3

Designing Climate Policy in the European Union

3.1 Introduction

This chapter explores how policy designers in the European Union (EU) have addressed the challenge of climate change. In particular, it outlines the broad design space in which they have sought to create and sustain more durable policies. Starting with the broad aims of EU climate policy and then moving down to the establishment of particular aims, objectives and instruments, it reveals what design decisions were made, by whom and for what purpose. In particular, it focuses on how, when and why designers built durability and flexibility devices into their policy packages. Much of the previous work on policy durability and feedback has, as we noted in Chapter 1, concerned policies and design spaces that have a strongly distributive character. Therefore, Section 3.2 begins by exploring the nature of climate change as a distinct policy problem (Rosenbloom *et al.*, 2019: 169), pinpointing how the design challenges (and hence design spaces) differ from those in national social and welfare state policy. Section 3.3 builds on these insights by summarising the main instrument choices that were made in EU environmental policy in the past. In doing so, it reveals what Howlett and Cashore (2009: 39) would characterise as the EU's 'policy instrument logic'. Although there are well-known theoretical advantages of selecting from the full array of instruments (Jordan *et al.*, 2003: 12–16), we demonstrate that the EU has a strong preference for regulatory instruments. Our analysis then moves along the instrument continuum introduced in Chapter 1, i.e. starting with regulation and ending with voluntary action. Section 3.4 focuses on the historical evolution of EU climate policy since the late 1970s, noting how climate policies have incorporated different combinations of durability and flexibility devices. Finally, Section 3.5 summarises the main points about design choices and spaces in the EU.

3.2 Policy Durability, Policy Feedback and Climate Change

The concepts of policy durability and policy feedback emerged from studies of social, pension and welfare state policies, principally enacted in the USA. Such policies tend to have certain characteristics: they mostly deliver concentrated benefits to recipients (generally individual citizens); their public profile (or 'issue salience') amongst the general public is generally quite high; and their costs are dispersed across the wider population, chiefly those who pay tax. By contrast, the politics emerging in a policy area such as climate change are likely to be different (Lowi, 1972; Wilson, 1980): the issue salience amongst mass publics is often lower than amongst scientists and policy specialists; interest groups are likely to exert greater influence; and existing and as-yet-undeveloped technology is likely to play a more significant role. The remainder of this section unpacks these characteristics in more detail.[1]

First, *science* plays a relatively significant role in the politics of climate change, which increases the overall complexity of policy making and in turn creates a barrier to greater public understanding. The scientific complexity associated with understanding how greenhouse gas emissions impact the Earth's climate at various scales is relatively high. Natural cause-and-effect relationships are difficult to comprehend, let alone observe, and hence are much more difficult for non-experts (including voters) to appreciate. These difficulties are compounded when potential social responses to climate change are taken into account. According to one review of the literature, 'our . . . brains and societal perspectives . . . are not well suited to the timescales and time lags of climate change' (Pahl *et al*., 2014: 377). Hence one of the pre-conditions for the appearance of positive policy feedbacks amongst mass publics – the presence of policies that have 'massive tangible impacts on citizens' lives on a daily basis (Patashnik, 2008: 29) – is less likely to be satisfied. In fact, the effects on mass publics of many climate change policies[2] are likely to rank fairly low in terms of their visibility and traceability (Pierson, 1993), leaving the door open for policy opponents to sow doubts in their minds and those of policy designers (Giddens, 2015: 157–158). But at the same time, their low visibility may create spaces in which environmental interest groups and policy entrepreneurs can raise the level of societal awareness to push particular policy instruments and devices.

Second, unlike many areas of social policy, climate policy makers are more likely to be (re)distributing *costs*, not benefits. As Hovi *et al*. (2009: 28) nicely put it: mitigation policies 'normally involve imposing costs on actors whose behaviour has to change'. In the aggregate terms employed by economists, it is completely rational for a society to completely decarbonise, especially if the net costs of doing so are lower than the costs of not mitigating (see Stern, 2006). However, politics

complicates the analysis because the costs are often borne by some of the largest and most influential actors in the economy, such as electricity producers and the car industry (Unruh, 2002). Many of them have a strong interest in preserving the policy *status quo* (Bernauer, 2013). Moreover – and very much reinforcing the aforementioned point about public understanding – the costs and benefits of acting are associated with different levels of uncertainty. The immediate costs of decarbonisation tend to be more certain (i.e. traceable), whereas the benefits are more uncertain, less traceable and more likely to accrue far into the future (Victor, 2011: 41).[3]

Third, unlike many social policies, for whom mass publics are the standard unit of analysis (Mettler, 2015: 271), regulatory policies are generally targeted at organised interest groups, known as target groups in the policy design literature. Target groups are generally more powerful and find it easier to organise themselves into coalitions than the individual beneficiaries that dominate social policy (Béland, 2010: 577), and for whom collective action can be a significant obstacle to participation in policy design. In many cases, a policy's effects on the public, including voters, is easily drowned out by the continual 'din of politics' (Jacobs and Mettler, 2018: 359). By contrast, interest groups are more carefully attuned to how a policy affects them. They are more likely to have the motive, the extended time horizons and, crucially, the capacities to play a 'long game' and involve themselves in all the stages of policy design (Hacker and Pierson, 2014: 649). By comparison, the turnover of politicians, of policy issues and voter attention is often rapid. For Hacker and Pierson (2014: 651), 'organised groups are knowledgeable and care deeply about policies of which most voters are only dimly aware, and [. . .] policy makers [. . .] possess a range of techniques for exploiting this asymmetry'. Since Walker (1983: 403), political scientists have known that groups 'spring up' after the passage of new legislation. But when contemplating the feedback from climate change policies, it is important to remember that policy design processes were heavily populated with interest groups long before climate change became a salient political issue.

Finally, we know that climate policy is heavily affected by the interaction between policy and *technology* (Schmidt and Sewerin, 2017). Until now, the policy feedback literature (and indeed historical institutionalism more generally) has proceeded by analogising from the literature on technological innovation. But paradoxically, the politics surrounding policy feedbacks and/or the active steering of technological innovation has received relatively little attention amongst political scientists (Kay, 2005).[4] Yet when it comes to designing durable climate change policies, the past, present and future role of technology is likely to be crucial. In environmental policy, technology plays a deeply 'ambiguous' double role (Berkhout and Gouldson, 2003: 231), being both an important source of emissions

and a means to reduce them. Moreover, we know that the most mature polluting technologies have co-evolved with policies and societies over time, generating significant policy lock-ins sustained by positive feedbacks. Pierson (2004: 27) has stressed the importance of the tightly interconnected 'institutional matrix' between policies, politics and technologies which generates 'massive increasing returns' to incumbents (North, 1990: 95). In Chapter 4, we will explore how the combustion engine forms a key component of car-based forms of travel, which in turn is deeply connected to everyday patterns of human interaction ('car dependency'; see Rip and Kemp 1998: 367). For policy feedback scholars, what is particularly distinctive about climate change is the depth and relative maturity of these entanglements. Unruh (2000: 818) has characterised them as not just a techno-institutional complex, but '... possibly the largest techno-institutional system in history and [one with] ... no real precedent' (Unruh, 2000: 828).

Together, these four characteristics – limited public awareness and understanding; an asymmetrical distribution of costs and benefits; powerful incumbent interest groups; and very sticky existing policy-technological interactions – are likely to bear upon the policy dynamics which shape how feedback effects are translated into policy feedbacks. In the past, they have arguably militated against the intentional generation of positive policy feedbacks that render policies more durable (Keohane, 2015: 22). Given their existence, negative policy feedbacks would seem to be more likely to appear in Chapters 5–7 than positive policy feedbacks. Powerful target groups, such as fossil fuel producers, enjoy massive advantages from incumbent technologies which may have originally developed in rather contingent circumstances, but have since become heavily locked in. They also have the means and motivation to mobilise to scale back policy stringency early in the design process. Politicians that manage to surmount these obstacles and adopt climate policies also risk being challenged by public protestors, as happened in relation to road fuels in the United Kingdom in 2001 and France in 2018.

In this context, in the remainder of this chapter (and the next) we will explore the policy design patterns and spaces that have emerged in the EU over the last four decades, noting how actors attempted to adopt durability and flexibility devices in the context of the four problematic characteristics noted above.

3.3 Established Policy (Instrument) Preferences

Polity and Policy Programmes

The EU is often described as a unique, multi-levelled system of governance (Hooghe and Marks, 2003; Schreurs and Tiberghien, 2007). The sheer number of actors (or 'veto players') that need to be satisfied before a new policy can be

adopted or an existing one amended has led Hix (2007: 145) to describe it as 'hyperconsensual'. This situation has directly influenced the EU's ability to engage in durable environmental policy making. First, the EU's structure tends to limit its ability to coerce target groups into making the sunk investments that facilitate positive policy feedbacks (see Chapters 1 and 2). High-profile decisions on the EU's strategic direction, such as overall greenhouse gas reduction targets, are made in the European Council, an institution which brings together the Heads of State and Government of the Member States. It makes decisions by consensus, meaning that a single Member State can block agreement and no state can easily be coerced into doing anything. The European Commission, the EU's executive body, is tasked with acting in the long-term interest of the EU; it enjoys a sole right of initiative to formulate new policy designs that advance European integration. For most environmental legislation, the European Commission makes a proposal which must be adopted by a majority in the European Parliament and a 'qualified majority' in the Council of Ministers (which is made up of ministerial representatives from each national government). The European Parliament is seen as the 'greenest' EU institution, and often attempts to increase policy stringency (Burns *et al.*, 2013). Finally, an independent agency – the European Environment Agency (EEA) – collects data on environmental quality and undertakes analyses of environmental policy performance. Particularly in areas where EU legal competence is weak and/or contested, policy designs have often been rendered less stringent in line with the preferences of the least ambitious actor (Jordan and Adelle, 2013).

Second, once the EU has adopted a policy, its hyperconsensuality means that it tends to remain in place, at least until a sufficiently large number of veto players are able to agree that it should be revised. This is one of the reasons why policy dismantling in EU-level environmental policy has generally been quite limited (Gravey and Jordan, 2016). However, policies that cannot be updated run the risk of succumbing to policy drift (Gravey and Jordan, 2019). Finding ways to ensure adequate flexibility is therefore a constant challenge in EU policy design. In some areas, EU law gives the European Commission delegated powers, through a process known as 'comitology', to amend existing policies to reflect changing circumstances (Blom-Hansen, 2011). These correspond to our category of manual flexibility devices. In Chapters 5–7, we will note other examples of devices that have been configured to operate in a more automatic fashion. Meanwhile, the Member States and the European Parliament have also tasked the Commission and the European Environment Agency to constantly evaluate the performance of EU policies and distribute information on what is working and what is not. As such, the EU is able to draw upon polity-based durability and flexibility devices (i.e. the top row in Table 2.4).

Third, the basic institutional structure of the EU affects the design space in which particular durability and flexibility devices are built into policy instruments

(i.e. the bottom two rows in Table 2.4). It is widely known that the EU was consciously designed by its founders – the Member States – to operate with relatively limited financial resources. It does not, for example, tax in the way that conventional sovereign states do. Hence, it has relatively little money to spend – and virtually none in the environmental sector (Jordan *et al.*, 2012). As a result, the EU does not have the means (or the political support) to fund a (re)distributive welfare state policy, and it has a limited ability to fund subsidies or feed-in tariffs to directly cultivate positive policy feedback. As such, it cannot utilise resource/ incentive feedback mechanisms in the same way that most of its Member States can. In fact, some believe that the EU has become so strongly associated with the use of a single instrument type – regulation – that it should be defined by it – hence, it is a 'regulatory state' (Majone, 1994). The next section explores the use of flexibility and durability devices at the policy instrument level (i.e. the bottom two rows in Table 2.4), moving from the most to the least coercive instrument types.

Policy Instruments

Regulatory Instruments

Regulatory instruments come in many different shapes and sizes (Keyes, 1996). Regulation certainly dominates the EU's environmental policy design activities (e.g. Holzinger *et al.*, 2006). Many EU regulations address products, the free trade in which is an integral part of the EU's trade liberalising ('single market') project. But they also govern processes such as waste disposal, land-use planning and environmental monitoring, which have little or no direct relationship to trade. By 2012, the total stock of environmental regulations had grown to roughly 1,000 items (Wurzel *et al.*, 2013). With reference to Table 2.4, individual regulatory instruments usually specify common objectives to be achieved and set specific targets and deadlines to achieve them (i.e. instrument-level durability devices). Some are implemented through EU Regulations, which means they are directly effective and immediately legally binding. EU Regulations are generally used to govern the trade in products – e.g. cars (see Chapter 7). However, the vast majority are implemented through a less-prescriptive sub-type of regulation known as Directives, which generally leave Member States with significantly greater leeway to determine how to apply durability and flexibility devices.

Why are the EU's policy instrument preferences so heavily tilted towards regulation? First of all, the EU's founding Treaties only explicitly mention regula-tory instruments. The EU has tried to side-step this by using them to adopt non-regulatory instruments such as eco-labels, emissions trading (Chapter 6) and certain types of voluntary agreement (Chapter 7). However, these departures had to survive numerous challenges by veto players, especially those that sought to go

beyond the limits of the EU's legally constituted design space. Second, using regulation to morally 'penalise' polluters may be regarded as a democratically more legitimate design priority than allowing them to pay to continue polluting (Dryzek, 2001). However, the relative importance of regulations has nonetheless declined in recent years as the EU has experimented – with varying degrees of success – with non-regulatory instruments (Jordan *et al.*, 2005), to which we now turn.

Market-Based Instruments

In economic textbooks, a distinction is normally drawn between two main types of market-based instrument: environmental taxes and emissions trading. However, throughout the 1970s and 1980s, the use of taxes to supplement and/or replace regulation was completely absent from the EU's policy agenda. While Member States adopted a wide variety of environmental taxes at the national level (Andersen, 2019), regulation remained the main instrument of choice at EU level. Only in the early 1990s did the Commission, and in particular its environmental 'ministry', the Directorate-General for the Environment (DG Environment), push the idea of EU-wide environmental taxes and other economic instruments in the EU's 4th Environment Action Programme[5] (COM (86) 485: 16). However, the need for unanimity in the Council on tax affairs consistently allowed sceptical Member States to block individual proposals – including on greenhouse gas emissions. Frustrated by its inability to secure agreement, DG Environment switched direction and pushed for the adoption of another type of market-based instrument: emissions trading (see Chapters 4 and 6).

Voluntary Instruments

Similar factors have also constrained the adoption of voluntary instruments at EU level. They were able to flourish at the national level in Europe where the obstacles were less significant, although not in all Member States. By the 2000s, almost two-thirds were to be found in just two Member States – Germany and The Netherlands – although subsequently they have diffused to other countries (Wurzel *et al.*, 2013). The EU only began to seriously consider a more voluntary approach in the late 1980s. After the publication of a White Paper on European Governance in 2001, many observers expected the Commission to adopt many at EU level (Wurzel *et al.*, 2013: 127). However, once policy design discussions moved down to a more detailed level, the lack of a solid legal basis in the EU treaties again reared its head. It quickly became apparent that voluntary agreements could only be adopted outside the EU's formal decision-making procedures, thus side-lining two of its main policy bodies – the Council and the Parliament.[6] A number of actors, including the European Parliament, environmental NGOs, and Member States such

as Denmark expressed various levels of scepticism about the efficacy of voluntary instruments when compared to regulation (see ENDS Europe 1998a, 1998b; European Parliament, 1998).

Despite this scepticism, several EU-level voluntary agreements were negotiated in the late 1990s, covering the energy efficiency of washing machines and televisions (Bertoldi and Rezessy, 2007: 56–67). The most high-profile of these agreements – which is discussed in Chapter 7 – was the 1998 voluntary agreement on CO_2 emissions from new cars. In this area, the EU-level automobile industry group, the European Automobile Manufacturers' Association (ACEA), preferred voluntary action to regulation. The Commission therefore set out to build new durability devices into an innovative, sector-wide agreement with the car industry that had the ambitious aims of reducing emissions and blazing a trail for many more voluntary agreements at EU level. However, that agreement's failure to drive sufficient emissions reductions led instead to its removal and replacement by an instrument that was more in line with the EU's pre-existing policy instrument preferences: the 2009 Cars Regulation and its successors.

Having now identified and explained the EU's pre-existing policy instrument preferences and the design spaces in which designers operated, the next section[7] explores how, why and in what form the EU began to design policies to address climate change. Throughout, we note the main durability and flexibility devices and explain the means through which they operated.

3.4 The Design of EU Climate Policy

The Origins of EU Policy

In 1986, the European Parliament was the first EU institution to publicly respond to scientific evidence of rising global temperatures by issuing a declaration (OJ C255 13.10.86). But given that previous attempts by the Commission to design an EU-wide response to the closely related problem of energy insecurity had amounted to little following the 1970s oil crisis, the likelihood that its declaration would culminate in significant policy innovation was not very high. As with matters of taxation, some Member States were quick to voice their opposition to the EU adopting new legal powers in this area. However, new opportunities began to open up at the international level. In 1987, the United States issued a proposal to create the Intergovernmental Panel on Climate Change (IPCC) and in 1988 an international conference was convened in Toronto to discuss possible policy responses. In June 1988, the European Council made an open-ended Declaration on the Environment, in which it stated that '. . .it is urgent to find solutions to such global issues as [. . .] the greenhouse effect' (Bull. EC 12-1988: 15). The

Declaration can be seen as an extremely weak programme-level durability device; it did not, for example, include any specific goals, targets or policies. However, it did create a policy-paradigmatic commitment to address the issue. And thus, shortly after, the Commission set out its own thinking in a Communication on climate change in the November of that year (COM (88) 656). Whilst acknowledging that policies to achieve emission reductions would not be immediately forthcoming, this Communication nonetheless marked the formal start of climate policy design at EU level. It was a good deal longer before the Commission mooted more specific policy programme-level durability devices: EU-wide targets for emission reductions (Wynne, 1993: 108–109). In December 1988, DG Environment began to engage other DGs in a discussion relating to the design of such devices.

In June 1989, the Council of Ministers issued a resolution on the broad, policy programme-level aim of EU climate policy, namely to mitigate greenhouse gas emissions in order to reduce the risk of disruptive climate change (89/C 183/03). One can detect in this early statement the slow emergence of a decarbonisation policy paradigm. Nevertheless, the most significant policy design initiatives were being enacted at the international level (i.e. principally through the United Nations (UN) and involving individual Member States acting independently of the EU). Following the Toronto meeting, a number of Member States attempted to force the pace by adopting broad, national emission reduction targets (a type of programme-level durability device). The Netherlands (1989), the United Kingdom (1990) and Germany (1990) were the first to do so.[8] By the Autumn of 1990, a number of Member States had adopted a national emission reduction target (Costa, 2008: 534). Yet there was still no common EU-wide target and, more importantly, no policy instruments to deliver the associated emission reductions.

The EU's First Bid for International Leadership

The Commission's Recommendation – published in March 1990 – to consider a time-specific (i.e. '1990 by 2000') EU-level emission stabilisation target (i.e. a policy programme-level durability device) was a calculated attempt to work with the grain of Member State preferences (Skjærseth, 1994: 26–27). In June 1990, the European Council subsequently called for the adoption of EU-wide targets and strategies to *limit* emissions. In terms of the menu of devices outlined in Table 2.4, this marked a conscious attempt to move from the broad level of policy programme targets, down to the design of specific policy instruments, both embedded in an emerging decarbonisation policy paradigm. During the second half of 1990, a policy entrepreneur, the Environment Commissioner Carlo Ripa di Meana, pushed Member States to adopt an even more ambitious policy stance, believing it would enhance the EU's identity as an international actor. In October 1990, a Joint

Energy/Environment Council agreed to stabilise the EU's collective emissions at 1990 levels by 2000. But again, this policy programme-level durability device only covered long-term aims, objectives and targets, *not* the policies and measures to achieve them (Oberthür and Roche-Kelly, 2008: 7). Wynne (1993: 110) dismissed this commitment as an 'ambiguous supranational concoction', which put off many potentially tricky discussions on their precise nature to some unspecified point in the future (Oberthür and Pallemaerts, 2010: 29). Nonetheless, it marked a further solidification in the EU's evolving and now increasingly interconnected multi-level climate policy design.

Meanwhile, discussions within the UN had progressed to the point that parties were able to adopt a broad agreement, the United Nations Framework Convention on Climate Change (UNFCCC) in June 1992. As a strong advocate of international cooperation, the EU eagerly signed and later ratified the UNFCCC even though it lacked the internal policy instruments to implement its commitments (Oberthür and Pallemaerts, 2010: 31). Just prior to the official signing ceremony in October 1991, the Commission published an integrated package of proposals for discussion (SEC (91) 1744). These covered four main areas (Haigh, 1996: 164). But as noted in the previous section, the fourth and, from a policy design perspective, the most innovative element – the common carbon/energy tax proposal – was eventually rejected by the Council (Skjærseth, 1994). In some respects, it hardly mattered because at that stage, the UNFCCC contained no significant programme-level durability devices, namely specific and binding targets (Oberthür and Pallemaerts, 2010: 32). But it left the EU in the awkward position of having signed up to a UN agreement that it did not have the policy instruments to implement. In fact, at the same time as the Commission's high-profile tax proposal was being discussed, a more technical decision on a monitoring mechanism to collect and communicate (via the Commission) information on national emissions and policy measures was being adopted (Decision 93/389/EEC, i.e. a polity-based durability device). After the tax proposal failed, the monitoring mechanism effectively became the EU's only major *de facto* climate policy instrument. Crucially, it required Member States (i.e. not the EU) to 'devise, publish and implement national programmes' (Pallemaerts and Williams, 2006: 43). However, these activities – to be led by the Commission but also involving the European Environment Agency (EEA), then only very recently founded (Hilden *et al.*, 2014) – allowed the EU to conduct 'distance to target' studies of whether EU emissions were on or off track: a potentially powerful interpretive feedback mechanism. The 1993 Decision on the monitoring mechanism thus created polity-based durability and flexibility devices which could, through processes of policy feedback, potentially support the design of future policy programmes and instruments. More importantly, it provided the Commission with information which it could use to make a more convincing case

for new and/or revised policies if national-level policy instruments fell short of the EU's unilaterally adopted '1990 by 2000' stabilisation target.

A Widening Gap between Policy and Emissions

As it became clearer that the EU carbon/energy tax proposal was unlikely to be adopted, hopes for stronger EU and UN policies on other matters[9] were also receding as the world economy slipped into recession. So instead, the Commission opted to bide its time and build on the two least controversial elements of its 1991–1992 climate package. For example, a Decision (93/500/EEC) in another policy area – renewable energy generation – was adopted in 1993. Due to Member State opposition it only included indicative, non-binding targets, which Member States were only required to 'take note of' when framing their national energy policies. Although non-binding, the targets were relatively ambitious – such as increasing the share of the energy supply from renewables from 4 per cent to 8 per cent by 2005 and securing a 5 per cent share of the road fuel market for biofuels (up from virtually zero). In time, these indicative targets provided the foundation and stimulus for subsequent policy instruments after 2000 (e.g. the 2003 Biofuels Directive – see Chapter 5).

When the USA pulled back from the UNFCCC in 1993 (Oberthür and Ott, 1999: 44), the EU realised that if it was ever to be fleshed out with an emissions reduction protocol (containing binding targets and a specific timetable, i.e. programme-level durability devices), it would have to show the necessary leadership. So, in advance of the first Conference of the Parties (COP) to the UNFCCC, to be held in Berlin in 1995, the United Kingdom announced its readiness not only to stabilise, but cut its emissions in the period to 2010. In 1990, Germany had committed itself to achieving a 25 per cent emission reduction by 2005 (see Costa, 2008: 534). In both countries (the two largest emitters in the EU), greenhouse gas emissions were declining, albeit for 'non-climate' policy reasons.[10] Nevertheless, their pledges influenced an important political declaration of intent known as the Berlin Mandate (Oberthür and Ott, 1999: 46–47), which eventually paved the way to the adoption of the legally binding Kyoto Protocol in 1997. Oberthür and Ott (1999: 47) have identified the Berlin COP as a pivotal moment in the slow, step-wise development of the international climate regime.

In 1996, EU Environment Ministers agreed to seek 'significant overall reductions' in emissions after 2000 (Environment Council, 1996: para. 8). Even more importantly, following the publication of the IPCC's Second Assessment Report, they resolved that the increase in global temperatures should not exceed 2 °C above pre-industrial levels. Staying within the two-degree limit quickly became the overall objective of EU climate policy (Jordan *et al.*, 2013). The adoption of this

programme-wide durability device immediately generated a need for two further policy interventions. First of all, a complex formula was needed to allocate the necessary emission reductions amongst the Member States. This was finally accomplished in March 1997, after intense horse-trading. Little noticed at the time, the Environment Council's suggestion that industrialised countries should achieve a 15 per cent reduction by 2010 to remain within 2°C, marked another important landmark in the slow, stepwise development of EU and international climate policy. Second, the new reduction target underlined the need for new policy instruments. The Commission knew that it was starting from a very low base and so again focused on areas in which Member State support was likely to be forthcoming, i.e. relatively technical matters such as monitoring, reporting and energy labelling standards for traded products such as ovens, central heating boilers and refrigerators. It also launched a strategy to reduce CO_2 emissions from cars (COM (95) 689), another important traded product that was already a well-established focus of local air pollution policies at EU level. This strategy culminated in the voluntary agreement discussed in Chapter 7. At the time, transport was a highly anomalous sector from which emissions were increasing rapidly. Nevertheless, in spite of these new policy design activities, it was by no means certain that the EU would eventually deliver on the pledges it had made in the UN.

A Second Bid for International Leadership

The policy design debate inside the EU began to deepen after the adoption of the Kyoto Protocol in 1997. In order to secure agreement, the EU committed to achieving an 8 per cent reduction, whereas the USA and Japan accepted targets of 7 per cent and 6 per cent respectively. These numerical targets were in effect new policy programme-level durability devices but, in adopting them, the EU was forced to make some vital compromises including accepting a role for international emissions trading which, as noted above, was not in line with its existing policy instrument preference for regulation. Moreover, despite repeated predictions that emissions in the EU would rise (COM (1999) 230: 2), most Member States were still rather reluctant to adopt new EU-wide policy instruments, fearing that they would be economically too costly.

Then, in March 2001, there was an exogenous shock to the EU system: the newly elected Bush administration in the USA announced that it would not ratify the Kyoto Protocol, leaving the EU out on a limb. At the June 2001 Environment Council, Environment Ministers took the 'momentous decision' to go it alone and lead the climate regime (Bretherton and Vogler, 2006: 108). In March 2000, the Commission had initiated a large multi-stakeholder road-mapping exercise – a kind of policy programme-level durability device – known as the European Climate

Change Programme (ECCP). During its two stages (2000–2001 and 2001–2003), the ECCP identified numerous policy options, many of which were worked up into concrete proposals (Pallemaerts and Williams, 2006: 45) including, significantly, one on emissions trading (see Chapter 6).

After 2001, the pace of international policy design began to increase again. In 2001, the seventh COP (held in Marrakech) finalised most of the remaining operational aspects of the Kyoto Protocol, paving the way for its eventual ratification. Encouraging Russia to ratify the Protocol so that it could take effect arguably counts as one of the EU's greatest diplomatic achievements (Oberthür and Pallemaerts, 2010: 39). It followed up by designing and adopting a number of new internal policy instruments. These included the Directives on the Energy Efficiency of Buildings (2002), on Combined Heat and Power (2004) and, of particular relevance to us, on Emissions Trading (2003) and Biofuels in Transport (2003). In January 2005, the Commission issued a Communication which evinced a growing sense of confidence. In March 2005, Environment Ministers even overrode the Commission's advice and called for more ambitious policy programme-level goals and 'reduction pathways' equating to 15–30 per cent by 2020 and 60–80 per cent by 2050 (Pallemaerts and Williams, 2006: 47). It was almost as if the various EU institutions were competing with one another to set more stringent, more forward-looking and more durable policy designs.

In the mid-to-late 2000s, the EU's determination to play a leading role was reinforced by a number of focusing events. The first was Russia's decision (in January 2006) to temporarily halt gas supplies from the state-owned Gazprom company to Ukraine. This event – which was repeated almost exactly three years later in 2009 – helped to re-focus attention on the EU's ongoing attempts to coordinate its internal energy policy. According to two high-ranking Commission officials, this event gave them 'new impetus' to promote new policy designs (Delbeke and Vis, 2015: 86). A second focusing event in 2008 – the sudden surge in oil prices to an all-time high of nearly $150 per barrel – encouraged politicians to ask the Commission to explore lower-carbon energy options including biofuels and greater energy efficiency measures. The third event was the decisive public vote against an EU constitution in French and Dutch referenda, which had been originally drawn up to make EU governance more democratically accountable. In the ensuing political power vacuum, 'Brussels was looking desperately for something to give the Union a lift [and] Barroso [the Commission President] realised climate change was a good message to sell' to win over sceptical publics (Buchan, 2009: 14).

In January 2007, the Commission responded to these three events by launching a new strategy, which included a new policy programme goal of a 20 per cent reduction in emissions by 2020, rising to 30 per cent if other developed countries

made comparable efforts after the Kyoto Protocol expired in 2012 (COM (2007) 2). In March 2007, the European Council offered its support for these new goals (7224/1/07; see also Bocquillon and Doebbels, 2014). Other new and potentially far-reaching programme-level policy objectives were adopted, including:

- *Renewable energy* – a target, binding at Member State level, that 20 per cent of total EU energy consumption should come from renewable sources by 2020, corresponding to about 34 per cent of electricity (COM (2006) 848);
- *Energy efficiency* – a non-binding commitment to reduce the EU's energy consumption by 20 per cent by 2020;
- *Biofuels* – a more binding target to ensure that biofuels accounted for 10 per cent of total transport fuel consumption in the EU by 2020, and move towards second-generation biofuels in the longer term (see Chapter 5);
- *Carbon capture and storage* – twelve large experimental installations to be in place by 2015 and all new coal plants to be carbon capture-ready by 2020 (COM (2006) 843).

In January 2008, the Commission launched an extensive package of proposals to achieve these goals. Entitled *20 20 by 2020: Europe's Climate Change Opportunity* (COM (2008) 30) it sought to explain the benefits of the EU's embryonic decarbonisation policy paradigm. It contained a number of inter-connected elements, including new amendments to the existing policy instruments addressing biofuels, CO_2 emissions from cars and emissions trading. Crucially (and for the very first time), it sought to address *all* emissions in one fell swoop (Oberthür and Pallemaerts, 2010: 47). The proposed EU-wide target would henceforth be translated into a 21 per cent reduction in sectors within the Emissions Trading System and a 10 per cent reduction in sectors outside it, both from 2005 levels (COM (2008) 30: 6–7). Recall that barely a decade earlier, EU-level policy instruments had only addressed a fraction of greenhouse gas emissions. And ten years before that, there were no policy instruments at all.

The Commission hoped to strike a rapid agreement on the entire package between the Council and the Parliament by the end of 2008 so that it could be adopted before the next COP meeting in Copenhagen in December 2009, at which it hoped to extend the EU's 'leadership by example' approach. Ever since the dawn of climate policy in the late 1970s, the EU had played a delicate, three-level game between international, EU and national policy and politics. But in 2008, the game became even more difficult to orchestrate as the world economy succumbed to a global financial crisis. Some of the newer Member States from Central and Eastern Europe viewed the EU's emerging decarbonisation policy paradigm as a direct threat to their economic prospects and ability to exploit domestic energy sources such as brown coal. Led by Poland, they fought to make the package less economically

burdensome. For example, the revised Emissions Trading Directive (2009/29/EC) was amended to allow free allocation to Central and Eastern European electricity generators. In the new and much more stringent policy instrument governing car emissions, the compliance deadline was pushed back three years to 2015 (Regulation 443/2009). In the end, agreement on the whole package was only secured when the Parliament and the Council struck a broad package deal that traded concessions in one sub-area for more stringent targets in others (Skjærseth, 2015, 2016).

The Financial Crisis: A Period of Challenged International Leadership

The EU hoped that by offering a more stringent – but 'conditional' – greenhouse gas reduction target (30 per cent by 2020) ahead of the Copenhagen COP,[11] other major emitters could be lured into joining a political 'race to the top'. European Commission President Barroso's message to world leaders deliberately played on US President Obama's election slogan – 'Yes, you can. Yes, you can also do what we are doing' (Barroso, 2008). In October 2009, the European Council called upon other countries to embrace the EU's 2 °C objective. In turn, the EU pledged to adopt a new policy programme-level durability device: a goal of reducing emissions by at least 80–95 per cent by 2050. Reductions of this speed and magnitude effectively put deep and rapid decarbonisation on the EU's policy design agenda for the first time and marked a further evolution in the broader policy paradigm (from partial to deep and more rapid decarbonisation).

But other countries steadfastly refused to enter into a race to the top, rejecting a comprehensive treaty with binding targets and timetables and leaving the EU diplomatically isolated at Copenhagen. The result was a much looser agreement with voluntary pledges and reviews (Dimitrov, 2010). This outcome represented a significant defeat for the EU and forced it to come to terms with an even more discomforting reality: that other actors were not simply unwilling to follow but were willing to block its attempts to lead. For example, major airlines challenged the EU's plan to include the international aviation industry in the EU Emissions Trading System (see Chapter 4) and Canada reacted to new proposals governing the carbon content of fuels derived from tar sands. Moreover, the economic crisis in Europe, falling oil prices and the absence of a strong international treaty to replace Kyoto, made some EU Member States wary of adopting stronger internal policies and/or investing in unproven alternatives to fossil fuels. Despite the failure at Copenhagen, the Directorate-General for Climate Action (DG CLIMA) made another attempt to move the EU to the 30 per cent by 2020 target. However, it failed to secure sufficient internal support within the college of Commissioners and so, in May 2010, its proposal was not even formally published (ENDS Report, 2010; Skovgaard, 2013).

Nonetheless, in the run up to the 2011 COP in Durban, the EU managed to build new alliances with developing countries which enabled an agreement to 'develop a protocol, another legal instrument or an agreed outcome with legal force' by the end of 2015 (UNFCCC, 2012: 1). Against the odds, this amounted to another unexpected major diplomatic coup by the EU. In advance of that meeting, the Commission had published plans for a policy programme-level durability device (another 'road map') which sought to demonstrate that deep decarbonisation was both technologically and economically feasible to achieve by 2050 (COM (2011) 112; Delbeke and Vis, 2015: 22). As well as extend the time horizon out to 2050 (with intermediate milestones at 2030 and 2040), it also had the more immediate aim of extending the life of the Kyoto Protocol, which would otherwise have expired in 2012. After Copenhagen, these agreements suggested that the EU had reclaimed a degree of international leadership (Bäckstrand and Elgström, 2013). Furthermore, the deal struck at Durban helped the Commission to revive the internal debate within the EU over precisely what durability devices – chiefly policy programme-level targets – should be adopted in the period through to 2020 and on to 2030.

Preparing for the 2015 Paris Summit

In 2013, the European Council duly requested that the Commission re-examine the available design options. This time, many Member States forcefully demanded that the EU adopt a less prescriptive approach to deep decarbonisation. Circumstances were rather different than those that had prevailed in the brief period of intense policy innovation between 2007 and 2008 (Bürgin, 2015). Several Member States flatly opposed the introduction of new and binding renewable energy and efficiency goals (Flynn, 2013c). They were even joined by some parts of the Commission, including DG CLIMA (Fitch-Roy and Fairbrass, 2018: 66). These manoeuvrings had some influence on the Commission's proposals, which were hurriedly pushed through internal Commission consultations[12] and released on 22 January 2014 (COM (2014) 15).

After their publication, the conflicts did not take long to resurface. In broad terms, two coalitions had emerged in the Council. One coalition – known as the Green Growth Group of fourteen pro-climate Member States[13] – sought a more ambitious approach, although they differed on many specific policy design issues (Green Growth Group, 2014). Poland, on the other hand, emerged as a leader of a more fluid coalition of Central and Eastern European Member States, who were seeking to move ahead more slowly (Bocquillon and Maltby, 2017; Braun, 2019). The position adopted by these two coalitions varied across the different sub-areas in the package. For example, on greenhouse gas emissions, every Member State

informed the Commission in 2013 that they preferred a common greenhouse gas reduction target for 2030, except one: Poland (European Commission, 2013: 2). On renewables, there was broader disagreement on the need for a new target and what form it should take. And on energy efficiency, Member States were divided on whether or not to adopt a new target (Skjærseth, 2015: 85). On specific policy instruments, even generally supportive Member States were willing to block agreement when it suited their national interests to do so (e.g. Germany in relation to cars, see Chapter 7). In many respects, the lack of agreement between Member States on internal and external policy matters harked back to the early days of climate policy, and suggested that the new, deeper decarbonisation policy paradigm was under political pressure.

In October 2014, the European Council finally secured internal agreement on the broad outlines of the 2030 Climate and Energy Framework. To have delayed any longer would have disrupted planning for the next COP scheduled for Paris in late 2015. The EU was anxious to strike a new globally binding deal at that meeting and for that to happen, new pledges needed to be tabled well in advance. With time running out (Keating, 2014e), the European Council managed to strike a deal on new policy programme-level targets for 2030: a new, binding 40 per cent reduction target for greenhouse gases, a 27 per cent renewable energy target (that was non-binding at national level) and an 'indicative' target of a 27 per cent increase in energy efficiency – all compared to 1990 levels. In stark contrast to what the EU had tabled prior to the Copenhagen COP,[14] these effectively amounted to two targets that were binding at EU level and one that was not.

According to Skjærseth (2015: 86), the EU's offer amounted to a complex, carefully negotiated package deal, hedged around with myriad compromises to bind everyone together. The Commission and the Member States that wanted a unilateral 40 per cent greenhouse gas reduction target in 2030 (including Denmark, the United Kingdom, Germany, Sweden, the Netherlands and France) were forced to compromise to secure the backing of Central and Eastern European Member States led by Poland, who were keen to assert their sovereign right to exploit their domestic reserves of coal and shale gas (Keating, 2014d). Poland in particular fought hard to delay agreement until after the Paris COP (Flynn, 2014). It also pushed for the insertion of a revert clause (a type of policy programme-level flexibility device, see Table 2.4) which would allow for a loosening of the target if a global treaty was not adopted in Paris. However, Herman van Rompuy, the then President of the European Council, claimed the opposite was in fact true, i.e. the revert clause would only activate if the Paris Agreement was more ambitious than the EU had expected (Keating, 2014f). Meanwhile, the United Kingdom failed in its attempt to include another flexibility device – a relational contract (see Chapter 2), i.e. an agreement to tighten the greenhouse gas reduction figure to

50 per cent by 2030 but only if a deal was struck at Paris (Marshall, 2014). But unlike under the Kyoto Protocol, the EU agreed that its pledge would be fulfilled by implementing emission reduction measures in Europe.[15] Van Rompuy pointedly described the whole deal as 'an ambitious yet cost-effective climate and energy path' (EUCO 230/14: 1). Examining the interweaving of various flexibility and durability devices at different policy levels allows us to understand better how the EU was able to strike such a deal, which involved securing agreement on the less contentious issues, but delaying agreement on the more contentious ones until after the COP.

Policy after Paris

In the run up to the Paris COP, the EU was able to reflect on some important achievements. It was still the most active global leader in international discussions and, as of 2018, was well on track to achieve its own 'by 2020' reduction targets.[16] At Paris, it managed to assemble a new 'High Ambition' international coalition, spanning richer and poorer countries; this was sufficiently strong to secure the agreement of virtually all UNFCCC parties on the world's first universally applicable agreement on climate change. This was undoubtedly another significant diplomatic achievement by the EU. The Paris Agreement sought to put the world on track to avoid dangerous climate change by committing *all* parties to keep long-term global warming 'to *well below* 2 °C above pre-industrial levels and *pursuing efforts* to limit the temperature increase to 1.5 °C' (UNFCCC, 2015: 2, emphasis added). It therefore reaffirmed the programme-level goal of 2 °C that the EU had originally (and unilaterally) committed to as long ago as 1996. Another new programme-level durability device – again, strongly advocated by the EU – committed all parties to a new goal of achieving net-zero greenhouse gas emissions by the second half of the century (i.e. balancing net global emissions with global carbon sinks). At first blush, it appeared as though the rest of the world had bought into the EU's deep decarbonisation policy paradigm.

However, the Paris deal hinges on the industrialised countries providing significant new financial and technological assistance to developing countries, a commitment which will be subject to delicate negotiation in the coming years. And the 187 pledges – or 'intended nationally determined contributions' – which were submitted ahead of the summit and together cover 95 per cent of global emissions – are not expected to keep warming below 3 degrees (UNEP, 2015), let alone 2 °C or even 1.5 °C of warming. A new set of international polity-based durability devices strongly advocated by the EU – the 'global stocktakes' – were adopted to assess the collective progress towards the new goals adopted in Paris. However, the first of these stocktakes will not take place until 2023. In the meantime, the developing

countries will expect the industrialised countries to take early and purposeful steps to honour their pledges[17] on emissions and funding before 2025, when a new collective goal is expected to be adopted. In June 2017, Obama's successor, Donald Trump announced that the USA would withdraw from the agreement in 2020.

The Paris Agreement was widely interpreted as another diplomatic success for the EU. Chapters 4–7 will reveal that it also dovetailed with another round of internal policy review and reformulation activities in relation to emissions trading, biofuels and car emissions. The jury is still out on whether these policies and wider programmatic goals, politically challenging as they were to adopt, will be sufficient to allow the EU to decarbonise by 2050 (Oberthür and Dupont, 2015). In 2017, the European Environment Agency (EEA) (2017) concluded that the EU would need to significantly step up its efforts to achieve the interim cut of 40 per cent by 2030. In the spring of 2018, seven Member States – including France, Sweden and the Netherlands – called upon the EU to adopt more ambitious measures to achieve net-zero emissions by mid-century. In June 2018, Climate and Energy Commissioner Miguel Arias Cañete proposed raising the EU's national pledge from 40 per cent to 45 per cent by 2030 before the Katowice COP in 2018 and set out policy options to achieve zero emissions by 2050. However, at the beginning of 2019 there were few signs that Heads of State would agree to do so, with a number of Member States, including Poland and the Czech Republic, offering particularly stubborn resistance (Pickstone, 2019).

By contrast, post-Paris negotiations on the renewable energy and energy efficiency directives led to more stringent targets than were set out by the European Council in 2014. The recast Renewable Energy Directive increased the 2030 renewables target from the 27 per cent agreed in 2014 to 32 per cent (Directive 2018/2001).[18] The updated Energy Efficiency Directive similarly raised the headline reduction target from 27 per cent to 32.5 per cent. As noted above, neither of these new targets were made binding at national level.[19] In an attempt to improve long-term planning and coordination, a new Energy Union Governance Regulation (Regulation 2018/1999) established a new, collective road-mapping exercise. Crucially it obliges Member States to produce National Energy and Climate Plans covering the period 2021–2030, together with longer-term strategies to achieve net zero emissions 'as soon as possible'. These national roadmaps will be independently reviewed by the Commission, but if it finds them lacking, it only has the power to issue recommendations.

3.5 Conclusions

This chapter has described the complex and evolving policy design space in which the EU has formulated and adopted individual climate policy instruments. Today,

climate change represents one of the most active areas of EU policy. But it had very modest and relatively recent beginnings – even referring to the various EU actions before c.2000 as 'a policy' probably imputes them with greater coherence and strategic direction than is warranted. With the exception of the Commission's monitoring function and its (relatively marginal) participation in international meetings, for the most part EU policy remained an empty shell – comprising some long-term programmatic targets and strategies, and an amalgam of national-level policies and instruments.

Given the EU's inner workings, it does seem remarkable that such a relatively complex and ambitious body of EU-wide policy even emerged. With hindsight it is possible to discern the influence of an ongoing 'game' (Putnam, 1988) of policy design that has simultaneously worked across and involved: (1) a wide variety of actors, including states, the EU institutions and non-state actors; (2) the use of flexibility and durability devices at all three levels of policy design (programmatic goals, instruments (including instrument goals) and instrument settings); and (3) the various levels of governance (i.e. international, EU and national). Starting with the first of these, policy designers have had to incorporate the preferences of many different actors, some of them veto players with the power to block legislation, within a hyperconsensual system of decision making. Several design strategies have been employed to engineer agreement (Eberlein and Radaelli, 2010). The first was to engage in policy packaging – linking policies in the legislative process (as happened in 2008 and 2014) to maximise the scope for striking deals that dissuaded veto players from exercising their vetoes. The other was to employ what Gibson and Goodin (1999: 363) have termed the veil of vagueness – that is, pushing for agreement on programme-wide durability and flexibility devices whilst using revert clauses and relational contracts to deliberately displace decisions on more contentious policy details into the future.

This takes us to the second aspect of the game: the various levels of governance over which policy designers operated. It is striking how developments in international and EU policy have not simply co-evolved, but have actively fed back on one another (Oberthür and Pallemaerts, 2010: 27). Until the early 2000s, the EU lagged behind UN policy, which the Commission used as a means to drive internal policy development forwards. DG Environment (and more recently its successor, DG CLIMA) was especially eager to lock the EU into the UNFCCC, hoping it would make policy at both levels more durable, whilst also generating a need for new supporting policies and measures (Pallemaerts and Williams, 2006: 43).

The third and final aspect of the game has related to the three main elements of policy design (Howlett, 2009b). In theory, policy designers can build durable interventions by starting at any level in Hall's (1993) scheme: policy goals, instruments or settings. Although incremental advances were made in relation to

Table 3.1 *EU climate policy: examples of policy durability and flexibility devices*

		Design aim	
	Means	Durability	Flexibility
Polity	*Organisational*	Progress reports by European Commission and the European Environment Agency	Progress reports by European Commission and the European Environment Agency
Policy	*Policy programmes*	Emission stabilisation by 2000 target (1990) Two degrees target (1996) 80–95% emission reduction target (2009) Roadmaps: the ECCP (I and II)	20-20-20 by 2020 climate and energy package (2007) 40-27-27 by 2030 package (2014) Revert clauses
	Policy instruments	Standards, targets and goals e.g. in: Biofuels Directive (2003) ETS Directive (2003) Voluntary Agreement on Car Emissions (1999) Cars Regulation (2009)	Review clauses, relational contracts and sunset clauses, e.g. in: Biofuels Directive (2003) ETS Directive (2003) Voluntary Agreement (1999) Cars Regulation (2009)
	Policy instrument settings	Stringency of the standard Monitoring provisions *Ex post* evaluation requirements	Deadline for the review *Ex post* evaluation requirements

Note: these can be designed to operate manually or automatically.
Source: own composition; see Chapters 4–7 for further detail.

monitoring and product standards, over time the EU has found that the most effective way to advance policy was to start at the level of broad, long-term goals and targets – with their associated programme-level durability (and flexibility) mechanisms – and then move down to the more detailed level of policy instruments and instrument settings (i.e. in effect moving down from the top to the bottom row of Table 2.4). Table 3.1 recasts Table 2.4 using examples drawn from this chapter. It suggests that the design space in which policy makers have worked to craft durability devices has not necessarily been equally open at all three levels. The constraints on the working space have been particularly noticeable when one moves down to the level of specific policy instruments. Table 3.2 summarises the main policy instruments found at EU level, grouped according to the main sub-types discussed in Chapter 2. In some cases, the EU has successfully 'imported' instruments first used outside Europe (emission trading for example) and built on pre-existing instrument choices at the Member State level (in the case of the voluntary agreement on car emissions as well as emissions trading). Nonetheless,

Table 3.2 *EU climate policy: selected major instruments, 1992–2019[1]*

Regulatory instruments	• 1992/2014 Monitoring CO_2 emissions
	• 2001 Electricity from renewable energy
	• 2003 Energy performance of buildings
	• ***2003/2009/2015/2018 Biofuels***
	• 2004 Promotion of combined heat and power
	• ***2009/2014/2019 CO_2 emissions from cars***
	• 2009/2018 Effort sharing of emission reductions
	• 2009/2018 Renewable energy promotion
	• 2012/2018 Energy efficiency
Market-based instruments	• 2004 Upper and lower limit for national fuel taxes
	• ***2003/2009/2015/2018 Emissions trading***
Voluntary instruments	• ***1999 CO_2 emissions from cars***

[1] The policy instruments covered in this book are shown in bold/italics.
Source: based on Jordan *et al.* (2012).

the most common instrument is still regulation (at least in terms of the number of measures adopted). Policy instrument innovation is only really discernible with respect to emissions trading and the voluntary agreement on CO_2 emissions from cars. The two tables also remind us that although the responsibility for determining the long-term aims and objectives of policy has steadily grown at EU level, shifts in the power to select and calibrate policy instruments has been rather more uneven.[20] Yet our analysis thus far also broadly confirms the veracity of a key point made in the existing literatures: that it is at the level of specific policy instruments that the political battles to generate positive policy feedback have been the fiercest of all. In view of this, the next chapter examines the instrument-level dynamics in more detail in the three policy sub-areas analysed in Part II of this book: biofuels (regulatory), car emissions (voluntary) and stationary emitters (market-based).

Endnotes

1 For a slightly different list of characteristics, see Rosenbloom *et al.* (2019: 169).
2 And arguably also climate change impacts in the absence of strong mitigation policies.
3 Policy designers can, however, manipulate climate policies to make benefits more concrete and push costs further into the future (e.g. Müller and Slominski, 2013; Wettestad and Jevnaker, 2019). See Chapters 5–7 for examples.
4 Possibly because technology is not normally such a critical factor in social and welfare state policy areas.
5 A regularly updated list of the main policy aims and objectives, and the policy proposals needed to address them.
6 Although in practice, the Council signed off on major agreements, and was engaged throughout the policy-making process that led to the voluntary agreement on cars studied in Chapters 4 and 7.
7 This section draws on Jordan *et al.* (2010), Chapter 3.

8 Sweden was the first European state to set a target in 1988, but it was not then a Member State of the EU.

9 Because the EU was by then the only consistent pace-setter in the world.

10 Economic restructuring in Eastern Germany, following the fall of the Berlin Wall, and fuel switching from coal to gas in the United Kingdom.

11 A type of revert clause.

12 In order, it was claimed, to secure Barosso's political legacy (Keating, 2014a). Russia's annexation of Crimea also reawakened fears of energy insecurity in Europe.

13 Belgium, Denmark, Estonia, Finland, France, Germany, Italy, the Netherlands, Portugal, Slovenia, Spain, Sweden and the United Kingdom.

14 Two binding pledges on emission reductions and renewable energy respectively, and an indicative pledge on energy efficiency.

15 Unlike the 2020 target, which could partially be attained by paying for 'flexibility' mitigation measures undertaken in developing countries.

16 In fact, the indications at the time were that it would collectively reduce its emissions by 20 per cent well before 2020 (Skjærseth, 2015: 87).

17 Including mobilising USD 100 billion per year to support climate actions in developing countries before 2025.

18 Chapter 5 discusses this important change in further detail.

19 Although the renewables target remained binding at EU level.

20 The power to set taxes, for example, still resides at the national level, while governance in other areas has shifted to EU level.