Shifting Regulatory Approaches: CO_2 Emissions and the Auto Industry in the European Union

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In late 2006, the European Commission announced that it would regulate the level of carbon dioxide (CO_2) emissions from automobiles sold in the European Union (EU). This announcement represented a significant policy shift for the EU in its approach to the regulation of auto emissions. Both the auto industry and auto emissions are trans-border in character. Automakers are powerful actors who face considerable competitive pressures. This has led many observers to assume that political authorities will, as is the case with other such powerful industries, inevitably fail to produce strong effective trans-border regulation to constrain the industry and its commercial imperatives and to protect the public interest in other non-commercial values. Previously, auto emissions in the EU had been governed by a voluntary agreement between the auto industry and the Commission. However, due to the industry's failure to meet the emissions targets laid out in the 1998 voluntary agreement, the Commission proposed far more stringent emissions regulations in February 2007, along with significant financial penalties for those automakers that failed to meet the new regulatory requirements. Despite considerable opposition from the auto industry, the EU passed new auto emissions regulations in December 2008. While the final auto emissions regulations were weaker than those originally proposed by the Commission in 2007, they still represent a significant policy shift in the Commission's regulatory approach to auto emissions.

Reducing automotive emissions is a key environmental policy challenge for most states, including the EU member states. The EU's new auto emissions regulations are part of the EU's broader approach to climate change. The EU aims to cut its CO_2 emissions by 20 percent below its 1990 levels by 2020 in order to meet its commitments under the Kyoto Protocol (Schreurs and Tiberghien 2007, 19). In the EU, passenger car use accounts for about 12% of overall CO_2 emissions. While the EU as a whole reduced its greenhouse gas (GHG) emissions by approximately 5% over the 1990-2004 period, CO_2 emissions from road transport have increased by 26% (European Commission 2007a, 2). Thus, reducing auto emissions was a key policy challenge for the EU in order to meet its commitments under the Kyoto Protocol.

The EU's shift from a voluntary approach to the regulation of auto emissions to a command and control regulatory approach is also significant as the Commission has utilized voluntary agreements to address a number of policy challenges. The EU's shift in its regulatory approach to auto emissions represents a departure from the larger global trend towards the greater use of private regulation. However, as the International Energy Agency (IEA) noted in its 2008 report entitled, *Review of International Policies for Vehicle Fuel Efficiency*, "As a result of the general ineffectiveness of voluntary programs to constrain vehicle energy efficiency, there is a general trend away from them…In order to achieve significant energy savings in this sector, governments should introduce regulatory fuel efficiency standards" (IEA 2008, 44 & 47). The case of the EU's new auto emissions regulations is also significant as both Canada and the United States are currently re-evaluating their auto emissions standards.

This paper will explain the EU's shift in its regulatory approach to auto emissions by arguing that the increased politicization of climate change has undermined the political influence of the auto industry. In making this argument this paper will use social movement theory to identify a number of political factors that are underestimated by those who assume powerful transnational industries, such as the auto industry, will always defeat transnational regulatory initiatives. It will draw on and go beyond the concept of "political opportunity structure" in social movement theory to identify the importance of "industry opportunity structures," which include discursive, political and institutional elements. The concept of "industry opportunity structure" can be utilized to explain policy outcomes in issue areas that include significant involvement from both private actors and civil society groups.

In arguing that the concept of an industry opportunity structure can be used to explain the EU's shift in auto emissions regulation, this paper will first elaborate on the concept of an "industry opportunity structure" and how it can be used to explain policy outcomes in highly contested issue areas. This paper will then give a brief overview of the developments leading up to the passage of the EU's auto emissions regulations in December 2008. Finally, the paper will apply a theoretical framework based on the concept of an industry opportunity structure to explain the outcome of the EU's emissions regulations.

Opportunity Structures

This paper argues that social movement theory, specifically the concept of political opportunity structure (POS), can be drawn on to explain outcomes in contentious issue areas, which involve a variety of non-state actors. The concept of POS examines the political circumstances that have an effect on the emergence, structure, scope and success of social movements. The theory emphasizes the influence of external structures on social movement success, rather than factors internal to the movement itself. A POS is generally described as more or less open, with a more open POS being more amenable to the emergence and success of social movement actors (Wahlstrom and Peterson 2006, 364). In his commonly cited definition, McAdam (1996) lists four key aspects of a POS: 1) the relative openness or closure of the institutionalized political system; 2) the stability or instability of that broad set of elite alignments that typically undergird a polity; 3) the presence or absence of elite allies; 4) the state's capacity and propensity for repression (1996, 27).

While the concept of POS has been useful in illustrating when the external political environment will favour a social movement, in recent years the concept of POS has been criticised by a number of scholars for directing too much attention to the role of the state in social movement success and not enough attention to other factors in the movement's external environment. Scholars have broadened the concept of POS to include cultural and social contexts as factors that affect movement dynamics. Culture is seen as shaping people's expectations of political institutions, their sense of their rights as citizens, and their sense of their own power. The cultural activities of movements have also been recognized as creating political opportunities as new ideas and meanings take hold throughout the broader society. Scholars have also begun to modify the concept of POS to apply to actors other than the state. These scholars argue the concept of POS has

"served to focus attention on the state and the political sphere as the central targets of social movement organizing, thereby eclipsing the significance of other targets and institutional spheres" (Schurman 2004, 246). The external environment in which social movements operate may include governments that are hostile to the introduction of new regulation or involve powerful and influential private actors. In order to accommodate private actors as well as those who are part of the state, and to address the changing external environment facing social movements, some scholars have begun to utilize the term "industry opportunity structure" in addition to "political opportunity structure" (see Porter 2007; Schurman 2004; Wahlstrom and Peterson 2006).

> Schurman states that industry opportunity structures,
>
> …confer particular strategic openings and closures on social movements and render firms more or less vulnerable to social movement actions. At any given historical moment, such industry structures will appear as exogenous to social movement challengers, but like all social structures, they are socially constructed and transformed over time as different groups of interested actors, regulatory and normative institutions, and cultural practices interact. Industry structures are thus deeply embedded in existing institutional practices and relationships, the larger political economy, and culture, operating at a variety of levels (2004, 248).

Industry opportunity structures are used to refer to both the vulnerability of particular firms as well as the vulnerability of entire industries to social movement tactics. However, greater conceptual clarity can be gained by differentiating between those factors which affect the vulnerabilities of individual firms and those factors affecting the vulnerability of entire industries. As this paper focuses on the EU's emissions regulations, which affected the entire European auto industry, it will utilize the term industry opportunity structure to focus on the vulnerability of the auto industry as opposed to individual automakers. In doing so, this paper will draw on and go beyond previous work done to develop the concept of industry opportunity structures.

This paper hypothesizes four factors that make an industry more or less open to social movement influence: the negative externalities associated with an industry; the technical nature of the issue in question; the fragmentation of the industry and the strength of industry associations; and the relationship between an industry and public sector actors. These factors are derived from prior work done on industry opportunity structures, as well as scholarship on social movements, private actors, and corporate social responsibility. This paper will examine each of these four factors in turn.

The first factor that impacts on the openness or closure of an industry opportunity structures is negative externalities. Porter describes negative externalities as, "costs that are not incorporated into the prices involved in a transaction but instead fall on third parties, including citizens in general. This 'market-centric' approach should be supplemented with a more political approach that acknowledges the degree to which business can provoke resistance by engaging in activities that tend to be interpreted as involving unfair exploitation of people or the environment" (2007, 93). Negative externalities are not only structural features of particular industries; they can also be created through frames applied to an industry by the media and civil society organizations (Porter 2007, 93-94). Firms or industries that make products that are known to have negative health effects, involve high levels of environmental degradation, and/or

are offensive to widely held moral beliefs will also be more vulnerable to activist tactics (Schurman 2004, 251; Wahlstrom and Peterson 2006, 373).

The second factor which impacts on the vulnerability of an industry opportunity structure is the technicality of an issue area. Issue areas that are highly technical and involve a high degree of expertise will generally make an industry less vulnerable to civil society groups who may lack the expertise to engage effectively in an issue area and its governance. Furthermore, civil society groups are disadvantaged compared to industry associations as they typically have fewer resources at their disposal. This may make it harder for civil society groups to attend business conferences or other meetings where policy is informally formulated (Porter 2007, 94). It may also make it more difficult for civil society groups to develop the required expertise needed to engage in a highly technical issue area, especially those issue areas that are of little interest to the general public and the media.

The third factor that impacts on the vulnerability of a particular industry is the fragmentation of the industry and the strength of industry associations. Industries that are highly fragmented may be more vulnerable to targeting by activist groups, which can take advantage of weaker actors within an industry who may be less able to resist change or may respond positively to activist concerns with the hope of gaining a first mover advantage within the industry, thereby increasing market share. Industries with strong industry associations who are able to put forth cohesive arguments may be better able to counter activist claims in both the media and amongst government regulators.

The vulnerability of an industry to social movement tactics is also affected by the relationship between industry and public-sector actors. Hybrid forms of governance that include actors from both the private and public sectors have become increasingly common. Porter argues that "While these arrangements can be more open to civil society influence because of their decentralization and because of the more important coordinating role played by technical knowledge rather than hierarchical commands, their informality and technical complexity can also make it difficult for civil society actors to know how to intervene effectively in policy debates" (2007, 95). These new forms of governance can stabilize and strengthen relationships between elites within the public sector and industry; it can also cause the political system to be less open to social movements whose concerns tend to be more diffuse than those voiced by industry (Porter 2007, 95; Schurman 2004, 250). This paper will now provide a brief overview of auto emissions regulations in the EU. It will then apply the concept of an industry opportunity structure to explain why the influence of the auto industry decreased in this issue area.

Regulating Auto Emissions in the European Union

The EU views itself as a leader in addressing climate change and aims to significantly reduce its overall CO_2 emissions (Costa 2008; Schreurs and Tiberghien 2007). The Commission has been concerned about rising auto emissions since the early 1990s, and has had an ongoing dialogue with the auto industry since that time. In 1998, the Commission and the European Automobile Manufacturers' Association (ACEA) signed a voluntary agreement to reduce auto emissions. Subsequent voluntary agreements were then signed with the Japanese Automobile Manufacturers' Association (JAMA) and the Korean Automobile Manufacturers' Association (KAMA). The voluntary agreements

called for emissions reductions to 140 grams of CO_2 per kilometre (g/km) by 2008 (2009 for JAMA and KAMA). The auto industry has been unable to meet these targets and the average CO_2 emissions for new vehicles in the EU stood at 158 g/km in 2006 (European Commission 2007b).

In 2006 it was concluded by the Commission that automakers would not meet the targets set out in the voluntary agreement and that the voluntary approach to auto emissions reductions would need to be re-evaluated (European Commission 2006). In February 2007 the Commission announced that it would legislate on auto emissions, and that it would propose a legislative framework no later than mid-2008 with the aim of reaching the EU objective of 120 g/km by 2012. The Commission stated that emissions reductions targets would be 130 g/km for the average new car fleet by means of improvements in vehicle motor technology, with a further reduction of 10 g/km to be obtained through other technical improvements and the increased use of biofuels (European Commission 2007a, 8).[1]

While environmental groups responded positively to the Commission's decision to legislate auto emissions, the auto industry was strongly opposed to the proposal. The ACEA argued that the EU's proposed emissions targets were too costly and would force the auto industry out of Europe. In response to the proposed emissions regulations the ACEA (2008) has argued, "Placing the burden mainly on the car industry, as the European Commission has proposed in its February 2007 CO_2 Communication, is the most expensive strategy. It will lead to a diminished level of vehicle manufacturing in Europe with, as yet, unclear economic consequences….A vehicle related target of 130 g/km by 2012 as proposed by the Commission, is not feasible." The auto industry argued that the Commission should follow an integrated approach to the reduction of auto emissions. The integrated approach was a key component of the Commission's CARS 21 Final Report, an elite multi-stakeholder group dedicated to addressing issues related to the competitiveness of the auto industry in Europe. The CARS 21 Final Report defined an integrated approach to reducing vehicle emissions as "a comprehensive strategy to tackle CO_2 emissions from motor vehicles involving all relevant stakeholders (i.e. vehicle manufacturers, oil/fuel suppliers, customers, drivers, public authorities, etc.). The underlying assumption in support of such an approach is that CO_2 reductions can be achieved more efficiently by exploiting the synergies of complementary measures and optimising their respective contributions rather than by focussing on improvements in car technology alone" (European Commission 2007c, 25; see also ACEA 2008). While the Commission had proposed a role for technological improvements beyond just vehicle motor technology, the auto industry viewed the Commission's proposal as a watering down of the integrated approach.

Following input from a variety of stakeholders on the proposed legislation, in December 2007 the Commission announced its proposal to regulate emissions from light-duty vehicles. The proposal mirrored the Commission's previous announcement that it would limit average CO_2 emissions from the new car fleet to 130 g/km by 2012. The

[1] Other technical improvements that may be applied to increase the fuel efficiency of cars include: setting minimum efficiency requirements for air-conditioning systems; the compulsory fitting of accurate tyre pressure monitoring systems; setting maximum tyre rolling resistance limits in the EU for tyres fitted on passenger cars and light commercial vehicles; and the use of gear shift indicators (European Commission 2007, 8).

Commission stated that the proposed legislation was part of an integrated approach and would be complemented by measures delivering an additional 10 g/km in order to meet the Community objective of 120 g/km.[2] The proposed legislation also announced significant financial penalties for those automakers who fail to comply with the new emissions regulations.[3] The Commission stated, "The aim of this regulation is to create incentives for the car industry to invest in new technologies. The regulation actively promotes eco-innovation and takes into account future technological developments. In this way, the competitiveness of the European industry is enhanced and more high-quality jobs created" (European Commission 2007b, 3).

After the introduction of its proposed emissions legislation in December 2007, the Commission continued to face considerable opposition from the auto industry as well as some member states. In particular, the proposed regulations faced considerable opposition from Germany, one of the major auto producing states (along with France and Italy). As the German auto industry is mainly focussed on the production of larger, more powerful cars, the proposed emissions regulations would have had a significant economic impact on the German auto industry (The Big Car Problem 2007, 81-83).

Due to opposition from industry and some member states, in spring 2008 it began to look increasingly less likely that the EU would be able to ensure the passage of the proposed emissions regulations. In order to help ensure the passage of the legislation, French President Nicolas Sarkozy and German Chancellor Angela Merkel announced in June 2008 they had reached a new agreement to reduce automotive emissions. While the proposed emissions reductions remained the same at 120 g/km with 10 g/km of that to be reached through complementary technologies, the agreement proposed to give automakers until 2015 to meet targets rather than 2012 as had been proposed by the Commission. The agreement also proposed that manufacturers could obtain a slight additional margin above the 130 g/km if they introduced certified "eco-innovations" elsewhere in the vehicle such as more environmentally friendly tyres or seven-speed transmissions that would augment fuel economy. The agreement recommended that penalties for non-compliance with emissions regulations be reduced, especially for minor violations (Bredoux 2008). France held the EU Council Presidency from June to December 2008 and had made the passage of an agreement to reduce the GHG emissions that contribute to climate change a key goal of its Presidency. France required the support of Germany in order to help ensure the passage of legislation to reduce GHG emissions.

The auto industry was supportive of the French-German agreement. While the industry stated that the agreement was not ideal, it viewed it as an acceptable compromise (German Car Industry Happy with French-German Deal on Emissions 2008). Environmentalists, however, condemned the agreement as putting the concerns of the auto industry before the environment. The Commission reacted cautiously to the

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[2] The legislative approach proposed in December 2007 would also allow several manufacturers to group together to form a pool through which they can act jointly to meet their emissions targets. In addition, independent manufacturers who sell fewer than 10,000 vehicles per year and were unable or unwilling to join a pool can apply to the Commission for an individual emissions target. (European Commission 2007b).

[3] The proposed legislation suggested the following financial penalties for automakers who fail to comply with emissions reductions: in 2012 the financial penalties would be 20 euros per g/km automakers were over the targets. This penalties would increase to 35 euros per g/km in 2013, 60 euros in 2014, and 95 euros in 2015 (European Commission 2007b).

agreement, welcoming the compromise between Germany and France, but stating that the two member states could not decide emissions regulations for EU (Brussels Cautious, Greens Furious on Franco-German Car Agreement 2008).

After further discussions, in December 2008, the Commission announced that it had reached a compromise with member states and the Members of the European Parliament (MEPs) on auto emissions regulations. The auto emissions legislation was passed as part of a larger agreement to reduce CO_2 emissions by 20 percent below 1990 levels by 2020. The new auto emissions regulations set a target of an average of 120 g/km for new cars by 2015 (as opposed to 2012, as had been originally proposed). Ten g/km are to be obtained through the use of strategies other than improvements in vehicle motor technology. The regulation sets several interim targets for manufacturers to meet: manufacturers will need to ensure that 65% of their fleets meet the 120 g/km target by January 2012, 75% in January 2013, 80% in January 2014, and 100% from January 2015. The compromise also phases in the penalties automakers will face if they fail to meet emissions targets. From 2012 until 2018 manufacturers will have to pay 5 euros for the first gram of CO_2 that exceeds the target; 15 euros for the second gram of CO_2; 25 euros for the third gram of CO_2; and 95 euros from the forth gram of CO_2 onwards. From 2019 manufacturers will have to pay 95 euros for each gram of CO_2 exceeding the target (European Parliament 2008; Traynor 2008).

In response to the new legislation the ACEA stated they would meet the new emissions targets, but called on the EU and member states to provide greater support for automakers in both the development and manufacturing of new vehicles, particularly in light of the global economic slowdown affecting the industry. The industry also stated that the penalties it faces for non-compliance are extremely high (ACEA 2008). Environmentalists also expressed disappointment with the new auto emissions legislation, in particular with the longer time period given to auto makers to reduce emissions, and the phase in of penalties for non-compliance (German automakers denounce EU compromise on CO_2 emissions 2008).

While the auto emissions regulations the EU passed were weaker than those originally proposed by the Commission, the regulations still represent a dramatic policy shift from the prior voluntary approach to regulation. While previously the auto industry had been able to significantly influence the EU's auto emissions policy, industry influence has been far weaker in the creation of the new regulations. The weaker influence of the auto industry can be attributed to the increased salience of climate change, which has made the industry's opportunity structure more vulnerable.

Industry Opportunity Structures and the European Auto Industry

This paper will now turn to the concept of industry opportunity structures to explain the outcome of the EU's new auto emissions regulations. Negative externalities associated with an industry are the first factor which can be used to explain the vulnerability of an industry opportunity structure. In the case of the auto industry, auto emissions can be seen as a negative externality, the costs of which are passed on to consumers and society as a whole, through increased environmental degradation and higher gas prices. In addition, the recent spike in gas prices has increased consumer

demand for high efficiency vehicles and undermined industry arguments about a lack of consumer demand for such vehicles.

The failure of the industry to meet its commitments under the voluntary agreement to reduce auto emissions allowed the auto industry to be portrayed as acting unfairly. While all other sectors in the EU have managed to reduce their total CO_2 emissions, emissions from transport, particularly auto emissions, have grown (European Commission 2007a). This has allowed the media and environmental groups to frame the issue of auto emissions as one in which the auto industry is acting irresponsibly and with disregard for the environment. Environmentalists also framed the auto industry's arguments for an integrated approach to emission reductions as an attempt by the industry to further shirk its responsibility to address climate change. As the environmental group, the European Federation for Transport and Environment (T&E), stated in a June 2008 editorial in the Financial Times, "Including improvements in non-engine technology in the targets currently under discussion is…a way of cheating the system" (T&E 2008a).

The failure of the voluntary agreement and the perception that the auto industry was not seriously concerned with addressing climate change undermined the bargaining position of the industry and its credibility on environmental issues. For example, T&E argued that the "voluntary commitments [made by the auto industry to reduce emissions] are toothless. It's clear that we need a strong and legally-binding follow up. The inefficiency of cars is unacceptable when emissions from transport continue to rise and oil imports are increasingly burdening the economy" (Carmakers under pressure to speed up CO_2 cuts, 2005). The negative shift in the reputation of the auto industry helped to create an opening for arguments made by environmentalists in support of stricter emissions standards and a new regulatory approach (King 2008, 40).

However, the global economic downturn in Fall 2008 allowed the auto industry to alter its framing of auto emissions. Dramatically lower sales of new vehicles in the EU have caused economic turmoil in the industry, leading automakers to take steps such as temporarily closing plants (EU to consider support for car sector as sales slump 2009).[4] The European auto industry has generally argued that it is facing negative externalities from changes in the global economy. The industry has used the economic downturn to argue that it needs government support through initiatives such as low interest loans and incentives to encourage consumers to buy new vehicles. In December 2009, EU leaders agreed to provide 4 billion euros in European Investment Bank (EIB) loans with preferential rates to the industry (EU ministers call for 10 billion euros in loans for car industry, 2009). Many EU member states have also introduced incentives for consumers to purchase new cars such as tax breaks and "crusher credits" which give credit towards a new, more efficient vehicle in exchange for trading in an old, inefficient vehicle. However, government support for the industry has been largely linked to environmental concerns, such as encouraging the purchase of more fuel efficient vehicles or directing preferential loans to the development of greener cars to help industry meet the new emissions regulations (Merkel urges German car makers to go 'green' to compete 2009). Thus, the auto industry was able to use the economic downturn to help it gain some concessions on auto emissions legislation such as longer lead times and a phase-in of penalties for non-compliance. However, the industry's economic arguments continued to

[4] For example, the ACEA reported in January 2009 that new cars in Europe dropped by 7.8% in 2008, the biggest annual drop in 15 years (EU to Consider Support for Car Sector as Sales Slump 2009).

be strongly influenced by environmental frames used by activists, and the industry found itself having to link its economic concerns to environmental concerns.

The second factor that impacts on the openness or closure of an industry opportunity structure is the technicality of an issue area and the resources of civil society groups in that issue area. In the case of auto regulations in general, civil society groups have usually not had significant influence (Braithwaite and Drahos 2000, 443). Auto regulations are a highly technical issue area and effective civil society participation requires considerable expertise. Auto regulations are also typically of little interest to the public and the media, making it more difficult for civil society groups to attract the resources necessary to develop relevant expertise. The ability of NGOs to develop expertise and adequate resources in an issue area is necessary to counter the strong influence of industry in policy making. According to Pesendorfer, the influential position of business actors in the policy process stems from "structural power, the dependency of governmental actors on knowledge from business actors for effective policy-making and implementation and superior resource mobilization capability" (2006, 101).

However, unlike most policies governing the auto industry there is considerable public interest in climate change and the environmental impacts of auto emissions. This has allowed a number of non-governmental organizations (NGOs) to attract considerable resources with which to develop expertise and counter the influence of the auto industry. The ability of NGOs to attract resources to challenge the influence of business actors is important as, "Without opportunities to generate a stable revenue stream through donations, dues, or fees, civil society organizations alone will not be able to build a sustainable countervailing power to business" (Porter 2007, 94; see also King 2008).

Major environmental groups, such as Greenpeace, Friends of the Earth, and T&E have developed considerable expertise in issues related to climate change and had considerable involvement in the debate surrounding the creation of the EU's new auto emissions regulations. The European NGO T&E has played a particularly prominent role in policy discussions related to auto emissions. T&E focuses on issues related to transport and the environment and is the principle environmental organization campaigning on sustainable transport at the EU level in Brussels. T&E released a number of technical reports on the proposed emissions standards, which outlined the merits of different policy proposals and addressed issues such as long-term targets, how to define fleet averages, and the effectiveness of sanctions. T&E also monitored the ongoing failure of the auto industry to meet the targets laid out in the voluntary emissions agreement (T&E 2007; 2008b; 2008c). Environmental groups also issued numerous press releases, reports, and editorials arguing that the auto industry was attempting to weaken the proposed emissions reductions, which were realistic and could be met by the industry (see for example Greenpeace 2008; T&E 2008a; 2008d).

Thus, the increased political salience of climate change amongst the media and the general public has allowed civil society groups to attract the resources necessary to build up the expertise in auto emissions necessary to countervail the power of the European auto industry. This would suggest that while a highly technical issue area may make an industry opportunity structure less open, if an issue is of considerable political salience civil society groups may be able to attract the necessary resources needed to counter the influence of a powerful industry, such as the auto industry.

The third factor that this paper will consider in looking at industry opportunity structures is the fragmentation of the industry and the strength of industry associations. Both strong industry associations and strong NGOs tend to have greater influence over elite decision makers through established channels of influence (King 2008, 33). The ACEA is the industry association for the European auto industry and represents fifteen European car, truck and bus manufacturers at the EU level. The association has 25 working groups, made up of experts from member companies and maintains an ongoing dialogue with legislators, regulators, and other EU authorities (ACEA 2009). The ACEA ensures links between European and national actors in an effort to ensure that EU policies are sensitive to national conditions and have broad-based support in the industry (McLaughlin and Maloney 1999, 214).

Throughout the discussions leading up to the passage of the EU's auto emissions regulations, the ACEA continued to argue for an integrated approach to emissions, longer lead times, and less stringent penalties for non-compliance. For example in a July 2007 speech at a Parliamentary luncheon, Sergio Marchionne, President of the ACEA and CEO of Fiat, argued against the proposed auto emissions regulations. Marchionne stated, "vehicle technology alone will not solve the problem. Vehicle technology should therefore not be the only focal point of the future policy framework. It is absolutely crucial to implement an integrated approach to achieve the ambitious targets society wants, combining vehicle technology with a larger use of alternative fuels, intelligent traffic management, changes in driving style and implementation of CO_2-related taxation, to shape consumer demand" (ACEA 2007, 5). Along with the ACEA, JAMA and KAMA are also part of the policy network surrounding the European automotive industry. However, JAMA and KAMA are less influential than the ACEA within the EU and are much less involved in policy discussions concerning the auto industry. National auto manufacturers' associations, such as the German Association of the Automotive Industry (VDA), were also involved in debates on auto emissions, and were especially influential at the national level.

However, while the European auto industry consists of several well resourced and influential industry associations, such as the ACEA and the VDA, the industry also initially struggled to put forth a united position in response to the proposed auto emissions reductions. The EU's proposed emissions regulations created a division within the European auto industry between French and Italian auto manufacturers and German auto manufacturers. French and Italian automakers, represented by PSA Peugeot Citroen, Renault, and Fiat, were fairly subdued in their opposition to the auto emissions regulations initially proposed by the EU. While the new regulations would represent a challenge for French and Italian automakers, their fleets were generally made up of smaller, more fuel efficient cars (Armitage 2007). In 2006, the fleet average emissions of the French and Italian automakers averaged 142 g/km-147 g/km. This meant that while meeting the new EU targets of 130 g/km would be a challenge for the French and Italian automakers, they were relatively confident that they would be able to meet them (Collision Course 2007, 105).

In contrast, the German automakers were vehemently opposed to the EU's proposed emissions targets. German automakers (BMW, Mercedes, and Volkswagen) tend to focus on producing larger, more powerful luxury cars. While Volkswagen does make a number of successful high efficiency vehicles, the success of its Audi brand has

increased the fleet average of the company's CO_2 emissions. Mercedes' fleet average emissions were 188 g/km in 2006, while BMW's fleet average was 184 g/km (Collision Course 2007, 105). As the German auto industry generally focuses on building high-power cars, the proposed emissions reductions will potentially have a much greater impact on German automakers.

In discussions regarding the EU's proposed emissions regulations, German automakers argued that makers of small cars, who also sell more vehicles, should have to do more to reduce their emissions than automakers that focus on larger vehicles. The arguments of the German auto industry, along with the support it received from EU Industry Commissioner Gunter Verheugen and German Chancellor Merkel, were effective in getting the Commission to agree to a weight dispensation that allows makers of heavier cars (i.e. German automakers) to produce higher fleet average emissions (Collision Course 2007, 106).[5] After the Commission announced in late 2007 that it would differentiate cars based on weight, the industry became less divided and put forward a single position through the ACEA. However, the divisions within the auto industry likely undermined arguments by the ACEA that automakers were unable to meet the proposed targets and that there is a limited market for high efficiency vehicles.

The final component of the industry opportunity structure that this paper will examine is the relationship between industry and public sector actors. In recent years the EU has taken a more participatory, multi-level approach to governance, as part of the Lisbon agenda, which emphasizes the goals of economic competitiveness and growth. These new governance arrangements have led to the greater use of expert groups consisting of public and private stakeholders as well as the increased use of public consultations (Lofstedt 2007; Pesendorfer 2006).

In the case of automotive regulations, the Commission announced the creation of the Competitive Automotive Regulatory System for the 21st Century (CARS 21) in 2005, which aims to simplify the regulatory environment for the auto industry. While new regulatory arrangements, such as CARS 21, can create greater opportunities civil society groups in the policy process, they are often biased in favour of established industry interests. As Pesendorfer states, "new governance concepts provide limited answers to the question of how the new forms of participation differ from traditional forms of lobbying and policy-making, to what extent they really improve and increase input as well as output legitimacy" (2006, 107).

In the case of CARS 21, the initiative's High Level Group was dominated by representatives from the European auto industry, and it was only after some conflict that a member representing the environment (from the Institute for European Environmental Policy) was invited to participate. Japanese and Korean automakers were also excluded from the High Level Group, and only Member States with significant economic stakes in the auto industry were included (Wilkinson et al 2005, 20). The recommendations of the CARS 21 High Level Group have proven to be very influential in automotive policy. In the case of auto emissions, the CARS 21 High Level Group recommended an integrated

[5] The Commission's weight dispensation differentiates CO_2 limits according to the type of car. It allows heavier cars to have high CO_2 emissions and gives lighter cars tougher emissions targets to meet. Environmentalists were opposed to differentiating vehicles based on weight and instead argued that if cars were differentiated, it should be based on their footprint (the area between the four wheels). This would reward automakers for making lighter cars which are more fuel efficient (T&E 2008c).

approach to reducing auto emissions, which would involve a variety of stakeholders, such as the oil industry and consumers, in addition to automakers (European Commission 2006). As CARS 21 was held to be a test case for the EU's regulatory simplification agenda, Better Regulation, the auto industry was able to frame its opposition to the proposed auto emissions reductions in terms of the Commission's commitment to regulatory simplification and CARS 21. As stated by the ACEA in July 2007, "Regrettably, the integrated approach to CO_2 emissions reductions, as adopted by the CARS 21 High Level Group, has been reduced in scope by the Commission's proposal on CO_2 emissions reductions from cars. This proposal focuses mainly on vehicle technology and does not respect the inherent elements of the integrated approach: infrastructure measures, fiscal incentives and eco-driving" (ACEA 2007, 4).

In addition to the CARS 21 High Level Group, the auto industry also had considerable support from the EU's Industry Commissioner Verheugen. There were divisions between the EU's Environment Commissioner Stavros Dimas and Verheugen in the negotiations leading up to the passage of the emissions agreement. For example, Verheugen argued against the proposed 2012 emissions targets, stating "I fully support the Commission objective…[but] the European automobile industry will only, in my opinion, be able to meet the target without great difficulty from 2015….The Commission has to get into its head that we have to reach a sensible compromise" (EU official says car pollution targets unworkable 2008).

The industry was also able to influence EU policymaking elites through organizations such as the Forum for the Automobile and Society, which brings members of the auto industry and automobile associations together with policymaking elites from both the EU and member states. Additionally, both the auto industry and environmental groups had allies within the European Parliament during the negotiations for the new emissions regulations. The auto industry also has considerable influence within member state governments, especially within the major auto producing states (Germany, France and Italy). These connections between automakers and policymaking elites within member states became increasingly important with the economic difficulties faced by the auto industry and the impact this would have on national economies.

Thus, while environmental groups were able to exercise some influence through both the EU's Environment Commission and through submissions to stakeholder consultations held on both climate change and auto regulations, it is clear that in the case of the relationship between the auto industry and public-sector actors the industry opportunity structure was far less open to the concerns of environmental groups advocating for stricter emissions regulations. Combined with the recent economic challenges faced by the European auto industry, the strong ties between the auto industry and policymaking elites appear to explain why the industry was able to weaken the auto emissions targets initially proposed by the EU.

Conclusion

The EU's new auto emissions regulations are a dramatic shift from the voluntary approach previously adopted by the Commission. The concept of an industry opportunity structure can be used to explain a case such as the EU's auto emissions regulations, where the industry went from having considerable influence over policymaking elites

(through the creation of the voluntary agreement) to having significantly less influence over the nature of the regulatory approach put in place. In the EU, the increased salience of climate change amongst the general public, as well the Commission's desire to be a leader in combating climate change undermined the auto industry's industry opportunity structure.

However, while the industry opportunity structure became more vulnerable with regard to three of the factors listed (negative externalities associated with the industry; the technical nature of the issue in question; and the fragmentation of the industry and the strength of industry associations) the industry opportunity structure remained fairly closed with regards to the fourth factor, the relationship between the industry and public sector actors. The industry's strong ties with public sector actors enabled it to weaken the emissions targets and penalties originally proposed by the Commission in February 2007. The Commission's willingness to compromise with the auto industry, especially in light of the global economic slowdown, suggests civil society interests will have a hard time countervailing the power of business when significant economic interests are seen to be at stake. This case also appears to support the work of other scholars on the influence of civil society groups, who argue that civil society groups will have the greatest influence at earlier phases of the policymaking process, when new ideas are proposed, and that the power of civil society groups dissipates in later phases of the policymaking process (King 2008; King, Bentele and Soule 2007). However, while civil society groups became less influential towards the end of the debates over the EU's auto emissions regulations largely due to economic considerations, it is nonetheless worth emphasizing the magnitude of this policy shift.

In conclusion, the concept of an industry opportunity structure can be useful in examining a case such as the EU's new auto emissions regulations, where the influence of an influential industry appears to have been diminished. In the case of the EU's emissions regulations, the increased salience of climate change increased the vulnerability of the auto industry's opportunity structure. However, despite changes in the political environment in favour of environmentalists, the industry continued to exert considerable influence through its ties to public sector actors. This suggests that while the political and discursive elements of an industry opportunity structure may be fairly amenable to a changing political climate, the institutional aspects of an industry opportunity structure may be less susceptible to change or change more slowly. Nonetheless, the case of the EU's auto emissions regulations does illustrate the utility of concept of an industry opportunity structure for explaining policy shifts involving private sector actors.

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