to Decision 377/2013/EU and Regulation (EU) 421/2014) constitute the post-crisis policy decision of this case study.

5.1.2 The impact of the economic crisis on the industry

'The earth is trembling, our industry is shattered', described Giovanni Bisignani, CEO of the International Air Transport Association (IATA), the state of the global aviation sector in 2009. His association, representing about 230 airlines, expected a loss of 9 billion US Dollar for 2009. The situation of the European airline business was equally troubled: A report commissioned by the European Parliament's Committee on Transport and Tourism concluded that the economic crisis had a strong impact on the EU's air transport sector (Macário & Van de Voorde, 2009). *Figure 5-1* illustrates the disruptive effect of the crisis on the sector. Air transport is a more sensitive indicator for economic activity than any other transport mode. Any decrease in economic activity, industrial production and trade will inevitably result in decreasing demand for transport (Blauwens, De Baere, & Van de Voorde, 2008). The economic crisis starting in 2008 affected the air transport sector in several ways: It caused a strong decrease of transport demand both of passengers and goods, a reduction of supply, changed transport flows, lower company profits and worsened financial

situations, forcing actors to change business strategies (Macário & Van de Voorde, 2009). Only in 2009, nine passenger airline companies went bankrupt, among them SkyEurope and Olympic Airlines (Oprea, 2010). By October 2009, ten major European airlines had announced almost 30.000 job cuts (Macário & Van de Voorde, 2009). The economic shock also triggered a profound structural consolidation of the sector. For example, when SkyEurope went bankrupt, a part of its route network was immediately taken over by competitor Wizz air.

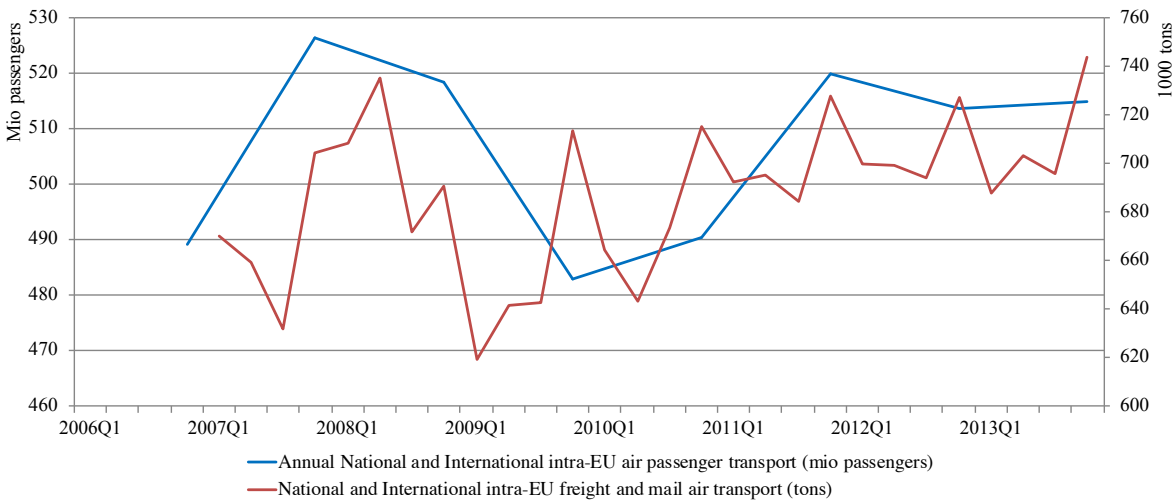


Figure 5-1: Passenger and freight air transport in the EU 25-28. Source: Eurostat, 2015.

Within the European aviation sector, low-cost airlines suffered less from the crisis than the rest of the industry: They managed to increase their market share from 34% to 37% between 2008 and 2010 (Figure 5-2). The rise of low-cost aviation was fuelled by the economic crisis, as many airlines went bankrupt or were forced to give up routes, which were then taken over by low-cost carriers. Therefore, the steep increase of low-cost flights can be seen as another indicator of a strong crisis impact.

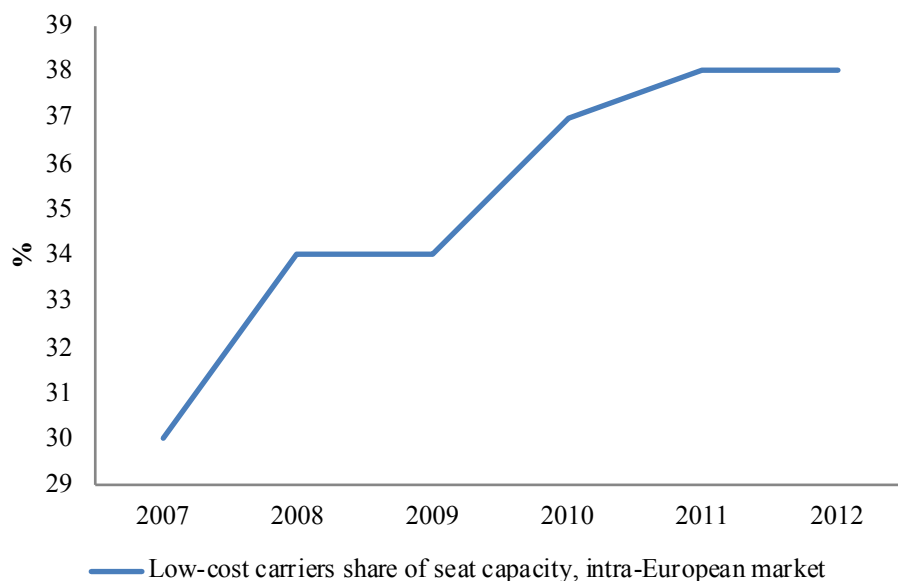


Figure 5-2: Share of seat capacity offered by low-cost carriers in the intra-European market. Source: Wielgoss, et al., 2013.

5.2 Analysis of the policy-making process before the outbreak of the economic crisis (Directive 2008/101/EC)

In the early and mid 2000s, environmental protection and climate change mitigation were flagship policy projects of the European Union. The inclusion of aviation into the EU emission trading scheme was part of these ambitious efforts to reduce the carbon dioxide imprint of the European Union. This case study will unveil how fragile these ambitious policies are when economic conditions turn to the worse, how the roles of political actors change, and how much EU environmental policies depend on the goodwill of the international community. Table 5-2 provides the timeline of the decision-making process before the crisis outbreak.

Date	Event/Document	Main content
27/09/2005	Commission Communication 'Reducing the Climate Change Impact of Aviation'	Justification of action at Community level; outline of policy options, with a focus on emissions trading; suggests inclusion of all flights departing from EU.
20/12/2006	Commission Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community	Inclusion of aviation into ETS; intra-EU flights from 2011; international flights from 2012; EU and international flights explicitly treated equally; : Total number of allowances 100% of the average emissions from the period between 2004 and 2006; unspecified percentage of allowances allocated free of charge, based on a benchmark, calculated by dividing the number of allowances allotted for benchmarking by

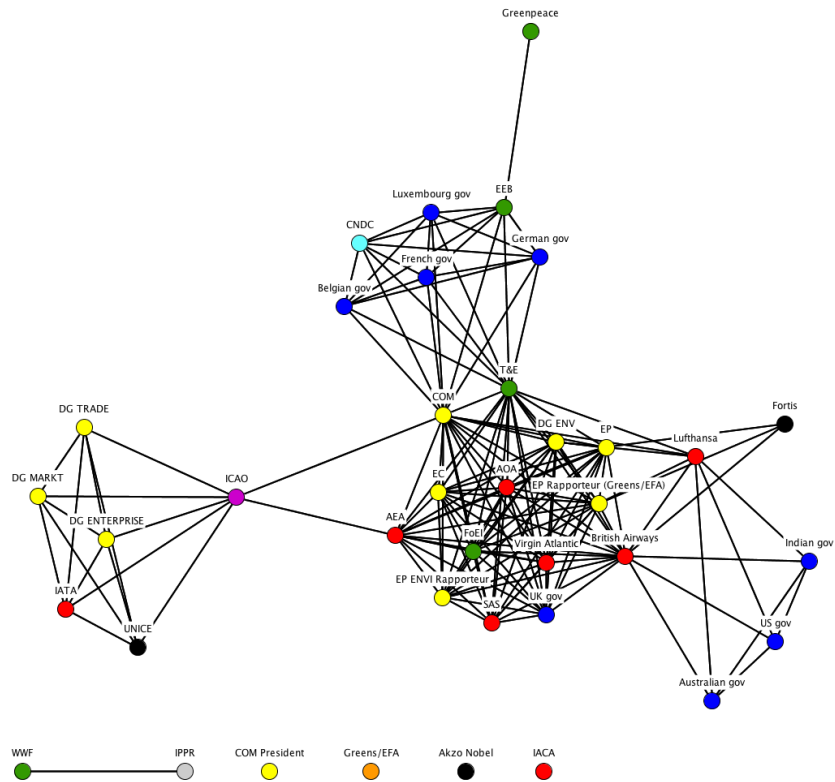
		the sum of tonne-kilometre data; unspecified share of allowances distributed by auctioning; airlines can buy allowances from other industries in the ETS.
13/11/2007	EP First Reading	Approval of COM Proposal with amendments: Trading start for all flights 2011; total number of allowances 90% of the average emissions from the period between 2004 and 2006; 25% of allowances distributed by auctioning; earmarking.
20/12/2007	Common Position by the Council	Trading start for all flights 2012; total number of allowances 100% of the average emissions from the period between 2004 and 2006; 10% of allowances distributed by auctioning; earmarking.
26/06/2008	Inter-institutional agreement	Trading start for all flights 2012; total number of allowances 97% of the average emissions from the period between 2004 and 2006 for 2012; 95% for 2013-2020; 15% of allowances distributed by auctioning; earmarking.
08/07/2008	EP Second Reading	Approval of inter-institutional agreement
24/10/2008	Approval by the Council of the EP amendments at the 2 nd reading	
19/11/2008	Signature	

Table 5-2: Timeline of the legislative process before the outbreak of the economic crisis, case study 2.

5.2.1 Analysis of the policy-making process before the publication of the Commission proposal on 20 December 2006

An EU-wide regulation of aviation emissions: Early considerations

Between 1990 and 2000, aviation emissions from industrialised Kyoto countries increased by over 40%. The fact that aviation emissions were a largely unregulated source of pollution became increasingly unacceptable for the European Commission. During the run-up of the ICAO general assembly in September 2004, a Commission official pointed out that ‘the status quo is not an option’ (‘Commission ready for take-off over the airplane greenhouse gases’, 2004). Increasingly frustrated by the stalling tactics of ICAO members such as the United States, Canada and Russia, Environment Commissioner Margot Wallström said that the EU ‘cannot wait forever’ (‘Commission ready for take-off over the airplane greenhouse gases’, 2004).



Network Graph 5-1: The policy domain before the publication of the Commission proposal, Directive 2008/101/EC.

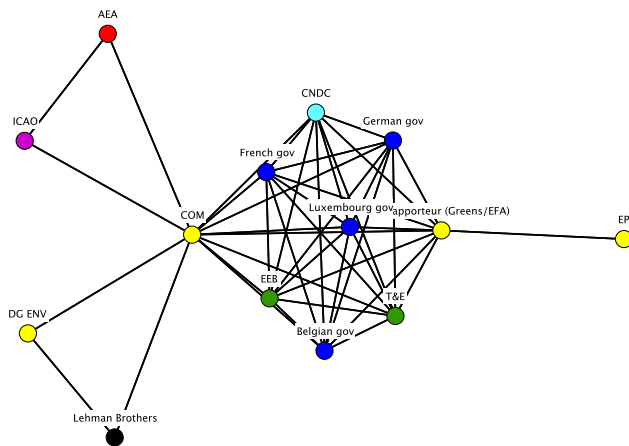
From this point of departure, the European Commission began to assess regulatory options. As an overview of the first phase of the decision-making process, Network Graph 5-1 displays the policy domain between these early assessments and the publication of the Commission proposal on 20 December 2006. At this early stage, the network graph is fragmented into several distinct actor coalitions: The large and dense coalition in the middle of the graph consists mainly of the European aviation industry, Commission and EP actors as well as environmental NGOs that proposed a balanced European approach. This coalition has a high density, meaning that members have very similar political preference. The fact that members of this coalition are very diverse indicates that there is room for consensus in later negotiations. To the left, the graph shows a smaller and less dense coalition consisting of the ICAO, the IATA and business-friendly Commission DGs, supporting a weak regulation. To the top, there is a coalition of EU member states and environmental NGOs that favour an environmentally ambitious proposal. To the right, there is a relatively loose group of non-EU states that lobbies against unilateral action by the EU.

In preparation of legal action, the European Commission conducted a Public Consultation between March and May 2005 (European Commission, 2005a). 99.5% of the responding organisations (among them 60 companies and business associations as well as 79 NGOs) overwhelmingly supported the inclusion of aviation into efforts to mitigate climate change. Thus, the European aviation industry tried not to prevent the EU from regulating the sector. This reflects also in Network Graph 5-1, where the central cluster of the network consists mainly of EU institutional branches and aviation industry actors. Instead of impeding legislation, the industry's lobbying efforts aimed at achieving the most beneficial policy option. According to industry respondents to the Public Consultation, this option was clearly emissions trading, preferably under a global scheme administered by the ICAO. Apparently, the industry considered the demand for regulation from the European Commission, national governments and the wider public as so high that regulation was unavoidable. Therefore, it invested its lobbying resources in minimising compliance costs and pushing for a 'cheap' regulation, rather than in total, but futile opposition. This lobbying strategy is described as 'hedging' (Meckling, 2015). Taken together, the dominance of the central cluster in Network Graph 5-1, having a common policy preference on the 'middle ground' indicates that there is no fundamental conflict in the EU policy domain.

Reducing the number of policy options

The second most discussed policy option was an EU-wide fuel tax. A coalition that supported such a tax is visualised in Network Graph 5-1 as the central cluster to the top. Network Graph 5-2 zooms into this debate, showing that there was support for fuel taxation among a number of important actors (the central cluster). According to the Public Consultation, a fuel tax was the preferred option of environmental NGOs that worried that emissions trading would be ineffective. The European Commission was testing the water regarding such a tax already in June 2004 in a funding report, describing an EU-wide aviation fuel tax as a potential future revenue source for the EU budget. The industry rejected such a tax, claiming that it would negatively impact air travel demand, while environmental forerunners such as Germany, but also France, Belgium and Luxemburg indicated support for a tax-based approach ('Air tax doubts fly in from all angles', 2005). Also the European Parliament supported efforts to introduce a fuel tax. In July 2006, it voted by a large majority to adopt a (legally not binding) report drafted by the Rapporteur Caroline Lucas (Greens/EFA), endorsing the Commission's efforts to include aviation into an emissions trading system (Committee on the Environment, Public Health and Food Safety, 2006). However, the so-called 'Lucas report'

also endorsed ‘the Commission’s intention to pursue the introduction of kerosene taxes’. This is rather surprising because in its Communication, the Commission clearly spelled out that ‘the wider application of energy taxes to aviation cannot be relied upon as the key pillar of a strategy to combat the climate change impact of aviation in the short and medium term’ (European Commission, 2005a). The main reason for the Commission to abandon fuel taxes was that fuel taxation for international flights is regulated in bilateral air service agreements (ASAs). On routes where non-EU carriers enjoying tax exemptions have traffic rights, an EU-wide fuel tax would discriminate EU carriers. Another, more pragmatic reason was that fuel taxes were unlikely to pass the Council of Ministers, where tax legislation requires unanimity whereas emission trading requires only a qualified majority.



Network Graph 5-2: The policy domain, debate on fuel taxation, Directive 2008/101/EC.

Turf battles within the European Commission: Agreeing on a Communication

An emissions trading scheme was hence the remaining main candidate for a legislative proposal. Nevertheless, the file was highly controversial within the European Commission. Different Directorate Generals within the Commission were at loggerheads over whether the Commission should propose such a scheme. Unable to come to an agreement within the College of Commissioners, President Barroso had to postpone the publication of an impact assessment in July 2005. Reportedly, Internal Market Commissioner Charlie McCreevy, Trade Commissioner Mandelson and Enterprise Commissioner Günter Verheugen voiced strong opposition against the plans of Environment Commissioner Stavros Dimas (‘Commission set to ditch environmental policies’, 2005). This conflict is exemplary for the struggle between economic and environmental goals and observable in many other EU environmental policy fields. In the early 2000s, carried by a wave of environmental enthusiasm, the Commission endorsed the role of an environmental

leader. Yet, it understood itself as an economically liberal institution aiming at reducing bureaucratic burdens for businesses. For this reason, a DG Environment official commented that ‘this is a case of credibility for the Commission, which will show its true colours with this decision’ (‘Commission set to ditch environmental policies’, 2005). On 27 September 2005, it adopted a Communication on Reducing the Climate Change Impact of Aviation, concluding that ‘the best way forward from an economic and environmental point of view, lies in including the climate impact of the aviation sector in the [Community] scheme’. Furthermore, it stated that ‘in environmental terms, the preferred option is to cover all flights departing from the EU’ (European Commission, 2005a). In order to gather expert knowledge, involve stakeholders and assess different policy options and designs, an ‘Aviation Working Group’ met four times between October 2005 and April 2006. It consisted mainly of industry representatives and experts nominated by member states, but also of environmental NGOs.

The Council of Environment Ministers endorsed the Communication and adopted conclusions that urged the Commission to draft a legislative proposal by the end of 2006. Also the European Parliament agreed that emissions trading is the most appropriate approach, however, it demanded setting a rigorous cap (without specifying a value) and the full auctioning of the initial allocation. ‘In spite of heavy lobbying from airlines in recent weeks’, according to Rapporteur Lucas, the Parliament further demanded setting up a separate ETS instead of including aviation into the existing softened and unstable ETS, or at least a separated pilot phase from 2008 to 2012 before the incorporation into the wider ETS (‘Airlines should have own emissions trading scheme, MEPs say’, 2006). In contrast, the Commission considered the existing ETS as sufficiently stable and efficient and hence saw no reason not to include aviation into the existing one.

Wish lists presented by the industry and environmental campaigners

Airlines kept on arguing that aviation emissions are a negligible fraction of the total carbon dioxide emissions. They objected the Commission’s claim that the regulation’s costs for airlines are bearable and warned that emission trading increase ticket prices. They also called for more investments into research and development of low emission fuels and fuel-efficient technology. As mentioned above, the aviation industry agreed on emission trading in principle and considered it the least costly option if the status quo is not preservable. However, many airlines would have preferred a global trading scheme administered by the ICAO. Lufthansa, for instance, argued in a position paper that

a European scheme would distort global competition ('EU airlines could face CO₂ trading regime', 2005). There was also disagreement within the industry about how to allocate allowances within a trading scheme. Low cost carriers also argued that any allocation should be based on a benchmark that considers aircraft efficiency and operational practices. Also the Association of European Airlines preferred an allocation based on 'benchmarking'. Other airlines preferred 'grandfathering', i.e. an allocation based on historical passenger numbers. Low cost airlines, supported by NGOs, also pushed for a wider scope of the scheme than suggested in the Commission Communication, including all flights arriving and departing from the EU. Such a design would mean additional burdens for airlines flying to international destinations, while low cost carriers mainly fly within the EU. Low cost carriers thus tried to shift the cost from their shoulders to those of classic carriers, a common pattern in regulatory policy-making described e.g. by Meckling (2015).

The idea of emission trading was met with scepticism among environmental NGOs. The European Environmental Bureau, for instance, argued that emission trading was insufficient and insisted on a carbon dioxide based aviation tax ('Green groups stir as ministers put GM food on Council menu', 2005). Nevertheless, some NGOs reported in the Public Consultation that emission trading was an acceptable policy option, provided a trading scheme fulfilled strict criteria, such as a cap and trade system with ambitious targets, allowance auctioning, and a sector-specific trading system. They also demanded the inclusion of non-carbon dioxide effects, arguing that carbon dioxide makes up only a quarter of the climate change impact of aviation ('No taxes, no emission reduction targets', 2006).

Reactions from overseas

As aviation is a global business, the debate about an EU-wide emissions trading scheme for flights had an important international dimension. The most contentious issue was whether all flights using European airports were to be included, or only intra-EU flights. European airlines agreed that the trading scheme should apply to non-EU carriers on the same basis as to EU carriers. However, fearing additional burdens for their airlines, the US government along with a number of other nations such as Australia and India, contested the legal analysis of the European Commission. These countries are visualised as a cluster to the right in Network Graph 5-1, arguing that a unilateral EU scheme covering also international flights would violate the Chicago Convention on International Aviation. Also the International Association of Air Transport (IATA) criticised the

EU for taking unilateral steps and preferred an international, preferably voluntary approach. The Environment Commissioner contested claims of violation and declared that the Commission carefully checked legal implications, concluding that the inclusion of aviation is compatible with international trade rules. Environmental NGOs backed the Environment Commissioner in his efforts, suggesting that a scheme covering only domestic flights would affect 55-60 megatons of carbon, whereas the inclusion of international flights covered up to 250 megatons ('EU and US to square up over air pollution', 2006).

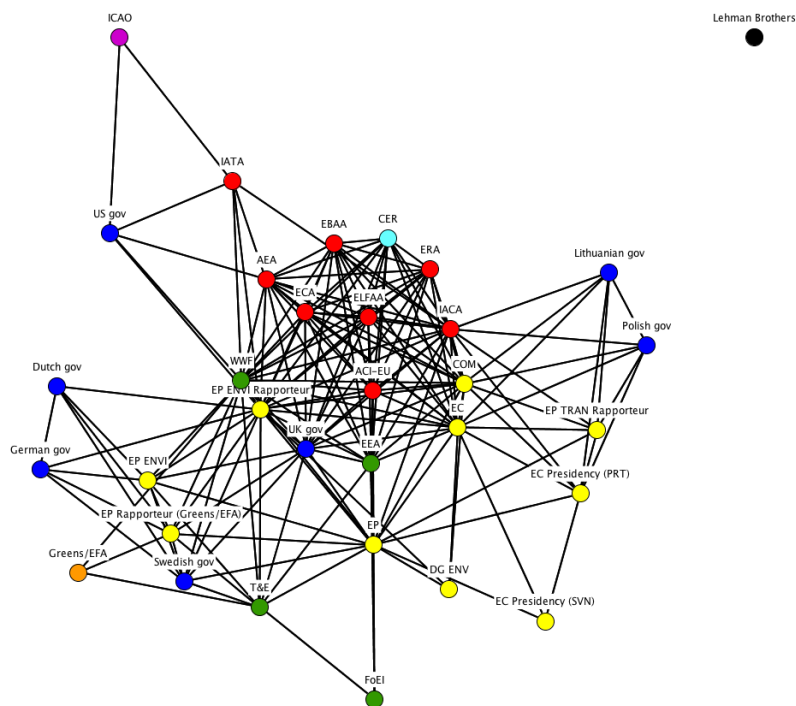
Publication of the Commission proposal

On 20 December 2006, the Commission published its proposal for a Directive to include aviation into the ETS (European Commission, 2006c). Apparently in an attempt to appease the United States, it suggested covering intra-EU flights from 1st January 2011 and international flights one year later. Nevertheless, it explicitly spells out that domestic and international aviation will be treated equally, a matter that was of great importance to the European aviation sector. The proposal suggests determining the total number of allowances by reference to the average emissions from aviation between 2004 and 2006. An unspecified percentage of the allowances should be allocated free of charge to the airlines, based on a benchmark. This benchmark should be calculated by dividing the number of allowances allotted for benchmarking by the sum of tonne-kilometre data submitted by the airlines to the Commission. However, the proposal also stipulates that a specific share of allowance auctioning will take place within a yet to be specified mechanism. Furthermore, airlines will be allowed to buy allowances from other sectors in the ETS. Environment Commissioner Dimas defended the proposal as well-balanced, while European airlines such as British Airways criticised the draft for being overly ambitious ('Commission stands by flight emissions regime', 2006). Despite its participation in the Aviation Working Group, the AEA complained it had not been sufficiently consulted ('Aviation emissions plan hits turbulence', 2007). Also the United States government repeated its concerns and called for a global governance of aviation emissions.

5.2.2 Analysis of the policy-making process after the publication of the Commission proposal on 20 December 2006

Reactions to the Commission proposal

Network Graph 5-3 displays the policy domain in the period between the publication of the Commission proposal on 20 December 2006 and the adoption of the policy on 18 July 2008. When the Commission proposal was on the table, actors in the policy domain started bargaining about amendments, the calibration of policy instruments and implementation details. This differentiation of policy preferences reflects in Network Graph 5-3.



Network Graph 5-3: The policy domain after the publication of the Commission proposal, Directive 2008/101/EC.

The European aviation industry intensified its lobbying efforts after the Commission had published its legislative proposal. Five major European aviation associations²⁴, the IACA (International Air Carrier Association) and three European aircraft manufacturers (Airbus, Eurocopter, and Safran), visible as the central cluster in Network Graph 5-3 above, teamed up to commission an impact assessment of the proposed legislation. While the study conducted by Ernst & Young concludes that the inclusion of aviation into the ETS is ‘a positive and innovative step’, the Commission proposal

²⁴ Association of European Airlines (AEA); European Business Aviation Association (EBAA); European Cargo Alliance (ECA); European Low Fares Airline Association (ELFAA); European Regions Airline Association (ERA).

is a text ‘based on unrealistic assumptions’ that ‘dangerously underestimates’ the consequences for the business. It argues inter alia that the proposed legislation will result in higher prices and a loss of passengers. Furthermore, airlines would not be able to pass on the costs to passenger, and in consequence would have fewer resources to invest in the development of green technologies. On the other side of the political spectrum, the NGO Friends of the Earth (to the lower middle of Network Graph 5-3) also commissioned a report. The study conducted by the Tyndall Centre for Climate Change Research concludes that the current and envisaged allowance prices will have virtually no impact on the demand for flights, even with much higher allowance prices. To avoid complete ineffectiveness, the report urges policy-makers to include aviation into the ETS preferably before 2010, allocate all allowances by auctioning, and set the total number of allowances to 50% of the 2004-2006 levels (Friends of the Earth, 2007).

The scope of the trading scheme remained one of the most contentious issues in the remainder of the debate. Shortly after the publication of the Commission proposal, the United States (top left in in Network Graph 5-3) intensified their efforts to exclude international flights from the scheme, targeting especially EU member states, as they would have to propose changes to the proposal in the Council. The US Deputy Assistant Secretary of State for Transport, John Byerly, described the proposed scheme as ‘illegal and unworkable’ and announced to ‘try and persuade colleagues in Europe that this is not a way to follow’ (‘US begins intense lobby against EU emissions scheme’, 2007). The main argument of the United States was still that the scheme violates the Chicago Convention. The EU insisted on the opposite interpretation: The legal services of both the Commission and the Council stated that the only international standard stipulated in the Chicago convention applying to all aviation is the principle of non-discrimination. Accordingly, they argued that to avoid discrimination, a trading scheme would need to apply to all flights using EU airspace (‘Aviation emissions plan hits turbulence’, 2007). Like the US government, the International Association of Air Transport (IATA) claimed that the scheme was illegal. Beyond that, it repeated its calls for a global, voluntary scheme under an ICAO regime between ‘like-minded countries’ (‘Climate change enters the jet age’, 2008).

The 36th ICAO Assembly 2007

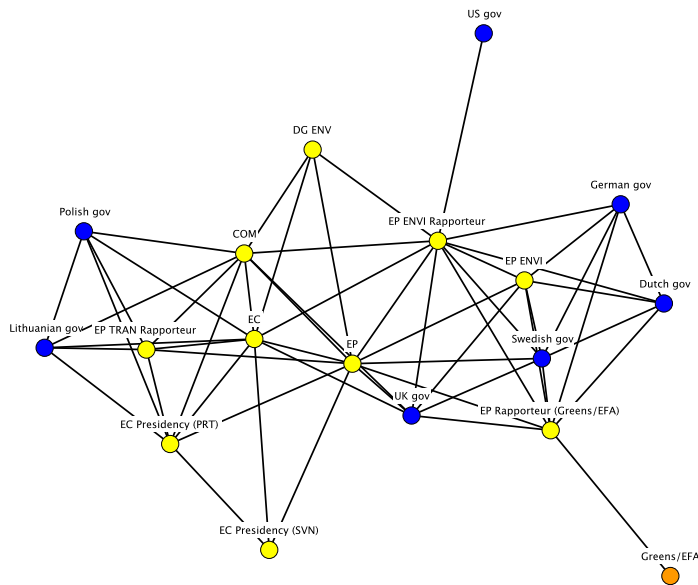
Against this background, the EU had high expectations at the ICAO assembly in September 2007. But the assembly rejected the EU emission trading plans and failed to adopt an agreement to

envisage a global scheme. It merely agreed to entrust a group of senior officials to assess potential measures to reduce the climate impact of international aviation. European airlines represented by the AEA used this opportunity to again complain about the competitive disadvantage compared to non-EU airlines and warned that non-EU countries could initiate ‘international disputes and retaliatory measures’ (‘EU must go it alone on aviation emissions’, 2007).

First reading in the European Parliament

After the disappointing ICAO Assembly, the EU legislative procedure foresees votes in the European Parliament and in the Council. To zoom into these decisions, Network *Graph 5-4* shows only the EU actors and countries that were part of the policy domain after the Commission proposal. All other actor types are suppressed. As a whole, the graph indicates that there are actors with different policy preferences, but there are no distinct coalitions that are clearly separate from each other. This means that despite different opinions regarding the design and calibration of the policy, actors largely agreed on setting up an emission trading scheme for aviation. In preparation of a plenary vote in November 2007, the Environment Committee, in charge of handling the file for the European Parliament, had much more ambitious ideas for the trading scheme than the Transport Committee, which was only allowed to give an Opinion. This distance reflects also in Network *Graph 5-4*, where the Rapporteurs of both Committees -notably both German conservative MEPs- appear in regions of the graph. The draft prepared by the Rapporteur for the Environment Committee, Peter Liese, spoke out in favour of including also international flights into the trading scheme. It also proposed a trading start in 2010 for both domestic and international flights, thus earlier than the Commission, and demanded that 50% of the emission allowances should be auctioned. Furthermore, it suggested setting the total number of allowances to 90% of the average emissions from the period between 2004 and 2006. The Commission proposal suggested 100%. On 2 October, the Environment Committee unanimously voted to adopt Liese’s draft. In contrast, the opinion drafted by Georg Jarzembowski, Rapporteur for the Transport Committee, suggested a delay to 2012 and only 5% auctioned allowances. Eventually, the European Parliament plenary voted to adopt an Opinion on First Reading on the middle ground, which also reflects in its position almost exactly between the two Committee Rapporteurs in Network *Graph 5-4*: While Liese’s proposal to set the initial total number of allowances to 90% found its way into the text, it suggested a share of 25% of allowances to be auctioned, instead of 50%. It also proposed a trading start in 2011 instead of 2010. The AEA heavily criticised the

proposed EP amendments and claimed they would cost over 160 billion Euro (‘MEPs back cuts in air travel CO2 emissions’, 2007). While the text adopted by the plenary dismantled the draft proposal of the Environment Committee, it was still more ambitious than the Commission proposal. The European Parliament thus fulfilled its role as ‘greenest’ of the three main EU branches and succeeded in pulling the basis for further negotiations into a more environmentally ambitious direction.



Network Graph 5-4: The policy domain after the publication of the Commission proposal, only EU and member states, Directive 2008/101/EC.

Vote in the Council of Ministers

The Portuguese Council Presidency scheduled a vote on the proposal for the Environment Council in December 2007 with the goal to adopt a Common Position, preferably one that would avoid a second reading in the Parliament. Despite a majority of EU countries still came out in favour of an EU scheme, the Council was divided along the characteristic and well-documented cleavage between environmental ‘leaders and laggards’. The United Kingdom, for instance, took a leading role in pushing forward the scheme with even more ambitious specifications than proposed by the Commission. UK environment minister Benn stressed that ‘it’s about Europe showing leadership, showing it’s serious and showing it’s prepared to grapple with difficult issues’ (‘EU must go it alone on aviation emissions’, 2007). Just as the EP Environment Committee, the United Kingdom and Sweden even favoured a 2010 start date, while the Commission proposed 2011 for domestic flights and 2012 for non-EU flights. In contrast, laggard countries, among them most of the new member

states such as Lithuania and Poland, were in favour of a later start date than suggested by the Commission ('Aviation emissions plan hits turbulence', 2007; 'MEPs deplore delay to aviation plan', 2007). This division within the Council manifests also in Network Graph 5-4, where EU member states appear in different regions of the graph. The Portuguese Presidency tried to find a middle ground by proposing to shift back the start dates one year and start trading for intra-EU flights from 2012 and international flights from 2013.

As the Commission proposal left it to the EU member states to determine the share of allowances to be auctioned, governments took advantage of the opportunity to attempt to calibrate this essential policy item in their respective interest. Sweden suggested that all allowances should be auctioned among airlines at the beginning of each trading period. Also Germany and the Netherlands indicated support for a higher share of auctioned allowances, but less than Sweden ('Aviation emissions plan hits turbulence', 2007). Eventually, the Environment Council agreed on diluting the Commission proposal in some points, while including a few EP amendments: Instead of introducing the scheme for intra-EU flights from 2011 on, it postponed the start to 2012. Also, it dropped the EP amendment to introduce a cap of 90% of the 2004-2006 emissions. Instead, it kept the 100% stipulated in the Commission proposal. It also set the share of auctioned allowances to 10% and took over the EP's proposal to earmark the auctioning revenue to combating climate change.

Second Reading in the European Parliament

The considerable disparity between the Council's common position and the Parliament's first reading opinion meant that the file had to undergo a Second Reading in the Parliament. Immediately after the Council agreed on the opinion, the EP Rapporteur Peter Liese announced that 'the European Parliament will not accept that this weak decision comes into force unchanged' ('EU agrees to reduce airline emissions from 2012', 2007). As a matter of fact, Liese resubmitted most of the EP's amendments in preparation of the EP Environment Committee's vote on the amendments on 27 May 2008. The Committee adopted his draft with an overwhelming majority, giving Liese a strong mandate in the following Trilogue negotiations with member state representatives and the Slovenian Council Presidency. One month later, on 26 June 2008, the negotiators struck a deal. According to the agreement, the Parliament made concessions regarding the start date, scheduled to 2012. In return, member states swallowed the Parliament's wish to

earmark revenue raised from auctioning for climate change mitigation measures. Regarding the emission cap, negotiators met on the middle ground: The deal proposed a 97% cap for 2012 and a 95% cap for 2013 to 2020 compared to the baseline emissions between 2004 and 2006. The share of auctioned allowances was agreed to 15%. The European Parliament plenary voted to approve the compromise by a great majority on 8 July 2008. EP Rapporteur Liese was satisfied with the outcome and described the deal as ‘major step forward in the fight against climate change’ (‘Deal on inclusion of airlines in emissions trading scheme’, 2008). Also the European Commission welcomed the agreement as a fair contribution of the aviation industry. Aviation representatives scolded the agreement as ‘the worst of all worlds’ (‘MEPs give final blessing to airline emissions deal’, 2008) and for being unaffordable and unacceptable (‘Aviation industry attacks mandatory “polluter pays” principle’, 2008). These reactions show that the EU managed to adopt an environmentally ambitious policy, holding the aviation industry accountable. However, the next section will show that the EU had overestimated its bargaining power in the international arena, ignoring that there is a thin line between environmental protection and ‘green protectionism’.

5.3 Analysis of the policy-making process after the outbreak of the economic crisis (Decision 377/2013/EU and Regulation (EU) 421/2014)

This section looks into two subsequent policy processes that are closely linked. Both were concerned with stepping back from the originally adopted legislation to include also flights to and from non-EU countries into the EU emissions trading system: The first decision temporarily halted the entering into force of the ETS for non-EU flights, the second one derogated it for good. Table 5-3 provides an overview over the timeline and the main policy items.

Date	Event/Document	Main content
	<i>Decision 337/2013 (EU)</i>	
28/09/2010 – 08/10/2010	37 th ICAO Assembly; Resolutions	Abolishment of ‘mutual agreement’ requirement; guidelines for national ETS; intention to cap emissions from international aviation from 2020 onwards.
07/03/2011	Commission Decision 2011/149/EU	Announcement of allowance volume for 2012-13: 97% of the aviation annual emissions between 2004 and 2006.
06/11/2011	Legal opinion of the advocate-general of the ECJ	Inclusion of airlines outside the EU into the ETS compatible with international law, the Chicago Convention, and the Open Skies agreement

20/11/2012	Proposal for a Decision of the European Parliament and of the European Council derogating temporarily from Directive 2003/87/EC	'stop the clock'; exemption for international flights for one year. If no global scheme at ICAO meeting 2013, full application from 2013 onwards.
16/04/2013	First reading EP	No amendments
22/04/2013	Approval by Council	
<i>Regulation (EU) No 421/2014</i>		
04/10/2013	38 th ICAO Assembly; Resolutions	Commitment to agree on a global ETS at 2016 assembly; ETS in effect in 2020; no inclusion into regional ETS without mutual agreement
16/10/2013	Commission Proposal	Keep ETS as before; flights departing and landing outside European airspace are charged only for the distance travelled within European airspace until 2020; exemption for flights to and from developing countries that emit less than 1% of global aviation emissions.
04/03/2014	Inter-institutional agreement	Complete exemption of international flights until 2016.
03/04/2014	First reading EP	Adoption of inter-institutional agreement
14/04/2014	Approval by Council	

Table 5-3: Timeline of the legislative process after the outbreak of the economic crisis, case study 2.

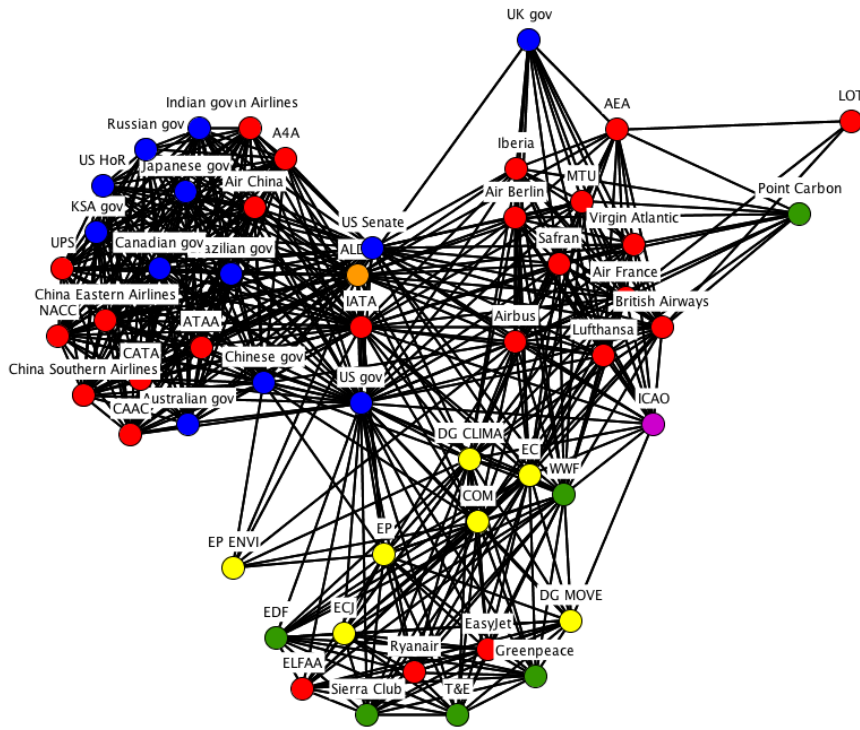
5.3.1 Analysis of the policy-making of the 'stop the clock' decision (377/2013/EU)

'We have a special place of dishonour on the IATA wall of shame for the European Union and its Parliament.'

Giovanni Bisignani, CEO
International Air Transport Association
5 June 2011

The EU's decision to include flights to and from non-EU countries into the emission trading scheme remained a highly disputed issue at international level, particularly under the impact of the global economic crisis. Network Graph 5-5 displays the entire policy domain preceding the 'stop the clock' decision. Compared to the pre-crisis case, this network is more clearly clustered into actor coalitions with a high internal cohesion, but fewer links to the other clusters. This observation supports the key theoretical claim of this study: After the outbreak of the economic crisis, policy domains are more polarised than before. The three observable clusters are one coalition of American and Asian

airlines and governments (to the left), one coalition of European airlines and aircraft manufacturers (to the right), and a (less cohesive) coalition of EU institutions, environmental NGOs, and European low-cost airlines (to the middle down).



Network Graph 5-5: The policy domain, Decision 377/2013/EU.

Given their limited political means, opponents of the EU ETS were increasingly contesting the scheme with legal instruments. The IATA, joined by the Air Transport Association of America (A4A) and three major US airlines (American, Continental, and United), indirectly attacked the EU ETS by applying for judicial review in the United Kingdom, the EU country administering the inclusion of the three airlines into the ETS (Truxal, 2011, p. 232). They argued that the scheme is illegal because it contravenes the Chicago Convention. The IATA, together with the National Airlines Council of Canada, also filed amicus curiae briefs with the UK High Court regarding the same matter. The High Court referred the case to the European Court of Justice (ECJ) in May 2010.

The 2010 ICAO assembly

Given these tensions, expectations were high at the ICAO assembly in autumn 2010. The assembly adopted a resolution that envisages to cap emissions from international aviation from 2020 onwards and sets a range of guiding principles for designing national trading schemes (ICAO, 2010). The EU ETS complied with all of these principles. Most importantly, however, the resolution refrains from the previous ‘mutual agreement’ requirement for regulations between two member states (Truxal, 2011, p. 231). Thus, the ICAO no longer considered it necessary that the EU must reach bilateral agreements with non-EU states in order to include flights from these countries into the ETS. At the previous ICAO assembly in 2007, this requirement caused a gridlock in the negotiations. The European Commission described the resolution as a ‘breakthrough’ (European Commission, 2010b) and perceived it as an ex post legitimisation and endorsement of its 2008 decision. In turn, the EU ‘agreed to engage constructively in dialogue with third countries during the implementation of its ETS, notably regarding how to deal with emissions from incoming flights from third countries’ (European Commission, 2010b). However, the European Commission’s interpretation was met with opposition by the A4A, stating that the resolution in no way weakened the legal case being taken (‘EU buoyed by aviation deal but critical of climate talks’, 2010).

The escalating conflict between China and the European Union

Instead of calming the waves, the ICAO decision intensified the row over the inclusion of international flights into the ETS. While initially only US trade associations took action against the trading scheme, the United States government officially demanded to exempt US airlines at 22 June 2011 due to objections ‘both on legal and policy grounds’ (‘US demands exemption from EU plans on aviation emissions’, 2011). The United States were joined by China in their efforts to sabotage the EU trading scheme. The chairman of the China Aviation Transport Association (CATA) said that his organisation ‘is ready to sue the EU at any time’ (‘China joins US in battle against EU carbon rules for airlines’, 2011). The Chinese line of argument was a different one than that of the US: China argued that as long as it considered itself a developing country, it was not eligible for the exemptions for these countries. The European Commission, however, clarified that ‘there is no Plan B – we don’t intend to back down’ (‘EU “won’t back down” in China aviation row’, 2011). In June 2011, a long-anticipated order of ten Airbus A380 by Hong Kong Airlines was halted by the Chinese government. This move fostered the European Commission’s fears of a trade war with China and other countries. The Commission therefore hoped for an alternative solution:

The Directive stipulates that flights incoming from non-EU countries can be exempted from the trading scheme if these countries have equivalent measures in place. If China would install measures to reduce its aviation emissions, China could be exempted from the scheme. These hopes were not entirely unsubstantiated, as the Chinese government made vague announcements to offset aviation emissions in future. One year later, in May 2012, the Chinese government published a draft legislation formalising a domestic cap-and-trade scheme ('Chance for compromise with China on aviation?', 2012). The European announced it was going to study whether the drafted Chinese scheme fulfilled the criteria of 'equivalent measures', which would allow for exempting Chinese flights.

Specifying implementation: Determining the total number of allowances

On March 7, 2011, the Commission announced the total number of allowances that would be traded within the trading scheme for 2012 and 2013. In the first year, the cap would be equivalent to 97% of the aviation annual emissions between 2004 and 2006. The actual figure was higher than draft figures because the Commission included also emissions from auxiliary power units. Accordingly, the aviation sector was 'not particularly unhappy' with the figure, as a spokesman of the AEA said ('Airlines to face cap on carbon emissions', 2011). However, the Commission sparked a controversy by stating that this cap will only have a minor impact on ticket prices, raising them to between €1.8 and €9. The AEA insisted that 'the impact on ticket prices is likely to be higher ('Airlines to face cap on carbon emissions', 2011). The environmental NGO Transport and Environment, in contrast, criticised that the cost to the aviation sector will only be equivalent to a one-percent per litre tax on aviation fuel ('Brussels sets emission targets for airlines', 2011).

The legal opinion of the advocate-general at the ECJ

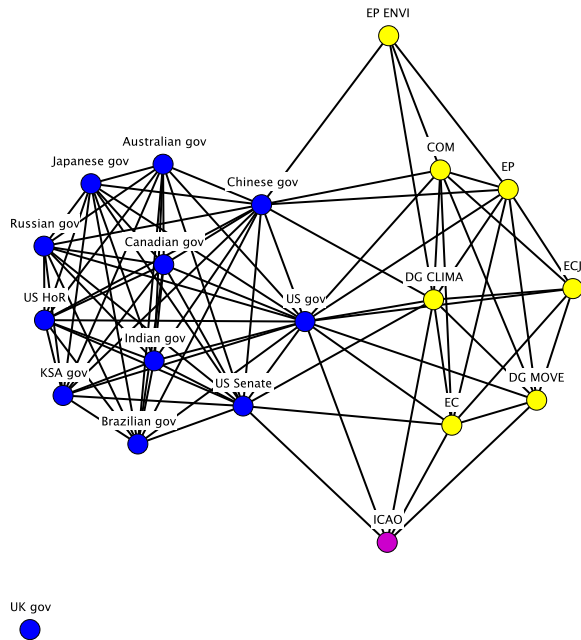
The next chapter in the legal battle of the US aviation against the emission trading scheme opened on 6 October 2011, when the advocate-general at the European Court of Justice, Juliane Kokott, issued an opinion on the matter. According to her opinion, the inclusion of airlines based outside of the EU into the ETS was compatible with international law and the Chicago Convention. She argued that by applying only to flights arriving into or leaving EU airports, 'the Directive does not contain any extraterritorial provision, nor does it infringe the sovereign rights of third countries' ('EU court backs airline emissions cap', 2011). Also, she argued, the Directive is compatible with

the Open Skies agreement between the United States and the European Union because it applies the principle of fair and equal opportunity for both EU and American airlines. This statement made the legal challenge of the A4A and the three American airlines (mentioned above) likely to be unsuccessful because the ECJ usually follows the opinion of the advocates-general.

The European Commission felt the advocate-general's opinion strengthened its position. Climate Commissioner Connie Hedegaard welcomed the statement and reiterated the EU's 'wish to engage constructively with the third countries during the implementation of this legislation' ('EU court backs airline emissions cap', 2011). MEP Peter Liese, who has been drafting the European Parliament's opinion on the legislation, also welcomed the opinion and added that 'some third countries and industry representatives think that the EU is an easy target, and when the pressure is high enough, we will split and give in. This is why in the current case there is more at stake than just the EU climate policy. We need to be united and defend our own legislation' ('EU court backs airline emissions cap', 2011). Ultimately, the European Court of Justice followed the advocate-general's opinion and ruled on 21 December 2011 that the inclusion of non-EU airlines into the ETS is valid. Climate Commissioner Hedegaard called upon US airlines to eventually respect EU law. However, the White House reiterated its view that the court's decision did not resolve its objections ('Emissions row could get dirty', 2012).

Increasing international pressure

Only few weeks before the start of the ETS, the conflict continued to escalate and was ultimately elevated to high politics levels. Network Graph 5-6 takes a closer look on the intergovernmental level of the policy domain, showing only countries, EU institutional branches, and the ICAO as only international organisation. Other actor types are suppressed. Shortly after the advocate-general's opinion, the US House of Representatives passed a bill with bipartisan support explicitly allowing American airlines to disregard the EU Directive. For entering into force, the bill needed approval by the Senate and President Obama, who indicated willingness to sign it ('Trade war looms over aviation emissions', 2011).



Network Graph 5-6: The policy domain, only countries, EU institutional branches and international organisations, Decision 377/2013/EU.

Network Graph 5-6 makes it even clearer than Network Graph 5-5 that surprisingly, apart from the UK, there was not one single statement coded by EU member states. On an intergovernmental level, the entire policy debate took place between non-EU governments and EU institutions. The EU, and also its member states, seemed to have lost control over the situation due to overestimation of its own bargaining power, and non-EU opponents of the EU-ETS exerted massive pressure on the EU. Clearly, the focal point of the policy arena has shifted from within the EU to outside the EU. However, the absence of EU member states in Network Graph 5-6 does not mean that they disappeared from the policy domain. They still played a role, but a very passive one. The following incident illustrates this shift of power: On 16 December 2011, US Secretary of State Hillary Clinton sent a letter to the heads of state of the European Union, but not to the European Commission itself. Reiterating the legal and political objections, she stressed that ‘the EU is increasingly isolated’ and asked the EU to ‘return to working with, rather than against, the international community’. Clinton made specific demands: ‘We strongly urge the EU and its Member States...to halt, or at a minimum, delay or suspend application of this Directive.’ In closing the letter, she threatened that ‘absent such willingness on the part of the EU, we will be compelled to take appropriate action’. Attached to the letter was a list of 43 countries that publicly opposed the inclusion of non-EU airlines into the EU ETS, among them Australia, Canada, India, Japan, Malaysia, Qatar, South

Korea, Russia, Saudi-Arabia and Singapore. Despite this rather blatant threat of a trade war, Climate Commissioner Hedegaard repeated that the Commission would not give in ('China joins legal battle against EU aviation tax', 2011).

On 21 December 2011, only a few days before the trading start, the four Chinese airlines Air China, China Eastern, China Southern and Hainan Airlines backed by the Chinese Air Transport Association, announced legal action against the inclusion into the trading scheme. Shortly after, in February 2012, the Civil Aviation Administration of China forbid Chinese airlines to buy EU emission allowances, referring to legal objections. Similarly, the Indian Civil Aviation Authority stated that Indian airlines will refuse to submit to the EU the data necessary to calculate the number of emissions allowances due ('US, China, Russia agree to fight EU aviation emissions trade', 2012). In fact, the European Commission published a report on 15 May 2012, showing that Chinese and Indian airlines systematically refused to submit flight data. Finding itself increasingly isolated, but unwilling to back down, the EU put hope in a solution that could resolve the controversy while keeping international airlines within the ETS. In a speech delivered at an aviation event, Jos Delbeke, Director-General of DG Clima, said international flights could be excluded if the ICAO agreed on a non-discriminatory global trading scheme with clear targets and measures, and applying to all airlines. He also praised the ICAO for 'accelerating its work programme' and welcomed that more states expressed their wish to ICAO action on market-based measures (Delbeke, 2012). However, it was unclear in how far the Commission's hopes for a global emissions trading scheme administered by the ICAO were realistic: While the United States were supportive, China and India and other developing countries were strongly opposing it ('EU flexible on ETS if global deal is reached', 2012).

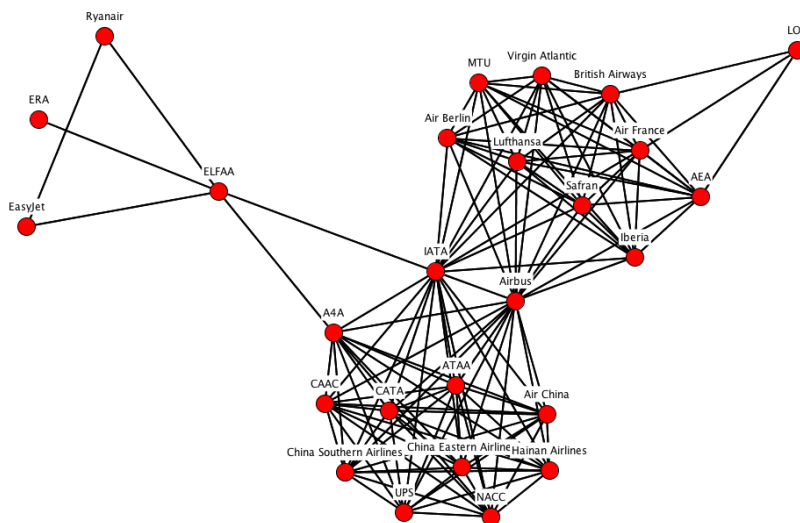
The Delhi and Moscow Declarations

In the meantime, countries opposing the inclusion of their airlines into the EU ETS undertook efforts to coordinate their actions and collaborate in opposition to the trading scheme. Already in September 2011, a group of 22 ICAO member states signed a joint declaration at the 194th Council Session in New Delhi. Amongst others, Brazil, China, India, Japan, Malaysia, South Korea, Russia, Saudi Arabia, Singapore, and the United States declared their opposition to the EU ETS and their intention to join forces in their efforts to oppose the imposition of the trading scheme upon their operators. The 'Delhi Declaration' was adopted by the ICAO Council on 2 November 2011. On

21 February 2012, the group met again outside the ICAO format in Moscow. Again, a joint declaration was published. This time, however, the group applied a much harsher approach and threatened retaliatory measures in case their airlines were not exempted from the scheme. Displaying its instruments of torture, the group listed a number of retaliatory measures, among them ‘imposing [...] charges on EU aircraft operators as a form of countermeasure’. A Commission spokesman, however, reacted unimpressed, stating that ‘the day when a country decides to introduce discriminatory measures that hurt EU companies, [...] the Commission will immediately [...] take appropriate measures... The EU will review its legislation the day there is an ambitious global agreement in force’ (‘ETS opponents outline retaliatory measures’, 2012). According to Climate Commissioner Hedegaard, also all EU member states maintained full support for the trading scheme (‘Nobel laureates back EU tax on airline emissions’, 2012).

Caught in the crossfire: European aviation

The conceptual framework of this study suggests that the origin of crisis-induced political polarisation is at the industry. In fact, the network data suggest that the aviation industry after the outbreak of the crisis was torn into three distinct camps: Non-EU companies, regular EU carriers, and EU low-cost carriers (Network Graph 5-7).



Network Graph 5-7: Industry actors, Decision 377/2013/EU.

Startled by the international pressure, the European aviation sector found itself in a situation where it had to choose between retaliatory measures in case international aviation was kept in the scheme, or a competitive disadvantage if it was excluded. In addition, the economic crisis put the aviation

sector under enormous pressure. According to IATA figures, European Airlines suffered losses of US\$1.1 billion due to a setback of demand ('China air chief threatens to impound EU planes', 2012). The AEA warned that a trade war could seriously damage Europe's aviation industry and urged the EU to respond to the US concerns regardless of the ECJ ruling. Only European low-fare airlines welcomed the inclusion of international flights because they mainly operate within-EU flights ('Emissions row could get dirty', 2012). Their conventional competitors serving intercontinental routes would suffer a competitive disadvantage if they were hit by retaliatory measures. On 12 March 2012, the CEOs of Airbus, Air Berlin, Air France, British Airways, Iberia, Lufthansa, MTU Aero Engines, Safran and Virgin Atlantic sent a letter to the heads of state of the United Kingdom, France, Germany, and Spain, urging them to act and stop the escalating trading conflict. Airbus said that China suspended aircraft orders worth US\$ 12 billion, jeopardising 1.000 Airbus jobs in Europe and more than another 1.000 in the supply chain. Taking direct reference to the economic crisis, they warned that a trading conflict was 'a situation that Europe can ill-afford in the current economic climate'. They also argued for a global emissions trading scheme under an ICAO regime.

In the background, the EU was eagerly negotiating with ICAO members about a global emissions trading mechanism. A Commission spokesman said in June 2012 that elements of a worldwide solution, replacing the EU Directive, could be in place before the first EU-level payments fall due in April 2013 ('China air chief threatens to impound EU planes', 2012). Also the United States combined confrontational politics with more conciliatory diplomacy efforts. On 31 July 2012, a Senate Committee of the US Congress gave bipartisan support to the law drafted by the House of Representatives, forbidding US airlines to buy EU emission allowances. The Senate passed the bill on 24 September. Simultaneously, the United States invited 16 other states opposing the EU ETS to explore in how far a global emission trading system could be established under the roof of the ICAO. While an US official said that 'there was a lot of interest among countries in continuing to work on the suite of activities', no common statement on substance or specific steps was published ('US hosts anti-ETS summit', 2012).

Crumbling solidarity with the Commission inside the EU

Also within the European Union, the concerns about a trade war became more urgent. In the European Parliament, more and more centre-right and liberal MEPs demanded exempting foreign

airlines from emissions trading. The German liberal MEP Holger Kramer, for example, said that the EU has ‘neither the political nor the economic power’ to force non-EU airlines into the ETS (‘Fight or flight?’, 2012). Also within the Council, opposition grew against the Commission’s firm collision course with the EU’s international trade partners. The member states seemed to attach more value to economic concerns than in the pre-crisis policy-making process. Also the European Commission was under pressure: An anonymous official said that the pressure applied by Airbus on the Commission was ‘immense’(‘EU to offer concession on aviation emissions’, 2013).

The United Kingdom can serve as an example of how policy preferences changed under economic pressure: Before the economic crisis broke out, the UK supported a European approach. After the outbreak of the crisis, UK trade minister Fallon said that that ‘Airbus has left us with no doubt that the threat of retaliatory action is a clear and present danger to its order list. We are very much aware that the clock is ticking. We have limited time left’ (‘Fight or flight?’, 2012).

The ICAO Council meeting November 2012

Given the enormous pressure applied by non-EU countries and eroding EU-internal support for the inclusion of international flights into the ETS, the European Commission put high expectations on the next ICAO Council meeting in November 2012, where members would discuss further steps in creating a global market-based mechanism. As mentioned above, Climate Commissioner Hedegaard and other Commission officials had always kept the door open for a face-saving way out of the controversy by stressing at multiple occasions that the EU ETS would be halted if there was a comparable global trading scheme administered by the ICAO. While initially, the Commission demanded that the ICAO had an ambitious global trading scheme up and running before taking back its own ETS, the conditions had melted to down to receive a somewhat credible signal by the ICAO that a global solution is underway. Compared to previous years, the efforts to reach an agreement to set up a global emission trading regime had been intensified. Already in May 2012, the ICAO Council agreed on a metric standard of carbon dioxide emission certification, a requirement for market-based measures. On 9 November 2012, the ICAO Council reduced the number of policy options from three to one and set up a high-level group of senior government officials with the task to provide near-term recommendations on the feasibility of a global trading scheme and to develop an application framework (ICAO, 2012).

The EU gives in and stops the clock

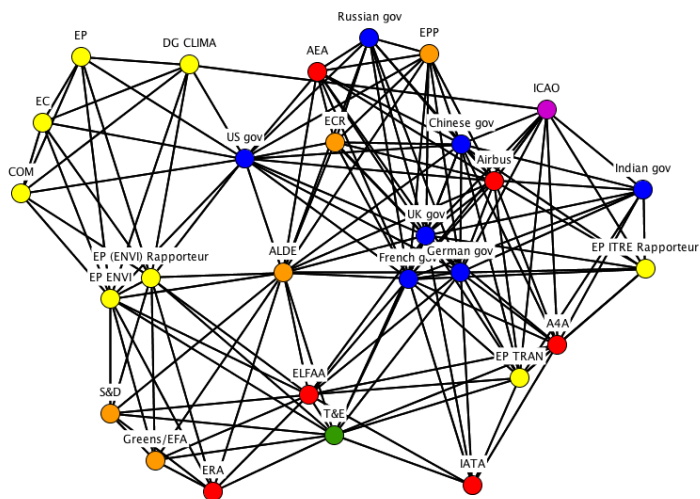
These meeting conclusions were just satisfying enough for the European Commission to eventually accommodate the demands of the international community to temporally exempt international flights from the EU ETS on 12 November 2012, just three days after the ICAO Council decision. In a press conference, Climate Commissioner Hedegaard said that she does not want that ‘EU legislation is standing in the way’ of an international framework. Hedegaard attributed the recent progress in the ICAO to the pressure exerted by the EU ETS: ‘Now it seems that because of some countries’ dislike of our scheme, many countries are prepared to move’. ‘As a measure of good faith’ and being ‘convinced that a global solution ... is within reach at the upcoming ICAO Assembly in 2013’, the EU would ‘stop the clock’ in order to ‘create a positive atmosphere’ for the negotiations to follow (European Commission, 2012d). The Commission Proposal suggested deferring the obligations to surrender emission allowances from air traffic to and from the EU by one year. The obligations for flights within the EU would remain intact. In case the ICAO Assembly 2013 would fail to agree on a global trading scheme, the EU ETS legislation would be fully applied again from 2013 onwards. Environmental NGOS criticised the proposal because it remained uncertain whether the ICAO would eventually agree on a substantial trading scheme (‘EU to exempt foreign airlines from ETS’, 2012). While Airbus, expecting the permission of the deal with China, and the IATA welcomed the proposal, European low-fare airlines were sceptical. The ELFAA described the proposal as a ‘discriminatory and highly distortive retreat ... in response to political pressure’ and demanded the moratorium to be expanded also to domestic flights (‘EU to exempt foreign airlines from ETS’, 2012). The White House welcomed the progress made at the ICAO and refreshed its commitment to finding a global solution. Nevertheless, President Obama signed the bill that barred US airlines from the EU ETS (‘Obama signs anti-ETS law’, 2012). Without remarkable debate, the Environment Committee of the European Parliament voted to back the Commission’s proposal on 26 February 2013. The plenary of the European Parliament and the Council adopted the bill on 16 respectively 22 April 2013.

5.3.2 Analysis of the policy-making process of Regulation (EU) No 421/2014

Negotiating an EU Common Position for the 38th ICAO Assembly 2013

After the European Union temporally stopped the clock for flights to and from non-EU countries, all eyes were on the 38th ICAO Assembly from 24 September to 4 October 2013. In the run-up to the Assembly, the EU member states internally negotiated a Common Position behind closed

doors. According to a leaked draft Common Position from 17 July 2013, member states agreed that in case the ICAO concludes a definitive roadmap to agree on a deal until 2016 that takes effect in 2020, the EU would abstain from returning to the full application of the aviation ETS. Instead, it would change legislation so that only aviation emissions within EU airspace would be scope of the ETS ('EU to offer concession on aviation emissions', 2013). While the United States welcomed the EU offer, China and particularly India were not convinced. The policy domain at this period is displayed in Network Graph 5-8 below. In contrast to the previous decision to 'stop the clock', the policy domain contains EU member state governments as well as a large number of EU political groups that are embedded into different coalitions. With the exception of the Transport and Industry Committees of the European Parliament, the institutional branches of the EU still stood united behind the ETS. The largest cluster consists of, among others, Germany, France and the United Kingdom, China, Russia, Airbus and the Association of European Airlines. This cluster supported a permanent exemption of international aviation from the EU-ETS. This section will show how this coalition of different actors came about, and how it became the dominant force in the policy domain.



Network Graph 5-8: The policy domain, Regulation (EU) No 421/2014.

In Network Graph 5-8, most European Commission institutions appear to be united in one cluster. The reason is that indeed, the EU managed to agree on a Common position relatively swiftly: On 4 September, the Director General of DG Clima, Jos Delbeke, presented the draft to the European Parliament. Acknowledging that the agreement is 'far from perfect', he stressed that the alternative would be an endless stalemate of legal battles ('EU offers retreat on aviation emissions', 2013). Business lobbies that would like to have seen a tougher line, such as the European low-fare airlines

association (ELFAA), criticised the Common Position as falling short of the very specific conditions that were named when the Commission announced to ‘stop the clock’ in 2012. Rapporteur Peter Liese, who lead the file through the European Parliament, had mixed feelings about the draft: ‘I cannot say I support the deal...but I’m really concerned that if we just oppose what is on the table, we may see a total collapse of our efforts’ (‘EU offers retreat on aviation emissions’, 2013). While the environmental group Transport & Environment described the Common Position as ‘realpolitik on grand scale’, ignoring any environmental implications, the IATA cautiously welcomed the position, despite considering a global patchwork of airspace-based trading schemes as a ‘nightmare’ impossible to implement (‘EU offers retreat on aviation emissions’, 2013). The Common Position was eventually backed unanimously by EU ambassadors from all member states on 17 September 2013. However, some states, in particular France and Poland, warned the Commission to not go beyond the demand to keep a regional airspace ETS. In parallel, the Commission conducted an impact assessment and drafted a Staff Working Document, so that legislation could be proposed swiftly after the ICAO assembly.

The 38th ICAO Assembly 2013

As demanded by the EU, the ICAO executive council had drafted a resolution ahead of the assembly, promising a deal by 2016 and taking effect from 2020. However, the division between developing countries and developed countries within the ICAO remained. Especially India and China insisted that they should not be subject to the same obligations as developed countries. The United States, in contrast, rejected such a differentiation in order to avoid setting a precedent for further climate talks (‘Aviation emissions deal in doubt despite EU offer’, 2013). China and India also contested the legality of the EU’s intention to charge emissions within its own airspace, claiming that only individual states would be allowed to do so. These differences explain the distance between the United States and China and India in Network Graph 5-8.

On 4 October 2013, the ICAO General Assembly adopted a resolution that made a vague commitment to agree on a global market-based mechanism at the next general assembly in 2016. This trading scheme would take effect in 2020. This part of the resolution meets the demand of the EU. However, the Assembly did not agree on guidance for regional trading schemes that could bridge the time until a global scheme is in force. Quite the opposite, the Assembly adopted a paragraph submitted by Russia, suggesting countries can only include other countries’ airlines in

an ETS if there is a mutual agreement, strengthening the legal interpretation of the Chicago Convention as supported by the United States and China. This would make it not only impossible for the EU to install a scheme charging only for emissions within its airspace, as suggested in the Common Position. Rather, the paragraph generally prohibits charging flight emissions from non-EU carriers, foiling the entire EU strategy for curbing aviation emissions. Therefore, all EU member states noted a reservation, expressing the disagreement with this paragraph. Nevertheless, Climate Commissioner Hedegaard was eager to stress the positive aspects of the outcome and framed the resolution as a victory for the EU: ‘The EU’s hard work has paid off. After so many years of talks, ICAO has finally agreed to the first-ever global deal to curb aviation emissions’ (‘ICAO rebukes EU ETS’, 2013). EP Rapporteur Peter Liese described the resolution as weak and unsubstantial, doubting that the European Parliament would pass a respective bill and added that ‘this is a matter of fairness against European airlines and their competitive situation’ (‘ICAO rebukes EU ETS’, 2013). Green MEPs and also the European low-fare airlines association (ELFAA) were already calling on the EU to stand firm and stick to its original plans, arguing that the resolution does not meet the conditions set in the EU’s common position or in the ‘stop the clock’ decision.

The Commission responding to the disappointing ICAO resolution

Faced with this setback, the European Commission had to consider carefully its next steps, as the ‘stop the clock’ moratorium would run out by the end of 2013. It decided to stick to a regional airspace approach, as has it has been prepared in an impact assessment before the ICAO Assembly. This meant that it would ignore the non-binding ‘mutual agreement’ clause in the Assembly resolution and the ICAO’s failure to come up with implementation guidelines for regional airspaces, accepting further conflict with states such as Russia, India and China. According to the proposal, all flights departing and landing within the European airspace would be covered as before. Flights departing and landing outside European airspace are charged only for the distance travelled within European airspace until 2020, when the ICAO ETS was promised to be in force. Flights to and from developing countries that emit less than 1% of global aviation emissions would be exempted. When presenting the proposal, Climate Commissioner Hedegaard said that ‘We decide the rules. Europe must insist in our own sovereign right to regulate aviation in our own European airspace’ (‘Commission proposes to adjust aviation emission rules’, 2013).

The proposal was attacked from all sides. Airlines for America, the lobby group of American airlines, criticised the proposal for being against the spirit of ICAO resolution. The IATA made a similar criticism. On the other side of the political spectrum, the Commission proposal was criticised for being not ambitious enough by environmental campaigners and European low-fare carriers. The ELFAA called the paper a ‘perverse proposal’ and called for returning to the original plan to fully charge international flights, while environmental campaigners criticised the proposal for ‘shrinking down aviation emissions law to the bare minimum’ (‘Commission proposes to adjust aviation emission rules’, 2013).

The most powerful member states withdraw support for the Commission

A strand of literature argues that in the EU, times of crisis are times of intergovernmentalism (Falkner, 2016a). This case study adds another substantiating example to this hypothesis. In December 2013, the three most powerful member states Germany, France, and the United Kingdom decided to not support the Commission in its efforts to include international aviation any longer. For the sake of good relations with China, India, Russia and the United States and set under pressure by Airbus, their governments prompted the Commission to completely exclude non-European airlines from the ETS (‘Caving in on the cave-in’, 2013). Against these three member states, the Commission Proposal had no chance for adoption. This decision marks a turning point in the policy process and is the reason why Germany, France and the United Kingdom are visualised in Network Graph 5-8 as part of the coalition that supported the permanent exclusion of non-EU flights.

As pointed out by the conceptual framework, political polarisation increased also in within the European Parliament. To pass the legislation as swiftly as planned, the Commission needed to rely on the Parliamentarians, who were split into three groups of MEPs: Those who support the Commission’s partial retreat, those who demand a complete retreat, and those who reject any retreat (among them most Green and Socialist MEPs) (‘Stand-off ahead on ETS aviation?’, 2013). The EP Industry Committee supported the idea of only charging intra-EU flights. The EP Environment Committee, having the lead on the file, supported the Commission proposal. This split across the European Parliament is apparent also in Network Graph 5-8.

The end of the 'nightmare': The EU abolishes the inclusion of international flights

In a trilateral meeting on 4 March 2014, negotiators of the Council, the EP and the Commission tried to agree on a compromise in order to pass the bill in the first reading. According to the outcome, member states simply overpowered EP negotiators: As demanded by Germany, France and the UK, the agreement concluded to completely exempt flights to and from non-European countries ('EU surrenders on aviation in ETS', 2014). To sweeten the bitter pill, the agreement includes the EP's demand to end the exemption in 2016 rather than 2020, and that ICAO would need to agree on reducing emissions instead of maintaining the status quo in order to keep the exemption ('Will MEPs bow to pressure on ETS?', 2014). The deal was welcomed by centre-right MEPs who did not support Rapporteur Liese's position, while socialist and green MEPs were disappointed. The aviation industry remained divided, with the AEA welcoming the decision, afraid of retaliatory measures, and the ELFAA complaining about the competitive disadvantage and preparing a lawsuit against the amendment ('EU surrenders on aviation in ETS', 2014; 'Will MEPs bow to pressure on ETS?', 2014). Also environmental campaigners were furious, as the exemption would melt the amount of covered emissions to 25% of the initial draft.

The EU's nerves were on the edge ahead of the EP first reading due to the division within the Parliament. A rejection of the deal would cause a diplomatic crisis as the 'stop the clock' moratorium would expire on 1st May 2014. In the forerun, the Environment Committee of the European Parliament voted narrowly to reject the compromise achieved in the Trilogue, with the EPP and ECR voting in favour and S&D, Greens/EFA and ALDE opposing it ('MEPs reject deal on aviation emissions scheme', 2014). However, in the decisive plenary vote on 3 April, MEPs backed the Trilogue deal. Member states thus gave in to international pressure, humiliating the European Commission in its efforts to maintain a somewhat ambitious climate policy. Looking back to the entire attempt to include aviation into the EU ETS from 2006 to 2014, transport Commissioner Siim Kallas concluded that 'the whole episode has been a nightmare' ('Will MEPs bow to pressure on ETS?', 2014).

5.4 Conclusion

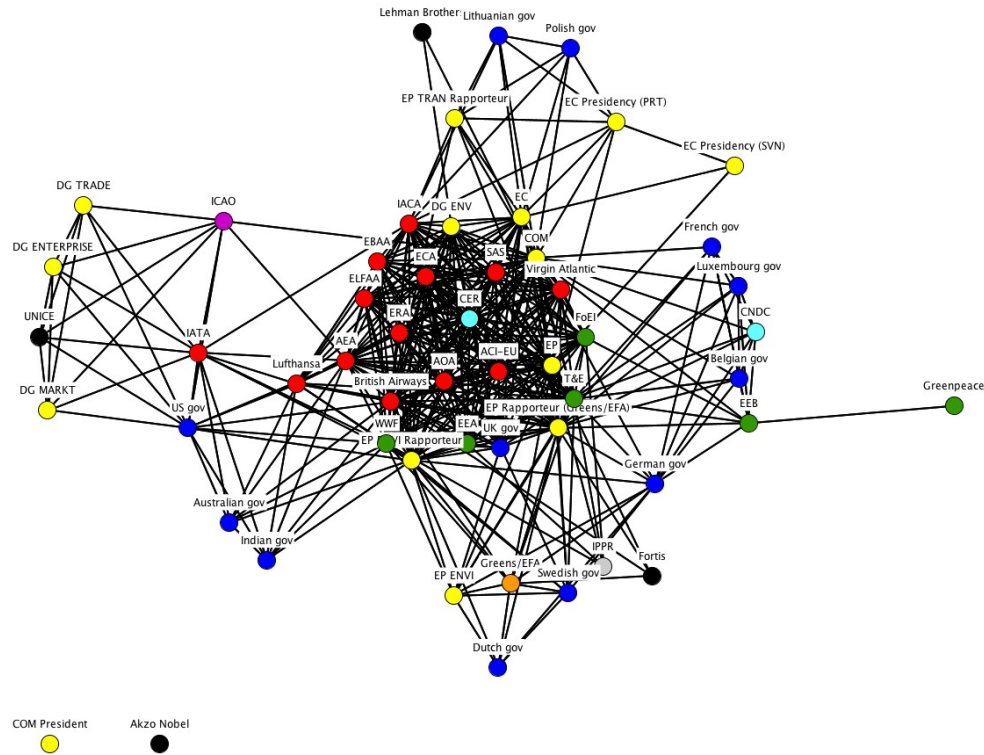
Including aviation into the European emission trading scheme turned out to be a difficult and eventually overburdening task the European Union set itself. There is a thin line between environmental protection laws and 'green protectionism', and the economic crisis seemingly moved

this line in the eyes of many involved actors towards the latter. The EU underestimated the economic dimension of climate policy: In times of crisis, unilateral efforts to sanction flight emissions were perceived as an aggressive protectionist move by the global aviation community and by governments, not as contribution to climate change mitigation. When the worldwide economic crisis broke out, the conflict around the policy escalated vehemently, forcing the EU to back out. The findings of this case study confirm the key hypothesis of the conceptual framework, proposing an increase of political polarisation after the outbreak of the economic crisis. While the economic crisis is confirmed as key explanatory variable for this observation, it is closely interlinked with ‘high politics’ and sovereignty issues, as the remainder of this chapter will carve out.

Like in the previous case study on car emission limits, another lesson of this case study is how quickly the EU switches into an intergovernmental governance mode as soon as member states are under economic pressure. During the economically relaxed period before the crisis outbreak, the European Commission managed to gather broad support among member states for expanding emission trading to aviation. This changed completely in the post-crisis policy decision. When member states withdrew support for a policy initiative by the Commission, the Commission was left empty-handed, just as the European Parliament was overpowered by Council negotiators in inter-institutional negotiations.

The policy debate before the outbreak of the economic crisis

Network Graph 5-9 shows the entire pre-crisis policy domain, unveiling that the decision-making process was not polarised into competing coalitions. While there were different ideas and preferences, there was no fundamental controversy on whether aviation should be included into the ETS or not.



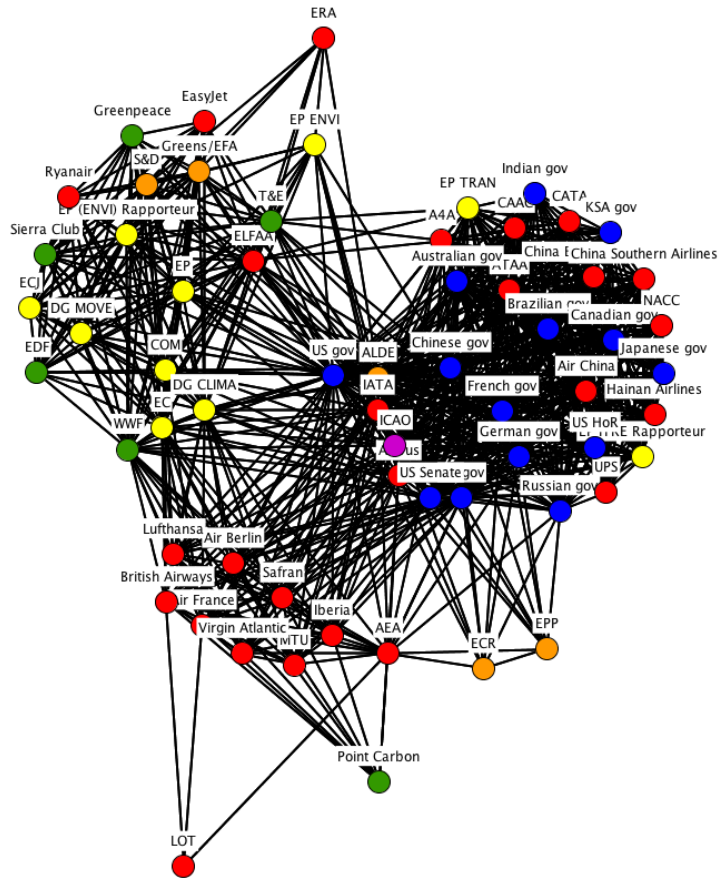
Network Graph 5-9: The policy domain of the entire policy process before the crisis outbreak, Directive 2008/101/EC.

The pre-crisis policy debate was dominated by one actor coalition that is displayed as a dense nucleus with in the centre of the network graph. The high number of links within this coalition means that there was a high preference overlap within this coalition. The policy preference of this coalition can be briefly summarised as global emission trading scheme or, as a second-best alternative, a moderate European trading scheme. This actor coalition consisted virtually of the entire European aviation business, but also of the European Parliament and the Commission Directorate General for Environment and several environmental groups. The broad variety of actors within this cluster exemplifies the environmental ‘spirit’ that is frequently mentioned as shaping EU climate policy before the outbreak of the economic crisis. Even the aviation industry conceded that emission regulations were appropriate. It is also worth mentioning that both low-fare operators as well as classic airlines are represented within this cluster. The unity of the European aviation sector implies according to Meckling (2015) that all operators were expecting roughly a similar cost-benefit ratio emerging from the regulation.

Visualised to the right of and below the main cluster, there are actors that pushed for a more ambitious regulation than the main cluster. However, they did not manage to become a dominating force in the policy debate. To the left of the centre, the second most prominent cluster can be identified as consisting of industry-oriented Commission Directorate generals, the ICAO and IATA and non-European governments. The turf battles between business-friendly and environmental Commission branches are well-documented (see Lenschow, 2010) and also observable in the car emissions case of this study. They ICAO and the IATA pushed for a global solution: The ICAO did so because it perceives itself as the competent global authority to issue regulations, and the IATA because it wanted to avoid competitive disadvantages for its non-EU members. Non-EU governments tried to convince the EU from the beginning to abandon its ETS plans. However, they became protagonists only in 2011, thus after the crisis outbreak, short before the ETS entered into force.

The policy debate after the outbreak of the economic crisis

Network Graph 5-10 displays the policy domain after the outbreak of the economic crisis, that is, of the ‘stop the clock’ decision and the decision to exclude international aviation from the ETS. In contrast to the pre-crisis policy domain, the policy network has now fallen apart into three distinct clusters with large differences to the competing coalitions and high internal density. In other words, the policy domain was highly polarised, confirming the theoretical expectation.



Network Graph 5-10: The policy domain of the entire policy process after the crisis outbreak, Decision (377/2013/EU) and Regulation (EU) 421/2014.

The graph clearly shows that the gravity centre of the policy debate shifted from the European to the international political arena. At first glance, the reader can notice that Network Graph 5-10 is more clustered than the pre-crisis network (cf. Network Graph 5-9). The coalition of actors opposing the EU ETS, displayed as the cluster to the right, has grown. While before the crisis, the United States were the non-EU government opposing the scheme most fiercely, they were now joined by a large number of countries, among them many developing countries with strong economic ambitions such as China, Brazil and India. Also airlines from these countries participated in this policy coalition. Importantly, we also can find France, Germany and the United Kingdom within this coalition: while previously supporting an EU ETS, the three most important EU member states gave up their support after the disappointing ICAO assembly in 2013. They were target of intense lobbying efforts by non-EU countries opposing the ETS and by Airbus, which employs a considerable number of workers in these member states. When these three EU countries decided to vote against the inclusion of international aviation into the ETS, the regulation had no

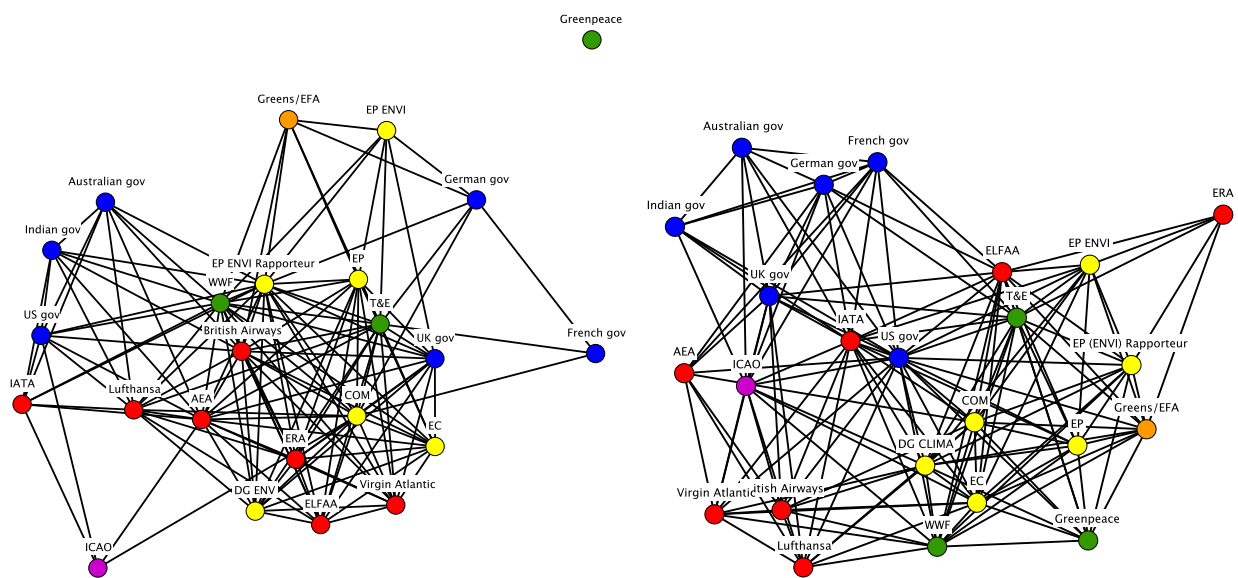
chance to pass the Council any more. This dominating actor coalition was also more cohesive than the other two clusters, meaning that they had a strong preference overlap.

The actor coalition visualised below the anti-ETS coalition consisted mainly of European aviation operators and manufacturers. While they were not generally opposed to an EU ETS, they warned of retaliatory measures by non-EU countries and urged European politicians to avoid a trade war by any means. The third actor cluster, visualised to the left, consists of environmental activists, branches of the European Commission and of the European Parliament as well as European low-fare airlines. They all supported a European ETS for different reasons: The political institutions did so because they wanted to defend their policy in the international context and because they were genuinely committed to reduce emissions. The environmental NGOs supported the ETS because they considered it the most ambitious policy realistically available and as an instrument to put pressure on the ICAO. The European low-fare airlines supported it because they almost exclusively operate intra-EU flights and would suffer a competitive disadvantage if classic airlines would benefit from exemptions for flights that leave EU airspace. This actor coalition had a lower density than the ‘international’ anti-ETS coalition, meaning that they had less preference overlap, arguably due to their different motivations. As the hypothesis check below will show, the observable changes in the network constellation compared to the pre-crisis policy domain largely support the assumptions made by this study.

5.4.1 Comparison and hypothesis check

The two graphs above, each giving an overview of the entire policy domain before and after the crisis outbreak, suggest that the post-crisis domain was much stronger polarised than before. However, the change from the pre- to post-crisis domain coincided with a shift of the policy arena from mainly the EU-internal to the international stage. But is polarisation also observable if only actors are taken into account that appear in both the pre- and post-crisis policy process? If yes, this observation would further substantiate the claim of crisis-induced polarisation. To test this, Network Graph 5-11 shows the policy domain before (left) and after the outbreak of the economic crisis, including only actors that played a role in both policy processes. Actors that appeared in only one of the decision-making processes were suppressed. The graph shows that before the crisis (the network to the left), the network has one core coalition with a relatively high density and consisting of a diverse set of actors that supported the inclusion of non-EU flights into the EU-ETS. Such a

core coalition is missing after the crisis outbreak (the network to the right). The same set of actors as before the crisis is now spread across different smaller groupings, among them a cluster consisting of governments and one cluster of EU institutions and green interest groups. Even if none of these clusters has a high internal density, actors are clearly separated into groups of member states, EU actors, and business actors. This finding further corroborates the key assumption of this study that after the outbreak of the economic crisis, EU climate policy-making is more polarised than before the crisis. At the same time, a comparison of the right network of Network Graph 5-11 and Network Graph 5-10 implies that the post-crisis polarisation was promoted by the shift into the international arena, where the ETS was seen as a protectionist policy, not as environmental policy.



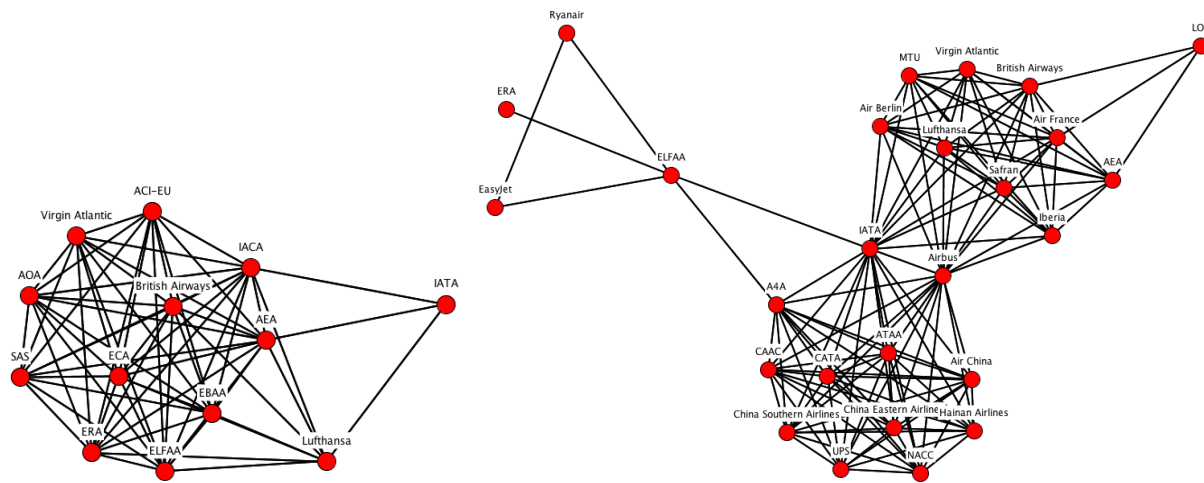
Network Graph 5-11: The policy domain of Directive 2008/101/EC (left) and Decision 377/2013/EU and Regulation (EU) No 421/201, only actors that appeared in both policy processes.

Considering the hypotheses posited in the theory chapter, most of the observations collected in this case can be explained by the conceptual framework of this dissertation.

H1: After the outbreak of the economic crisis, business actors expecting relative gains (relative losses) from climate regulation initiatives support (oppose) such initiatives more insistently than before.

When the European Commission drafted the aviation ETS in the pre-crisis period, the European airline industry roughly expected the same cost-benefit ratio from the regulation. Accordingly, the planned regulation caused no competitive advantages or disadvantages. The industry generally welcomed an emission trading system, under the premise that allowances would be cheap. Thus,

the industry did not worry too much about the financial burden. This claim is valid for the entire European aviation business: Both associations of classic carriers and low-fare airlines jointly published a press statement in which they welcomed the ETS as a ‘positive and innovative step’ (AEA, EBAA, ECA, ELFAA, ERA, IACA, 2007). The unity of the European aviation business is visualized in the left part of Network Graph 5-12, comparing the preference networks of aviation industry organisations before and after the outbreak of the economic crisis:



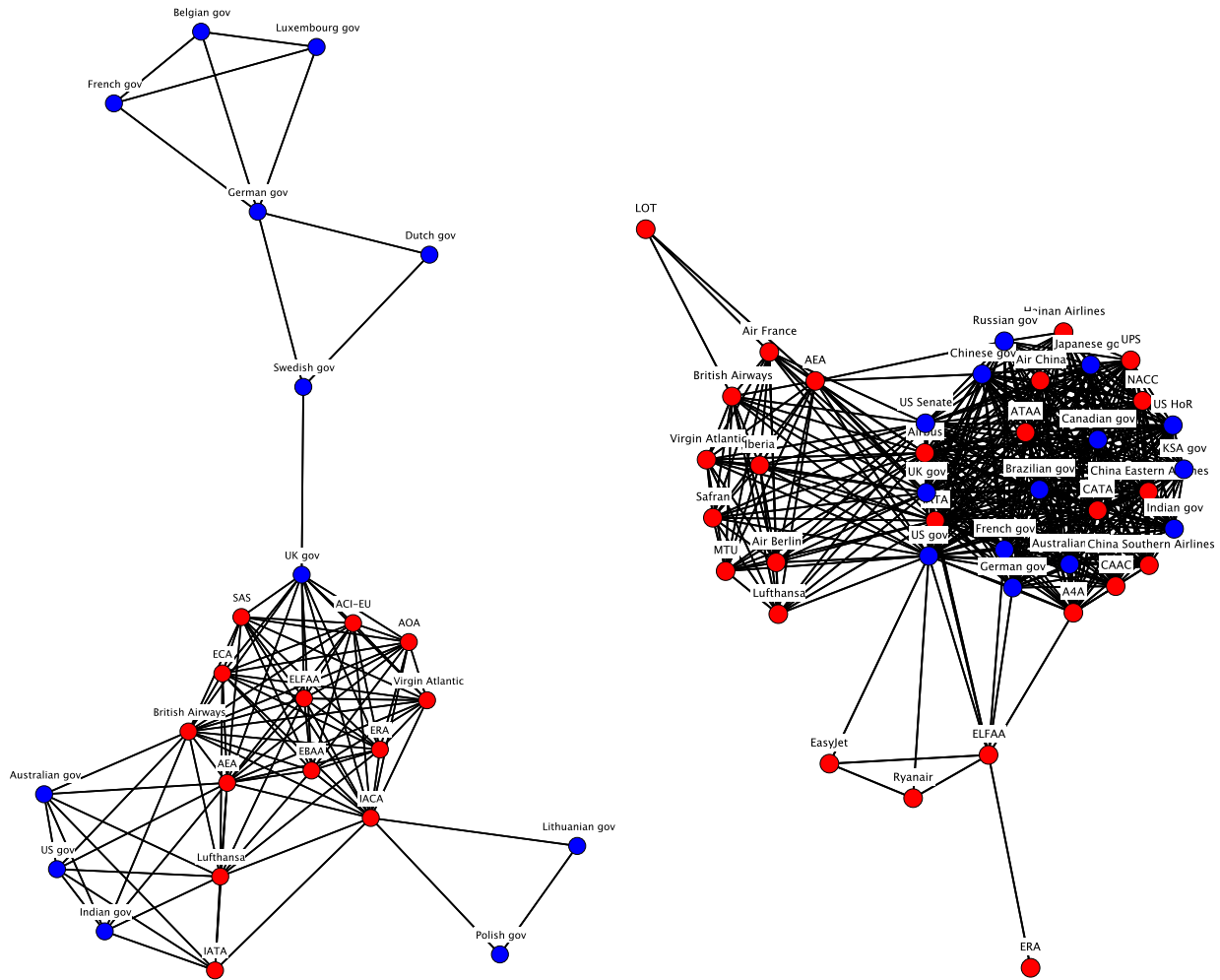
Network Graph 5-12: Industry actors, Directive 2008/101/EC (left) and Decision (377/2013/EU) and Regulation (EU) 421/2014.

This situation changed drastically after the outbreak of the economic crisis, as the right part of Network Graph 5-12 indicates. The European low-fare airlines association (ELFAA) was in favour of maintaining a European ETS that charges also non-EU flights, preferably not only on EU airspace, but over the entire flight distance. Since low-fare airlines operate almost exclusively within EU airspace and thus pay allowances for 100% of their flights, they preferred that also other operators had to buy as much allowances as possible in order to keep the relative competitive disadvantage as small as possible. The ELFAA described the exemption of non-EU flights as ‘highly unfair and discriminatory’ (‘Sign of progress or retreat?’, 2012) and a ‘perverse proposal’ (‘Commission proposes to adjust aviation emission rules’, 2013). Eventually, the ELFAA threatened to sue the European Commission if it would amend legislation. These observations confirm hypotheses H1, arguing that actors facing a competitive disadvantage lobby more insistently under the impact of the economic crisis than before.

Quite the opposite, the AEA, representing classic airlines, welcomed the restriction of the ETS to intra-EU flights. The main concern of both manufacturers and classic airlines were retaliatory measures by non-EU states, ending in a trade war. Airlines preferred exempting non-EU airlines from the ETS over keeping them in and having to pay retaliatory charges elsewhere. Just as low-fare airlines, also classic operators and manufacturers became more insistent in their efforts to persuade politicians of their position, as the letter by Airbus and eight other manufacturers to the heads of state of France, Germany, Spain and the United Kingdom exemplifies. Hence, hypothesis H1 is valid also for classic airlines and manufacturers, as their attempts to protect their economic position became more insistent after the crisis.

The same is true for non-European airlines. They opposed the European efforts to install an emissions trading system already before the outbreak of the economic crisis. However, they did so much more aggressively after the outbreak of the economic crisis and with support of their governments (see below). This is a noteworthy observation because usually, business tries to lobby earlier in the policy-making process, during the stages of agenda-setting and policy formulation. Here, lobbying became the stronger, the closer the ETS was to entering into force. This unusual observation can be explained by the increased economic pressure as compared to before the outbreak of the crisis. In sum, these observations suggest that in the case of the inclusion of aviation into the EU-ETS, hypotheses H1 can be confirmed.

H2: After the outbreak of the economic crisis, national governments will align their preferences regarding climate-relevant regulations to those of domestic business actors to a greater extent than before.



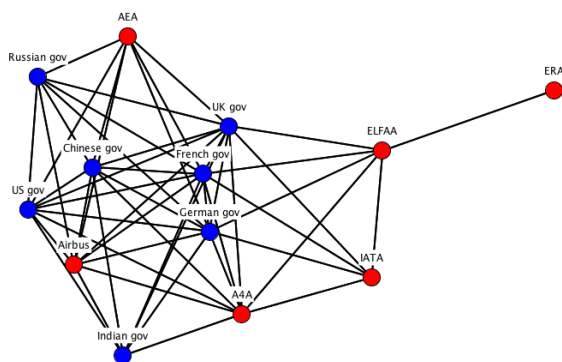
Network Graph 5-13: Industry actors and national governments, Directive 2008/101/EC (left) and Decision (377/2013/EU) and Regulation (EU) 421/2014.

Network Graph 5-13 shows the preference network of national governments and industry actors in the policy debates of the pre-crisis decision (left) and the post crisis decisions (aggregated, to the right). Looking at the pre-crisis policy process (left), it appears like the European aviation industry forged a quite cohesive coalition, meaning it had a high preference overlap. Put briefly, the European aviation industry preferred a global trading scheme, but remained open to a European solution, provided that allowances would not be too expensive to buy. However, the Council was divided along the notorious cleavage between environmental ‘leaders and laggards’. Many European governments, among them also heavyweights such as France, the United Kingdom and Germany, were reported as being open to a relatively ambitious regulation, and other countries such as Sweden and the Netherlands were actively promoting it. In contrast, most Eastern European countries as well as non-EU countries opposed the scheme. Thus, an alignment of

government preferences with industry preferences is not observable before the outbreak of the economic crisis.

As mentioned above, the period of the policy debate after the outbreak of the economic crisis coincided with a shift to the international policy arena. The right part of Network Graph 5-13 shows the congruence network of national governments and industry actors in the policy debate of the ‘stop the clock’ decision and of Regulation (EU) No 421/2014 aggregated in one graph. After the crisis outbreak, China, the US and other non-EU governments are in the same actor cluster as airlines from these countries. They actively pursued a policy to protect the business interests of their national aviation companies. Regarding European governments, the data collected for the network analysis are not so clear. It is established that the European aviation industry targeted national governments and lobbied them hard in order to avoid retaliatory measures. The UK trade minister said that ‘Airbus has left us with no doubt that the threat of retaliatory action is clear and present danger to its order list. We are very much aware that the clock is ticking. We have limited time left’ (‘Fight or flight?’, 2012). This quote suggests that the UK and arguably also other EU member states paid more attention to the concerns of their domestic businesses than before the outbreak of the crisis. The crumbling support in the Council for the Commission’s plan to somehow keep international flights within the EU ETS became clearer after the ‘stop the clock’ decision, when the EU had to decide in short time whether the moratorium should be maintained or replaced by an ‘airspace’ approach or even by full inclusion of international flights.

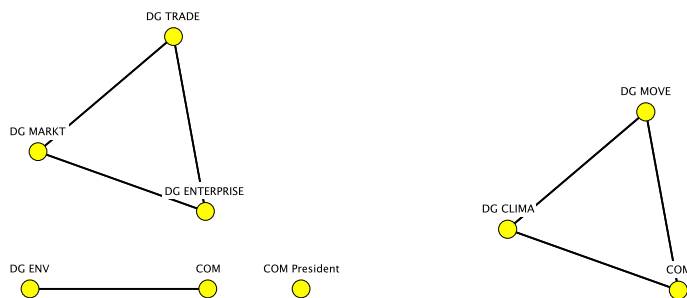
Network Graph 5-14 displays the network of governments and industry actors in the policy debate regarding Regulation (EU) No 421/2014. The data of this graph are part of the right graph in Network Graph 5-13, but it is worth taking a separated look.



Network Graph 5-14: Industry actors and national governments, Regulation (EU) 421/2014.

The graph shows that eventually, Germany, France, and the United Kingdom gave up their support for the Commission. They now supported a complete and permanent exclusion of flights departing or landing outside EU territory, just as the European aviation sector and international partners. This shift is not only result of lobbying by Airbus and other EU aviation businesses; also non-EU governments such as China and the United States were reported to have put pressure on important EU member states via bilateral channels in order to reach a veto in the Council. Taken together, this evidence supports the hypothesis that after the outbreak of the economic crisis, national governments aligned their preferences to those of their domestic industries to a greater extent than before.

H3: After the outbreak of the economic crisis, political polarisation within the European Commission is stronger than before.



Network Graph 5-15: European Commission branches, Directive 2008/101/EC (left) and Decision (377/2013/EU) and Regulation (EU) 421/2014.

As Network Graph 5-15 above suggests, there were considerable differences in the policy preferences of several European Commission DGs. The Directorate Generals for Trade, the Internal Market and for Business and Enterprise sided with the IATA and ICAO, supporting a weak regulation, while DG environment were in favour of emission trading. Reportedly, there was considerable conflict among the opposing Commission branches about the proposal.

Apparently, in the policy process after the outbreak of the economic crisis, there was no such split between ‘market-friendly’ and environmentalist DGs. The dataset contains no information about Commission-internal conflicts, and Climate Commissioner Connie Hedegaard absorbed a great

amount of public attention. But also the Commissioner for Transport, Siim Kallas, supported the inclusion of non-EU aviation.

Based on these data, hypotheses H3 cannot be accepted, as polarisation actually decreased (opposite to the expectation). The same pattern was observable in the previous case study on car emission limits. What is more interesting than the hypothesis itself, however, is how the role of the European Commission changed in the policy domain. Just as in the case study on cars, the focal point of the entire policy debate shifted from the Commission to national governments, who engaged in intergovernmental bargaining. The percentage of statements coded for different actor categories before and after the outbreak of the crisis (Figure 5-3) illustrates this power shift:

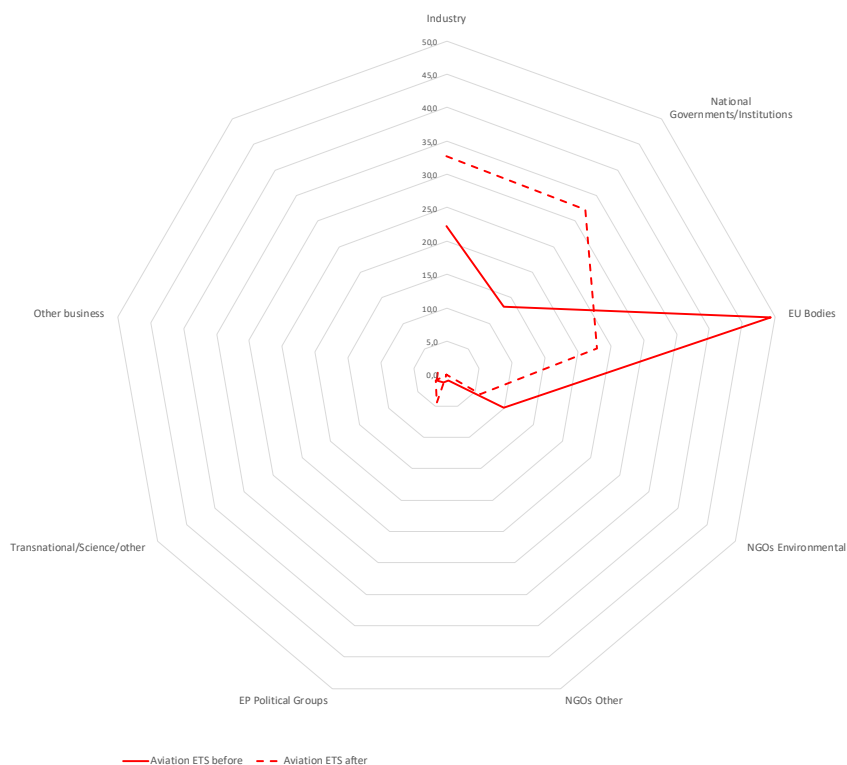


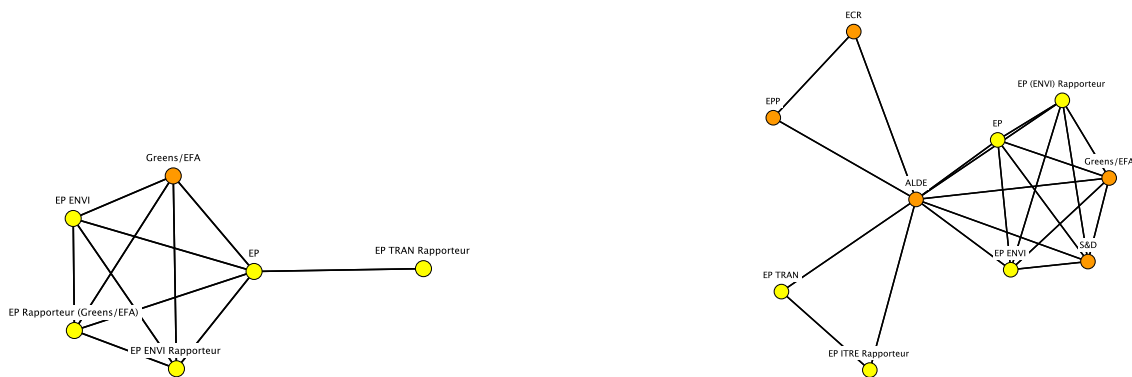
Figure 5-3: Percentage of coded statements for each actor group, case study 2.

While Commission bodies account for almost the half of all statement coded during the pre-crisis policy process, its share shrank to little more than 20% after the outbreak of the crisis. In contrast, the share of statements made by national governments and the aviation industry strongly increased. Like the similar observation made in the car emissions case study, this finding feeds into the discussion on a comeback of intergovernmentalism in times of crisis. When intergovernmental

bargaining -among EU member states or internationally- becomes the decisive locus of policy-making, the European Commission seems to exert less power in the decision-making process.

H4: After the outbreak of the economic crisis, political polarisation within the European Parliament is stronger than before.

The findings are supportive of hypothesis H4: Polarisation within the European Parliament is stronger after the outbreak of the economic crisis than before. This becomes also visually apparent in Network Graph 5-16 below. In the pre-crisis policy process (shown in the left network), the European Parliament played the well-known role of the ‘greenest’ EU institution. Lead by the green Rapporteur Caroline Lucas, the EP adopted environmentally ambitious reports and conclusions with clear majorities. Later, under Rapporteur Liese, the EP still adopted a draft in First Reading that was more ambitious than the initial Commission Proposal, despite some concessions were made to the Transport Committee. These EP-internal negotiations took place within the usual boundaries and were not reported as being controversial. Also when it came to a Second Reading, the Environment Committee equipped Liese with a strong negotiation mandate and voted to adopt the final legislative proposal with a clear majority. Thus, in the before-crisis policy decision, there was no particularly strong polarisation within the European Parliament.



Network Graph 5-16: European Parliament actors and political groups, Directive 2008/101/EC (left) and Decision (377/2013/EU) and Regulation (EU) 421/2014.

After the outbreak of the economic crisis, political polarisation within the EP increased, as the right part of Network Graph 5-16 shows. The pre-crisis policy decision was a satisfying solution for both

the Commission and the Parliament. Under the international pressure after the crisis outbreak, however, many centre-right and liberal MEPs changed their opinion and demanded exemptions for non-EU airlines from emissions trading. Eventually, the Parliament was divided into three groups of MEPs: Those who supported the Commission's partial retreat of including non-EU aviation, those who demanded a complete retreat, and those who rejected any retreat. The cleavages between these coalitions ran also across different Committees (the Industry Committee supported the idea of only charging intra-EU flights, while the Environment Committee supported the Commission proposal) and political groups (EPP and ECR were voting in favour of the final deal, while socialists, greens and liberals opposed it).

H5: After the outbreak of the economic crisis, environmental lobby groups pursue the same political strategy as before.

This hypothesis states that environmental lobby groups do not have to change their political preferences and strategies because their goals are purely normative and therefore remain unaffected by environmental shocks. Just as for the previous case study, this hypothesis is accepted. Before the outbreak of the economic crisis, environmental NGOs lobbied in the Consultation procedure for the Commission proposal to introduce a fuel tax. The Commission actually looked into this option and assessed it as a potential revenue for the EU budget. Also Germany and other environmental forerunner member states were in support of a fuel tax. This illustrates how environmentally ambitious the European Union acted at this point in time. When it turned out that a fuel tax was beyond reach and instead, aviation will be included into the ETS, environmental NGOs lobbied for a strict as possible implementation of the ETS. This strategy could be already observed in the car emissions case study: NGOs lobby for the strictest possible policy option; if this option is off the table, they lobby for the strictest possible calibration of the remaining policy instruments. This is true also for the policy process after the outbreak of the economic crisis, where environmental NGOs lobbied for maintaining the inclusion of non-EU flights in the ETS and criticised the EU's decision to step back from the original legislation. Hence, there was no difference in the strategy of green NGOs before and after the crisis outbreak.

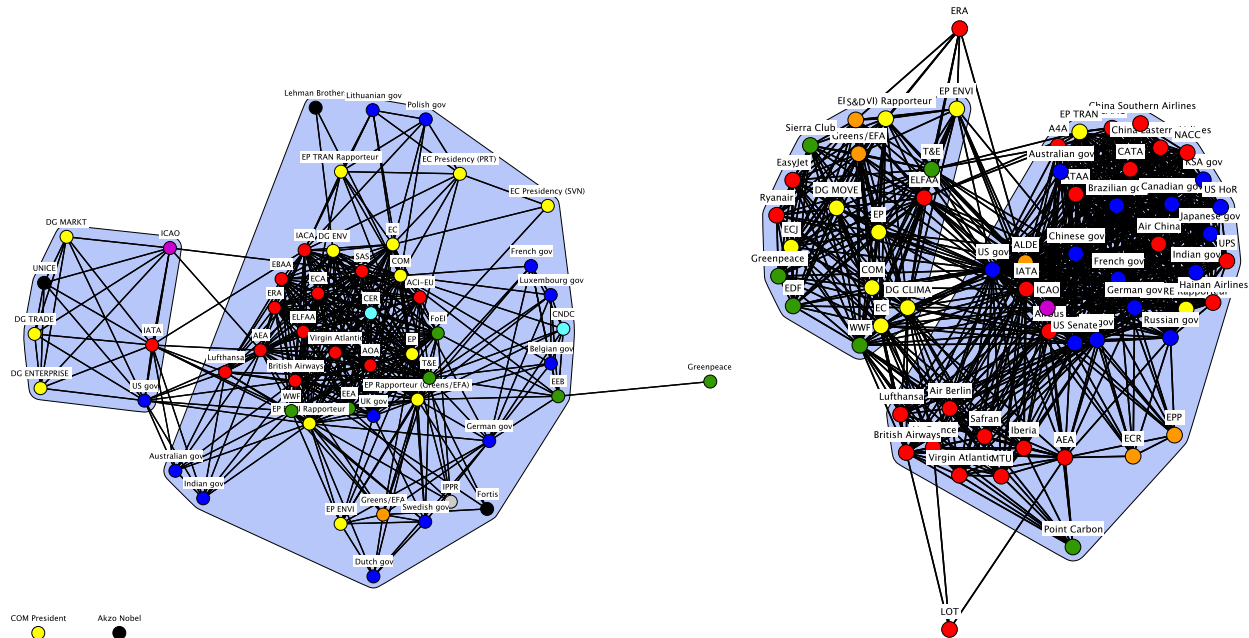
H6: After the outbreak of the economic crisis, political polarisation in the policy domain is stronger than before.

This hypothesis is clearly confirmed. First taking a look on the behavioural changes on individual actor level, it becomes apparent that the strategic behaviour of key actors has changed: In line with the theoretical expectation, they became less flexible in their political preferences and supported a smaller number of policy items (Table 5-4).

Before crisis outbreak		After crisis outbreak	
Actor	Supported concepts	Actor	Supported concepts
AEA	3	AEA	3
British Airways	3	Air France	3
Commission	10	Airbus	3
DG ENV	3	British Airways	3
EC	3	Chinese Gov.	3
EP	7	Commission	6
EP ENVI	3	DG CLIMA	6
EP ENVI Rapp.	7	DG MOVE	2
EP Rapp.	7	ELFAA	1
IATA	3	EP ENVI Rapp.	2
T&E	4	US Gov.	4
UK Gov.	2		
US Gov.	3		
Mean	4,5	Mean	3,3

Table 5-4: Policy items supported by key actors, case study 2.

Recalling that coalitions in the policy domain are assumed to be based on common political preferences, a diminished flexibility of actors' political preferences should result in more narrow actor clusters in the network. A comparative look on the clusters in Network Graph 5-17 confirms this assumption. The blue background behind the networks illustrates the cluster boundaries as computed by the clustering algorithm. In both the policy process before (left) and after the outbreak of the economic crisis, the cluster analysis computed two clusters. Before the crisis, the policy domain consisted of one very dominant cluster with a highly dense nucleus and a periphery that largely agreed on the adopted policy. The second cluster opposing the regulation has a low internal cohesion, a lower number of actors and clearly played no dominant role in the policy process.



Network Graph 5-17: Cluster analysis, Directive 2008/101/EC (left) and Decision (377/2013/EU) and Regulation (EU) 421/2014.

Essentially, these two clusters switched roles after the outbreak of the economic crisis. The left cluster of the post-crisis network (displayed at the right part of Network Graph 5-17) consists of EU actors, EU low cost carriers and environmental NGOs that wanted to keep non-EU flights within the ETS. The other cluster consists mainly of two sub-groups that both opposed the inclusion of non-EU flights: Non-EU actors such as American, Middle Eastern and Asian airlines and governments, and EU airlines that were afraid of retaliatory measures by those non-EU states. Both clusters have a high number of actors, and a high internal cohesion, and therefore polarisation is higher compared to the pre-crisis situation. Taken together, also the results of this case study are confirmative of this study’s assumptions on political polarisation in times of crisis.

5.4.2 Impact of the economic crisis

In how far can the observed changes in the policy-making process be attributed to the economic crisis? The worldwide aviation industry, both operators and manufacturers, suffered from the economic shock in various ways. It is likely that the changed economic situation affected the political behaviour of the aviation industry and its stance towards environmental regulation. For three reasons, the letter initiated by the CEO of Airbus and signed by eight other key manufacturers and operators supports this assumption. First and foremost, the letter makes a clear reference to the

economic crisis as a factor informing their behaviour by stating that retaliatory measures by non-EU countries are ‘a situation that Europe can ill-afford in the current economic climate’ (‘Aviation firms warn of ETS dangers’, 2012). This quote also clarifies that European aviation businesses were not afraid of the relatively low regulatory costs emerging from the inclusion into the ETS. Rather, they were afraid of the much higher costs of a trade war and the competitive disadvantage vis-à-vis non-European airlines. This was confirmed in an interview with a Commission official who stated that the burden caused by the ETS would be ‘tiny’ even under a fully operational scheme. Second, this letter indicates a shift from lobbying through peak associations such as the AEA towards a direct lobbying from business to policy-makers. In the pre-crisis decision, business representatives took the opportunity created by the Commission and participated in an expert group panel in order to collect stakeholder opinions. In the post-crisis decision, businesses apparently regarded it more fruitful to lobby decision-makers directly. This can be interpreted as an increased degree of insistence: The fact that nine key business actors pushed for immediate action in a coordinated effort illustrates that they perceived the matter as too urgent and delicate for communicating merely through associations. Third, the letter was addressed to the heads of states of France, Germany, Spain, and the UK. Remarkably, it was not addressed to the European Commission. Businesses thus not only changed the lobbying channel, but also the target of their efforts. In the letter, Airbus explicitly demonstrated that only the suspended approval for the order of a Chinese airline would destroy 1.000 Airbus jobs and another 1.000 in the supply chain. Heads of states arguably react more sensitive to such threats than the European Commission, not having to fear upset voters.

While the economic crisis set the tone for the post-crisis policy-debate, it is important to acknowledge that also ‘high politics’ influenced the negotiations. A comparison of Network Graph 5-10 and the right part of Network Graph 5-11 suggests that the strong polarisation of the post-crisis policy domain emerged from the shift from the EU- to the international arena. The underlying reason is that in the aftermath of the crisis, the inclusion of aviation into the EU-ETS was framed as a protectionist policy and not as an environmental policy anymore. All three interviewed Commission officials agreed that sovereignty issues played an important role and stressed that the costs emerging from the ETS directly were negligible. It was rather important to not suffer a competitive disadvantage and to not lose regulatory competencies to international organisations. Thus, even if sovereignty issues and ‘high politics’ are an important explanatory factor in explaining the observed differences, these issues have a strong economic underpinning

themselves, because governments tried to protect their national airlines and manufacturers from unfair competition. To exemplify the close ties between economic protectionism and national sovereignty, one Commission official mentioned the example of Saudi-Arabia and other Gulf States heavily investing in their aviation infrastructure and airlines in order to develop a strategic alternative to crude oil production in times of increasing production in the United States and Venezuela.

Another aspect that needs to be taken into consideration is that before the economic crisis, the EU and especially the European Commission were guided by a spirit of environmental enthusiasm, as confirmed by several interviewees at the Commission. There is also empirical evidence for a high number of environmental policies passed in the years before the outbreak of the economic crisis, and a steep decline afterwards (Steinebach & Knill, 2016). Of course, the main reasons for this decline are of economic nature. However, the interviewees consistently reported that there was some strong environmental ambition in the pre-crisis period, and climate policy was one of the flagship policy fields of the Commission. After the outbreak of the crisis, climate change mitigation was not a priority any longer. Against the headwind and having lost the dominance over the debate, it became harder for proponents of ambitious environmental policy to make their case. To counter the impressions of this and the previous case study, the final case study looks into a policy domain that remained largely unaffected by the economic crisis.

6 Case study 3: The introduction of a framework for the promotion of biofuels

The purpose of investigating the making of the EU biofuels legislative framework is to provide a contrasting comparison to the car emissions and aviation emissions trading case studies. While both previous case studies were heavily affected by the economic crisis, this not the case in the biofuels policy domain (for a justification of this claim, see the research design). Consequently, the hypotheses deducted from the conceptual framework should *not* apply in this case study. Table 6-1 provides a list of the most frequently used technical terms in the policy domain.

Term	Explanation
Biofuels	Liquid or gaseous transport fuels such as biodiesel and bioethanol which are made from biomass.
Greenhouse savings	gas Net greenhouse gas savings of biofuels compared to fossil fuels, taking into account the emissions associated with the cultivation of biofuel.
Indirect land change (ILUC)	use Biofuel production typically takes place on cropland which was previously used for other agriculture such as growing food or feed. ILUC refers to the process of dislocating agricultural production to previously non-cropland such as grassland or forest. Indirect land use change risks negating the greenhouse gas savings that result from increased biofuels because grasslands and forests typically absorb high levels of CO ₂ . By converting these land types to cropland, atmospheric CO ₂ levels may increase.
ILUC-factors	ILUC-factors represent the estimated land use change emissions that are taking place globally as a result of the crops being used for biofuels in the EU, rather than for food and feed.
Second-generation or advanced biofuels	First-generation biofuels are derived from seeds, grain or sugars, while second-generation biofuels are produced from lignocellulosic biomass, such as crop residues, woody crops or energy grasses (UNCTAD, 2008). They are less likely to compete with food crops.
Sustainability criteria	Ecological requirements that biofuels must fulfil, mainly referring to greenhouse gas emission savings and the land they are cultivated on.
Voluntary schemes	Voluntary schemes are certificates that verify compliance with the EU's biofuels sustainability criteria or with further criteria. Schemes are mostly privately run but recognised as valid by the European Commission.

Table 6-1: List of frequently used technical terms, case study 3. Source: European Commission.

6.1 Description of the policy field

6.1.1 Regulatory history

The constantly increasing energy demand in the EU led to increased oil dependency and greenhouse gas emissions. In search of alternatives, liquid biofuels became a natural target for policy efforts (Steenberghen & López, 2008). Until the 1990s, biofuels were neither technically sufficiently developed nor economically competitive. If biofuels were to play a prominent role in decarbonisation and climate change mitigation, policy-makers would have to set up an entirely novel regulatory environment for production and trade and foster investment in research and development.

Early considerations

Ambitions of the European Union to create a market for biofuels reach back to the 1980s. In 1985, Council Directive 85/536/ECC allowed specific ester and ethanol blends on petrol. A lack of policy coordination and low oil prices however hampered a broader use of these blends throughout the 1980s and 1990s (Pacini, Silveira, & da Silva Filho, 2013). Spurred by increasing global environmental efforts such as the UNFCCC Climate Convention, biofuels came on the agenda of the European Commission. In 1994, the European Commission proposed to the Council to create a unified framework for tax exemptions for biofuels, given that biofuels had been part of national energy plans in some member states (European Commission, 1994). For instance, in the late 1990s Italy, France, Sweden, Poland, Slovakia and Germany applied lower tax rates on biodiesel (Kutas et al. 2007).

In 1997, the share of biofuels in EU fuel consumption was only 0.3% (European Commission, 1997), thus almost inexistent. In the same year, the European Commission drafted a White Paper that sketched a future strategy for the European Union to raise the share of renewable energy (ibid.). The paper vaguely suggested ‘a significant increase of biofuel in transport fuel use by 2010’ (ibid. p. 12) as part of the outlined scenario. Given that at this time, the production costs for biofuel were three times higher than for conventional fuel, the White Paper also suggests further research and market measures such as detaxation and subsidisation to decrease production costs. In 1998, the Fuel Quality Directive (98/70/EC), harmonising technical standards for transport fuels included also biofuel blending. Not only the European Commission sought to increase the use of biofuels.

The Council endorsed the Commission's plan in 1998 and 2000 and requested specific measures for biofuels. In 1998, also the European Parliament called for increasing the share of biofuels to 2% in the next five years, applying tax exemptions and mandatory rates of biofuels for oil companies.

The Biofuels Directive (2003/30EC) and the Biomass Action Plan

The year 2003 was a turning point in EU biofuels policy (Pacini et al., 2013). In June 2001, the European Council agreed on a Community strategy for sustainable development. Part of the set of measures was the development of biofuels. Taking reference to these Council conclusions, the Commission published a proposal for a Directive on the promotion of the use of biofuels for transport by the end of 2001 (European Commission, 2001). The Directive, passed on 8 May 2003, stipulated a reference value of 2% market share for national biofuel targets until 31 December 2005, rising to 5.75% until 2010 (European Parliament, Council of the European Union, 2003a). In order to achieve the goal set by the Biofuels Directive, it was accompanied by the introduction of two other legislative instruments. Directive 2003/17/EC amended the 1998 Fuel Quality Directive, adding the blending of biofuels with conventional fuels up to a ceiling of 5% both for ethanol and biodiesel (Schnepf, 2006). In addition, the Directive on energy taxation 2003/96/EC provided member states with the regulatory discretion to use tax reliefs to foster market penetration of biofuels (Pacini et al., 2013). On the supply side, the European Union adopted a reform of the Common Agricultural Policy in 2003 that decoupled support payments from specific crops. The reform also included the introduction of a special energy crop subsidy of €45/ha up to a limit of 1.5 million ha, hence effectively a maximum subsidy of €90 million for energy crops in the EU (Pacini et al., 2013). The legislative efforts taken in 2003 soon showed effect, as the increasing share of biofuels in road transport in the following years suggests (Figure 6-1):

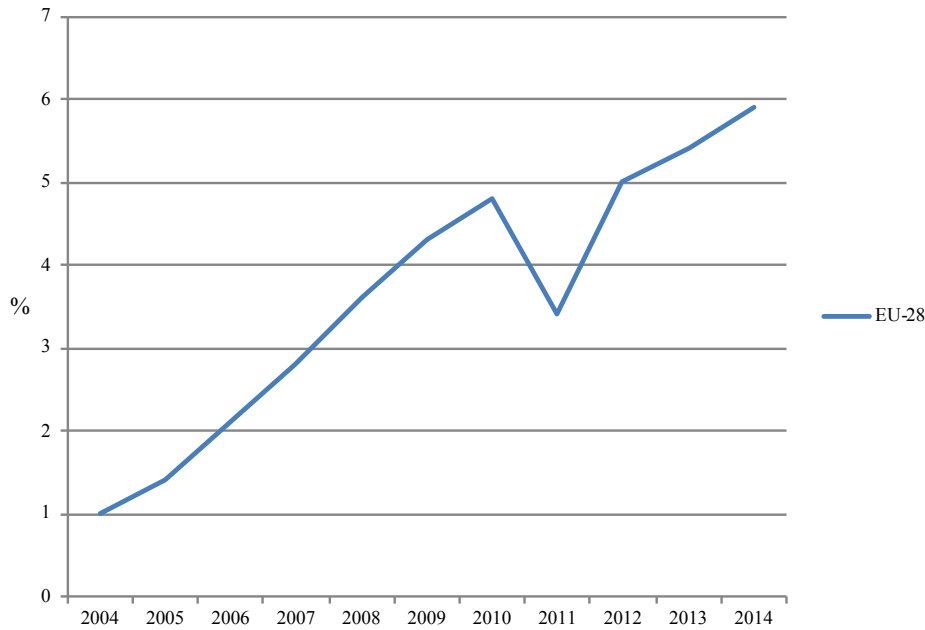


Figure 6-1: Share of biofuels in road transport fuel consumption. Source: Eurostat, 2015.

When the first target date 31 December 2005 came closer, the European Commission began stepping up its efforts to increase the share of biofuels. In the Biomass Action Plan published in December 2005, the European Commission stated that the 2005 biofuels target would be missed due to a strong variation in the member states' efforts. Even if all member states would achieve their targets, only a market share of 1.4% would be achieved (European Commission, 2005b). In the same document, the Commission also briefly sketched potential further steps, such as balancing domestic production and imports, sustainability standards, and a review of fuel quality standards. Also in October 2005, the Council requested the Commission to draft legislative proposals with the aim to reinvigorate a European energy policy in view of the EU's over-dependency on imported oil and gas (European Commission, 2006d). In fact, the European Commission had long begun working on a revised biofuels strategy. It set up an 'External Expert Group, comprising a small team of bioenergy experts' (European Commission, 2006b, p. 3). It also held an external stakeholder meeting on March 4, 2005, attended by 64 participants from consumer and industry associations, national energy agencies, and member state representatives.

The 'EU strategy for Biofuels'

Based on the information gathered at these meetings and on the Impact Assessment data for the Biomass Action Plan collected in 2004, the European Commission drafted a Communication titled

‘An EU Strategy for Biofuels’ (European Commission, 2006d). Published on 8 February 2006, the paper justifies the EU’s support of biofuels ‘with the objectives of reducing greenhouse gas emissions, boosting the decarbonisation of transport fuels, diversifying fuel supply sources and developing long-term replacements of fossil oil’ (ibid., p. 3). Overall, the strategy puts emphasis on the promotion of energy security and technological innovation, particularly in second-generation biofuels (Pacini et al., 2013). For an EU biofuel strategy, the Communication sets out three aims: (1) The further promotion of biofuels in the EU and developing countries, given their production is fair and eco-friendly; (2) improving cost-competitiveness through optimised cultivation of feedstocks, research into ‘second generation’ biofuels and ‘support for market penetration’ by scaling up demonstration projects and removing non-technical barriers; (3) exploring opportunities for developing countries for the production of biofuels, and setting out the role of the EU in supporting the development of sustainable biofuel production (European Commission, 2006d, p. 4). For future policy action, the Communication suggests a ‘regulated market-based approach’. Such an approach would favour ‘a balanced approach in trade negotiations concerning biofuels, the use of available instruments in agricultural, rural development and cohesion policy and the development of a coherent assistance package for developing countries’ (European Commission, 2006d, p. 4). Acknowledging that existing technologies are not cost-competitive, the Communication is surprisingly confident that ‘the benefits of encouraging the development of biofuels should outweigh the costs’ (ibid., p. 4).

Towards a biofuels goal

After the publication of the biofuels strategy, the cogs and wheels of EU policy-making started to move in a routine manner. In March 2006, the European Council proposed a benchmark of 8% biofuels by 2015. The European Commission suggested a 10% target for 2020 in its 2007 Renewable Energy Roadmap. The European Parliament, as usual more environmentally ambitious, proposed a 12.5% target for 2020 in its resolution on climate change of 14 February 2007. The policy process between 2006 and 2008, leading to an agreed target for the share of biofuels in transport fuel, is the pre-crisis policy debate of this case (Directive 2009/28/EC²⁵).

²⁵ Directive 2009/28/EC is also known as Renewable Energy Directive (RED) and is not only about biofuels. Likewise, some important parts of the biofuels legislation were not included into the RED, but into the Fuel Quality Directive (FQD), which was updated at the same time. As the focus in this case study is on biofuels, and to avoid confusion, this chapter avoids mentioning the two Directives and focuses on the biofuels elements of the legislation regardless of the final document it was placed in.

After Directive 2009/28/EC entered into force, the public and politicians became increasingly aware that biofuels are no silver bullet for achieving sustainability. It turned out that highly profitable biofuel crops would be cultivated at the expense of food crops. Alternatively, previously uncultivated land such as rainforest could be used to satisfy the demand for new crop areas, putting into jeopardy the environmental and climate goals of the policy. The policy debate after the outbreak of the crisis dealt with this problem known as ILUC (indirect land use change) and ended in the adoption of Directive 2015 (EU) 2015/1513.

6.1.2 The impact of the economic crisis on the industry

EU biofuels policy was selected as a third case because compared to the car and aviation industry, the economic crisis had a weaker impact on the biofuels industry. The key economic figures for the industry underpin this claim. Figure 6-2 shows that biofuel consumption did not decrease during the years 2008 to 2010, when we saw a massive demand breakdown in the automotive and aviation sector. Quite the opposite, biofuels consumption steeply grew until 2013, when a period of saturation began.

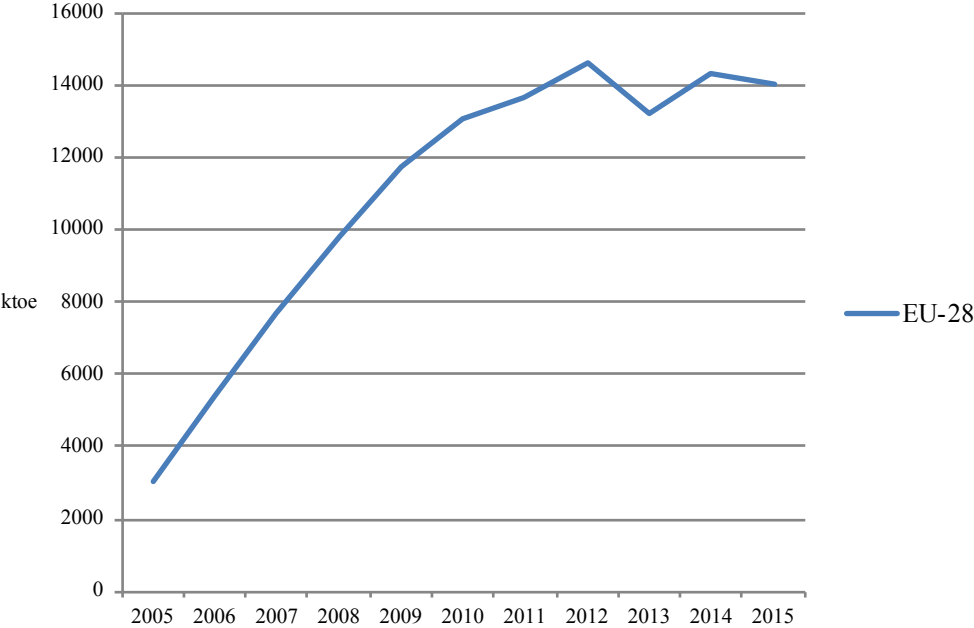


Figure 6-2: Biofuels consumption in the EU-28. Source: EurObserv'ER.

On the supply side, the figures look similar: A steep increase from 2006 to 2009, followed by a period of stagnation from 2011 on (Figure 6-3). Industry reports agree that the slow-down in growth

rates since 2011 was caused by a variety of factors such as regulatory uncertainty, increased imports and increasing prices for crops, the economic crisis not being considered a major factor (EurObserv'ER, 2013; Flach et al., 2013; Kirchner, 2011; Martins & Gay, 2014).

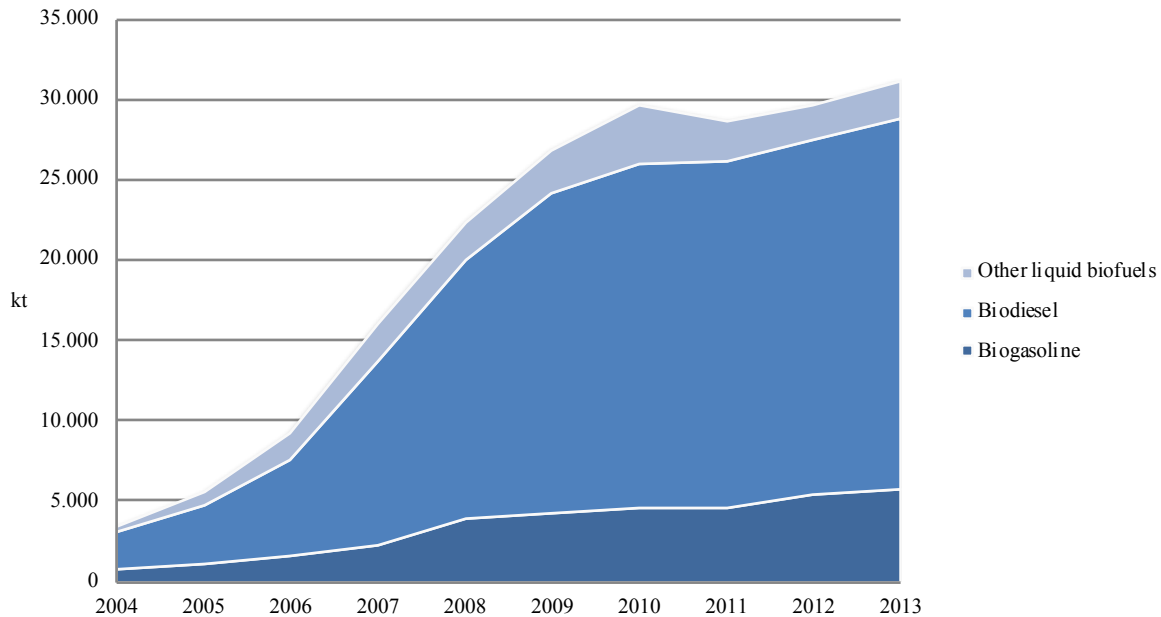


Figure 6-3: Biofuels production capacity, EU-28. Source: Eurostat.

6.2 Analysis of the policy-making process before the outbreak of the economic crisis (Directive 2009/28/EC)

Beyond contrasting the previous two case studies, the policy-making process of the EU legislative framework for biofuels is an interesting and instructive case for two reasons: It allows to observe the emergence of an entirely new policy domain, and it showcases how crisis-resilient industrial branches can be if they enjoy regulatory protection. Table 6-2 below provides a timeline of the policy process leading to the adoption of Directive 2009/28/EC.

Date	Event/Document	Main content
08/02/2006	An EU Strategy for Biofuels (Communication from the Commission)	Strategic outline with three aims: Promotion of biofuels production, preparation of large-scale use of biofuels, and exploring the role of developing countries in biofuels production
10/01/2007	An Energy Policy for Europe (Communication from the Commission to the European Council and the European Parliament)	10% share of biofuels in transport fuel consumption by 2020

Renewable Energy Road Map
(Communication from the Commission to the
European Council and the European
Parliament)

23/01/2008	Commission Proposal for a Directive of the European Parliament and of the Council on the promotion and use of energy from renewable sources	10% share of biofuels in transport fuel consumption by 2020; biofuels must save at least 35% greenhouse gas emissions; biofuels must not be made from raw material coming from land with high biodiversity.
09/07/2008	EP Environment Committee vote	8% share of biofuels in transport fuel consumption by 2020, 4% by 2015
10/09/2008	EP Industry Committee vote	10% share of biofuels in transport fuel consumption by 2020; 40% of this share must be achieved by sustainable transport innovations
04/12/2008	Inter-institutional agreement on biofuels legislation in the Fuel Quality Directive	35% greenhouse gas emissions savings by 2013; 50% by 2017; no binding sub-targets for sustainable transport innovations
9/12/2008	Inter-institutional agreement on biofuels legislation in Renewable Energy Directive	10% share of biofuels in transport fuel consumption by 2020; double-credit second-generation biofuels in calculating share
17/12/2008	EP First Reading	
06/04/2009	Approval by the Council of the EP position	
23/04/2009	Signature by the EP President and Council President	

Table 6-2: Timeline of the legislative process before the outbreak of the economic crisis, case study 3.

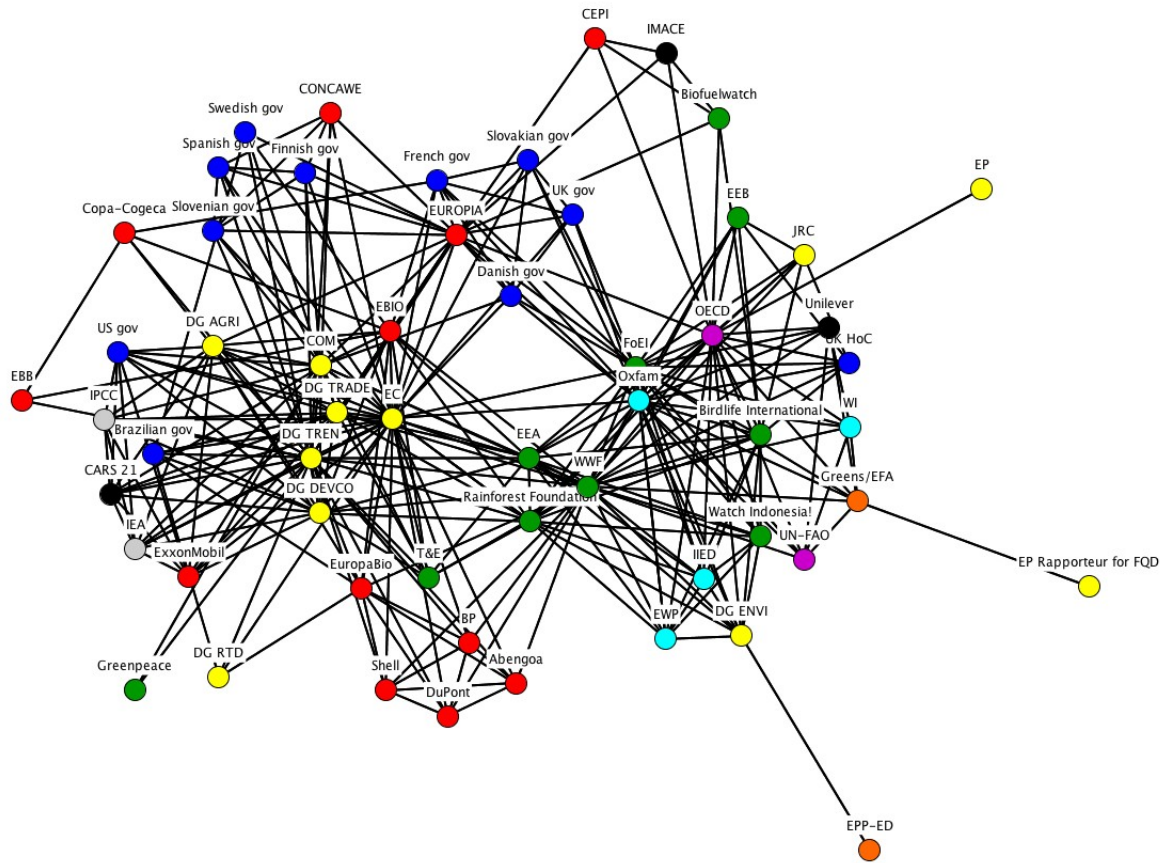
6.2.1 Analysis of the policy-making process before the publication of the Commission proposal on 23 January 2008

Increasing the use of biofuels – organising support and opposition

The European Commission had published a Biofuels strategy in February 2006 (see above), motivated by different reasons: ‘Fears over energy supply, the price of oil, reform of EU agricultural policy and the Kyoto climate change protocol all argue in favour of biofuels’, said a spokesman for the Directorate General for Agriculture (‘Commission wants switch to biofuels’, 2006). In all probability, the order of mentions in this quote reflects the importance of reasons for the European Commission, given that both resource dependence from Russia and high oil prices were politically salient issues in winter 2006. While Agriculture Commissioner Fischer Boel cheerfully declared that ‘there was never a better moment to push the case of biofuels’ (‘EU biofuel plan could soothe energy tensions’, 2006), her enthusiasm led the European Petroleum Industry Association’s (EUROPIA)

secretary-general Peter Tjan to the suspicion that the Commission's efforts actually aimed at protecting farm jobs ('Commission wants switch to biofuels', 2006). In fact, EUROPIA was the only member of the automotive industry high-level group CARS 21 (see above) that did not subscribe to the statement that increasing the share of biofuels is recommendable.

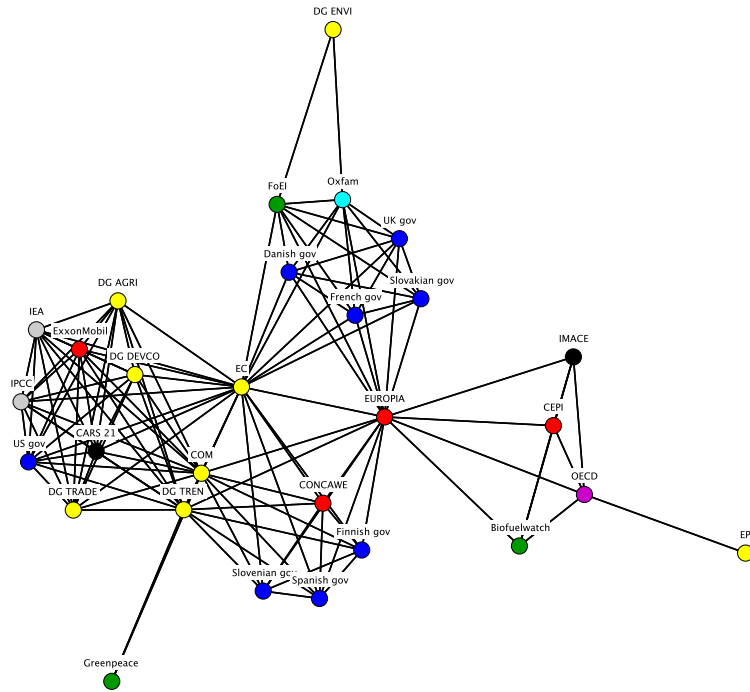
Network Graph 6-1 displays the congruence network of the policy domain before the publication of the Commission proposal. Despite the early stage of the decision-making process, the policy domain is already clustered into different coalitions: To the left, there is a broad coalition of Commission services, member states, and business actors, while most environmental and humanitarian NGOs as well as the OECD and the UN form the coalition to the right. Also the Directorate General of Environment was more hesitant in the appraisal of biofuels than the other Commission services. Director-General Peter Carl welcomed the Commission's efforts as 'extremely important', while admitting that he had to be 'politically correct' ('Biofuel matters, a burning issue', 2006). He warned that countries like Brazil are at the limit of sustainable production and that increased demand by the EU could encourage them to destroy rainforests. Also Jacqueline McGlade, head of the European Environment Agency, a Commission agency, criticised that EU leaders were 'trying to do the right thing', but came up with numbers in absence of solid evidence ('Biofuel matters, a burning issue', 2006). An EEA study also showed that the Commission overestimated the carbon dioxide savings of some biofuels.



Network Graph 6-1: The policy domain before the publication of the Commission proposal, Directive 2009/28/EC.

Discussing targets – mandatory and ambitious?

A great share of the policy debate centred around the question if the EU should increase the share of biofuels at all, how high a targeted share of biofuels should be, and whether the target should be mandatory or voluntary. Network Graph 6-2 zooms into this debate by only showing the debate on the above-mentioned topics. In March 2006, the European Commission presented the draft version of a Communication called ‘Energy Policy for Europe’ with great ado. The strategy paper was drafted in close collaboration with the Council and the Austrian Council Presidency. It proposed an 8% goal for biofuels until 2015, a target that was also endorsed at the Council Summit on 24 March 2006. When the final version of the paper was published one year later on 10 January 2007, however, the European Commission had increased the target into a more ambitious 10% share of biofuels. The 10% target was also stipulated in the Renewable Energy Road Map, published on the same day. This target shows how serious the Commission was about expanding biofuels use, despite chances to meet the 2010 target of 5.75% were low. The ‘Energy Policy for Europe’ even mentioned that biofuels could potentially provide 14% of fuels in 2020.



Network Graph 6-2: The policy domain before the publication of the Commission proposal, debate on biofuel target values, Directive 2009/28/EC.

Network Graph 6-2 shows more clearly than Network Graph 6-1 that already at this point, the network was divided into distinct clusters. Ahead of a meeting of EU energy ministers, it became clear that the Commission proposal would face resistance in the Council, especially because most member states were reluctant to accept a binding target, among them France, the United Kingdom, Denmark, Slovakia and several other East European member states (‘EU states losing appetite for big energy commitments’, 2007). This coalition is visualised at the top middle of Network Graph 6-2. The seemingly odd presence of the NGOs Oxfam and Friends of the Earth within this coalition is explained by a letter that these two actors wrote to the Energy Commissioner, urging him to either introduce very high standards or ban biofuels altogether. An equally diverse coalition in the left part of the graph pronounced the business opportunities of an expansion of biofuels in the EU. While there was more support for a voluntary target, only Spain, Slovenia, and Finland were reported to back the Commission’s proposal for a binding target. Eventually, both the Energy and Environment configurations of the Council accepted a binding 10% target at their meetings on 15 respectively 20 February 2007, but included a strong caveat by concluding that ‘the binding character of this target is appropriate subject to production being sustainable, second-generation biofuels becoming commercially available and the Fuel Quality Directive being amended accordingly to allow for adequate levels of blending’ (Council of the European Union, 2007a,

2007b). Moreover, in its conclusions on a European energy strategy for transport adopted on 8 June 2007, the Council requests the Commission to propose a certification scheme for biofuels based on sustainability criteria and their contribution to reducing overall greenhouse gas emissions. The conclusions also urge the Commission to further invest in the research on second-generation biofuels.

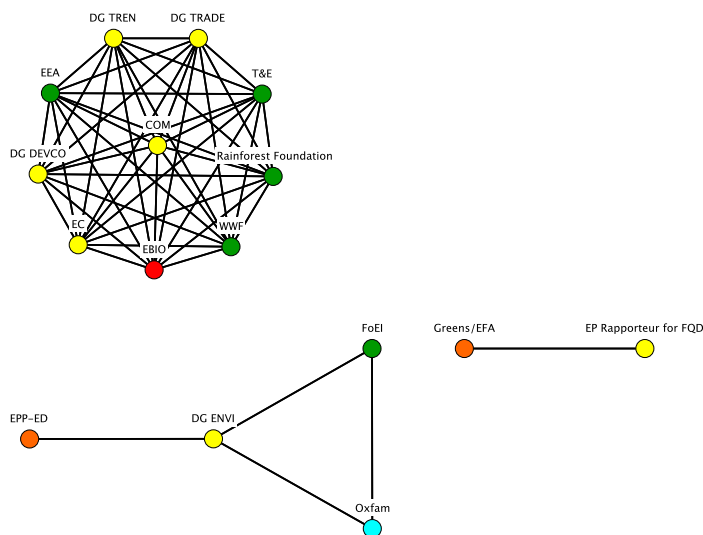
Thus, under the German presidency, the Council appeared to have a twofold motivation for pushing the Commission towards more sustainable biofuels: On the one hand, it looked for a way to maintain an expansive biofuels strategy that would support European farmers and help to reach independence from fuel imports, despite growing scepticism on the sustainability of biofuels. On the other hand, proposing sustainability criteria as a precondition for binding targets could be a way to avoid the latter. The European biofuels industry was hesitantly supporting sustainability criteria, but demanded a level playing field with other fuel products by introducing sustainability criteria also for traditional fuels ('Just how "bio" is the EU's biofuels policy?', 2007).

Conflicting biofuels and emission reduction targets: sustainability criteria as a way out

With the plans for a biofuels target becoming clearer, a trade-off between two policy goals became more evident as well. While petrol industry representatives from EUROPIA and Concawe (a joint research facility of the European oil industry) generally supported efforts to reduce greenhouse gas emissions from fuels ('Oil giants attack biofuels target', 2007), the industry complained that the 10% biofuel market share target was irreconcilable with the 10% emission reduction target from fuels by 2020. The head of EUROPIA pointed out that 'this inconsistency is a big issue for us. You can't just throw different targets at the same industry at the same time. It's impossible' ('Fuel producers vent their anger at EU's green agenda', 2007). The fuel industry argued that a 10% emission reduction would require a 16% share of biofuels by 2020, which was clearly out of reach ('Oil giants attack biofuels target', 2007). EUROPIA also warned that an increase to a 16% biofuels share could not be produced domestically, so the EU would need to import crops from other countries, which again would raise costs, reduce greenhouse gas savings and keep the EU dependent on energy imports.

The conflicting biofuels and emission reduction goal had its roots in internal Commission coordination problems: DG Environment was responsible for drafting a revision of the Fuel Quality

Directive (FQD) which would include the obligation for fuel producers to reduce their product emissions by 10% by 2020. The biofuels Directive including the 10% market share goal was however drafted by DG Transport and Energy (TREN). The only way out of the dilemma was to establish sustainability criteria on biofuels, defining minimum greenhouse gas savings. Network Graph 6-3 below shows the debate on sustainability criteria. It indicates that there was broad support for such criteria among a coalition of Commission Directorate Generals, the Council, environmental lobby groups and even the European Bioethanol Fuel Association (EBIO), which supported sustainability criteria as long as they would not be stricter as for other sectors. Within the Commission, DG Environment and DG Transport and Energy officially agreed that the biofuels Directive would be the logical place for sustainability criteria ('MEP calls for binding biofuel standards', 2007). In the European Parliament, the responsible Rapporteur Dorette Corbey (S&D) wanted to include these sustainability criteria also in the Fuel Quality Directive. While the Greens/EFA supported her (visible to the right in Network Graph 6-3), the largest EP group, the centre-right EPP-ED, opposed the idea, arguing it would undermine the Commission's work ('MEPs split over vehicle fuel quality', 2007).

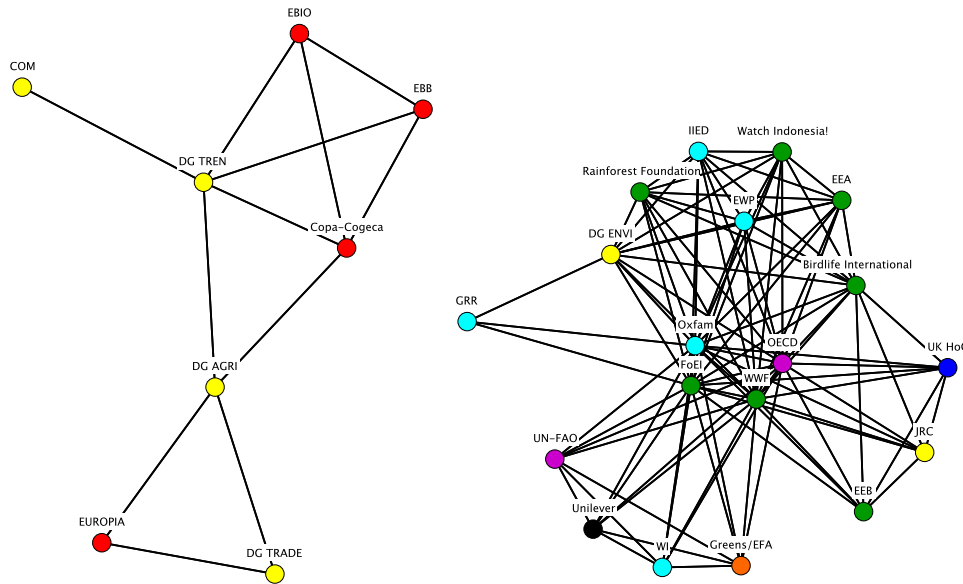


Network Graph 6-3: The policy domain before the publication of the Commission proposal, debate on sustainability criteria, Directive 2009/28/EC.

The role of ethical and environmental concerns

The conflict between biofuel and emission reduction goals elucidates that ethical and environmental concerns had been present since the beginning of the policy debate and became more urgent throughout the policy process. Essentially, the debate around biofuels in the light of

environmental aspects boils down to the question whether biofuels are considered primarily a tool to tackle strategic challenges in energy and agricultural policy, or whether biofuels are mainly a measure to mitigate climate change. Network Graph 6-4 shows the debate on these ethical and environmental concerns and points out that due to their moral implications, the policy domain was deeply divided in these matters.



Network Graph 6-4: The policy domain before the publication of the Commission proposal, debate on ethical and environmental concerns, Directive 2009/28/EC.

Environmental concerns made up a large part of the public debate on biofuels and were more present than in the other two cases investigated in this study. This is also the reason why environmental NGOs, appearing in the right cluster in Network Graph 6-4, were more present in the policy debate than in the other two case studies. From the beginning of the debate, environmental and development NGOs started to campaign for a sustainable biofuels policy, urging policy-makers to introduce strict sustainability criteria. Environmental groups found themselves confronted with the dilemma that biofuels potentially save greenhouse gas emissions but can have negative side effects. While most NGOs welcomed the idea of decarbonising transport by using alternative fuels, they were concerned that the externalities of growing biofuel crops could outweigh the greenhouse gas savings and destroy the environment: ‘Biofuels certainly have a role to play. But to have meaningful impact, they have to be produced in a sustainable way’, said Catherine Brett from the World Wildlife Fund (‘Biofuels - green or mean?’, 2006). Other NGOs, such as Biofuelwatch, rejected biofuels in general, saying that they are ‘essentially not going to take us anywhere’ (‘EU

and Brazil agree joint biofuels research', 2007). Several NGOs introduced factors into the debate that would negatively affect the emissions savings equation made by proponents of biofuels. The WWF, for instance, warned that clearing rainforests in order to plant crops would release all the carbon dioxide saved in the rainforest into the atmosphere, besides destroying biodiversity and wildlife ('Biofuels - green or mean?', 2006). Also the increased use of fertilisers for biofuel crops would increase carbon dioxide outputs in the production process, Birdlife International warned ('Plant-based fuels could increase emissions', 2007). Another NGO, the European Environmental Bureau (EEB) argued that an increased use of biofuels could take pressure off carmakers to develop efficient cars ('Green worries over political intentions', 2007).

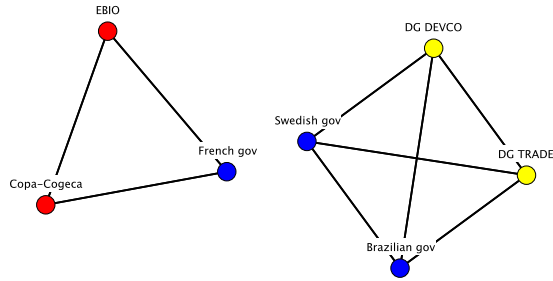
The Agriculture and Trade Commissioners were at loggerheads in this question. The Directorate General for Agriculture published a report stating that the 10% target could be met with 80% of the crops being grown in the EU. Therefore, the target would 'not overly stretch the land availability' in third countries ('Mandelson stokes up biofuels row', 2007). However, Trade Commissioner Mandelson argued that much larger imports were necessary, his spokesman clarifying that 'the issue is an environmental one' (ibid.). To make things worse for the Commission, its own research agency, the Joint Research Centre (JRC) argued in an internal report that the uncertainty is too great to say whether the 10% biofuels target will save greenhouse gas emissions at all ('Commission's own scientists question biofuels', 2008). Just a few days before the Commission published its proposal for a biofuels Directive in January 2008, Environment Commissioner Dimas admitted that the Commission had underestimated the problems: 'We have seen that environmental problems caused by biofuels and also the social problems are bigger than we thought they were.' He added that it would be better to miss the biofuels target than to hurt the poor or damage the environment ('EU admits biofuel target problems', 2008). This is the reason why the JRC and DG Environment appear in the 'green' coalition in Network Graph 6-4.

Another concern brought up by NGOs was the potential trade-off between planting biofuel crops and food crops. The European Commission insisted that its plans are not dangerous to fulfil ('EU member states slow to commit to green energy targets', 2007). However, the NGO Worldwatch Institute calculated that covering 10% of the global transport fuel demand with biofuels would require 9% of the world's agricultural land ('Can biofuels replace fossil fuels?', 2006). Many other development NGOs and also green MEPs shared the concern of a competition between car drivers

and the global poor ('Food and biofuel industry clash over use of farmland', 2007). NGOs were particularly worried about the effect of biofuels crops on food crop trading prices. In a jointly published report, also the OECD and the Food and Agriculture Organisation of the UN warned that increasing the use of biofuels could lead to higher nominal prices on cereals and animal feed costs ('Growing accustomed to higher prices', 2007). The European biofuels industry, represented in the left cluster in Network Graph 6-4, opposed these concerns and claimed they were exaggerated. The European Bioethanol Fuel Association (eBio) argued that only 10% of the price of a loaf of bread is linked to the cereal price ('Just how "bio" is the EU's biofuels policy?', 2007). Raffaele Garofalo, speaking for the European Biodiesel Board (EBB), said that 'if we need to produce more food at some point in the future, it is easy to turn back the production. Revolutions are always met by conservatism' ('Food and biofuel industry clash over use of farmland', 2007).

The international debate on import tariffs

The EU's biofuels plan also had vast repercussions outside Europe, given that typical biofuel crops such as soy grow in tropical regions, and that the EU would need to import a remarkable share of its fuel. In that context, another controversial debate, displayed in Network Graph 6-5 below, evolved on whether to impose import tariffs on biofuel imports, an idea that countries with a large biofuels production capacity like Brazil adamantly opposed. EU member states were divided in this question. While Sweden spoke out in favour of scrapping tariffs to stimulate trade and ultimately demand by lower prices, countries such as France supported tariffs in order to protect domestic farmers. France was joined by the European biofuels industry, which argued that tariffs were necessary to encourage investment in the European production ('Brazil calls on Brussels to scrap biofuel tariffs', 2007). Trade Commissioner Mandelson tried to raise awareness for the EU's dependency on imports given its ambitious goals, stating that 'Europe should be open to accepting that we will import a large part of our biofuel resources' ('Brazil calls on Brussels to scrap biofuel tariffs', 2007). Mandelson's statement, again, startled the European farmer's association Copacogeca, which stressed the purpose of the policy to reduce the EU's dependency on energy imports ('Mandelson stokes up biofuels row', 2007). Linking the import tariff debate with that on sustainability criteria, the European Bioethanol Fuel Association suggested to not count imported fuels towards the 10% target unless they comply with EU sustainability criteria, essentially creating a trade barrier.



Network Graph 6-5: The policy domain before the publication of the Commission proposal, debate on import tariffs, Directive 2009/28/EC.

6.2.2 Analysis of the policy-making process after the publication of the Commission proposal on 23 January 2008

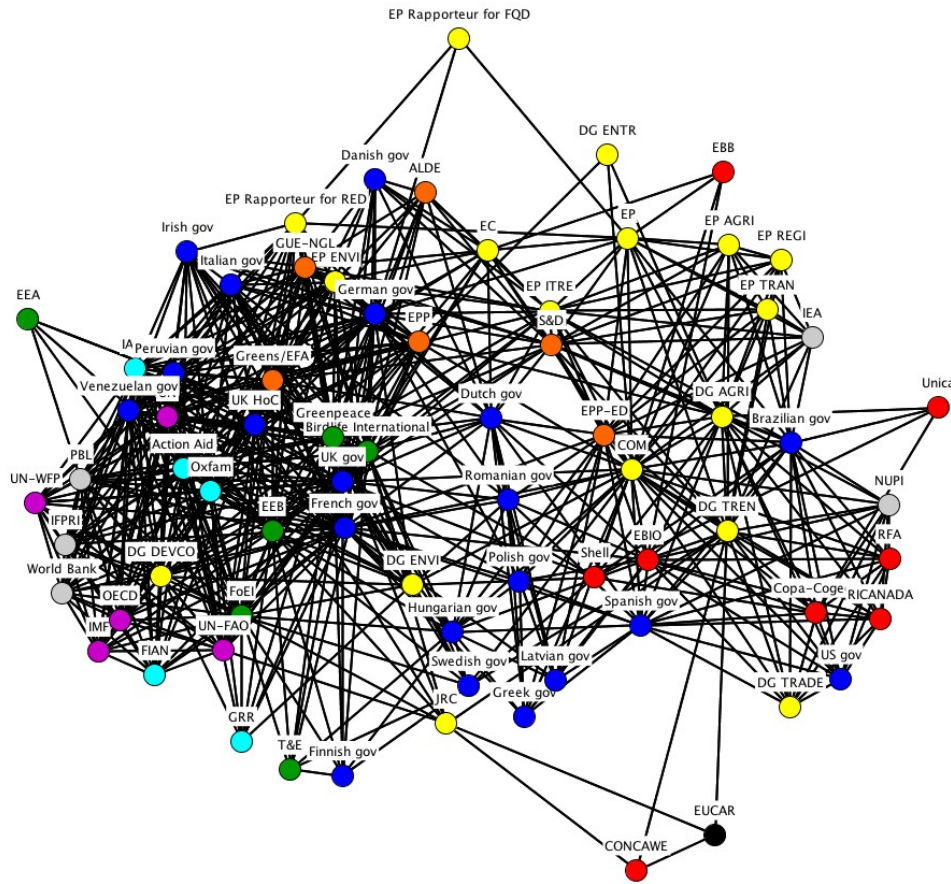
The European Commission published a policy proposal on 23 January 2008, suggesting a 10% target for biofuels by 2020. According to the proposal, biofuels must at least save 35% greenhouse gas emissions compared to fossil fuels. Furthermore, they must not be made from ‘raw material obtained from land with recognised high biodiversity value’, thus forest undisturbed by human activity, areas designated for nature protection purposes, and highly biodiverse grassland. Also raw materials from wetlands and continuously forested areas are forbidden. Commission President Barroso called the proposed sustainability criteria ‘the most important and the most advanced’ standards in the world (‘EU unveils comprehensive climate and energy package’, 2008).

Sustainability criteria in the context of environmental, social, and economic interests

The proposed sustainability criteria came under fire by a large number of actors for being too soft and not responding to important environmental, but also social and human rights concerns. GRR, an Argentinian NGO for farmers’ rights declared that the criteria ‘exclude vital factors such as large-scale water extraction, soil erosion, land conflicts, human rights and labour conditions of workers. Moreover, they cannot deal with the macro-level impacts such as displacement and increased food prices’ (‘EU climate plan gets cool reception from (business and green groups’, 2008). Friends of the Earth Europe claimed that ‘most biofuels now appear to be worse than oil. There is not enough good agriculture land to grow food, feed and biofuels’ (ibid.). But also several EU member states were reported to criticise the proposed sustainability criteria. Worried about food prices, the French environment minister Jean-Louis Borloo called for criteria that ‘stress the sustainability of biofuels compared to the price of land, food and water’ (‘EU biofuels sustainability

criteria “not green protectionism””, 2008). The French state secretary for ecology added that the Commission should first have set environmental and social criteria for biofuels and then a matching target (‘EU biofuels target “probably a mistake,” France says’, 2008).

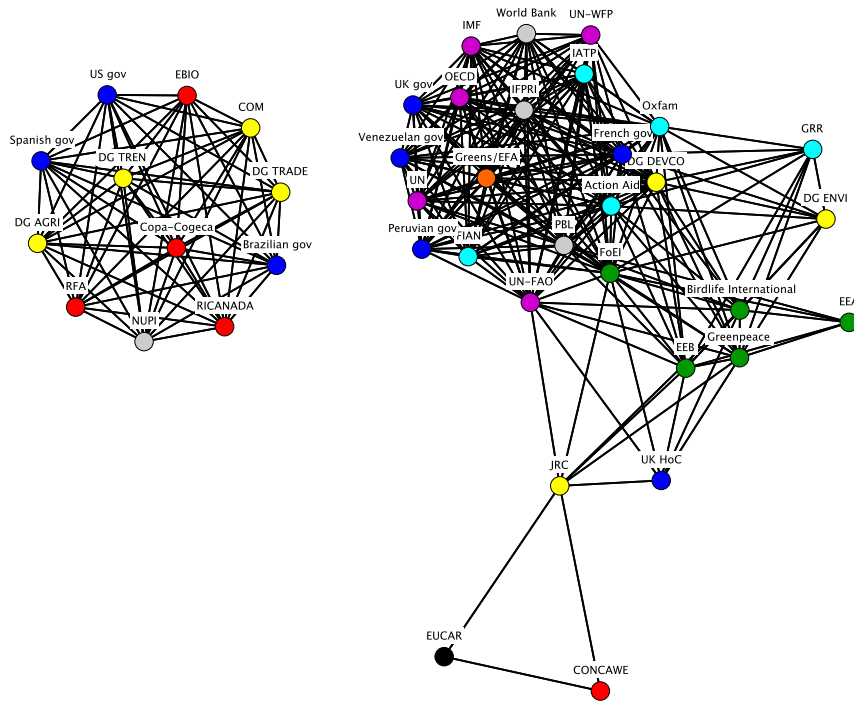
These statements by two French politicians are remarkable for two reasons: First, France was about to take over the rotating Council presidency on 1st July 2008, being responsible for drafting the Council opinion on the biofuels file. The French position towards biofuels thus had particular weight. Second, in previous stages of the policy process, France put emphasis on protecting European farmers. Stricter sustainability criteria would curb imports from third countries and improve the market position of biofuels produced in the EU. These French calls for stricter standards highlight the ambiguous role of sustainability criteria between environmental and economic interests. Also within the Commission, sustainability criteria were discussed controversially. Environment Commissioner Dimas and Development Commissioner Michel were reported to argue for adding social criteria linked to food prices, but succumbed to Transport and Energy Commissioner Piebalgs and Trade Commissioner Mandelson (‘EU commission investigates link between biofuels and food crisis’, 2008). The relatively high levels of conflict in this stage of the policy process reflect in Network Graph 6-6 below. This graph shows that the policy domain after the publication of the Commission proposal was polarised into a coalition of actors that were in favour of a rather environmentally strict regulation (cluster to the left), and industry actors, governments and EU institutions that were in favour of a more market-friendly version. Compared with the earlier stage of the policy process, the degree of political polarisation has increased.



Network Graph 6-6: The policy domain after the publication of the Commission proposal, Directive 2009/28/EC.

Do biofuels endanger food safety?

While the sustainability criteria proposed by the Commission attempted to solve the goal conflict between biofuels and emission savings, they did not address another potential trade-off: That between land used for biofuels crops and land used for growing food and feed crops. Therefore, the discussion on the impact of biofuels on food safety, already taking place before the publication of the Commission proposal (shown above in Network Graph 6-4), picked up speed and became a major obstacle for policy-makers in the decision-making process. Network Graph 6-7 below shows that in comparison with Network Graph 6-4, both coalitions in this debate became larger after the publication.



Network Graph 6-7: The policy domain after the publication of the Commission proposal, debate on ethical and environmental concerns, Directive 2009/28/EC.

The right cluster in Network Graph 6-7 shows that besides the great number of highly active and vocal environmental and development NGOs, also international organisations criticised the Commission proposal, most prominently the United Nations. The UN World Food Programme attributed rising food prices partially on the push for biofuels (‘EU aid chief says rising food prices risk African “humanitarian tsunami”’, 2008). A report co-edited by the UN Food and Agriculture Organisation (UN FAO) and the Organisation for Economic Cooperation and Development (OECD) concluded that growth in biofuel production will contribute to higher crop prices (‘UN, OECD predict sustained high food prices’, 2008). The United Nations Special Rapporteur on the right on food, Jan Ziegler, even called the diversion of land from food to create biofuels a ‘crime against humanity’ (‘Biofuel could send food into orbit’, 2008). The United Nations were joined by the International Monetary Fund (IMF), suggesting that the increased demand for biofuels accounts for 20 to 30% of recent food price increases (‘Europe’s food prices up twice the inflation rate’, 2008). In April 2008, also the World Bank published a policy note acknowledging that ‘most scenarios of increased use of biofuels imply substantial trade-offs with food prices’ (World Bank, 2008, p. 10). Another (confidential) World Bank report attributed even 75% of the rise in global food prices to biofuels (Mitchell, 2008, p. 17). Also third world countries such as Peru and Venezuela called for

the EU to abandon its planned biofuels target because it pushed food prices ('Strains keeping EU-Latin American ties loose', 2008).

Those lobbies interested in increasing the share of biofuels, located in the right cluster in Network Graph 6-7 (above), opposed warnings of biofuels threatening food security. The European farmers' federation Copa-Cogeca said that the impact of biofuels on food prices will be 'very limited' ('Biofuel could send food into orbit', 2008). Also, it reminded that more than the half of the 860 million hungry people in the world are farmers who could profit from higher prices in the long run ('Western biofuel policies "incomprehensible," says UN', 2008). The European Bioethanol Fuel Association, the US Renewable Fuels Association and the Canadian Renewable Fuels Association teamed up and wrote a joint letter to the UN food summit, criticising the UN and other institutions for singling out biofuels as the major cause for escalating food prices ('Western biofuel policies "incomprehensible," says UN', 2008).

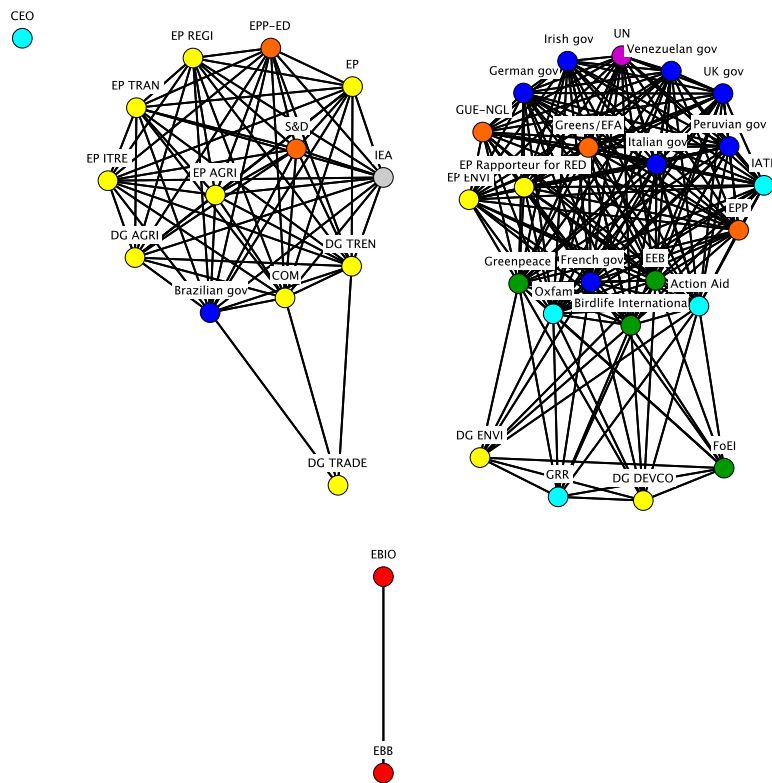
The Commission eagerly defended its policy proposal and came up with numerous justifications why its biofuels target did not endanger food safety. Commission President Barroso argued that NGOs exaggerate the impact of biofuels on food prices, claiming that the rise in food prices is due to a structural increase in demand ('Barroso defends EU policy on biofuels', 2008). Also the Transport and Energy Commissioner denied the UN's claim and blamed low harvests and export restrictions for grain in the Ukraine and the United States for rising food prices. Barroso's spokesman even asserted that biofuels could eventually bring down food prices because biofuels were lowering transport costs, which make up a substantial part of the price of food items, while the Agriculture Commissioner's spokesman blamed the United States' expansive bioethanol strategy for rising food prices, whereas 'any effect the EU may be having is utterly exaggerated' ('The "war" on biofuels comes to Brussels', 2008). Biofuels have become the scapegoat of a recent media storm, the Agriculture Commissioner Fischer Boel said ('Biofuels should not be "scapegoated"', 2008). The Trade Commissioner Mandelson added that including social criteria would violate WTO trading rules ('Brussels blames part of food price rise on US biofuels policy', 2008). Only the development Commissioner Michel warned that 'the fashion for biofuels could be a catastrophe especially in countries which are not self-sufficient in food' ('EU commission investigates link between biofuels and food crisis', 2008).

Also within the Council, concerns about the impact of biofuels on food prices were growing. As already mentioned, the French government considered amending further sustainability criteria addressing the goal conflict with food crops. The British Prime Minister Gordon Brown called for examining the impact of biofuel production on food prices ('Biofuels "aggravating" food prices says Brown', 2008). In contrast, the Spanish Prime Minister Zapatero found complaints about the impact of biofuels exaggerated, given that the link to food prices was unclear ('EU-Latin America summit achieves little', 2008). In the European Parliament, support for the biofuels target became weaker. The Greens/EFA were calling for a memorandum on biofuels ('Global food crisis prompts EU to boost emergency aid', 2008).

The 10% goal under fire

Target values for biofuels had already been discussed intensely before the publication of the Commission proposal (see Network Graph 6-2). In the light of growing concerns about the environmental and social sustainability of the planned biofuels policy, the proposed 10% goal was questioned by a growing number of actors. Network Graph 6-8 (below) shows the debate on target values after the publication of the commission proposal. In comparison to Network Graph 6-2, the clusters in the graph have become larger, denser, and separated from each other more clearly, fulfilling all criteria of increasing polarisation. The right cluster in Network Graph 6-8 suggests that environmental NGOs such as Greenpeace and the EEB lobbied member state governments directly, urging them to drop the target. In fact, despite backing a 10% goal in 2020, the support crumbled in the Council. The United Kingdom met the idea with increasing scepticism, especially after the environmental audit Committee of the House of Commons had published a report condemning biofuels as expensive and unsustainable ('Europe's food prices up twice the inflation rate', 2008). Ireland proposed to keep the 10% target by 2020 and in turn abandon the 5.75% target in place for 2010 ('Biofuels targets too much too soon for Ireland', 2008). Also Italy ceased support for the Commission proposal, calling the objective 'not reachable' ('EU biofuels target "probably a mistake," France says', 2008). A 10% goal became unlikely when the French state secretary announced on 30 May 2008, one day before France taking over the rotating Council Presidency, that 'we will be obliged to call into question or postpone the 10% objective' ('EU biofuels target "probably a mistake," France says', 2008). Latest when a German state secretary working on the file said on 7 July 2008 that the goal 'might be changed', it became clear that the

10% target had little chance to survive the Council vote (‘EU biofuels target “probably a mistake,” France says’, 2008).



Network Graph 6-8: The policy domain after the publication of the Commission proposal, debate on biofuel target values, Directive 2009/28/EC.

The European Parliament was divided in the question on whether to support the proposed target: Committees as well as political groups appear in both clusters in Network Graph 6-8. The Regional (REGI), Agriculture (AGRI), Industry (ITRE) and Transport (TRAN) Committees voted to back the 10% goal, while the Environment (ENVI) Committee voted for lowering it: The Green MEP Claude Turmes, Rapporteur for the file in the EP, favoured scrapping the benchmark altogether because it was ‘more a political than a scientific target’ (‘Biofuels targets face cross-party criticism in Brussels’, 2008). Conservative MEPs in the Environment Committee drafted their own report, suggesting a lower target than 10%, such as 8%. Following the report, the Environment Committee voted for an amendment to lower the target to 8% by 2020, with an intermediary target of 4% by 2015. The decisive vote, however, took place in the Industry Committee which had the lead on the file in the Parliament. While conservative, liberal, and social democrat Committee members wanted to keep the 10% goal, green and socialist members rejected it and demanded a 4% target (‘Sustainability criteria targets approved’, 2008). With a great majority, the Committee voted for a

compromise to keep the 10% target but amended that 40% of the target should be met using hydrogen cars, electric cars using renewable power and second-generation biofuels instead of regular biofuels. Thus, the Committee effectively voted to lower the biofuels target considerably ('Climate change barely altering European habits', 2008).

Defining a greenhouse gas savings threshold

The Commission had proposed to only account biofuels towards the target that save at least 35% greenhouse gases compared to conventional fuels, while green NGOs demanded at least 60% ('Biofuels should not be "scapegoated"', 2008). The council was divided over whether this threshold is too high, too low, or just right. A broad alliance of countries such as France, Poland, Spain, Romania and Greece wanted to lower the threshold to maximum 30% ('EU considers tightening rules on biofuels', 2008; 'Green member states fight for tougher biofuel standards', 2008; 'Slovenia fails in bid to break deadlock over biofuels policy', 2008). In contrast, Denmark, Germany, the Netherlands and the United Kingdom were reported to prefer a stricter threshold of minimum 50% that could increase over time in order to incentivise development of second-generation fuels ('France seeks biofuels compromise', 2008; 'Green member states fight for tougher biofuel standards', 2008). In March 2008, the Slovenian presidency drafted an amendment to set the threshold at 50%, following pressure by Germany, the Netherlands and the United Kingdom ('Conservationists tell EU to drop biofuels target', 2008). France, Latvia, Hungary and Poland were reported to accept such a threshold, but were pressing for a delay until 2018 ('France seeks biofuels compromise', 2008). Eventually, the Council agreed on a 50% threshold from 2017 on ('Biofuels "greener" than thought', 2008). This vote is remarkable because usually the Council dismantles environmental policy proposals made by the Commission instead of tightening them. Thus, in this policy decision, the Commission did not fulfil its typical role as 'green' policy entrepreneur (Steinebach & Knill, 2016).

The final stage of negotiations

By the end of 2008, the EU institutions finalised negotiations both on the Fuel Quality Directive and on the Renewable Energy Directive. In a Trilogue meeting between the European Commission, the European Parliament, and the Council of the European Union on 4 December 2008, negotiators reached an agreement on the biofuel elements of the Fuel Quality Directive.

These elements had been excluded from the rest of the negotiations, which had been finalised already a week before. Regarding greenhouse gas emissions savings by biofuels, the institutions agreed on a 35% threshold by 2013 as suggested by the Commission, but rising to 50% in 2017. Even higher thresholds would have been supported by the Parliament and great parts of the Council, but Spain, Italy and Greece insisted on their objections against stricter standards ('Biofuels element of climate package wrapped up', 2008). Green campaigners criticised the compromise especially for not including binding guarantees on indirect land-use change, an issue that would be picked up by policy-makers in the post-crisis policy debate of this case (see below). Also, binding sub-targets for sustainable transport innovations other than biofuels, as demanded by the European Parliament, had been rejected.

Few days later, on 9 December 2008, the Commission, the Parliament and the Council reached agreement also on the Renewable Energy Directive. Despite negative signals from the Council and the Parliament, the institutions agreed on keeping the 10% biofuels target by 2020. They added to double-credit second-generation biofuels when calculating the share. Agreement to both policy documents was now merely a formality. The agreed amendments were accepted in First Reading by the European Parliament and shortly after by the Council.

6.3 Analysis of the policy-making process after the outbreak of the economic crisis (Directive (EU) 2015/1513)

6.3.1 Analysis of the policy-making process before the publication of the Commission proposal on 17 October 2012

The Renewable Energy Directive and the Fuel Quality Directive update provided the industry with a reliable policy scenario, enabling further investments in the sector. For instance, Shell announced in March 2009 to focus its alternative energy investment on biofuels ('Making the switch from black to green', 2009). Several European biofuel companies secured farmland in developing countries amounting to hundred thousands of hectares (J. von Braun & Meinzen-Dick, 2009). However, both policy-makers and the industry had (consciously or unconsciously) ignored a problem with biofuel production that developed from a negligible side aspect to a major political priority: The problem of indirect land use change (ILUC). Table 6-3 provides a timeline of the policy process that now began.

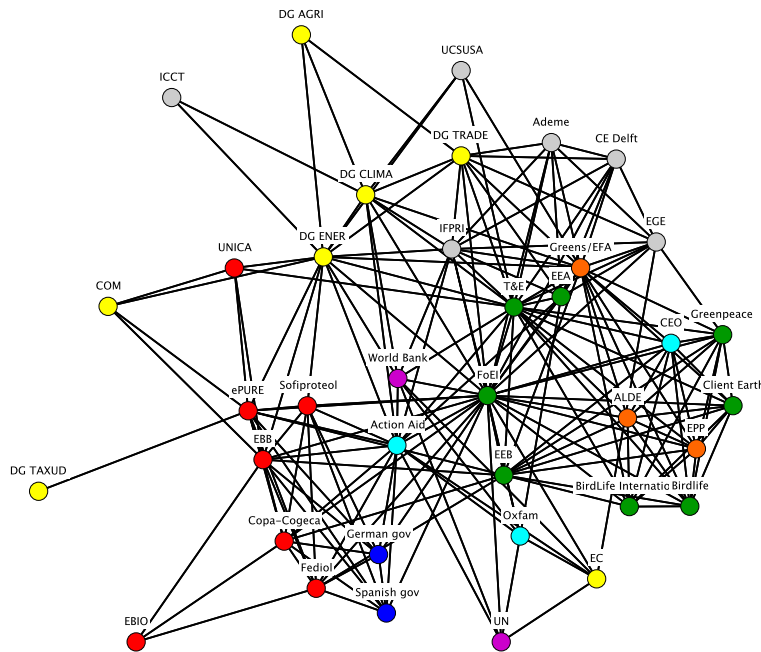
Date	Document/event	Content
10/06/2010	Commission Decision on guidelines for the calculation of land carbon stocks for the purpose of Annex V to Directive 2009/28/EC Communication from the Commission on the practical implementation of the EU biofuels and bioliquids sustainability scheme and on counting rules for biofuels Communication from the Commission on voluntary schemes and default values in the EU biofuels and bioliquids sustainability scheme	Clarification of implementation rules; calculation instructions for greenhouse gas savings; standards for voluntary schemes (sustainability certificates).
30/07/2010	Public consultation on ILUC	
31/10/2010		
22/12/2010	Report from the Commission on indirect land-use change related to biofuels and bioliquids	Summary of scientific reports on biofuels sustainability commissioned by the Commission; result of the public consultation; Announcement of an impact assessment.
17/10/2012	Commission Proposal for a Directive of the European Parliament and of the Council amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources	ILUC-factors only for reporting purposes; 5% share of first-generation biofuels by 2020; 60% greenhouse gas emissions savings; market incentives for second- and third-generation biofuels.
11/07/2013	EP Environment Committee vote for First Reading position	ILUC factors in RED and FQD; 5.5% share of first-generation biofuels by 2020; exemption of a portion from ILUC limits of biofuels equivalent to 2010 levels.
11/09/2013	EP plenary vote for First Reading position	6% share of first generation biofuels by 2020; 0.5% by 2016 and 2.5% by 2020 for second- and third-generation biofuels; Mandatory ILUC-factors in FQD. No mandate for Rapporteur LePage for First Reading inter-institutional negotiations.
13/06/2014	Agreement in Energy Council	7% share of first-generation biofuels by 2020; 0.5% non-binding target for second- and third-generation biofuels; ILUC-factors in RED and FQD, but only for reporting purposes.
24/02/2015	EP Environment Committee vote for Second Reading position	Maintain First Reading position from 11/09/2013.
14/04/2015	EP Environmental Committee votes to accept Inter-institutional agreement	7% share of first-generation biofuels by 2020; 0.5% non-binding target for

second- and third-generation biofuels; ILUC-factors in RED and FQD, but only for reporting purposes.

28/04/2015 EP Plenary adopts Directive

Table 6-3: Timeline of the legislative process after the outbreak of the economic crisis, case study 3.

Network Graph 6-9 provides an overview on the policy domain between in the period of the decision-making process before the publication of the Commission proposal. Notably, the network is less polarised than in the final stages of the previous pre-crisis policy process, as shown e.g. in Network Graph 6-8. In the right part of the graph is a grouping of environmental NGOs, think tanks and EP political groups, while the left part of the graphs shows mainly industry actors and Commission branches. These groupings, however, can hardly be described as dense clusters and are embedded into a greater network. The remainder of this section will show that the reason for this lack of polarisation is that the policy domain united behind the goal to remedy the problem of indirect land use change (ILUC) caused by the previous policy.



Network Graph 6-9: The policy domain before the publication of the Commission proposal, Directive (EU) 2015/1513.

The problem of indirect land use change (ILUC)

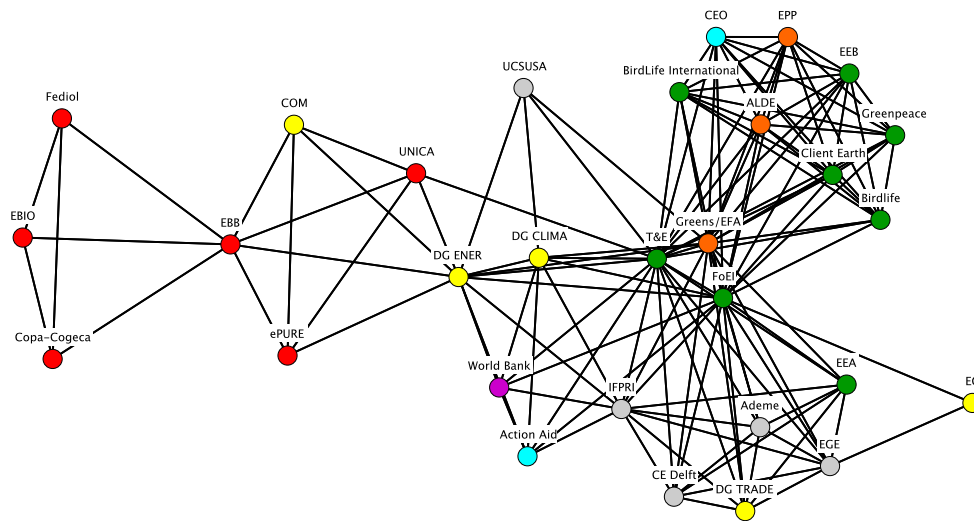
The territories secured by biofuel producers were typically croplands that were previously used for growing food or feed crops. This agriculture production is therefore displaced to other land that

was previously not used for agriculture production. An estimated 80% of cropland extension takes place within managed land, such as pastures and managed forest, but also savannah, grasslands, and primary forest (J. von Braun & Meinzen-Dick, 2009). A study commissioned by the European Commission projected that the EU biofuels target would lead to an increase of up to 1.87 million hectares of cropland area, primarily in Latin America, former Soviet Union countries and Sub Saharan Africa (Laborde, 2011). The conversion of idle areas into cropland diminishes the greenhouse gas savings of biofuels because grasslands and forests absorb higher amounts of carbon dioxide than croplands.

While indirect land use change has been discussed in the policy process leading to the 10% biofuels goal, it has not been a major topic. Policy-makers merely agreed that the Commission should submit a report to the European Parliament and the Council by the end of 2010, reviewing the impact of ILUC on greenhouse gas emissions and addressing ways to minimise the impact. But after the institutions had agreed on the package in December 2008, the problematic environmental and social aspects of biofuels never ceased being a salient and publicly debated issue. The problem of indirect land use change was addressed by an increasing number of actors in the policy domain and soon became the focus of attention in EU biofuel politics. Accordingly, Network Graph 6-9 (above) displays an unusually high number of environmental campaign groups. To take a closer look, Network Graph 6-10 (below) zooms into the debate on ILUC, suppressing other discussed topics. The graph shows a relatively large cluster of environmental campaigners, think tanks, EP political groups and also Commission Directorate generals that acknowledge ILUC as a problem that needed to be dealt with. Not part of this coalition is the biofuels industry, displayed in the left part of Network Graph 6-10.

Due to the recency of the problem, only little scientific evidence with high levels of uncertainty was available to policy-makers. Accordingly, new studies entering the discourse fuelled the policy debate and played an important role for actors in their efforts to frame the issue to their favour. Many of those studies, written by the institutes displayed as grey nodes in Network Graph 6-10, raised further concerns about the ecologic integrity of biofuels. In that context, the European Commission and in particular Energy Commissioner Oettinger caused an outrage by holding back internal reports on the sustainability impact of biofuels. On 8 March 2008, four environmental NGOs (Birdlife International, Client Earth, EEB, and T&E) filed a case with the General Court of the

European Union, accusing the Commission to violate freedom-of-information rules (‘News in brief’, 2010). Also MEPs across political groups complained about the Commission being not transparent enough. The Commission rejected these allegations, but they were not fully unjustified (‘MEPs say Commission “hides” information’, 2010). In late March 2008, the Commission’s trade department published a study (Al-Riffai, Dimaranan, & Laborde, 2010) that projects only a 5.6% biofuels share by 2020. While rebutting fears about the negative impact on food security, the study comes to a rather pessimistic conclusion regarding greenhouse gas savings: While it projects overall greenhouse gas savings from the planned policy, they are rapidly diminishing when increasing the market share of biofuels. For any market share above 5.6%, ‘ILUC emissions can rapidly increase and erode the environmental sustainability of biofuels’ (ibid., p. 12). Despite sticking to the 10% target, Energy Commissioner Oettinger said he was open to ‘take corrective measures in the future...if need be’ (‘Commission launches “green scheme” for biofuel’, 2010). This report is the reason why DG Trade is located to the bottom right of Network Graph 6-10 together with other publishers of studies that questioned the ecologic viability of biofuels.



Network Graph 6-10: The policy domain before the publication of the Commission proposal, debate on ILUC, Directive (EU) 2015/1513.

Admitting that ‘there is not enough technical clarity on certain points’, the Commission reacted to growing criticism on its biofuel policy on 10 June 2010, publishing a package of two communications and one decision, clarifying implementation rules for member states (‘Director-general calls for “technical clarity”, while consultation on effects on land use is to be launched.’, 2010). While the package reiterated already existing sustainability rules and provides member states with detailed calculation instructions for greenhouse gas savings, it most importantly sets standards

for the introduction of ‘voluntary schemes’, that is, sustainability certificates issued by governments, companies, or NGOs. The Commission hoped to appease critics by encouraging these voluntary certificates, while avoiding putting pressure on the industry. Accordingly, the latter was pleased with the Communication, while environmental NGOs criticised it for being insufficient. For instance, Transport & Environment stated that ‘as long as the Commission is unwilling to deal with indirect land use change, all attempts [...] to brand biofuels as sustainable will be misleading, counterproductive, and destined for failure’ (‘Commission launches “green scheme” for biofuel’, 2010). The Commission declared to take a closer look at the ILUC problem and address it with a separate package of measures at a later point if need be.

Studies and reports kept on being the most important weapon of each actor coalition in the debate. A broad coalition of NGOs, among them ActionAid, Birdlife International, Client Earth, EEB, Friends of the Earth, Greenpeace and Transport & Environment teamed up and jointly commissioned a study on ILUC. The resulting report took a much more pessimistic view on ILUC than the Commission report on the EU biofuels policy, predicting between 80.5% and 167% more greenhouse gas emissions than meeting the same demand with conventional fuel. The Commission rejected these figures as exaggerated (‘Report slams EU biofuel policy’, 2010). The biofuels industry, displayed to the left in Network Graph 6-10, generally doubted the existence of a problem. In a public consultation on ILUC launched by the Commission in autumn 2010, most biofuel producers and associations question whether ILUC actually exists and consider the existing research as unreliable. However, the biofuels industry never managed to play a pivotal role in the policy process, as compared to e.g. the car industry in case study 1 because it lacked its economic and political leverage.

Actors not only disagreed on the definition of the problem, but also on the available solutions. Environmental NGOs demanded the incorporation of ILUC into the calculation of lifecycle emissions of biofuels. The biofuels industry that had gotten its way in 2008 when the EU did not water down the 10% biofuels target as proposed by the Commission, now opposed any inclusion of ILUC-related sustainability criteria into existing legislation. The secretary general of the European Bioethanol Fuel Association said that the ILUC debate was a politically motivated campaign ‘to kill biofuels’ (‘Burnt by the sun’, 2009). In December 2010, the Commission published a report summarising the recent studies it had commissioned on biofuels sustainability, as well as

consultation exercises on the issue. While acknowledging the uncertainty of the results, it concludes that indirect land use change caused by biofuel crops can reduce greenhouse gas emissions savings (European Commission, 2010a). The report also announces an impact assessment to prepare changes to existing legislation. The policy file would be under the joint lead of both Energy Commissioner Oettinger and Climate Action Commissioner Hedegaard. Oettinger said that ILUC effects ‘need to be properly weighed in our biofuels policy’, and Hedegaard added that action should follow a precautionary approach (‘Commission sounds note of caution on biofuel’, 2010).

Different biofuels, different rules?

The energy and climate action department were more divided than the Commissioners’ statements tell. Due to disaccord in several points, they failed to deliver the announced impact assessment until July 2011. In an interview conducted for this study, a commission official said that there were ‘some die-hard biofuel fans’ in DG Energy. The main obstacle towards a policy proposal was whether to differentiate between various biofuel types and introduce specific sustainability standards for each type or have one standard for all. A leaked draft impact assessment concluded that biofuel from oilseeds, the source of 80% of biofuel sold in the EU, fails to meet already existing sustainability standards, while other crops, such as sugar cane and wheat, generate higher greenhouse gas savings (‘Commission study questions carbon dioxide benefits from EU biofuel’, 2011). Also the Joint Research Centre recommended differentiated standards (‘Commission to fudge CO₂ effects of biofuel’, 2011). While the Climate Commissioner supported this approach and proposed including fuel-specific weights both into the Fuel Quality Directive and the Renewable Energy Directive, the Energy, Agriculture and Trade Commissioners rejected a specification (‘Pressure mounts over side-effects of biofuel’, 2012).

Almost a year after the initially planned publication of the impact assessment, there was still no agreement between the Energy and Climate Action Commissioners. In order to push the file forward, Commission president Barroso put the issue on the agenda of the College of Commissioners and brokered a deal between the departments beforehand. The deal would have added fuel-specific weights to the Fuel Quality Directive, but not to the Renewable Energy Directive. Most Commissioners were reported to support the inclusion of these weights also called ‘ILUC factors’ in both Directives, while the Energy Commissioner, seconded by the Agriculture and Trade Commissioners, rejected the deal (‘Commissioners unable to resolve ILUC dispute’,

2012). After a first College in May 2012 did not support the compromise, departments agreed to accept it after the summer break in September 2012. The leaked proposal prompted an outrage among biofuel producers and ‘incredibly intense’ lobbying by biofuel associations, according to a Commission official interviewed for this study. The European Renewable Ethanol Association (ePURE) complained that a 5% cap for first generation biofuels was not on the table during the stakeholder consultations. The ePURE director said that ‘if this proposal goes through, it will be the end of biofuels’ (‘Commission seeks to limit changes in land use’, 2012).

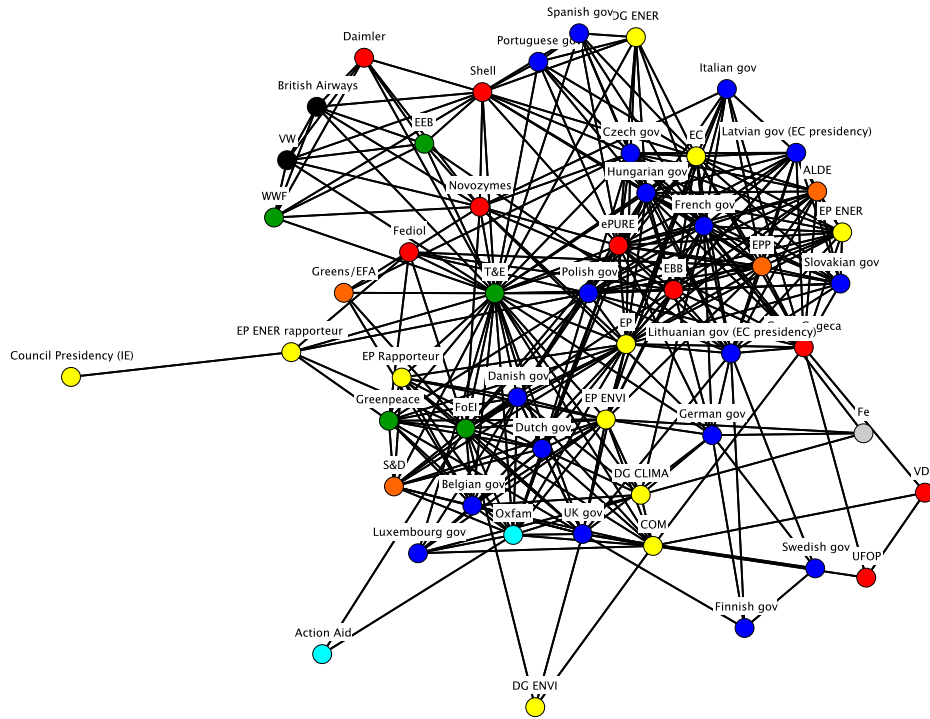
Towards a policy proposal

The biofuel industry’s intense lobbying was effective. When the Commission proposal was officially presented one month after, fuel-specific ILUC weights were scrapped from the text. Instead, ILUC-factors were now proposed for reporting purposes only. Besides, the compromise draft proposal also lowered the share of conventional biofuels (first-generation biofuel) to 5% market share by 2020, while increasing the minimum greenhouse gas savings threshold to 60%. Market incentives were proposed as a measure to promote second- and third generation biofuels with little or no ILUC emissions (European Commission, 2012a). Commissioner Hedegaard, who had been eventually defeated by the DG Energy, admitted that she found the proposal ‘not perfect’ (‘Proposal to limit biofuel land impact weakened’, 2012). Nevertheless, she declared that ‘we are sending a clear signal that future increases in biofuels mostly come from advanced biofuels’ (European Commission, 2012c). Oettinger said the proposal represented a middle ground that ensures no biodiesel factories are shut down immediately (‘Proposal to limit biofuel land impact weakened’, 2012). This episode highlights that despite different internal preferences, the distribution of power among the Directorate Generals enabled the Commission to make decisions efficiently and avoid deadlock.

Despite the concessions made, the biofuels industry was furious. A joint statement by biodiesel and bioethanol associations, the vegetable oil industry association and the farmers’ association criticised the proposal as decimating the biofuel industry and scaring off investors. NGOs were equally disappointed, with ActionAid criticising the Commission proposal as making ‘an unacceptable mockery out of the EU’s commitment to tackling climate change’ (‘Proposal to limit biofuel land impact weakened’, 2012).

6.3.2 Analysis of the policy-making process after the publication of the Commission proposal on 17 October 2012

Four months after the Commission presented the proposal for a biofuels reform to account for indirect land use change, the member states' energy ministers met to discuss the plans. Network Graph 6-11 below shows the policy domain in this stage of negotiations, suggesting that in comparison to the other two case studies, the graph is not polarised into distinct clusters. While there are different coalitions recognisable, there are still many actors outside of or between coalitions. Several central and eastern European states located at the top right cluster in Network Graph 6-11 including Poland were reported to reject any revision that considers indirect land use change. In contrast, Denmark, the Netherlands, Belgium and the United Kingdom, located in a different cluster at the lower middle of the graph, supported an ILUC-based cap both in the Renewable Energy Directive and the Fuel Quality Directive, while France and Italy wanted a cap only in the former one, although with a higher cap. Germany was reported to support the Commission proposal as drafted ('Member states split over biofuel emissions', 2013). The picture was the same at the environment ministers' meeting one month later. Most ministers expressed concerns over the impact of the 5% cap on the biofuels industry ('Conflicting reports stir EU debate on biofuel', 2013). Given the Councils' small appetite to support or even go beyond the Commission proposal, Climate Commissioner Hedegaard called upon the ministers to not dilute the proposal: 'Allowing a higher cap would significantly diminish the efficacy of the proposal' ('Ministers hostile to biofuel limit', 2013).

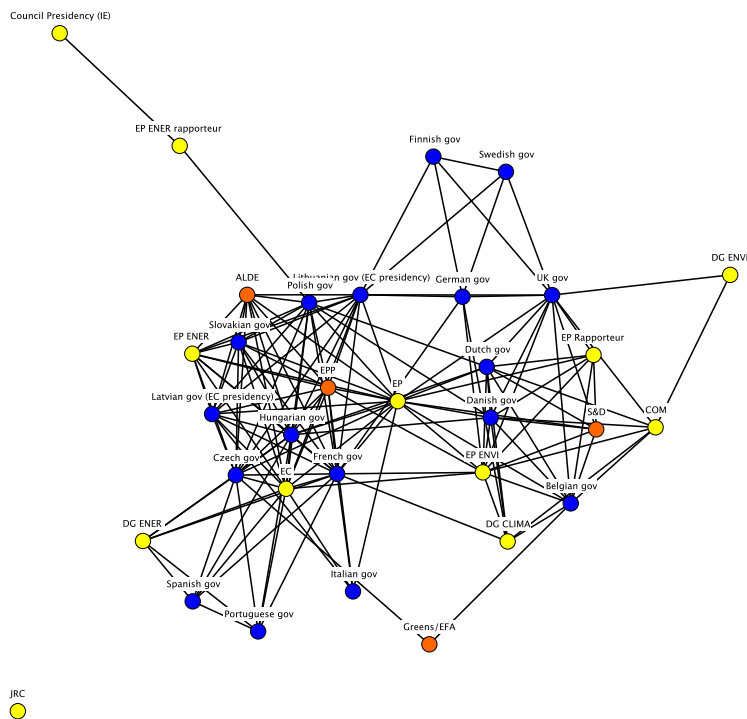


Network Graph 6-11: The policy domain after the publication of the Commission proposal, Directive (EU) 2015/1513.

The Parliament vote and an unlikely closing of ranks between industry and NGOs

According to the applying EU legislative procedure, the Parliament and the Council vote on the Commission proposal and amendments. To take a closer look at the policy debate within and among the EU institutions, Network Graph 6-12 show only Commission, Council and Parliament actors. The Environment Committee of the European Parliament was the next institution to give its opinion to the Commission proposal. As Network Graph 6-12 shows, political groups as well as the EP Committees are spread across the graph in different coalitions. The liberal Rapporteur for the file in the Environment Committee, Corinne LePage, wanted a stricter regulation, proposing to apply the cap earlier to biofuels except biodiesel (which makes up the greatest part) and include ILUC-factors in both the Renewable Energy Directive and the Fuel Quality Directive. To compensate producers of conventional biofuels, she suggested exempting a portion of biofuels equivalent to 2010 levels from the ILUC limits. Despite her proposal tried to sweeten the pill for the industry in some points, centre-right Committee members rejected it (‘MEPs divided on biofuel restrictions’, 2013). Eventually, the Environment Committee voted to adopt most parts of the Rapporteur’s draft amendments, while moderately raising the cap for conventional biofuels from 5% to 5.5%. Earlier, the Energy Committee had voted for a 6.5% cap. Ahead of the plenary vote,

the social democrats supported the Environment Committee draft, while the liberal group ALDE wanted to raise the cap to 6%. The centre-right group EPP preferred an even higher cap of 6.5% and banning ILUC factors from the amendments. Vote counts ahead of the plenary were reported to be very close because many MEPs were expected to not vote along party lines due to the vast ethical implications of the vote ('Uncertainty over Parliament biofuel vote', 2013). The plenary eventually voted for a 6% cap and to introduce a target value of 0.5% (by 2016) respectively 2.5% (by 2020) for second and third generation biofuels. Mandatory ILUC-factors would be included into the Fuel Quality Directive.



Network Graph 6-12: The policy domain after the publication of the Commission proposal, only EU actors, Directive (EU) 2015/1513.

However, by two votes, the plenary decided to refuse Corinne LePage a mandate to start first reading negotiations with the Council, mainly with votes of the centre-right EPP. This meant that the Council would internally agree on its first reading opinion to the proposal without coordinating with the Parliament. The Parliament would have to accept the Council opinion, otherwise the file would go to a second reading. Given that the current term of the European Parliament was about to end in April 2014, a second reading would be delayed to a new term with a different political configuration. Therefore, a second reading would be a costly delay that would both extend the regulatory uncertainty for business and allow indirect land use change.

More and more actors across all camps therefore called upon EU decision-makers to finally establish regulatory certainty and come up with legislation, while the details of the regulation became secondary. For instance, a group of NGOs and companies, among them WWF, British Airways, and second-generation biofuel producer Novozymes jointly wrote a letter to MEPs, urging them to give LePage a mandate ('Biofuel reform delayed indefinitely', 2013). Similarly, a group of companies including Daimler, Volkswagen, and Shell, called for a clear policy framework to 2030 ('Biofuel reform in trouble', 2013). This unlikely coalition of actors with diametral political preferences is exemplary the lack of political polarisation in this policy domain, as assumed by the conceptual framework. Most likely, such a closing of ranks would not have been possible under conditions of an economic crisis.

Negotiations among EU member states

Since MEPs failed to send a negotiator to the interinstitutional bargaining, the Council was now in the comfortable situation to present to the European Parliament an opinion that it had to accept or otherwise take the blame for delaying the policy-making process even further. In a first draft opinion, the Council suggested raising the first-generation biofuel cap further to 7% and dropping the mandatory ILUC-factors that the Parliament had proposed ('Biofuel reform in trouble', 2013). Since Germany, the United Kingdom and the Scandinavian countries (located to the centre top in Network Graph 6-12) were in favour of the original Commission proposal, the Lithuanian Council presidency tried to buy them and other sceptical member states off with a redrafted version of the text, expanding the list of feed stocks that can be double-counted towards the 10% biofuel. Among these feed stocks were particularly ones that are plentiful in these countries, making it less costly for them to reach the target ('Lithuania seeks approval for controversial biofuel plan', 2013). The idea of expanding the number of double-counting feed stocks was opposed by both environmental campaigners and the biofuels industry. The industry association ePURE said that the Directive 'is becoming ... impossible to implement' ('Lithuania seeks approval for controversial biofuel plan', 2013). Denmark, Belgium, Luxemburg, and the Netherlands (located to the centre right in Network Graph 6-12) opposed the draft and preferred a more environmentally ambitious regulation. While France preferred raising the first-generation biofuels cap, Poland, Hungary, Slovakia, and the Czech Republic wanted to drop it entirely. Eventually, the proposal was rejected with the votes of a blocking minority that the Lithuanian energy minister called 'quite an exotic coalition' of member

states that found the text either too strict or too soft ('Council rejects biofuel compromise', 2013). It took the Council another six months to resolve the deadlock. In June 2014, it reached political agreement on setting a 7% cap and a non-binding 0.5% sub-target for advanced biofuels. ILUC factors would be included into the Renewable Energy Directive and Fuel Quality Directive, but only for reporting purposes. The biofuels industry was relieved that finally a regulation was within reach. Also producers of conventional fuel were satisfied, with the vice-president of Shell welcoming the 'effective policy resolution to the ILUC debate, which has stalled investments in biofuel for too long' ('Stalled biofuel proposal is on the road again', 2014). Also green campaigners were not entirely unhappy, despite the initial proposal had been watered down: 'It's an agreement that to an extent caps first-generation fuels and prevents the ILUC problem from spreading much further. But that's where our cheering stops, I'm afraid', said the director of Transport & Environment (ibid.).

The newly elected EP plenary adopts the final draft

It was now up to the Parliament to draft a response to the Council amendments. After the EP election in Spring 2014, almost all MEPs working on the file had been voted out of the Parliament, including Rapporteur Corinne Lepage. The new Rapporteur in the Environment Committee, Nils Torvalds from Finland, was again a member of the liberal ALDE group. The Committee voted to maintain the European Parliament's original position from Autumn 2013, against opposition of EPP group members. In the subsequent inter-institutional negotiations, the Council was in a stronger position than the Parliament because in a second reading, the basis of negotiations is the Council proposal, not a common draft. The final compromise agreed on by the negotiators essentially reflected the Council position: A 7% cap for conventional biofuels, and no ILUC accounting. The EP Environment Committee nevertheless voted to approve the compromise, and on 28 April 2015, the EP plenary adopted the text.

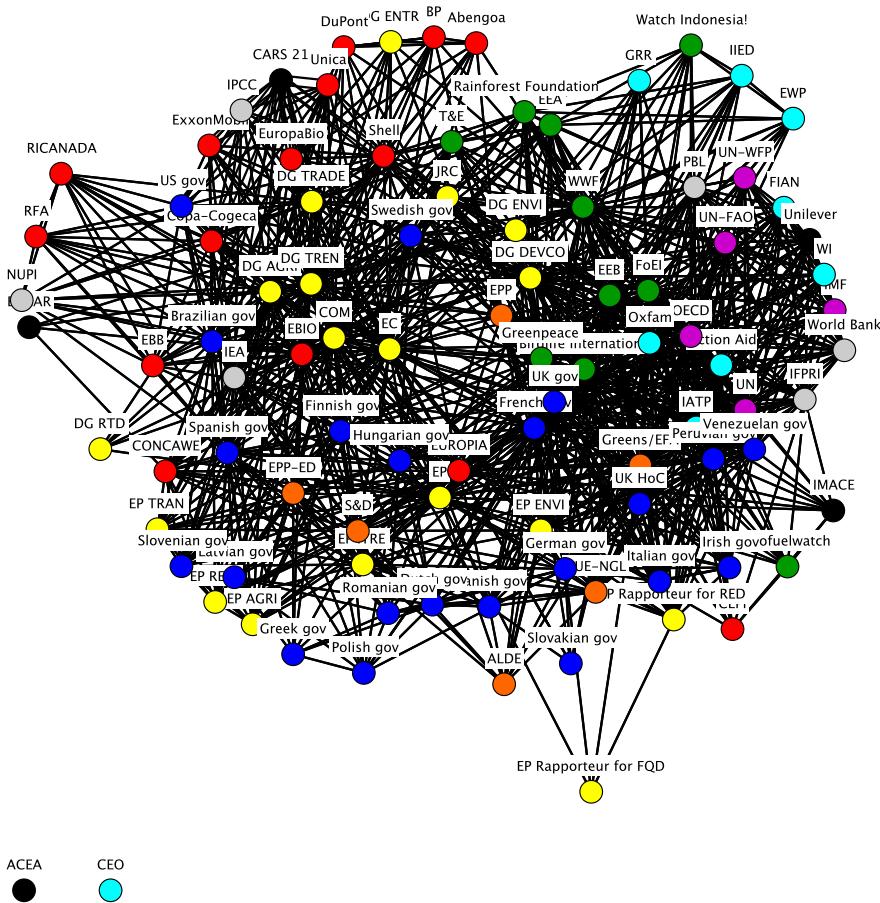
6.4 Conclusion

The newly emerged biofuels policy domain tells a story of greed, ignorance and hindsight (in this chronology). First, policy-makers were enthralled by the geopolitical and business opportunities of adding biofuels to the EU energy mix. Captured by the gold fever, the massive ecological and humanitarian concerns about biofuels were swept away. A regulatory framework aiming for an expansive biofuels strategy was brought on the way, despite growing evidence that particularly

indirect land use change (ILUC) was a great environmental risk. Only after the legislation was adopted, evidence on the destructive potential on ILUC became unignorable and the policy domain united behind the goal to improve the policy. This course of events explains why political polarisation in the policy domain decreased over time. While there is no counterfactual available, it is very unlikely that the policy domain would have developed in the same way under conditions of an economic shock.

The policy debate before the outbreak of the economic crisis

Looking at the pre-crisis policy process, it is remarkable that the European Commission managed to push through the 10% biofuels target against strong headwind in the Council and in the Parliament. Network Graph 6-13 (below) shows the policy domain over the entire pre-crisis policy process which resulted in the Renewable Energy Directive (Directive 2009/28/EC) and an amendment to the Fuel Quality Directive (Directive 2009/30/EC). The core item of the legislation was a 10% target for biofuels to be reached in 2020. Despite there are no distinct coalitions observable, there appears to be a rough pattern. Generally, the left part of the network graph contains actors that welcomed a biofuels target and stressed the economic benefits. Likewise, they were rejecting strict environmental safeguards, downplaying social and environmental risks. This part of the graph contains mainly industry associations, several Commission Directorate Generals as well as countries that produce biofuels. To the bottom left, there are several mostly eastern European countries that spoke out against environmental standards. In the centre-right part of the graph, there is a group of environmental NGOs that in principle welcomed biofuels as a technology to curb greenhouse gas emissions but were demanding strong environmental safeguards and regulations to avoid a competition with food crops. To the right, there are mainly international organisations and development NGOs that warned of the negative effects of biofuels on food security.



Network Graph 6-13: The policy domain of the entire policy process before the crisis outbreak, Directive 2009/28/EC.

Two features of Network Graph 6-13 are remarkable. First, it contains a larger number of actors than most other policy processes investigated for this study. The reason for this observation is that the policy had a great number of stakeholders: Since most biofuels crops are grown in non-EU countries, the policy was relevant beyond EU borders and had a strong international dimension. Similarly, its potential negative impact on food security prompted international organisations dealing with food aid, poverty, and globalisation to position themselves to the policy proposals. As biofuels were a novel industrial and regulatory domain, a great number of stakeholders needed to introduce to this new domain their framings, opinions and preferences.

Second, the network graph is not structured into distinct clusters of actors, as observable in the other cases of this study. There are two explanations for this observation: First, despite the different opinions on details of the policy and different interpretations of data, most actors in the policy

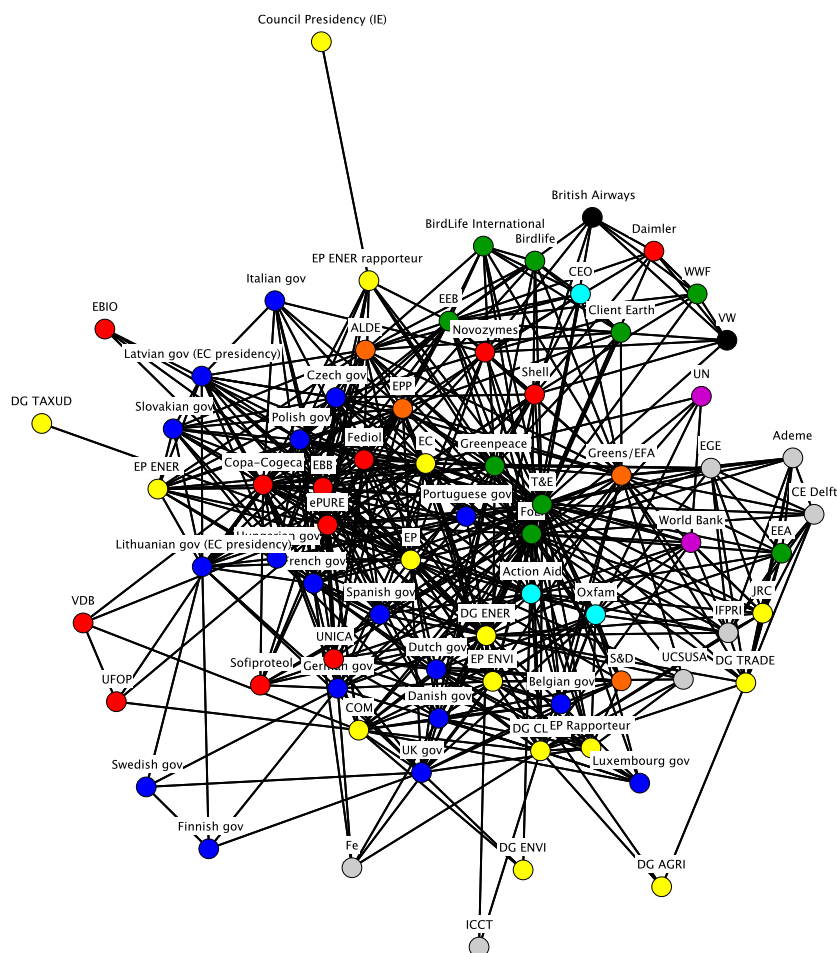
domain generally agreed that increasing the share of biofuels is a desirable political goal and disagreed only on the way and the conditions to achieve this goal. The reasons for promoting the use of biofuels varied. Some actors stressed the independence of oil imports, some the business opportunities for European farmers, others the greenhouse gas emissions savings. Disagreement existed also on whether and what environmental safeguards were necessary for obtaining sustainable products, and also on scientific evidence regarding emissions savings and the impact on food security. However, the consensus that biofuels are potentially a progressive technology worth supporting was a common ground for most actors in the debate. The second reason for the unstructured network pattern is that the policy debate was characterised by a great number of different ideas, concepts, proposals, and concerns that actors introduced into the this novel policy domain. Also environmental concerns took larger room in the debate than in the other two cases, despite policy-makers and the industry initially tried to frame the topic as energy policy. This diversity of discussed items means that there were few items that a greater number of actors positioned themselves to. Since the graph displays distances between actors based on items they commonly oppose or support, a great diversity of discussed items makes a low degree of clustering more likely.

The policy debate after the outbreak of the economic crisis

Network Graph 6-13 above indicated that the pre-crisis policy domain was characterised by two incohesive groupings of actors with opposing interests regarding the policy design, while there was consensus that a regulation was desirable. This constellation expresses in a weakly polarised graph where coalitions are recognisable, but without clearly defined boundaries. According to the theoretical expectation, the policy domain after the crisis outbreak should not be more polarised than the pre-crisis policy domain. Network Graph 6-14 below displays the actor network throughout the entire post-crisis policy debate, confirming this theoretical expectation.

The post-crisis policy-making process resulted in Directive (EU) 2015/1513, amending the Renewable Energy Directive and the Fuel Quality Directive. The core item of the legislation was a 7% limit for conventional biofuels, aiming to reduce the impact of indirect land use change (ILUC). This policy-making process took a long time, longer than the other cases of this study. First discussions on the necessity of safeguards against indirect land use change started just after adopting the 10% targets for biofuels in 2009. The Commission published a proposal in 2012. Internal

disagreements and a long period of collecting data and stakeholder opinions delayed the publication. After the publication of the Commission proposal, the policy process was interrupted by European Parliament elections, a new Commission, and by a second reading, before the Directive was eventually adopted in April 2015.



Network Graph 6-14: The policy domain of the entire policy process after the crisis outbreak, Directive (EU) 2015/1513.

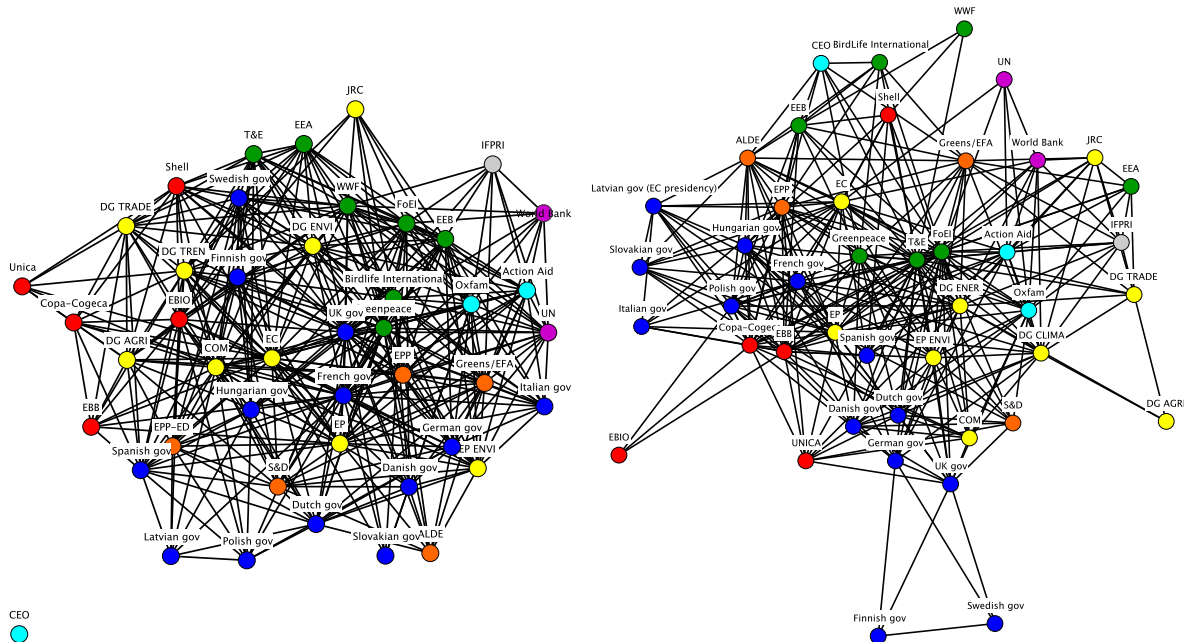
The top left part of the network graph displays mainly biofuel businesses and associations, as well as EU member states that questioned the phenomenon of indirect land use change and rejected a cap on conventional biofuels. The bottom part of the network shows mostly member states and Commission bodies that were in favour of rather strict ILUC safeguards and a lower cap on conventional biofuels. To the right, the graph displays mainly environmental and development NGOs as well as research facilities and think tanks. These actors doubted the greenhouse gas savings from biofuels, stressed the environmental and social risks of indirect land use change, and

urged the EU to address ILUC with a tight cap on conventional biofuels, incentives for advanced biofuels, and the inclusion of ILUC-factors into the legislation.

Just like the pre-crisis policy debate, the graph indicates that there were no cohesive actor coalitions with a high internal preference overlap and no common preferences with other coalitions. In contrast, the graph looks even more unstructured as the pre-crisis network graph. An explanation is that just like in the pre-crisis debate, there was a common ground almost all actors could subscribe to. Both opponents and proponents of strict safeguards against indirect land use change found the long period of regulatory uncertainty caused by the delayed policy process unbearable. Environmental campaigners did so because indirect land use change could proceed during this time. For the biofuels industry, on the other hand, the regulatory uncertainty was a liability that kept off investments. In their desperation, environmental NGOs and producers of conventional as well as advanced biofuels even teamed up and jointly called upon the European Parliament to speed up negotiations with the Council.

6.4.1 Comparison and hypotheses check

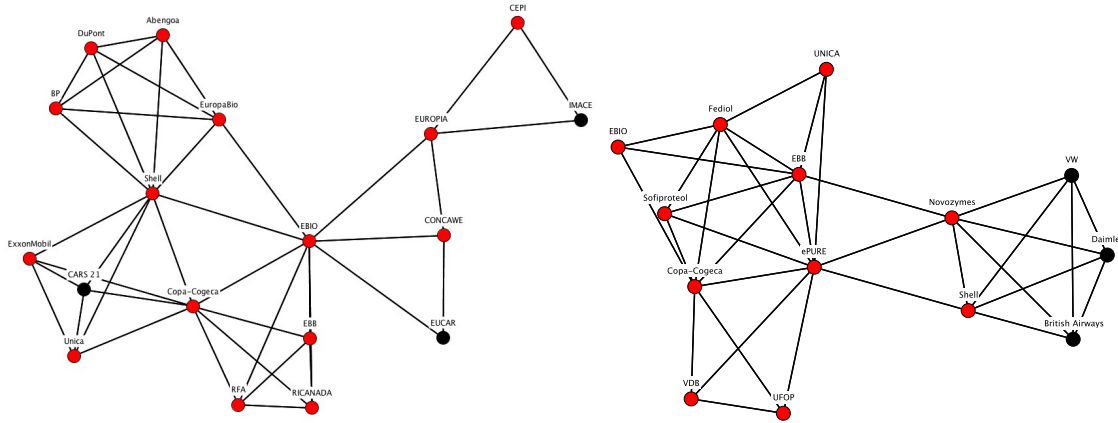
Network Graph 6-15 (below) provides a comparative on the policy domain both before (left) and after the outbreak of the economic crisis. To ensure greatest possible comparability, this graph shows only actors that played a role in both policy processes. Actors that appeared in only one of the decision-making processes were removed from the graphs. Both network graphs lack a clear clustering into actor coalitions. If any, the policy debate before the outbreak of the economic crisis was polarised stronger than the debate after the outbreak. The explanation for the lack of clustering is that in both policy debates, many actors with different interests and backgrounds were discussing on a common ground, with an overarching common conviction despite differences regarding the selection and calibration of specific policy items. The policy-making process is not more polarised after the outbreak of the crisis than before, as assumed for the case of biofuels.



Network Graph 6-15: The policy domain of Directive 2009/28/EC (left) and Directive (EU) 2015/1513, only actors that appeared in both policy processes.

H1: After the outbreak of the economic crisis, business actors expecting relative gains (relative losses) from climate regulation initiatives support (oppose) such initiatives more insistently than before.

As expected, this hypothesis is invalid in this case study. Among business actors, both proponents and opponents of the respective environmental regulation were expected to support or oppose the policy with a roughly equal insistence before and after the crisis outbreak. In a network graph, this would result in two graphs with a roughly comparable structure. The comparative perspective provided by Network Graph 6-16 below confirms this assumption. The network of industry actors after the crisis outbreak (right) is not stronger polarised into groups of proponents and opponents. Before as well as after the outbreak of the crisis, biofuel producers were united in their denial of the negative impact of biofuel on food security and environment. Before the crisis outbreak, differences existed between EU and non-EU suppliers of biofuel crops, the former ones lobbying for import tariffs.



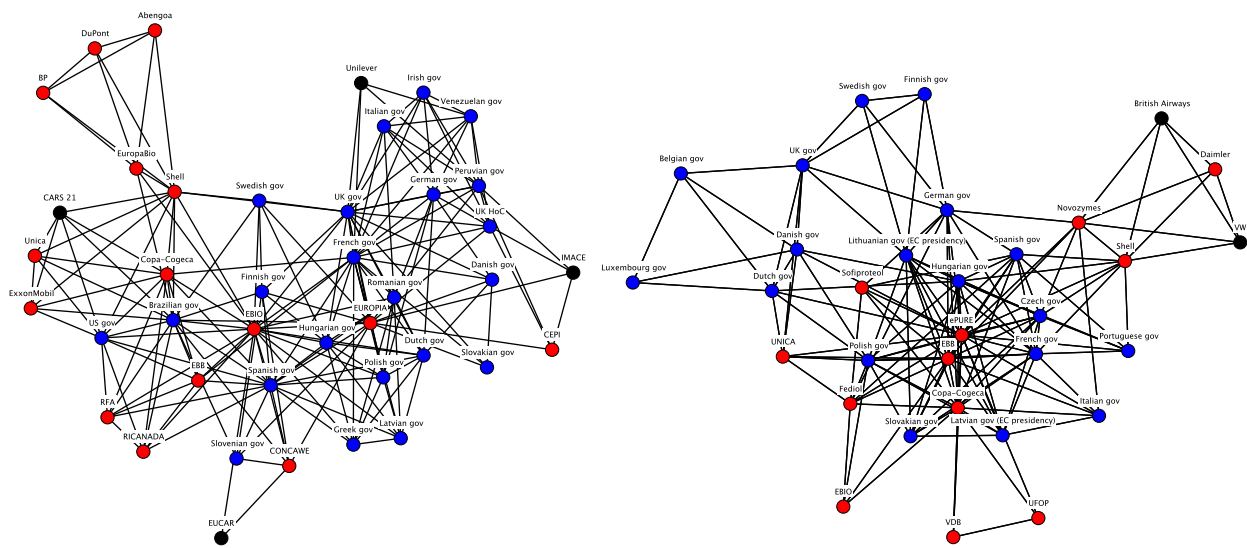
Network Graph 6-16: Industry actors, Directive 2009/28/EC (left) and Directive (EU) 2015/1513.

After the outbreak of the crisis, producers of advanced biofuels lobbied for a promotion of their products in shape of double-counting or a sub-target. However, in both policy debates, the common preferences were unifying the industry stronger than the differences were able to split it. In the policy-making process before the outbreak of the economic crisis, this common denominator was the setting up of an EU-wide supportive policy framework for biofuels, including a target. After the outbreak, the common ground was to urge EU decision-makers to establish investment security by adopting the ILUC legislation.

H2: After the outbreak of the economic crisis, national governments will align their preferences regarding climate-relevant regulations to those of domestic business actors to a greater extent than before.

Network Graph 6-17 compares the preference constellations of industry actors and national governments before and after the crisis outbreak. Just as expected, also hypothesis H2 is rejected for the case of biofuels legislation. The pre-crisis policy process is remarkable because it differs from the usual patterns of EU environmental policy-making in various aspects: Environmental concerns played a bigger role than in the other observed policy debates, thanks to efforts by environmental NGOs and international organisations. Also, the final outcome of the policy-making process is quite close to what the European Commission had proposed initially. In environmental policy, the Council usually waters down the Commission's proposal. In this case, however, the Council included a 50% greenhouse gas emission saving threshold to be fulfilled from 2017 onwards, instead of the 35% the Commission had proposed. The drivers behind this clause were Germany and the United Kingdom. An even stricter threshold would have had support by the Council, but was

abandoned only due to opposition by Greece, Italy, and Spain. Also France and many central and eastern European countries opposed mandatory targets, something that biofuel companies would have profited from. Instead of relying on member state governments, business relied on the European Commission and took advantage of the fact that the Commission was reliant on industry data and expertise. Interviews conducted for this study confirmed that biofuels had some avid supporters in DG Energy, and that the biofuel industry had lobbied the Commission intensively. The fact that a majority of member states had taken positions that differed from the industries' preferences reflects also in a network graph that displays both member states and businesses (Network Graph 6-17, left network). This evidence clearly suggests that before the outbreak of the economic crisis, there was no consistent pattern of member state governments aligning their policy preferences to business interests.



Network Graph 6-17. Industry actors and national governments, Directive 2009/28/EC (left) and Directive (EU) 2015/1513.

The theoretical expectation is that the economic crisis only had a negligible impact on the biofuels sector (cf. Research Design). The underlying assumption is that if the industry had no reason to increase lobbying efforts, and if no mass layoffs were threatening the positions of political decision-makers, member state governments will not align their policy preferences to those of the industry. In the network graph showing only member states and business actors in the policy-making process after the outbreak of the economic crisis (Network Graph 6-17, right network), biofuel producer

associations like ePURE and EBB are positioned closely to several eastern European member states. They both rejected to see indirect land use change as a serious problem, and jointly rejected corresponding political measures to mitigate it. However, their common policy preference was informed by different reasons: Biofuel producers wanted to avoid a cap for conventional biofuels because it would deprive them of business opportunities. Eastern European EU members rejected it because they wanted to avoid an increasingly complex implementation, besides being generally sceptical of environmental regulations. Spain and France are also displayed as approximate to biofuel producer associations and are indeed countries with a large biofuel production. There is, however, no consistent pattern of biofuel-producing countries opposing the ILUC regulation. The Netherlands and Belgium, for instance, are major producers of biofuels in the EU and voted against diluting the Commission proposal. In addition, the crisis was never mentioned in any actor statement as a factor informing their policy positions. Taken together, there is no observation of member states aligning their preferences to those of domestic industries due to the economic crisis, confirming the assumption for the case of EU biofuels policy.

H3: After the outbreak of the economic crisis, political polarisation within the European Commission is stronger than before.

In both policy decisions, there was a considerable degree of conflict between Commission services more inclined to environmental respective economic priorities. In the pre-crisis policy process, Environment Commissioner Dimas and Development Commissioner Michel argued for social criteria linked to food prices, which the Transport and Energy Commissioner Piebalgs and Trade Commissioner Mandelson rejected. Also the Agriculture department was a fierce defender of an expansive biofuels strategy. After the outbreak of the economic crisis, the Energy and Climate Action departments failed to deliver a joint impact assessment in time due to disaccord in several points. The Climate department proposed fuel-specific standards both for the Fuel Quality Directive and the Renewable Energy Directive, while the Energy, Agriculture, and Trade Commissioners rejected such a specification. Ultimately, neither network analysis, qualitative document analysis nor interviews provided clear evidence if there was a difference in conflict intensity between both policy decisions. Therefore, this hypothesis remains untested for this case study.

H4: After the outbreak of the economic crisis, political polarisation within the European Parliament is stronger than before.

The European Parliament was stronger polarised after the outbreak of the economic crisis. This contradicts the theoretical expectation at first sight, but the increased polarisation was not caused by the crisis. In the pre-crisis policy process, the main conflict was about the inclusion of sustainability criteria into the Fuel Quality Directive. The social democrats and the Greens/EFA supported this idea, while other political groups, among them the EPP, rejected it. In the late stages of the policy process after the outbreak of the economic crisis, the Parliament moved into the focus of attention. Severely divided over how high the share of conventional biofuels should be, the plenary rejected to give the Rapporteur a mandate to negotiate with the Council by a narrow majority, delaying the policy process for almost two years. However, there is no evidence that this strong polarisation was crisis-induced. Neither were MEPs referring to the economic crisis in the coded statements, nor were interviewees establishing a link to the crisis when asked about it. Therefore, the hypothesis is rejected.

H5: After the outbreak of the economic crisis, environmental lobby groups pursue the same political strategy as before.

The expectation is that this hypothesis is confirmed also for this case study, as environmental lobby groups set their goals independent of economic constraints. In fact, environmental groups applied the same strategies before and after the outbreak of the crisis. It is noteworthy, however, that the strategy of these actors differs from the strategy in the other two cases. In the car and aviation case studies, environmental NGOs had almost no influence and were left with no instruments but making their position heard in the policy domain. In the biofuels case, however, they managed to influence the policy process using scientific studies. They took advantage of the fact that there was a clear political will to regulate biofuels, but very little evidence on economic, ecological, and ethical implications. Among other lobbyists, environmental -and also humanitarian- NGOs used this lack of knowledge to influence policy-makers. Besides, the very concrete threat of biofuels endangering food security allowed for efficient public campaigning and outside lobbying. To a large extent, it is the merit of environmental campaigners that ILUC was pushed on the political agenda, at all.

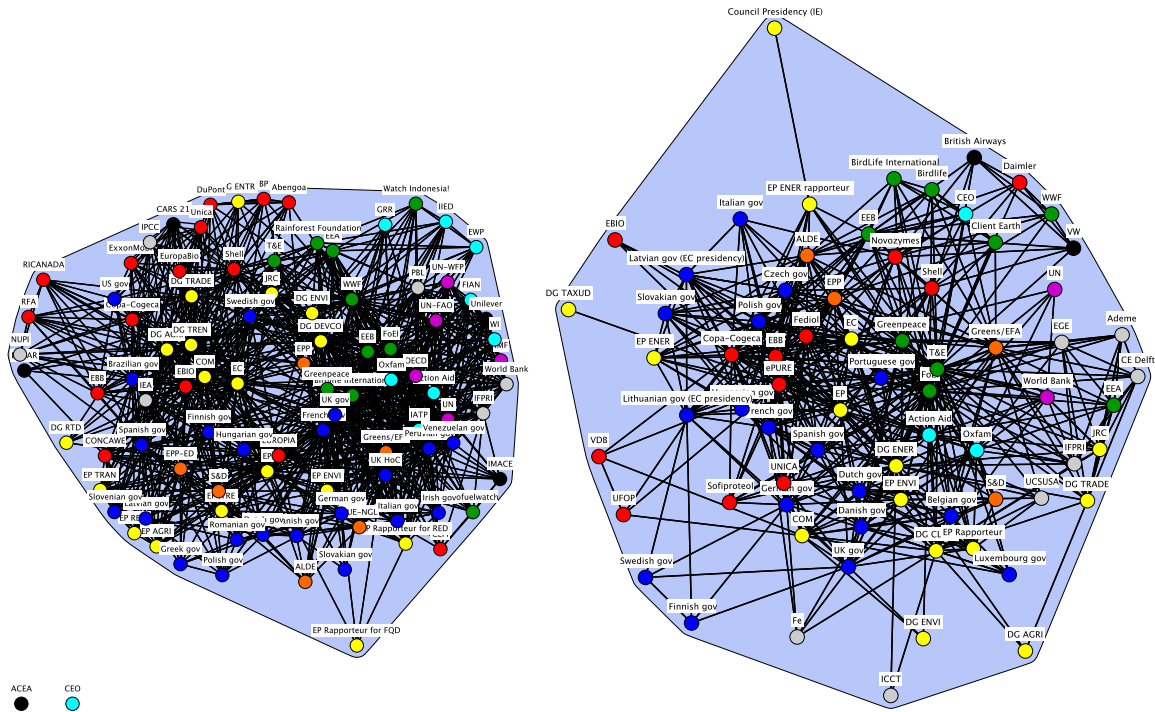
H6: After the outbreak of the economic crisis, political polarisation in the policy domain is stronger than before.

Being the non-treated case, this hypothesis should be negative in the biofuels domain, and the results confirm this assumption. Taking a look at the individual actor level, it becomes clear that in contrast to the other two case studies, the political flexibility of actors did not diminish in the post-crisis policy decision, as Table 6-4 shows. This is fully in line with the theoretical expectation.

Before crisis outbreak		After crisis outbreak	
Actor	Supported concepts	Actor	Supported concepts
Birdlife	2	DG CLIMA	5
Brazilian Gov.	2	DG ENER	7
Commission	11	EC	3
DG AGRI	2	EEB	2
DG DEVCO	1	EP	6
DG TREN	6	EP ENVI	4
EBIO	6	EP Rapp.	2
EC	7	ePURE	5
EP	6	FoEI	2
EuropaBio	1	Novozymes	4
FoEI	1	Oxfam	1
French Gov.	3	T&E	8
Spanish Gov.	2	UK Gov.	3
UK Gov.	4		
WWF	3		
Mean	3,8	Mean	4,0

Table 6-4: Policy items supported by key actors, case study 3.

If actors in the policy domain remained as flexible in their political strategies as they were before, there is no foundation for increased polarisation, because forging coalitions with other actors remains as simple (or difficult) as before. In fact, the cluster analysis suggests that both before and after the outbreak of the economic crisis, the policy domains consisted of one large cluster (Network Graph 6-18). For both policy processes, the graphs reflect the general agreement across institutions, member states, industry, and NGOs that the status quo is undesired and legislation is necessary. In that sense, the cluster analysis is a final confirmation of the general hypothesis of this study: Polarised policy domains are only observable if there is an economic shock. The following chapter will compare the case study findings and draw conclusions.



Network Graph 6-18: Cluster analysis, Directive 2009/28/EC (left) and Directive (EU) 2015/1513.

7 Conclusion and Discussion

*You never want a serious crisis to go to waste.
And what I mean by that is an opportunity to do
things that you think you could not do before.'*

Rahm Emanuel
White House Chief of Staff designate
Wall Street Journal Conference
19 November 2008

How did the 2008-2010 economic crisis affect EU climate policy-making? Three case studies in different policy domains -two of them with strong crisis impact, and one with a negligible impact- provided insights into the cogs and wheels of EU climate policy-making in times of crisis. The key finding is that an economic shock causes policy domains to polarise, resulting in intensified conflict and more difficult decision-making. Accordingly, 'polarisation' of political preferences is a key notion of this study, meaning that in times of crisis, actors in a policy domain become less flexible and less willing to agree on compromises, leading to more cohesive actor coalitions and less room for compromise between different coalitions.

Beyond this finding, this study provides a micro-level explanation of how economic crises translate into altered patterns of EU policy-making. The results show that the process of political polarisation roots in the industry that is the subject of the regulation: If there are diverging policy preferences within an industry due to, e.g. different product portfolios or development cycles, this polarisation spills over to the policy domain, and economic shocks enforce this process. In the crisis aftermath, intergovernmental bargaining seems to be more important, but also more intense than before the crisis outbreak, and bargaining becomes more difficult due to increased economic constraints. As the quote above illustrates, such a shift creates previously inexistent opportunities for different political actors to influence policy outcomes according to their preferences. While existent research stops at concluding that the economic crisis opened a window of opportunity, this study offers an explanation of the conditions of 'crisis exploitation' (Boin et al., 2009) after economic shocks.

The first case study on car emission limits demonstrated how under crisis conditions, a policy domain steeped in industry interests gets polarised to the edge of dysfunctionality. Beyond, it found that surprisingly, also proponents of stricter environmental regulation can take advantage of an economic crisis if their political preference for stricter regulation serves the purpose of economic relief - a finding that has not been addressed by literature yet. The second case study on the expansion of the EU emission trading system to aviation emissions corroborated the first case study's findings on the crisis-politics nexus, additionally highlighting how closely 'high politics' issues about national sovereignty are interwoven with economic interests and how 'green protectionism' serves as a tool to protect them. The third case study on setting a regulatory framework on biofuels provided a control-case because the biofuels sector was hardly crisis-affected. Beyond confirming the main assumptions of this study by lacking an increase of political polarisation, the third case study provided a rare insight into the patterns of policy-making in a newly created EU policy domain that is about to emerge.

While each of the case studies stands for itself and tells its own thought-provoking story rich in detail, the key insights and causal inference emerge from a comparative perspective. Therefore, this final chapter puts focus on drawing causal inference by comparing the most important aspects of the three cases; conclusions dedicated to each single case can be found at the end of each case study chapter.

7.1 A comparative review of the case study results

The hypotheses formulated in the theory section were tested for each case study by comparing the pre- and post-crisis outbreak policy process in each policy domain. The cross-temporal differences within a single case can now be compared with the differences across the cases. This method to make causal claims is called difference-in-differences design (see research design chapter). Table 7-1 provides an overview over the checked hypotheses.

	Case 1: CO₂ emission limits for cars	Case 2: Expansion of ETS to aviation	Case 3: Biofuels
Crisis impact	<i>Strong</i>	<i>Strong</i>	<i>Weak</i>
H1: Industry	Accepted	Accepted	Rejected
H2: Governments	Accepted w. caveat	Accepted	Rejected

H3: Commission	Rejected	Rejected	Untested
H4: Parliament	Accepted	Accepted	Rejected
H5: NGOs	Accepted	Accepted	Accepted
H6: Policy domain	Accepted	Accepted	Rejected

Table 7-1: Hypotheses check.

At this point, it is important to point out that the insights provided by this study go well beyond confirming or rejecting hypotheses. The hypotheses provided a structure to test the theoretical assumptions and to draw causal inference but cannot fully account for the richness of detail in the case studies. Sometimes, a surprising observation made during the analysis was as insightful as the hypotheses check, as the remainder of this chapter reveals.

The regulated industry – the incubator of political polarisation

So far, little is known about how exactly an economic shock transmits into a policy domain and affects policy change. This study asserts that business actors pursue political preferences and strategies, and that an economic crisis affects these strategies in a way that, in aggregate, causes political polarisation. The first link in the causal chain between an economic shock and policy change is the polarisation of political preferences within the industry that is subject to the planned environmental regulation. The case study results confirm this assumption and provide further elucidating insights of how an economic crisis affects political decision-making.

In the case study on car emission limits, the seed for later political polarisation within the industry was sown already before the crisis outbreak. The German car industry had different preferences than manufacturers of smaller cars mainly from France and Italy. However, only after the outbreak of the crisis, the particularly crisis-shaken ‘southern’ manufacturers managed to forge a cohesive coalition in the policy debate that stood up against the dominating German coalition, causing a stalemate within the European Carmaker Association (ACEA). Also German manufacturers intensified their lobbying after the crisis outbreak. In the case study on the inclusion of aviation into the EU emission trading scheme, industry actors had no diverging preferences before the outbreak of the crisis because they all had the same expectation on how it would affect their business. The situation was completely different in the policy decision after the crisis outbreak: European low-cost

carriers, European conventional airlines and non-EU airlines all had different expected cost-benefit ratios and consequently different political preferences, resulting in a politically polarised industry. Due to its international dimension, the case study on aviation also highlighted the role of ‘green’ protectionism in context of economic hardship: After the crisis outbreak, expanding the EU ETS to flights operated by non-European airlines was interpreted as an aggressive protectionist move and countered by threatening a trade war, correspondingly. These threats by the US, China, and the Gulf States ultimately forced the Commission to step back from the inclusion of non-EU flights into the ETS. The case study on biofuels legislation contrasts the other two case studies because it was largely unaffected by the economic crisis. Biofuel producers were united in their denial of the negative impact of biofuel on food security and environment before as well as after the outbreak of the crisis. Before the crisis, differences existed between EU and non-EU suppliers of biofuel crops, the former ones lobbying for import tariffs. After the outbreak of the crisis, producers of advanced biofuels lobbied for a promotion of their products in shape of double counting or a sub-target. However, in both policy debates, the common preferences were unifying the industry stronger than the differences were able to split it. In the policy-making process before the outbreak of the economic crisis, this common denominator was the creation of an EU-wide supportive policy framework for biofuels, including a target. In the decision process after the crisis outbreak, the common ground was to urge EU decision-makers to establish investment security by adopting the indirect land use change legislation. While there is no counterfactual available, it is plausible to assume that under economic stress, industry actors would have pronounced their individual policy preferences more strongly, instead of commonalities, in order to achieve an economically most beneficial regulation, resulting in political polarisation.

To conclude, business actors were indeed the ‘elephant in the room’ (Grant, 2011) of post-crisis climate policy-making because their crisis-triggered strategy shifts had strong implications for policy-making. Equally important, the findings suggest that there is not one uniform ‘business interest’, as research in EU public policy often asserts. Rather, the discrepancies between political preferences were found to be crucial for later dynamics, especially if a proposed legislation has ‘winners’ and ‘losers’ in the regulated industry, as pointed out by Meckling (2015). As expected, those discrepancies played a greater role as soon as the crisis ‘increased the stakes’ for business (Cliff & Woll, 2012). Thus, taking a closer look on the discrepancies between policy preferences within industries and their implications for decision-making is a fruitful decision for scholars of EU policy-

making.

The role of national governments: Crisis intergovernmentalism and green protectionism

As pointed out in the conceptual framework, national governments are the closest allies of crisis-shaken businesses in the political sphere. Assumably, they will align their political preferences to those of domestic economic actors to a greater extent in times of crisis. The car emission limits case clearly confirms this assumption. While the German government and also the German Commissioner Verheugen virulently protected the German car industry also before the crisis outbreak, their protectionist efforts became even more aggressive afterwards. In contrast, the Italian and French government became vocal advocates of their domestic car industries only after the crisis outbreak, as the network data tell. Also in the aviation case, there was no noteworthy national protectionism among EU member states before the crisis. Rather, the Council was divided along the classic and well-explored division between environmental leaders and laggards. In stark contrast, the post-crisis decision-making processes were marked by aggressive protectionism of the EU, but also of the United States, China, the Gulf States and other countries. These countries threatened EU governments (but remarkably not the Commission) with a trade war, which caused the UK, France and Germany to ultimately withdraw support for the Commission's efforts. The aviation case illustrates how easily climate policies can turn into 'high politics' if they have an international scope and potentially infringe other nations' sovereignty, especially if those policies have a strong economic underpinning. In the counter-case on biofuels regulation, there was no consistent pattern of member states aligning their political preferences to that of domestic producers neither before, nor after the crisis outbreak. In the pre-crisis decision, the notorious environmental 'leaders' among the EU member states prompted the Council to toughen up the climate safeguards of the Commission proposal instead of diluting it as usual. The closest ally of the still emerging biofuels industry was the Commission, not national governments. Also after the crisis outbreak, there was no 'climate protectionism': The Netherlands and Belgium, for instance, were major biofuels producers in the EU and voted against diluting the Commission proposal. In addition, the crisis was never mentioned in any actor statement as a factor informing their policy positions, confirming that the economic crisis played no role in this case.

Taken together, EU member states, charged with the task of protecting important national industries, intensified their intergovernmental bargaining (as described by Schimmelfennig, 2015), which made them the central actors in the EU legislative process. These findings contribute to

improving the surprisingly scarce knowledge on the conditions of bargaining success in the Council (Golub, 2012): Both evidence from the car emissions and aviation case studies suggests that an important condition of successful bargaining is to make an economically urgent and credible case vis-à-vis the other Council members. The actual ‘victim’ of the intensified intergovernmental bargaining, however, was the European Commission.

The European Commission at the side line

The change in the role of the Council has direct implications for the role the European Commission. The assumption of this study that Commission-internal political polarisation increases in times of crisis was not confirmed. In the two crisis-affected case studies, the centre of gravitation in the policy process moved to the Council after the crisis outbreak: In the car emissions case, the policy process after the crisis was characterised by extraordinarily fierce conflicts within the Council and aggressive lobbying; the Commission even had to admonish the member states (and particularly Germany) to respect the institutional integrity of the legislative procedures. Also in the post-crisis decision-making process in the case study on the expansion of the EU ETS on aviation, the Commission was not in the driving seat. It lost control because it overestimated its stamina in the power game with the US, China, India and the Gulf States, and because it failed to realise that its environmental policy project was seen as an aggressive protectionist move overseas. In the end, the Commission made the impression of being thankful to the Council for putting an end to the ‘nightmare’, as Transport Commissioner Kallas called the dossier.

To conclude, it seems that Commission-internal polarisation is only relevant if the Commission actually has a substantial say in the policy process. Polarisation within in the Commission could be observed mainly during controversial policy formulation processes, but this polarisation did not seem to be crisis-induced. The difficulty of the conceptual framework to grasp Commission-internal politics and to put them in an external context stems from the highly fragmented institutional set-up and the complicated power balances and dynamics within the Commission. Investigating Commission-internal politics in times of crisis in greater detail is an attractive research topic itself that is unfortunately beyond the capacities of this study’s design and methodology. Nevertheless, the findings make a contribution to current research on policy-making patterns of the European Commission: they support the emerging consensus in the literature that the Commission lost -or gave away- its role as environmental policy entrepreneur (Bürgin, 2015; Čavoški, 2015; Steinebach

& Knill, 2016). Despite its formal gatekeeping powers of legislative proposal and withdrawal, the Commission seemed to have lost grip over the evolution of policy processes. The weakened role the Commission played in both crisis-affected policy decisions supports the claim that the Commission increasingly escapes into a strategy of ‘organisational hypocrisy’, decoupling tough environmental language from dismantled, unambitious decisions and actions in order to meet the EU member states’ interests (Knill et al., 2018).

The European Parliament – polarised in times of crisis

In contrast to the European Commission, the findings suggest that the European Parliament polarised politically due to the economic crisis, and that this development mattered for the policy-making process. In the case study on car emission limits, policy-making within the European Parliament before the crisis took place within the usual boundaries and along typical patterns without extraordinary levels of conflict. The policy process after the outbreak of the economic crisis deviated from this pattern in some important aspects: The EP Environment Committee voted for a draft so diluted it even received acclaim by the German car industry. The Rapporteur of the Environment Committee, the German conservative MEP Thomas Ulmer, had a constituency heavily depending on an Audi car plant, and hardly surprising, he suggested some considerable reliefs for car manufacturers. Also in the case study on the ETS expansion to aviation, polarisation within the European Parliament was stronger after the outbreak of the economic crisis than before. In the pre-crisis policy process, the European Parliament played the classic role of the ‘greenest’ EU institution. These EP-internal negotiations took place within the usual formal and informal law-making procedures and were not reported as being controversial. When it came to a Second Reading, the Environment Committee equipped Rapporteur Liese with a strong negotiation mandate and voted to adopt the final legislative proposal with a great majority. After the outbreak of the economic crisis, political polarisation within the EP increased. Under the international pressure after the crisis outbreak, many centre-right and liberal MEPs changed their opinion and suddenly demanded to exempt foreign airlines from emissions trading. Eventually, the Parliament was divided into three groups of MEPs: Those who supported the Commission’s partial retreat of including non-EU aviation, those who demanded a complete retreat, and those who rejected any retreat. Looking at the counter-case of biofuel regulation, the European Parliament was stronger polarised after the outbreak of the economic crisis. This contradicts the theoretical expectation at first sight, but the increased polarisation was not caused by the crisis. In the pre-crisis policy process,

the main conflict was about the inclusion of sustainability criteria into the Fuel Quality Directive. The social democrats and the Greens/EFA supported this idea, while other political groups, among them the EPP, rejected it. In the policy process after the outbreak of the economic crisis, the Parliament moved into the focus of attention. Severely divided over how high the share of conventional biofuels should be, the plenary delayed the policy process for almost two years. However, there is no evidence that this strong polarisation was crisis-induced. Neither were MEPs referring to the economic crisis in the coded statements, nor were interviewees establishing a link to the crisis when asked about it.

Taken together, the overall results of this study fuel already existing doubts on the Parliament's reputation as 'greenest' EU institution (Burns & Carter, 2010; Burns et al., 2012; Kilian & Elgström, 2010), due to its increased political fragmentation that made a strong environmental stance impossible. Particularly the German Committee chair's behaviour in the car emissions case illustrates impressively how MEP's accountability to their constituencies serves as transmission belt for an economic shock into the European Parliament and eventually to political change: Through EP representatives, some of the German car industry's most urgent demands found their way into the final legislative compromise in the inter-institutional negotiations between Commission, Council and Parliament. In that sense, there was a clear spill-over of crisis effects from the car industry into the European Parliament. Also, there is no shortage of examples in this study that confirm the finding of Beyers et al (2015), suggesting that different EP political groups have preference overlaps with different lobbies or NGOs. Furthermore, the findings suggest that the Parliament's inclination to overcome partisan conflicts in order to compete successfully with the Council (J. H. Jupille, 2004; Peters, 1992) has been cushioned by the crisis.

Environmental NGOs: Crisis-immune strategies

Environmental NGOs and campaign groups play the counterpart to industry lobby groups in the policy-making process, advocating environmentally strict regulations. Due to the non-material character of their goals, it was assumed that an economic crisis would not be able to change the strategies they choose to achieve these goals, or even the goals themselves. This assumption is clearly confirmed. Regarding the car emission limit as well as the ETS aviation case studies, environmental campaign groups lobbied for a strict version of the respective regulation both before and after the crisis outbreak. They also pursued the same strategy in both policy domains, criticizing weak

proposals and amendments and praise tougher ones. In both domains, they did not manage to influence the final policy output or to influence actors in the policy domain in any way, neither before nor after the crisis outbreak. Only in the biofuels case study, environmental NGOs played a role that went beyond commenting, using scientific studies to influence the policy process. They took advantage of the fact that there was a clear political will to regulate biofuels, but very little evidence on economic, ecological, and ethical implications. Among other lobbyists, environmental -and also humanitarian- NGOs exploited this lack of knowledge to influence policy-makers. Besides, the very tangible threat of biofuels endangering food security allowed for efficient public campaigning and outside lobbying. To a large extent, it is the merit of environmental campaigners that indirect land use change was pushed on the political agenda, at all.

To conclude, during an economic crisis, environmental NGOs have difficulties in exerting influence in the policy-making process. In times when political debates are dominated by economic constraints, purely normative lines of argument become less effective. This finding speaks to a recent debate on whether business lobbies or citizen groups are more successful in EU lobbying: While Dür et al. (2015) suggest -in contrast to most literature- that environmental groups are more successful than business lobbyists and often side with the European Commission, the findings of the two crisis-treated cases are contradictory.

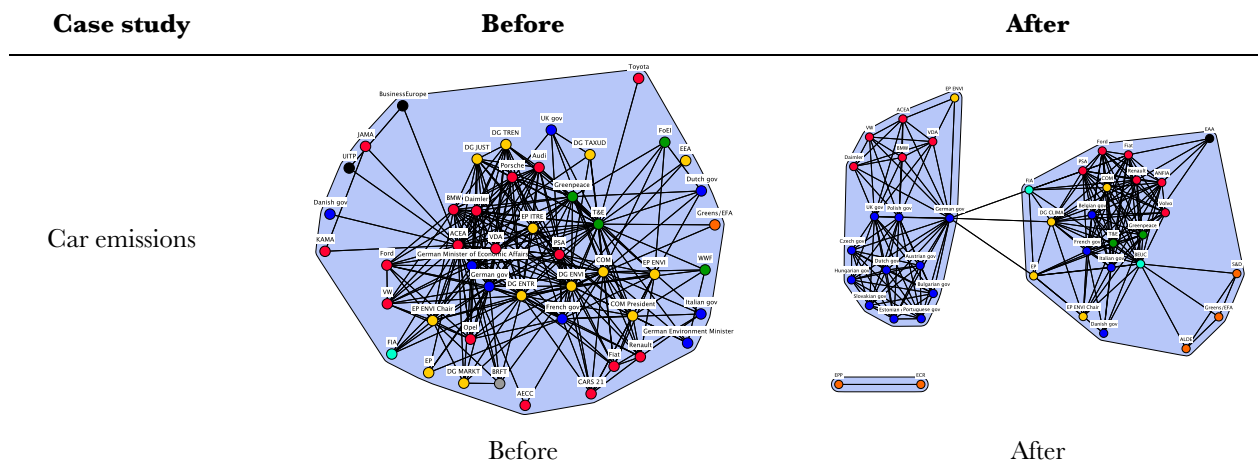
Aggregated political polarisation: Economic shocks have an impact on actors' political flexibility and policy domains

So far, we looked at how an economic shock changes the political preference setups and resulting political strategies for different actor types in a policy domain. The premise of this study is that political polarisation commences within the regulated industry. From there, it spills over to member state governments who carry the polarisation into the policy domain. Eventually, the policy domain polarises as a whole. The results corroborate this key assumption. Beginning at actor level and looking at the actors' flexibility in the crisis-affected cases, it becomes clear that on average, key actors became less flexible in their political strategies after the crisis broke out (Table 7-2). In the non-treated biofuels case, actors even became slightly more flexible after the crisis outbreak. This comparative perspective clearly suggests that an economic shock has a negative impact on actors' political flexibility in those policy domains that were crisis-affected, confirming one of this study's fundamental assumptions.

Case study	Crisis outbreak	n concepts (mean)	Difference
Car emissions	Before	5,1	-1,5
	After	3,6	
Aviation	Before	4,5	-1.2
	After	3,3	
Biofuels	Before	3,8	+0,2
	After	4,0	

Table 7-2: Policy items supported by key actors, case studies 1-3.

Looking beyond the actor level, this study explored crisis effects on the actor networks in various policy domains. In both crisis-affected cases, political polarisation in the policy domain was stronger than before, as a cluster analysis confirmed. Fittingly, there was no increased polarisation in the non-treated case study on biofuels. Table 7-3 provides a comparison of the congruence networks of all six decision-making processes.



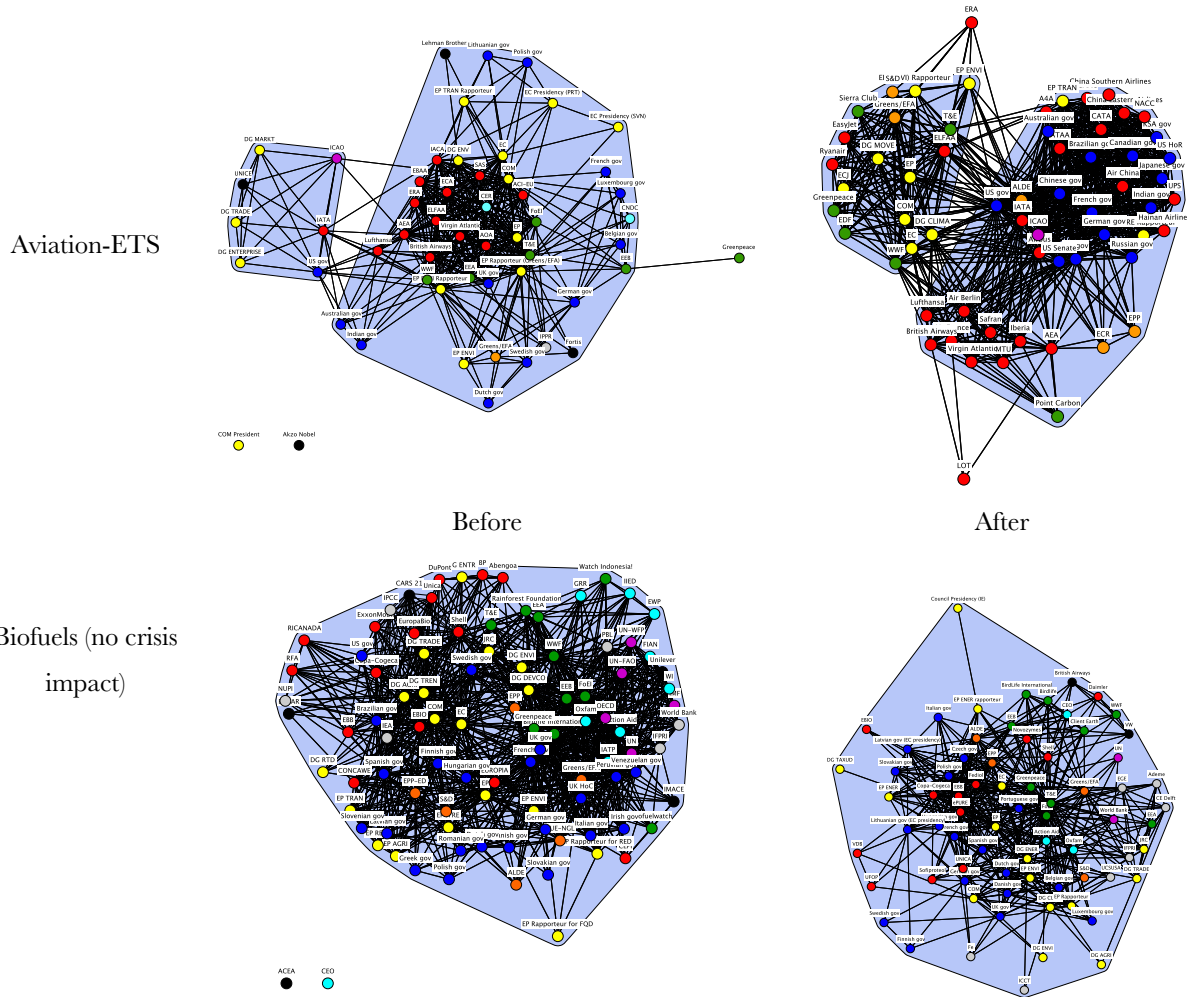


Table 7-3: Comparison of congruence networks all three case studies (Girvan-Newman clusters highlighted blue).

The overview on all three case studies provided in Table 7-3 can be seen as the visual conclusion of this dissertation: It successfully demonstrated that on a micro-level, the crisis-policy-nexus can be understood as an engraved competition for achieving political interest that can ultimately polarise entire policy domains. In doing so, the study demonstrates the timeliness of the old claim by Peter Gourevitch (1986) that in times of crisis, politics undergo a polarisation of political preferences and strategies. The degree to which the actor network is clustered into distinct, polarised coalitions tells us a lot about the policy-making process and the shape and quality of political compromises. The results thus support the perception of EU policy-making as taking place predominantly in dynamic, issue-specific networks and coalitions (Adelle et al., 2013; Long & Lorinczi, 2009; Warleigh, 2000; R. K. W. Wurzel & Connelly, 2010).

Taking the plurality of political preferences seriously, also among actors from the same business branch, turned out to be the key to explain the dynamics of EU policy-making in times of crisis. This insight is important also for EU interest representation research, which often tars all actors of one category with the same brush and pays not enough attention to the economic context lobbying takes place in. The ‘networked’ perspective provided by this study highlights that not only lobbying, but the entire competition for political influence is indeed a truly collective endeavour (Klüver, 2011, 2013), and that the number and composition of actor coalitions matters greatly in explaining policy outputs. The clear impact of the economic crisis on the patterns of coalition-building in the policy domain corroborates the claim that EU interest representation is highly dependent on contextual factors that are not yet fully understood (Klüver, 2011; Klüver et al., 2015). Therefore, the results encourage to further pursue a recently emerging research agenda that seeks to broaden the focus of attention from isolating lobby groups to a more relational, contextual understanding of lobbying (e.g. Barron & Trouille, 2016; Beyers et al., 2015; Beyers & De Bruycker, 2017; Klüver, 2011; Klüver et al., 2015).

7.2 Discussion

The results presented above contribute to empirical, theoretical and methodological scholarship. This section introduces those contributions, assesses the quality of evidence that lies in the findings and locates them in a broader scholarly discussion. Taken together, the findings of this study speak to five scholarly debates: The survival of EU climate and environmental policy after the crisis outbreak; the micro-level link between economic shocks and policy change; interest-based versus ideational explanations of EU policy-making in times of crisis; ‘crisis intergovernmentalism’ in the EU; and the use of using social network analysis to study policy processes.

7.2.1 Empirical contribution

Chances of survival of EU climate policies after economic shocks: Who seizes the ‘window of opportunity’?

As pointed out in the beginning of this study, we know that in consequence of the crisis outbreak, there was a drop in the number of proposed and passed EU environmental legislation (Steinebach & Knill, 2016). However, we know little about the still remarkable amount of environmental regulation that was passed nevertheless, among them also cases of clear regulatory tightening. In

other words, much research focuses on what did *not* happen, while we know little about the crisis impact on those regulatory projects that ‘survived’, and why some regulatory initiatives survived while others faded. It was a key motivation of this study to enhance the empirical knowledge on this subject.

First of all, the findings confirm that climate policy lost its status as ‘flagship’ policy field and was degraded to little more than a jollyboat. Also Commission officials confirmed in interviews that the ‘environmental spirit’ that was present until the crisis outbreak was gone immediately. They also confirmed that lobbies opposing strict environmental and climate regulations immediately seized the opportunity to push these kinds of topics off the agenda. The loss of the high priority status certainly made it more difficult for the Commission to propose and pass ambitious climate policies. The findings show a clear argumentative pattern: In times of crisis, increased economic constraints make bargaining more difficult and push aside normative environmental arguments. This pattern prevailed also in foreign climate policy, where the economic crisis put the role of the EU as international forerunner into jeopardy (Dröge 2013). The case study on the expansion of the EU ETS on aviation showcased how an ambitious EU climate policy failed spectacularly after the crisis outbreak. Confronted with a purely economic line of argument (allegations of protectionism and threat of trade war) by the United States, China, India and the Gulf States, the European Commission was unable to succeed with its rather normative environmental line of argument and eventually had to retire its already adopted regulation.

On the other hand, the case study on car emission limits demonstrates how referring to economic constraints can be used as a successful bargaining strategy to prevent a dilution or even full suspension of climate regulations in times of crisis. The strongly crisis-affected ‘southern’ carmakers and the Italian and French governments withstood enormous political pressure of the German-led actor coalition by replicating the German bargaining strategy and using it to make their own point: They argued that they had to stand their ground and insist on the more environmentally ambitious draft because the domestic economic situation left them no choice. A more normative line of argument, emphasising the importance of emission reductions for climate change mitigation, certainly would have failed in this tense situation.

To conclude, this study observes the de-priorisation of environmental policy due to increased economic constraints. In times of economic crisis, economic reasoning matters the most. While this development disadvantages actors like NGOs that must resort to mainly normative arguments, the study showed also how maintaining and expanding an environmentally ambitious policy in times of crisis can succeed: By making an economic case for it. If an economic crisis is seen as a focusing event that opens a window of opportunity, employing an economic line of argument and making a credible case for economic constraints is certainly a promising strategy to successfully seize the opportunity. This finding contributes to the literature on the EU's crisis response which neglects policy fields that, unlike e.g. fiscal and monetary policy, have a low 'crisis proximity' (Nohrstedt & Weible, 2010). It also serves as example of how to examine the impact of 'creeping catastrophes' where common theoretical frameworks on policy change have conceptual weaknesses because they put emphasis on sudden external shocks. In addition, this finding provides a point of contact to scholarship on the 'green growth' framing of EU climate policies that competed with a 'trade-off' framing during the economic crisis (European Commission, 2012c). Beyond merely describing discursive frames, however, this study provides empirical evidence on the political implications of this framing competition.

Establishing a micro-level link between economic shocks and EU politics

There are good descriptions of both the 2008-2010 economic and fiscal crisis and how EU environmental policy changed in consequence. What is missing, however, is a micro-level account of how both macro-phenomena, economic shock and policy outputs, are linked. To remedy this shortcoming in empirical and theoretical literature, this study revisits a line of literature in political economy that, in the words of Peter Gourevitch, 'examines policy support by examining the placement of social actors in the economy itself' (1986, p. 21f.).

In short, this study suggests a conceptual framework rooting in rational-choice-theory. Its main assumption is that an economic shock first and foremost affects business actors, who then adjust their political strategies to achieve their policy preferences. As business actors have different initial positions due to e.g. different product portfolios and development cycles, there are different policy preferences across an industry, and there are 'beneficiaries' and 'losers' of a planned regulation. An economic shock is assumed to make business actors less flexible in accepting sub-optimal regulatory outcomes, leading to a polarisation of political strategies between beneficiaries and losers within the

industry. This polarisation is transmitted into the EU policy domain mainly (but not only) through member state governments, eventually leading to a polarised policy domain, more difficult bargaining and lowest-common denominator compromises.

This conceptual framework served as a helpful, viable and plausible tool to explore the crisis-politics nexus in the EU. The case study results confirm the cornerstones of this framework and corroborate its main assumptions. Most importantly, the results confirm that the impact of an economic crisis on a policy domain can be understood as a process of polarisation of political preferences and strategies. While increased political polarisation has become a dominant theme in political science (Castle, Jesuit, & Williams, 2018), this study contrasts the bulk of existing research by putting focus on crisis-induced polarisation of industries and policy domains, not on the polarisation of public opinion or capital.

That being said, the two crisis-treated case studies are clearly more polarised after the outbreak of the economic crisis, as both network analysis and cluster analysis suggest. In line with the framework, the results show that this process of polarisation roots in the industry that is subject to an upcoming regulation: If business actors have less economic buffer for accepting unfavourable, costly regulations, they lobby more intensively against them. Vice versa, they lobby stronger for relatively advantageous regulations. It has also been confirmed that national governments carry their concerns into the policy domain. However, the conceptual framework lacks some explanatory power with regard to the role of the European Commission, and partially also of the European Parliament. The hypothesis that in times of crisis, these two European institutions undergo the same process of internal polarisation as the industry and the Council proved as misleading. The main reason for this is that the internal politics of Commission and Parliament depend on multiple different conditions that vary from case to case, such as nationality and party affiliation of the involved politicians and bureaucrats. Regarding the Commission, it also seems that the thoroughly researched slip-down of climate and environmental issues on the agenda also diminished the potential for conflict. Despite these vaguenesses, this conceptual framework provides an insightful perspective from which to study EU policy-making in times of crisis.

7.2.2 Theoretical contribution

Interests versus ideas in crisis-shaken Brussels

The use of relational data and network analysis revealed in great clarity that in EU policy-making, actor coalitions are glued together by common material interests, not by common beliefs or norms. This central finding contrasts theoretical perspectives that draw on belief systems or social norms to explain policy-making, like e.g. the Advocacy Coalition Framework. Their underlying assumption that policy-making can be explained by convictions that are deeply rooted in individuals' cognition has difficulties to account for EU policy-making with its volatile, cross-cutting conflict lines and shifting venues, all the more in times of economic hardship. In contrast to such belief- or idea-based approaches, the conceptual framework developed in this study roots in rational choice assumptions: Actors have preferences regarding regulations and pursue strategies to achieve those preferences in the policy domain.

The case study findings clearly suggest that such an interest-based perspective was the right choice: The analysed policy processes in the car emissions and biofuel domains involved intense bargaining among member states, but also among the European institutions that was clearly driven by economic interests. Also the aviation case study demonstrated that the fate of climate policies of international scope hinges on blunt economic interests, and that actors are able to forge new coalitions (e.g. European low-cost carriers) as soon as a regulatory initiative offers the opportunity for a competitive advantage over competitors with a different cost-benefit-expectation (in this case classic airlines). By the same token, environmental NGOs had no influence in the observed cases except in the biofuel domain, where they exploited the lack of knowledge on the consequences of biofuel production by providing scientific evidence to policy-makers. Furthermore, the car emissions case showed that even if an environmentally ambitious regulation is successfully adopted in times of crisis, it is due to economic reasoning and justification of its proponents, and not because of normative, environmentalist ideals.

The fruitfulness of an interest-based, rationalist perspective on EU policy-making in times of crisis does however not mean that ideational perspectives are dispensable. Quite the opposite, it would be overly simplifying to claim that ideas and discourse do not matter at all. The most important 'discursive' element that could be observed in the case studies was the frequently mentioned 'change of spirit'. According to interviewed Commission officials, environmental policy slipped down the

agenda of the European Union as soon as the crisis broke out, much to the satisfaction of classic environmental ‘laggards’. Certainly, this change of spirit had implications for the policy-making process, but conceptualising policy-making in terms of interests-based coalitions and bargaining is clearly more tangible and measurable and eventually delivers more concrete insights. In a way, the rationale behind this study resembles the framing analyses conducted by researchers like Crespy and Schmidt (2014) and Skovgaard (Skovgaard, 2014). The commonality with such framing studies is that the analysis is based upon actor statements. However, the crucial difference is that the ‘modus operandi’ of framing approaches is discourse, while this study sees actor statements as expressions of their (rationally informed) political preference that they seek to pursue in political bargaining, not in the discourse. In spirit of the famous call for exchange among different institutionalist approaches by Hall and Taylor (1996), however, this difference should not be overpronounced.

Closely related to the debate on interests and ideas is the question to what extent we can speak of an ‘economization’ of EU institutions and politics during economic crises (Kempin & Overhaus, 2014). Given the strong economic underpinning of the EU, it is plausible to assume that also in policy domains with low crisis proximity, business lobbies exploit economic shocks to make their case: An economic crisis offers them a neat new set of arguments. The results of this study corroborate this assumption by showing how effective economic justifications of political preferences become in times of crisis, compared to other justifications. In their edited volume, Kempin and Overhaus (2013) collect evidence from several EU policy domains, proving that the economic crisis lead to a prioritisation of economic considerations and also in EU foreign affairs and in EU climate policy (Dröge, 2013). To some extent, this contradicts the perception of Börzel and Risse (2018) of the economic crisis management as being mainly about identity. However, more recent incidents like Brexit, the ‘refugee crisis’ and the fierce resistance against TTIP draw attention to the fact that that also economic considerations can be pushed into the background by ‘ideational’ concepts like for example identity politics. In some cases, governments even seem to be willing to accept a loss of political reputation and potential damage to the domestic economy if it serves the purpose of identity politics, like Brexit and the refusal of Eastern European member states to host refugees illustrate. Here, discursive and ideational approaches in political science come back into play and can contribute valuable insights. In that regard, I agree with Börzel and Risse (2018) that also rationalist perspectives as liberal intergovernmentalism could profit from factoring in identities into their conceptual frameworks.

The EU in times of crisis – a comeback of intergovernmentalism?

In the aftermath of the economic crisis, a discussion emerged about whether the EU fell into a pattern of ‘new intergovernmentalism’, or whether it was able to maintain its supranational institutional character (Bickerton et al., 2015b, 2015a; Falkner, 2016a, 2016b; Hennessy, 2014; Puetter, 2011; Schimmelfennig, 2015). Proponents of new intergovernmentalism like Uwe Puetter (2011) argue that after the outbreak of the economic crisis, the most urgent issues were dealt with at highest level in the European Council or smaller or bilateral configurations, in the Eurogroup or the ECOFIN council, while the Commission was less visible. In contrast, other scholars stress that no EU competencies were re-nationalized (Falkner, 2016b) and argue that the crisis empowered supranational actors (Kudrna, 2016; Laffan & Schlosser, 2016).

Looking at the processual aspect of policy-making, the findings of this study advance the debate by highlighting that the increased political polarisation in a policy domain goes hand in hand with intensified intergovernmental bargaining, while the European Commission is side-lined. In both crisis-affected cases, intergovernmental bargaining took a larger space in the policy process after the crisis outbreak. The case of aviation emission trading is certainly the most impressive example of how the European Commission became downright disempowered. The fate of the inclusion of non-EU flights was decided among EU member states and the United States, China and the Gulf states, who directly approached -and threatened- governments, not the Commission. When Germany, France and the United Kingdom decided to give in, the Commission was left with no choice than to withdraw the legislation. In the case study on carbon dioxide emissions for cars, intergovernmental tensions were so intense that the Commission even had to admonish the member states to respect the institutional integrity of the legislative procedures.

Thus, the findings imply that the process of political polarisation in times of crisis seems to put the member states at the centre stage of policy-making because eventually, the Council is the bottleneck of the legislative procedure. In ‘normal’ times, the Council is less divided and accordingly, the Commission’s influence in the policy process increases because its legislative partner institution is more predictable. The economic crisis confronted the Commission with the challenge to maintain its role as environmental forerunner, while providing reliefs for its member states’ economies. Therefore, one way for the Commission to deal with the increased influence of the member states

can be described as organisational hypocrisy, as recent findings suggest: While it satisfies the member states' demand for less regulatory burden, it maintains an environmentally ambitious language (Knill et al., 2018).

7.2.3 Methodological contribution

Preference network analysis – a way forward in studying policy processes and interest representation?

The reason to apply network analysis in this study was to get an actor-centred understanding of the policy process. Actors pursue strategies to achieve policy goals, and to that purpose, these actors forge coalitions that are glued together by their common political preferences. To study these preference coalitions, this study used a network analysis approach that computes network graphs based on hand-coded actor preferences collected in news media. Acknowledging the methodological caveats mentioned in the research design chapter, the conclusion is positive: Preference network analysis allowed for a precise mapping of the policy domain. Particularly the ability to take 'snapshots' of the preference network at different points in time and of different segments of the policy domain proved as an effective way to study a policy process. The network graphs served as maps of the policy domain and of the distribution of power between different coalitions therein. Also the comparison of different networks proved as a viable way to take a comparative perspective of different policy processes within, carving out the differences and similarities with high precision. Such a 'networked' perspective on public policy proved as helpful for understanding the relational aspects of interest representation and decision-making. (Barron & Trouille, 2016; Bernhagen, Dür, & Marshall, 2015).

That being said, this study also showed that network analysis should to be embedded into an inferential research design to unfold explanatory power. Without such a research design and without being set into context with explanatory variables, network analysis is merely a descriptive method. The informative value of this study profited from a research design aimed at drawing causal inference. Within this design, network analysis was the most important tool to make within-case and cross-case comparisons that allowed making causal claims. Also, in studies with a small number of cases like the present one, network analysis benefits from a complementation with qualitative methods. Here, the analytical value of the case study was enhanced by a qualitative analysis of the coded statements, related legislative and preparatory documents as well as by interviews with Commission officials. This combination of methodological tools allowed for a more

comprehensive and graphic impression of the analysed policy processes than a stand-alone network analysis would have delivered.

7.2.4 Limitations

As any study, also the present one has limitations originating in its theoretical perspective, research design and datasets. While these limitations do not invalidate the results or the conclusions drawn, transparency about the challenges and drawbacks should be ensured²⁶.

Limited generalisability

A first methodological limitation concerns the small number of cases. Exploring a total number of three in-depth case studies, this work profits from the typical advantages of a small-n design. The reasons for choosing such design were a research interest in understanding policy processes in detail, as well as a very limited pool of available cases. However, this study comes also with the typical drawbacks of small-n studies. In particular, the results should be generalised to other cases only cautiously, as small-n designs have a limited external validity. The twofold purpose of this study was to analyse the impact of the 2008-2010 economic crisis on EU climate policy making in great detail, and to develop and empirically test a conceptual framework to study the crisis-policy nexus. The research design was selected to serve this purpose and did so successfully. However, the results and conclusions of this study's cases should not be applied bluntly to other EU policy domains, other polities or to 'crisis types' other than economic crises. Nevertheless, conceptualising economic crisis impacts in terms of political polarisation among actors is a fruitful way to understand the micro-level link between economic shocks and policy-making. This insight is also valuable for scholars that study political processes in other contexts.

The ubiquity of economy: How to isolate an economic crisis as independent variable?

A second methodological limitation stems from the ubiquitous character of an economic crisis. As detailed in the research design chapter, great efforts have been undertaken to assure an isolated independent variable (the crisis impact on an industry), using a clearly defined case selection strategy and a difference-in-differences design. Nevertheless, an economic crisis directly or

²⁶ Limitations concerning biases stemming from data sources and data collection are addressed in the research design chapter in detail and are therefore not discussed here.

indirectly affects every aspect of reality. This is particularly true for EU politics, where policies in different fields are often implicitly or explicitly linked and where Council and Parliament representatives negotiate repeatedly many times, engage in logrolling and make package deals (Kardasheva, 2013). For this reason, it would be too strong to claim that the counter-case (biofuels regulation) was completely isolated from the economic crisis, despite the key economic figures suggest there was no direct impact. Another example of the ubiquity of economics concerns the case study on aviation emission trading: At some point, the main driver for many key actors in the policy domain seemed to be sovereignty concerns and protectionism. But the case study also showed that these ‘high politics’ are closely intertwined with economics: If a Gulf State considers aviation a key pillar of its future economic architecture, it concerns both the nation’s sovereignty and economy. In any case, the qualitative assessment of actor statements as well as evidence from interviews warrant that the economic crisis is the single most important behavioural driver in both crisis-treated cases, while this driver was absent in the biofuels case.

Limitations of a rationalist perspective in studying political crises

While the interest-based, rationalist perspective on EU crisis politics has demonstrated its value for studying economic crises, its applicability might be limited for analysing political crises other than of economic nature. The ongoing ‘refugee crisis’ that confronts the EU with serious agreement problems, for instance, is rather characterised by conflicts about identity than about economics. Quite the opposite, political leaders are willing to accept extensive economic setbacks if it serves ‘identity politics’ and perceptions of national sovereignty, as Brexit shows. While there might be also an identity component in EU economic policy (Börzel & Risse, 2018), it played no role in the cases of the present study. Nevertheless, it should be kept in mind that despite their prevalence, economic arguments do not beat any other argument under any circumstances.

7.2.5 Outlook

While the previous section discussed the challenges and limitations of the present study, this final section attempts an outlook on how the results and conclusions of this study could inform future scholarship and indicate avenues for further research.

Refining and expanding the conceptual framework

The evaluation of the hypotheses in this chapter revealed that the conceptual framework remains vague in describing the role of the European Commission. Therefore, the framework will profit from a revision regarding the internal politics of the European Commission in times of crisis. It would be important to learn about how a crisis changes dynamics between different Directorate Generals, Commissioner Cabinets and about the role of member state influence therein. Most likely, in-depth case studies are the appropriate approach for achieving those insights. Beyond that, further research should assess in how far the rationalist perspective from this study profits from adding discursive elements. While the rationalist angle was chosen for good reasons, any theoretical ‘orthodoxy’ should be avoided. There are solid discursive institutionalist studies of the subject (e.g. Schmidt, 2014), and their insights e.g. on how ideas how to solve a crisis evolve could enhance also the rationalist perspective applied in this study. Finally, this conceptual framework could be expanded with the goal to analyse policy outputs. Assessing the impact of economic shocks not only on the policy process, but on the produced policy outputs and their implementation would be the consequent next step and lead to important new insights. This study has already pointed out that increased political polarisation made finding an agreement more difficult, but the nature and environmental ambitiousness of those compromises varied strongly. There are also indications that the shape of a policy network affects the choice of certain policy instruments (Bressers & Laurence J. O’Toole, 1998). This work could serve as a starting point to further explore the crisis-policy output nexus in more detail.

More research on the crisis-policy nexus

This study provided a conceptual framework to study the micro-level link between economic shocks and its consequences in the EU political sphere from a rationalist, politico-economic perspective. The nexus between (economic) shocks and policy-making is a subject that deserves further attention and systematisation both on conceptual and empirical level, given that some scholars identify a permanent ‘crisisification’ (Rhinar, 2019) of EU policy-making in the light of multiple political and economic crises in the past years. We need to learn more about if this study’s key finding, crisis-induced political polarisation, is prevalent in other EU policy domains, in polities beyond the EU, and triggered by different ‘crisis types’. That being said, there is a bulk of useful and interesting conceptual and empirical work on different crises and how they affect politics. But this literature lacks systematisation and structured theory-building. An oil spill is hardly comparable to a school

shooting, and an economic crisis differs from a ‘refugee crisis’. Departing from a typology of different crises along several conceptual notions (e.g. degree of suddenness, degree of economic significance, degree of ‘identity’ significance and so on), future work could produce comparable, structured findings across various political systems. Such a typology could be fruitfully integrated into existing theories of the policy process, like the Advocacy Coalitions Framework and Punctuated Equilibrium.

A deeper knowledge about the ‘micro-economics of corporate political preferences’

Given the pivotal role of shared preferences in explaining interactions among political actors in EU policy-making, more focus should be put on understanding how these preferences are shaped. This is particularly true for business actors, the ‘elephant in the room’ of EU policy-making (Grant, 2011). However, political scientists often limit their perspective on the genuinely ‘political’ aspects of lobbying. As a result, there is a good empirical foundation for many aspects of interest representation in the EU, e.g. on corporate political activity (CPA), interest groups, lobbying channels, strategies, access points and success. There are also well-established theoretical perspectives on how firms act in the political arena, mainly building upon rational choice and principal-agent, but also behavioural theory (cf. D. Hart, 2011). The scholarship in this research area puts focus on three aspects: Firms’ resources and capabilities, the institutional context and the political environment (Lawton et al., 2013).

However, the knowledge about the determinants of business actors’ political strategies is still surprisingly scarce, and CPA literature focuses mainly on performance, rather than the antecedents of CPA (Lawton et al., 2013). This is particularly true for environmental policy, where policy-makers can choose from a rich menu of voluntary, market-based and command-and-control instruments such as Corporate Social Responsibility, process standards, product standards, emission limits, emission trading or the use of best available techniques. Therefore, future CPA scholarship should focus on improving the understanding of how business shape their regulatory preferences. Such a research programme could be labelled the ‘micro-economics of political preferences’ and draw on already existing theoretical work but derive more nuanced and applicable propositions from larger theoretical axioms in a systematic manner. For example, in highly regulated areas like emission limits, emission standards like Euro 6 have a tremendous impact on car manufacturing. A carmaker’s support for such a policy hinges crucially on its development cycle

and how much he has to invest in meeting a new standard. However, this and similar factors are largely ignored by political science research on CPA. Therefore, interdisciplinary work with economists and business administration researchers could advance public policy scholarship in that regard.

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9 Appendix

9.1 Pool of available cases

Date	Title
Climate Strategies & Targets: 2020 climate & energy package	
23 Apr 2009	Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 ('Effort Sharing Decision')
12 Dec 2008	Energy and climate package - elements of the final compromise agreed by the European Council
Climate Strategies & Targets: 2030 climate & energy framework	
30 Oct 2014	Outcome of the October 2014 European Council
Emission Trading System (ETS)	
23 Apr 2009	Directive 2009/29/EC of the European Parliament and of the Council amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community
27 Oct 2004	Directive 2004/101/EC of the European Parliament and of the Council amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol's project mechanisms
13 Oct 2003	Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC
Aviation	
16 Apr 2014	Regulation (EU) No 421/2014 of the European Parliament and of the Council amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in view of the implementation by 2020 of an international agreement applying a single global market-based measure to international aviation emissions
19 Nov 2008	Directive 2008/101/EC - Amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community
Road Transport - Cars	
5 Apr 2014	Regulation (EU) No 333/2014 of the European Parliament and of the Council of 11 March 2014 amending Regulation (EC) No 443/2009 to define the modalities for reaching the 2020 target to reduce CO ₂ emissions from new passenger cars
23 Apr 2009	Regulation (EC) 443/2009 of the European Parliament and of the Council setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO ₂ emissions from light-duty vehicles

20 Jun 2007	Regulation (EC) No 715/2007 of the European Parliament and of the Council on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information
17 May 2006	Directive 2006/40/EC of the European Parliament and of the Council of 17 May 2006 relating to emissions from air conditioning systems in motor vehicles and amending Council Directive 70/156/EEC
Road Transport – Vans (Light Commercial Vehicles)	
26 Feb 2014	Regulation (EU) NO 253/2014 of the European Parliament and of the Council amending Regulation (EU) No 510/2011 to define the modalities for reaching the 2020 target to reduce CO ₂ emissions from new light commercial vehicles
11 May 2011	Regulation 510/2011 of the European Parliament and of the Council setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO ₂ emissions from light-duty vehicles
17 May 2006	Directive 2006/40/EC of the European Parliament and of the Council of 17 May 2006 relating to emissions from air conditioning systems in motor vehicles and amending Council Directive 70/156/EEC
Road Transport – Heavy Duty Vehicles	
18 June 2009	Regulation (EC) No 595/2009 of the European Parliament and of the Council on type-approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) and on access to vehicle repair and maintenance information and amending Regulation (EC) No 715/2007 and Directive 2007/46/EC and repealing Directives 80/1269/EEC, 2005/55/EC and 2005/78/EC
28 Sep 2005	Directive 2005/55/EC of the European Parliament and of the Council of 28 September 2005 on the approximation of the laws of the Member States relating to the measures to be taken against the emission of gaseous and particulate pollutants from compression-ignition engines for use in vehicles, and the emission of gaseous pollutants from positive-ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicle
Biofuels	
09 Sep 2015	Directive (EU) 2015/1513 of the European Parliament and of the Council amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources (ILUC Directive)
23 Apr 2009	Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (Renewable Energy Directive)
Industrial Emissions	
24 Nov 2010	Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions (integrated pollution prevention and control)
23 Oct 2001	Directive 2001/80/EC of the European Parliament and of the on the limitation of emissions of certain pollutants into the air from large combustion plants

9.2 Interviews

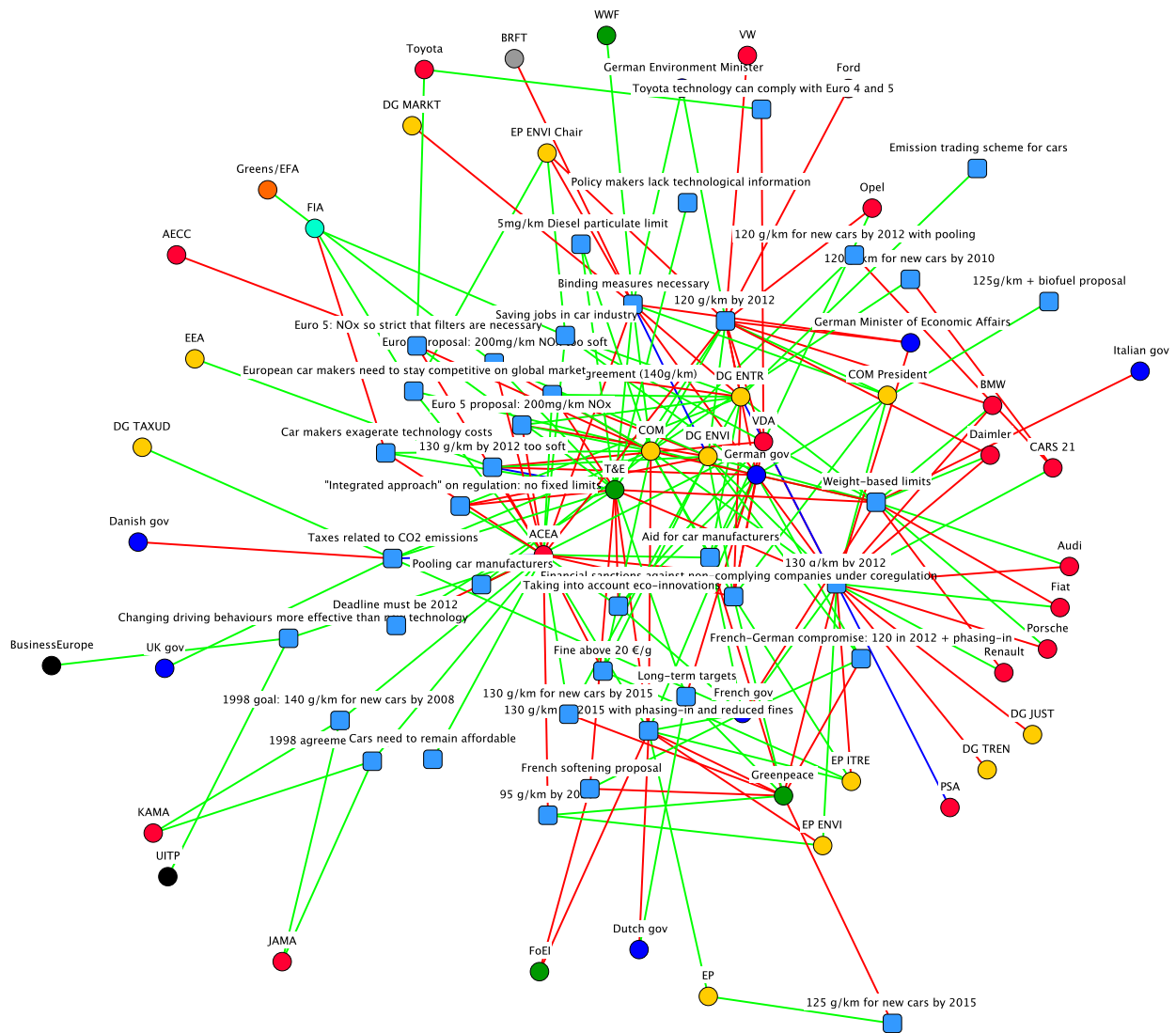
Date Role in the European Commission

20 Apr 2016 Secretariat General, Adviser Coreper I Representative.

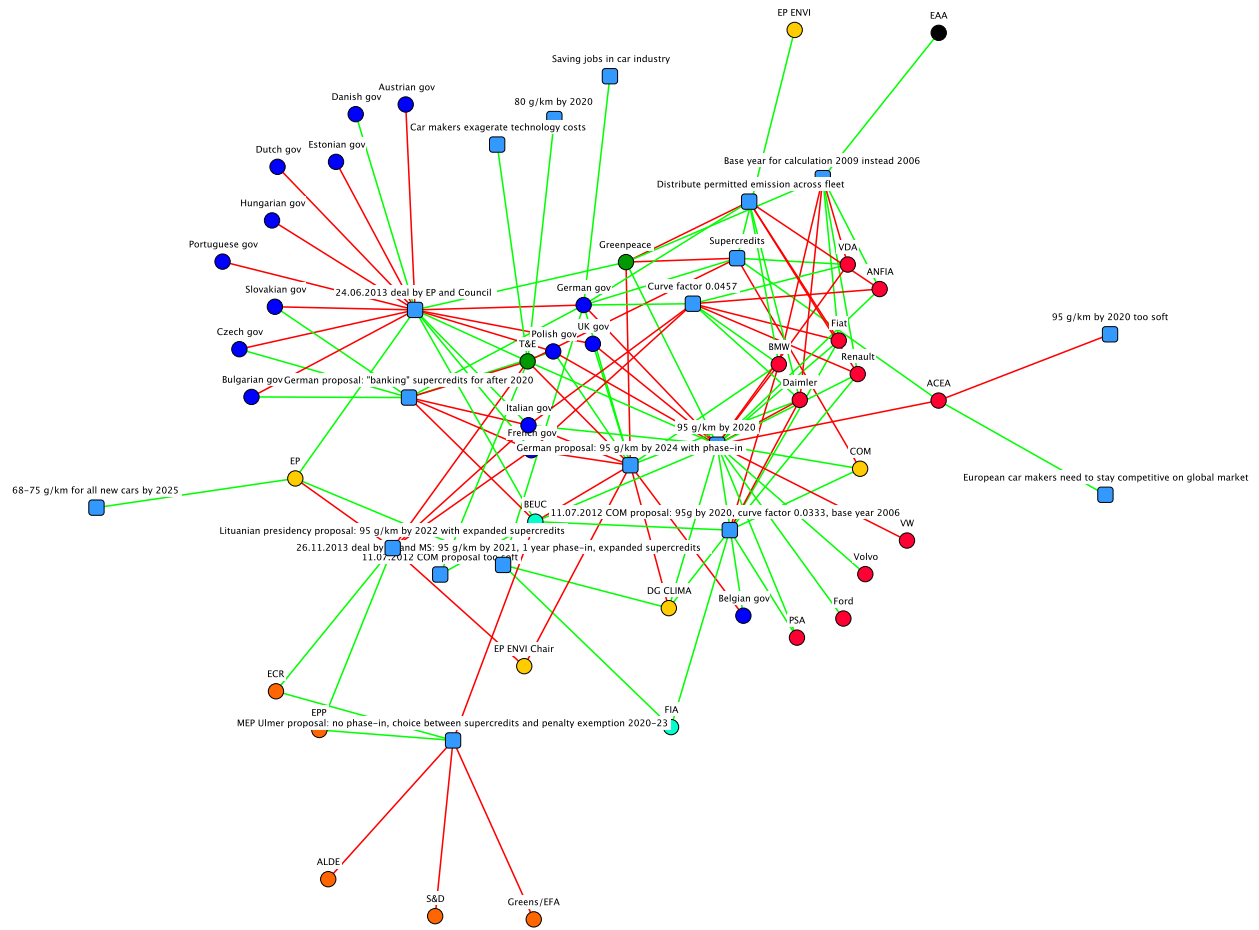
29 Apr 2016 Secretariat General, Policy Officer Unit E2 (Knowledge and Infrastructure). Worked on all three cases in the Secretariat General.

04 May 2016 Secretariat General, Deputy Head of Unit C2 (Impact Assessment). Worked on all three cases in DG Environment.

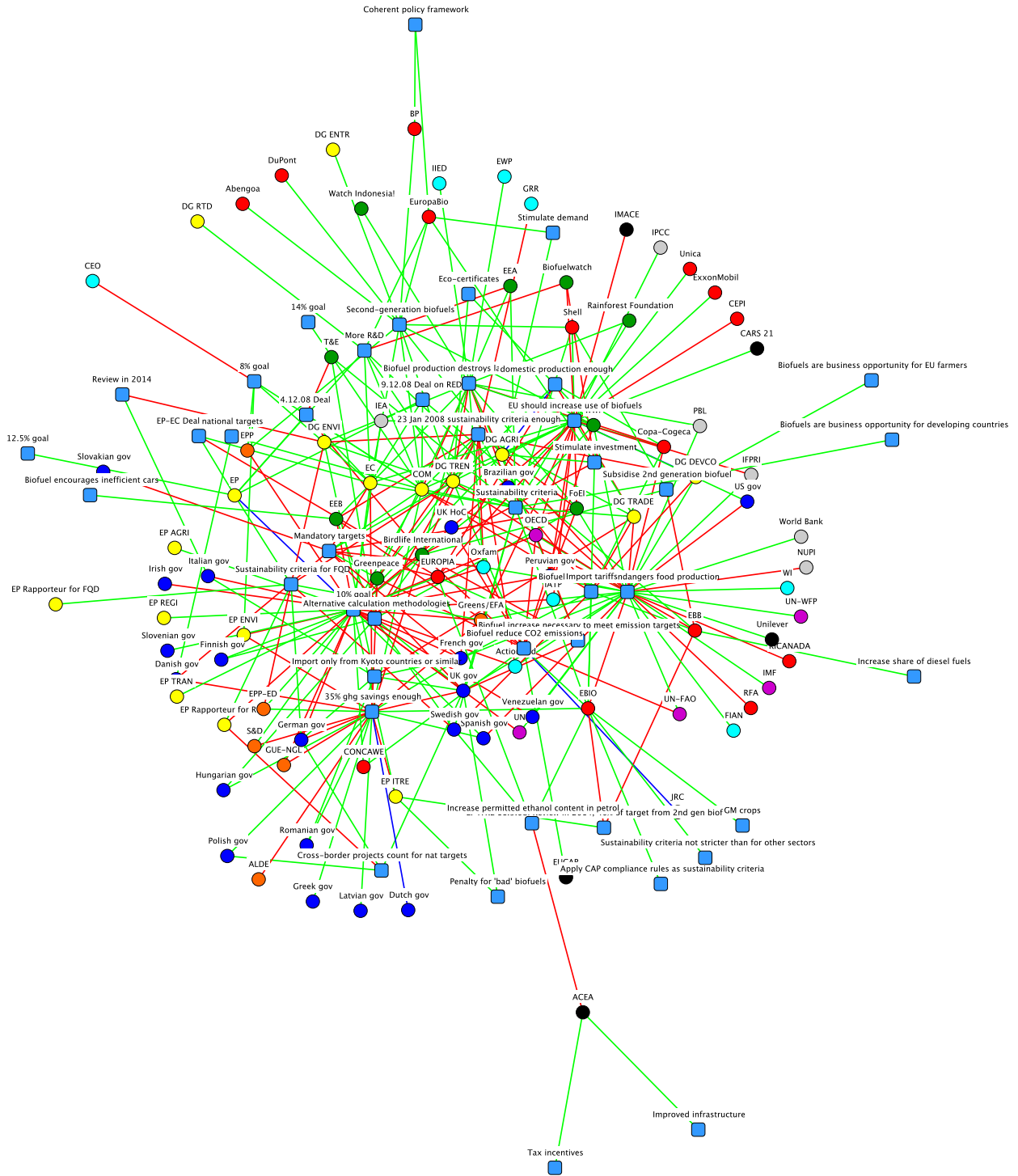
9.3 Affiliation Networks



Affiliation network, pre-crisis decision case study 1 (Regulation (EC) No 443/2009).



Affiliation network, post-crisis decision case study 1 (Regulation (EU) No 333/2014).



Affiliation network, pre-crisis decision case study 3 (Directive 2009/28/EC).

