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The politics of carbon taxation in France: preferences, institutions, and ideologies

Carole-Anne Sénit (IDDRI)

THE FRENCH CONTEXT

France's energy mix leaves 68% of CO_2 emissions out of the European Union Emissions Trading Scheme, thus providing a strong rationale for implementing carbon taxation. Diffuse sources of CO_2 emissions such as transport and housing have indeed risen by respectively 9% and 2% between 1990 and 2009. However, three successive governments have failed to implement carbon taxation.

REVEALING THE BARRIERS TO ADOPTION

The policy design and outcome of carbon taxation are critically affected by a series of political factors such as electoral incentives, policy makers' preferences, institutional rules, and partisan ideologies, which are decisive in explaining the gap between academic and experts proposals and actual policy practice. While electoral incentives and policy makers' preferences prompted the French government to put carbon taxation back on the political agenda from the beginning of 2009, these same factors downgraded the governmental project with respect to experts' recommendations several months later. Parties' ideological preferences and institutional rules, resulting in additional exemptions and a disproportionate fiscal burden on households, then paved the way for the Constitutional Court's censure of the carbon tax-related articles.

MAXIMIZING THE CHANCES OF ADOPTION OF A FUTURE SCHEME

As public preferences are often critical in influencing the policy outcome of carbon taxation, policy makers should focus on building acceptance through various policy leverages. The introduction of carbon taxation should first be coupled with a decrease of non-carbon content related energy taxes, so as to lessen the overall fiscal burden and smooth out the transition towards an ecological economy. Carbon taxation should also be embedded in a wider set of policies that includes a reform of the income tax system and of environmentally harmful subsidies, so that citizens regain trust in fiscal justice.

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1. INTRODUCTION

The literature has provided ample reasons to opt for a carbon tax from the perspective of an efficient policy in terms of both environmental and economic results (Goulder, 1995; Hourcade, 1996). However, this kind of instrument meets with strong political resistance, as it imposes significant and demonstrable losses, while its benefits may be diffuse and difficult to warrant. Hence, it should be of little surprise that actual policy practices often depart from the theoretical rules and principles of carbon taxation. This paper seeks to inform our understanding of the political rationales that widen the gap between the academic ideal of carbon taxation and actual policy practices.

The literature on the politics of carbon taxation remains limited: to date, research on carbon taxes has primarily been conducted by economists to theorise optimal carbon tax design or assess the impact of existing taxes or prospective tax scenarios on emissions and economic growth (Agnolucci, 2009; Andersen, 2004; Andersen *et al.*, 2007; Andersen, 2010; Baranzini *et al.*, 2000; Barker, 2009; COMETR Project, 2007; Junankar, *et al.*, 2009; Hammar & Åkerfeldt, 2011; OECD, 2010; Swedish Environmental Protection Agency, 2007). Moreover, the existing literature on the politics of carbon taxation often focuses on successful case studies, concentrating on public policy analysis (Andersen, 2004, 2010; Beuermann & Santarius, 2006; Dresner *et al.*, 2006; Hammar & Akerfeldt, 2011; Jagers & Hammar, 2009; Kasa, 2005; Klok *et al.*, 2006; Kohlhaus & Mayer, 2005; Pearce, 2006; Vehmas, 2005). The literature studying cases of failure in the implementation of carbon taxation, oriented towards process analysis, is still scarce (exceptions include Harrison, 2009, 2010), though it is at least equally important to inform our understanding of the conditions under which carbon taxes are politically viable. By examining France's most recent failed attempt to implement carbon taxation, this paper intends to complement such literature.

In accordance with theoretical expectations, this paper finds that the policy design and outcome of carbon taxation are critically affected by a series of political factors. In particular, this research stresses that electoral incentives, policy makers' preferences, institutional rules and partisan ideologies were decisive in both the rise and the fall of the French carbon tax between 2009 and 2010. The paper is structured as follows. Section 2 details the underlying methodology. Section 3 provides a description of the 2009 French carbon tax project and reveals the gap between expertise and decision making. Section 4 reviews the political factors that are likely to influence the policy design and outcome of carbon taxation, while *Section* 5 analyses the extent to which these factors have widened the gap between the academic ideal and the policy outcome in the French case. Section 6 concludes.

2. METHODOLOGY

The policy process was investigated using two types of conceptual tools. As a first step, we reviewed and analysed official documents, including financial laws, executive reports and minutes of legislative debates. In the second stage, we proceeded with a questionnaire among the French political and administrative elite. Between February 2011 and February 2012, 60 semi-structured interviews were carried out with high-level civil servants from the Ministries of Ecology, Finance, Agriculture, and Foreign Affairs, as well as from the cabinets of the President and the Prime Minister, with MPs of various political affiliations, and with experts who were involved in the Rocard

Table 1. Interviewees: insiders and outsiders

Level of involvement	High	Low	Total % per type of actors
Ministry of Ecology	Jean-Christophe Boccon-Gibod, Dominique Bureau, Emeric Burin des Roziers, Pierre-Franck Chevet, Daniel Delalande, Thierry Kalfon, Jean-Christian Le Meur, Françoise Maurel, Benoît Mélonio, Michèle Pappalardo	Loïc Charbonnier, Raymond Cointe, Béatrice Delemasure, Patrick Gandil, Jean-Bernard Kovarik, Claude Martinand, Benoît Piguet, Arnaud Tomasi	31%
Ministry of Finance	Xavier Bonnet, Benjamin Frémaux, Henri Lamotte, Frédéric Lehmann, Marc Wolf		8%
Ministry of Agriculture	Elodie Galko, Nathanaël Pingault, Eric Giry	Christian Jacquot, Philippe Mauguin	8%
Ministry of Foreign Affairs		Christian Masset, Philippe Thiébaud	3%
Prime Minister's cabinet	Thierry-Xavier Girardot, Jean-François Monteils	Mathieu Chabanel	5%
President's cabinet	Boris Ravignon, Matthieu Louvot	Benjamin Gallezot	5%
Total high-level civil servants			60%
Representatives	Gilles Carrez (UMP[a]), Fabienne Keller (UMP), Jean Launay (PS[b])	Dominique Voynet (EELV[c]), Jean-Pierre Giran (UMP), Elisabeth Lamure (UMP), Jean-Jacques Mirassou (PS), Laurence Rossignol (PS), Philippe Tourtelier (PS), Martine Billard (Front de gauche[d])	17%
Experts	Gaël Calonnec, Franck Jésus, Michel Rocard, Jean-Pierre Bompard, Gaby Bonnand, Christian De Perthuis, Matthieu Glachant, Olivier Godard, Jean-Charles Hourcade, Mathilde Lemoine	Edward Arkwright, Henri Catz, Jean-Philippe Barde	20%
Constitutional Court	Renaud Denoix-de-Saint-Marc	Marc Guillaume	3%
Total % per level of involvement	62% of interviewees were involved in the policy-making process	38% of interviewees had limited involvement in the policy-making process	

Source: Author.

a. UMP (Union pour un Mouvement Populaire): France's main right-wing party.
b. PS (Parti Socialiste): France's main left-wing party.
c. EELV (Europe Ecologie Les Verts): France's Green Party.
d. Front de Gauche: electoral alliance between the Communist Party and the left-wing Parti de Gauche.

Commission. Such oral testimonies constituted our main source of evidence, and enabled us to reconstruct and comprehend the policy- and decision-making process associated with the French carbon tax, since public action archives—and this is even more true when recent processes are investigated—are not systematically available and filed. In addition, intermediary documents, sometimes of major importance, such as letters, emails, internal memos and draft documents are often deleted mostly because filing has not yet become common practice within ministerial departments.

Interviewees (Table 1) were selected according to three main criteria: the Ministry of origin, the level of decision making (cabinet, directorate or department—this criterion being applicable to civil servants only) and the degree of involvement in policy making. Two groups of actors were therefore constituted: a first group ("insiders group") brought together civil servants, MPs and experts who were directly involved in the policy-making process, while a second group ("outsiders group") was composed of randomly selected civil servants and MPs, whose positions were often not associated with climate change policy. This method was intended to meet two objectives. First, the "insiders group" allowed us to rebuild the carbon tax policy process through the comparison of discourses. Second, the "outsiders group" enabled us to reveal how non-specialised actors perceived the carbon tax instrument, a vision that could be representative of the preferences of the French political sphere.

Nearly half of the high-level civil servants interviewed were from the Ministry of Ecology, while other Ministries were rather under-represented. This distribution was not deliberate, but simply due to the fact that high-level civil servants from the Ministry of Ecology were more accessible and open to research than the representatives of other Ministries. For instance, among the high-level civil servants from the Ministry of Finance who were still in office at the time of the interviews, we could only access the Assistant Directors, while we were able to interview General Directors and Cabinet Members from the Ministry of Ecology and the Ministry of Agriculture. Overall, the distribution of high-level civil servants according to the decision-making level criterion

was the following (from the lowest to the highest rank): 27% were from a Department, 29% from a Directorate or General Directorate, 8% from a Ministry General Secretariat, and 35% from a Cabinet.

The interviews enabled us to identify a series of political factors that have been critical in France's policy outcome, classified into electoral (incentives and preferences), institutional, and ideological, which we detail in the next section. We developed a code system, which we used to examine the collected texts[1]. For this research, we chose to focus on a qualitative approach: evidence is therefore mainly built through relevant quotations.

3. THE RISE AND FALL OF THE FRENCH CARBON TAX: REVEALING THE GAP BETWEEN EXPERTISE AND DECISION MAKING

3.1. Elements of context

The rationale for implementing carbon taxation in France is strong. Although France's carbon emissions per capita, amounting to 9 metric tons, are at the low end among industrialised countries due to its nuclear-based energy mix, this very same energy profile leaves 68% of CO_2 emissions stemming from diffuse sources out of the EU Emissions Trading Scheme (EU ETS). Obviously, there are already many taxes on energy use, with relatively high rates compared to other industrialised countries. Yet, the implicit carbon tax rate[2] varies widely across fuels and sectors: while the French tax rate on transportation fuels, particularly petrol, stands at €274 per tonne of CO_2, the implicit tax rate applied to heating fuels (light fuel oil and natural gas) as well as fuels used by industry (heavy fuel oil), is respectively 5 to 55 times lower (Ademe, 2009). Moreover, coal for industrial use is totally exempt from taxation, while its average tax rate in the European Union reaches €11.6 per tonne of CO_2 (*ibid.*). The French energy tax structure thus tends to favour carbon-intensive fuels, as the more carbon intensive a fuel, the lower the tax rate (Table 2). As a result, existing taxes on fossil fuels would not entirely cover the external costs of energy use such as, inter alia, CO_2 emissions, or air and noise pollution.

Table 2. Implicit 2006 tax rates in France, by fuel type in €/tonne of CO_2

	Coal	HFO	LFO	Diesel	Petrol	Natural gas
Carbon content[a] (tg carbon/btu)	26	21.5	19.95	19.6	19.3	14.5
Implicit tax rate	0	4.83	52	192.54	274.43	34.35

Source: Erick Lachapelle, 2009.

a. International Energy Agency (IEA) Annex B "Method for Estimating the Carbon Content of Fuels" (B-2 Inventory of US GHG emissions and sinks: 1990-2001), p.A.47.

France has attempted to implement carbon taxation three times in 20 years in order to regulate its diffuse emissions, and has persistently failed. In 1992, within the framework of the preparations for the United Nations Conference on Environment and Development (UNCED) in Rio, France supported a system of harmonised domestic taxes on CO_2 at the EU level, but failed to reach a compromise with other Member States (Zito, 2002). Almost a decade later, the Jospin left-wing government's proposal to unify existing fees on energy and to implement an additional tax on industrial energy consumption was eventually ruled out by the Constitutional Court in 2000 (see in particular Deroubaix & Lévèque, 2006). Finally, and this will be the main focus of this paper, the most recent policy attempt to implement an additional tax on carbon emissions stemmed from the Fillon government, and was again ruled out by the Constitutional Court in December 2009 (see below).

3.2. Reaching a partial consensus through expertise...

After the main candidates to the presidential elections signed the Ecological Pact[3] in January 2007, which aimed to place ecology at the centre of the political agenda, the newly elected President Nicolas Sarkozy implemented a deliberative process during the summer of 2007, called the *Grenelle Environnement*, the objective of which was to define the key points of the future French environmental public policy. In October, during the final negotiation round tables, Nicolas Sarkozy agreed to study the implementation of a "carbon-energy contribution". A year later, while the price of a barrel of oil beat new records as it reached nearly US$140, the Junior Minister of Ecology, Nathalie Kosciusko-Morizet, announced the postponement of the carbon tax reform. The French

1. The content of the interviews was coded with the MaxQDA Qualitative Data Analysis Software.

2. By implicit carbon tax rate, I refer to the average rate of all taxes (excise + VAT + specialised taxes) applied to carbon-based fuels.

3. For more information on the content of the Ecological Pact, see http://www.fondation-nature-homme.org/extras/archives-pacte/presidentiel.php.

Government eventually convened a commission of experts in July 2009, involving civil servants, economists, employers and union representatives, and chaired by former Prime Minister, Michel Rocard, to design the practical modalities of the future economic-incentive instrument, i.e. the tax base and rate, and the revenue recycling mechanism. In the meantime, President Sarkozy had announced the abolition of the Business Tax[4], and the French green party, *Europe Ecologie*, had scored 15.82% in the European elections in June.

A——fragile——consensus was reached among the experts, who returned their report in August, on the creation of an additional tax with a mixed carbon-energy base. Concerning the tax rate, experts recommended a starting level of €32 per tonne of CO_2, and insisted on the importance of defining its progression so as to reach a level of €100 per tonne of CO_2 in 2030, following the recommendations of previous expert reports (Boissieu, 2006; Landau, 2007; Quinet, 2008)[5]. Experts agreed in recommending the exclusion from the tax base of the firms already included in the EU ETS. They also concurred on the importance of a uniform coverage: in his conclusions, Michel Rocard stressed that the first condition for the political feasibility of the tax was that "all stakeholders should share the fiscal burden" and that neither exemptions nor concessions should be accepted (Rocard, 2009). Nonetheless, although the Commission of experts agreed on recommending a revenue-neutral reform, it was not given sufficient time to reach a common position on the use of tax revenue to achieve a balance between general objectives of environmental efficiency, equity (lump sums) and competitiveness (withdrawal of the business tax, reduction of employers' social security contributions). This technical feature was to be defined through further negotiations. The absence of expert arbitration on the design of revenue use, which remains the key feature of the political delivery of the carbon tax, left a vacuum, a lack of framework conducive to the expression of policy proposals guided by self-interest rather than cost-effectiveness.

3.3. … that rapidly decayed once the project was seized by politicians, as a result of poor communication

Public communication began in July 2009 at the end of the Expert Commission's work, though before Michel Rocard handed the Commission's report to the Minister of Ecology, Jean-Louis Borloo, and the Minister of Finance, Christine Lagarde, both pilots of the carbon tax project. However, the lack of consensus on the use of fiscal revenue did not enable the government to communicate on a shared vision linked to a clear rationale and likely to lessen citizens' suspicion of the carbon tax as merely a way to provide the government with new financial resources in an age of budgetary constraints and on behalf of environmental objectives. The government therefore proceeded with a minimum communication strategy, as it believed this would increase the project's acceptance in view of the complexity of the theoretical machinery underlying revenue redistribution. The government had at first decided to limit its communication to the revenue-neutrality aspect of the reform, without detailing its technical features. Yet that communication strategy was soon transgressed by the Minister of Ecology, who unilaterally committed to a lump sum allowance to households—or *green cheque*—in the press[6], thus opposing the position of the Minister of Finance and the Minister for the Budget, Eric Woerth. Concerning the tax rate, coherence in communication also happened to be chaotic: while the Prime Minister, François Fillon, first declared that the rate would be initially fixed at €14 per tonne of CO_2, the Minister of Finance, Christine Lagarde, and the Junior Minister of Ecology, Chantal Jouanno, announced that the tax rate would be set at around €20 per tonne of CO_2[7].

President Nicolas Sarkozy finally arbitrated on the technical design of the tax in September. The tax rate was to be set at €17 per tonne of CO_2 (Table 3), for both political and legal reasons, as it was argued that households should not pay more than the firms engaged in the EU ETS. The tax base included fossil fuel consumption for heating buildings and petrol consumed for personal road transportation. Industrial firms under the EU ETS

4. The Business Tax ("taxe professionnelle") was levied each year on businesses by local authorities ("mairies"); its revenues helped finance the communes, departments and regions, as well as chambers of trade and industry. On 5 February 2009, President Sarkozy announced its abolition and the possible compensation of its revenues through the implementation of a tax on carbon.

5. The only conflicting position was that of the industry representatives (MEDEF – Mouvement des Entreprises de France), who preferred a rate based on the average price of a CO_2 allowance on the EU-ETS (+/- €15 per tonne of CO_2).

6. *Borloo: "L'Etat rendra tout aux Français"*, Le Journal du Dimanche, 4 July 2009.

7. In addition to these communication inconsistencies, the Commission's President, Michel Rocard, mistakenly declared that the carbon tax would cost €300 per year for more than half of French households, while that amount would in fact have been paid by the highest household income deciles.

were excluded from the tax base, and electricity was exempted. Reduced tax rates were also considered for energy-intensive and trade-exposed sectors, such as agriculture and fisheries: while the former was to be reimbursed 75% of the initial tax amount, the latter was to be charged at only 25% of the initial rate. Road transport and shipping were also exempted.

Table 3. French carbon tax applicable to different types of fuels

Type of fuel	Carbon tax
Petrol (euro cents/l)	4.11
Diesel (euro cents/l)	4.52
Professional diesel (euro cents/l)	4.52
Home heating oil (euro cents/l)	4.52
Natural gas (euro cents/kWh)	0.31

Source: Financial bill for 2010.

Concerning the use of the fiscal revenues from the carbon tax, two recycling mechanisms were considered by the government. The share of the revenues stemming from firms, amounting to €2 billion, was to be compensated through the withdrawal of the business tax. As for the fiscal revenues stemming from households, amounting to €2.5 billion, the French Government agreed on a direct, ex post financial compensation to households (Table 3)—either an income tax rebate or a *green cheque* for non-taxpayers—to offset the socially regressive effects of the tax; such compensation was to be redistributed according to household composition and residential situation (urban *vs.* rural) [8].

Table 4. Examples of household compensation

Case	Urban environment	Rural environment
Single person without children	€46	€61
Couple without children	€92	€122
Couple with 3 children	€122	€152

Source: Senate Finance Commission, 2009.

The project, which was incorporated into the Financial Bill for 2010, was presented to the National Assembly and the Senate in autumn 2009. After the addition of other total or partial exemptions, particularly for households using district heating networks or domestic coal, and for the French overseas departments[9], the carbon tax project was finally adopted by Parliament on 18 December. However, shortly after its adoption, 120 green and left-wing Members of Parliament (MPs) took the matter to the Constitutional Court, claiming the compensation for households represented a breach of tax equality, a principle of constitutional value since 1973. On 29 December, the Constitutional Court ultimately invalidated the whole carbon tax project for two reasons. First, the means did not match the goals, as the different reduced rates, deferred taxation, and partial or total exemptions resulted in the exclusion of 93% of CO_2 emissions from the tax base. Second, individuals suffered from unequal treatment before tax payment, as the project placed a disproportionately heavy burden on ordinary households, while exonerating the biggest polluters[10]. Although the Government began to work on a new carbon tax project in January 2010 in order to meet the Constitutional Court's demands, it eventually announced the postponement of the project at the European level in the midst of the crushing defeat of the majority conservative party (UMP) in the March regional elections.

As shown in Table 4, the drift of the carbon tax project from the expertise process to its final adoption by the National Assembly is quite significant. This raises the following questions: what do these policy arbitrations convey? And which are the factors triggering such a drift? This paper draws on the political science literature on public policy to examine four possible explanations for the adoption, or in this case rejection, of carbon taxation. We find that political contingencies, such as electoral incentives, policy makers' preferences, institutional rules, and partisan ideologies, affect policy outcomes a great deal.

4. SEARCHING FOR AN EXPLANATION: PREFERENCES, INSTITUTIONS, AND IDEOLOGIES

4.1. Electoral incentives and collective preferences

Keeping in mind the electoral timeline, policy makers may be attentive to collective preferences, which is the first significant factor influencing policy outcomes. The literature addressing the issue of the influence of collective preferences

8. The urban / rural classification was determined by whether a municipality was included within an urban transport area.

9. The latter would have run until 30 June 2010.

10. If the EU-ETS firms received an incentive to cut CO_2 emissions even with grandfathered permits, the over-allocation of quotas that characterised the first national allocation plans allowed the firms to make windfall profits. This situation further prompted the Constitutional Court to invalidate the project.

Table 5. From expertise to decision making: showing the drift in the French carbon tax policy process

		Tax rate	Total or partial exemptions	Revenue use	
				To households	To firms
Expert conference	Measures	€32/tCO_2 Additional tax on the energy content Rate progression of 6% per annum (€100/tCO_2 in 2030)	None	Lump sum vs. reduction of income tax	Reduction of business tax vs. reduction of employers' social security contributions
	Rationale(s)	Balance between environmental efficiency and social acceptance	Environmental efficiency Essential to achieve the policy goal of cutting emissions by 4 in 2050 In accordance with the constitutional principle of equality in relation to public burdens	Lump sum primarily benefits low-income households	Reduction of employers' social contributions has positive effects on employment Reduction of business tax reduces firms' production costs and limits competitiveness losses
Government project	Measures	€17/tCO_2 No commitment on evolution of the tax rate	Electricity, ETS firms, energy-intensive industries, air transport, road freight transport, agriculture and fisheries	Compensation through an income tax rebate or a green cheque for non-taxpayers Redistribution criteria: household composition and access to public transport	Withdrawal of business tax
	Rationale(s)	Average rate of CO_2 allowance on EU ETS	Competitiveness, carbon leakage Social impact	Maintain household purchasing power	Inefficient tax, competitiveness
Final project adopted by the National Assembly and the Senate	Measures	€17/tCO_2 No commitment on evolution of the tax rate	Electricity, ETS firms, energy-intensive industries, air transport, road freight transport, agriculture and fisheries, fuel for water freight transport, household coal consumption, households connected to a heating network, overseas departments until 30 June 2010	Compensation through an income tax rebate or a green cheque for non-taxpayers Redistribution criteria: household composition and access to public transport	Withdrawal of business tax
	Rationale(s)	Average rate of CO_2 allowance on EU ETS Budgetary principle of annuality	Competitiveness, carbon leakage Gradual adaptation of energy-intensive sectors Maintain low-income household purchasing power	Maintain household purchasing power Simplicity of redistribution criteria	Inefficient tax, competitiveness

Source: Author.

on policy making is abundant. Yet the relationship between public opinion and policy outcomes is not clearly defined. While most studies suggest that policy makers follow public opinion (Monroe, 1979; Page & Shapiro, 1992; Stimson, 2004), some find that they actually ignore public opinion (Korpi, 1989; Schwartz, 1995) and others suggest that policy elites drive public opinion towards their viewpoint rather than the other way round (Kingdon, 2003; Zaller, 1992).

Unlike the state of the economy, public deficits and unemployment, public attention to environmental concerns such as climate change is cyclical and usually linked to the prominence of environmental crises (Downs, 1972; Dunlap & Scarce 1991; Bowman & Rugg, 2010). When the salience of environmental issues is high, one would expect the voices of environmental groups, conveying those of voters, to carry considerable weight, thus prompting policy makers to take action. However, when the salience of the environment is low and displaced by pressing economic and budgetary concerns, the business community's arguments on job preservation would prevail, as policy makers remain highly risk-averse when confronted with threats of capital mobility.

However, would a high salience of environmental issues trigger the adoption of carbon taxation? Nothing could be less certain. A closer look at business and public preferences suggests that carbon taxation is not the preferred policy tool to address the climate change issue. With respect to the former, although in theory a revenue-neutral carbon tax offers businesses net savings relative to conventional regulation, there will still be losers among firms, in particular within energy-intensive and trade-exposed sectors. Using the argument that domestic carbon taxes hinder their international competitiveness, these sectors will lobby for concessions and rebates, which will ultimately benefit all sectors (Harrison, 2010). With respect to the public, one would anticipate strong electoral opposition, as the cost of carbon taxes is immediate and highly visible. Besides, given the psychological phenomenon of loss aversion, even if carbon tax revenues are fully recycled to voters via tax cuts or lump sums, one would not expect voters' appreciation of the tax deductions to match their resentment of the new taxes (Kahneman *et al.*, 1991).

4.2. Policy makers' preferences

Linked to electoral incentives are policy makers' preferences. A significant corpus of scholarly work identifies potential factors that shape policy makers' preferences, such as principled values and causal beliefs (Goldstein & Keohane, 1993), self-interest (Arrow, 1951; Buchanan & Tullock, 1962), good policy motives, credit claiming and blame avoidance (Weaver, 1986). Despite the anticipated strong opposition from business and the public alike, it is interesting to note that carbon taxation nevertheless makes it to the political agenda. This is because policy makers—at least within the European Union—are often personally committed to addressing climate change (principled values and causal beliefs) and are therefore driven by their good policy motives. However, the question remains as to how willing policy makers are to go against their personal interests (re-election) and to accept the political risks associated with the implementation of carbon taxation (self-interest, blame avoidance). Therefore, policy makers' preferences may affect policy outcomes in two different ways: first of all in selecting carbon taxation over other policy tools, and secondly—assuming that policy makers commit to implementing carbon taxation—in selecting the carbon tax features.

With respect to the first effect, policy makers tend to favour policy instruments with the lowest political costs, such as command-and-control measures or cap-and-trade with free allocation of permits. Indeed, while the former hides the costs of regulation in the price increases passed on to consumers, the latter shows no visible costs as there is no exchange of money at the time of the initial allocation; both instruments thus lessen political risk (Keohane *et al.*, 1998). In the end, aggregate cost-effectiveness, which is the major advantage of carbon taxation, is likely to play a less significant role in the legislative calculus than whether a politician is getting a good deal for his constituents (*ibid.*). Assuming that policy makers have embraced the idea of carbon taxation, their preferences may also be reflected in the design of the tool. Policy makers in charge of defining the features of the carbon tax tend to design the instrument in such a way that it satisfies the interests of their political career, often in disregard of the theoretical requisites of cost-effectiveness: to do so, policy makers implement blame avoidance strategies, such as framing the issue in a less controversial way or "throwing good money after bad" so as to prevent major constituencies from suffering losses (Weaver, 1986). Policy makers might also frame the policy tool according to the values, preferences and interests of their own administration, thus creating interdepartmental conflicts in the definition of cross-cutting policies.

4.3. Electoral and institutional rules

Electoral and institutional rules, in shaping the process by which preferences are defined and aggregated, and by favouring certain actors over others, may also affect policy outcomes. There is a substantial body of literature stemming from comparative politics on the effects of various institutional configurations, such as electoral systems or the division of powers among a jurisdiction on the quality of democratic governance (Lijphart, 1999; Hoffman, 2005) and on environmental performance (Crepaz, 1995; Jahn, 1998; Scruggs, 1999; Harrison & Sundstrom, 2010).

With respect to electoral systems, many empirical studies have documented their implications for such diverse outcomes as national price levels (Linzer & Rogowski, 2008), perceived levels of corruption (Chang & Golden, 2007), the size of government expenditures (Milesi-Ferretti *et al.*, 2002), levels of redistribution (Iversen & Soskice, 2006), and the overall quality of democracy (Hoffman, 2005), as well as for the configuration of employers' associations (Martin & Swank, 2008) and for the type and size of the welfare state (Manow, 2009). Within this body of academic work, some authors such as Lijphart (1997; 1999) suggest that proportional-based (PR) systems are more

representative and effective than single-member plurality (majoritarian) systems. Others suggest that PR systems create incentives for the provision of broad public goods and thus lead to stricter and more effective environmental regulation (Fredriksson & Millimet, 2004). Similarly, a recent comparative study of national climate policies finds that while single-member plurality systems would dampen the expression of the strong environmental values held by a minority of voters, PR systems would not only express those views, but would also exaggerate their impact when small green parties play a critical role in parliamentary coalitions (Harrison & Sundstrom, 2010). To the extent that those small parties favour carbon taxes, Harrison continues, one would expect more frequent adoption in countries with proportional electoral systems. Yet the relationship between electoral systems and policy outcomes may not be as straightforward. Another comparative study on carbon-energy taxation rates in OECD countries suggests that under certain conditions, policy outcomes in some majoritarian regimes resemble those in proportional systems (Lachapelle, 2009, 2011): in fact, it demonstrates that because voters in majoritarian systems have more leverage over politicians[11], an increase in environmental voting may create incentives for big political parties to adopt stricter environmental policies, such as carbon-energy taxation, even if green parties never actually gain power.

Other institutional rules, such as the concentration of authority, may also affect policy outcomes. Harrison & Sundstrom (2010) distinguish between the horizontal concentration or diffusion of authority within a national government and the vertical concentration and diffusion of authority among levels of government within a federation. With respect to the former, they identify three types of effects, which are contingent on politicians' ideas about the environmental policy being considered. The concentration of decision making in the hands of an individual or a small group of actors may either facilitate leadership and the adoption of stricter climate mitigation policy when key policy makers are committed to action, or justify policy makers' inaction if, for instance, they do not believe carbon taxation is the appropriate tool for addressing the issue of climate change. On the contrary, diffuse authority within a national government presents multiple veto points that can be employed to block policy change: many empirical studies find that presidential systems tend to favour the status quo, while parliamentary regimes are more likely to trigger policy change (Lijphart, 1990; Dolsak, 2001; Lantis, 2006). The vertical concentration or diffusion of authority refers to the implications of federalism and centralism on policy outcomes. Again, Harrison and Sundstrom (2010) anticipate two possible effects, depending on the salience of environmental issues within the electorate: although "federalism may obstruct national action if subnational governments that have disincentives to take action have an effective veto as a result of decision rules among members of the federation or ownership of key resources", in the face of inaction at the national level, "federalism may allow for at least some subnational governments to act" (pp.17-18).

4.4. Partisan ideologies

Another factor identified by a substantial body of scholarly work as potentially significant in policy outcomes, and particularly in terms of budgeting, is partisanship (Hibbs, 1977; Hicks & Swank, 1992; Klingemann *et al.*, 1994; Alesina & Rosenthal, 1995; Garrett, 1998; Krause, 2000; Brauninger, 2005; Harrison & Sundstrom, 2010). Their findings would appear to support a partisan politics model which identifies differences in expenditure policy outcomes between left-wing and right-wing parties according to partisan ideologies, left-wing parties favouring more social programmes and right-wing parties emphasising economic concerns and fiscal restraint. Building on previous work, Brauninger (2005) strengthens this theoretical model, arguing that parties diverge in their preferences for the size and distribution of expenditure to different policy areas.

Environmental protection, and in particular climate change, seem to be neither left nor right, at least within the European Union[12]. Many authors suggest that ideological values along a typical left-right spectrum are not clearly linked to parties' positions on environmental protection and climate change mitigation (Harrison & Sundstrom, 2010; Russel & Benson, 2011). Although partisan ideologies are not significant in the decision whether or not to intervene to address climate change, they are likely to play a role in shaping policy makers' preferences in terms of policy instruments.

11. The author assumes that the seat-vote elasticity in majoritarian systems is high: therefore, as the main objective of parties and governments is to maximise vote gains and minimise vote losses, majoritarian electoral systems tend to make parties and governments more responsive to small changes in voters' preferences (p.9).

12. Governments' positions on climate change in the United States, Australia and Canada are more likely to reflect a left-right divide. Typically, in the United States, Democrats are more likely to engage in climate policy while Republicans deny climate change as a scientific reality.

Therefore, parties on the left side of the political spectrum would be more willing to address climate change through regulatory or tax interventions, while right-wing parties would prefer market-based or voluntary approaches (*ibid.*). Building on these arguments, we suggest that the choice of the technical features of carbon taxes may also reflect partisan ideologies: in terms of revenue use in particular, left-wing parties are more likely to financially compensate low-income or disadvantaged groups so as to respond to equity concerns, while right-wing parties would favour cuts in business income and payroll taxes to address competitiveness concerns.

In developing a theoretical-analytical framework of political factors affecting carbon taxation policy outcomes, we can define several characteristics (Table 6). First, the key actors, which change according to the theories. Second, we identify the influential factors or rationales for the adoption or rejection of carbon taxes.

Table 6. A theoretical-analytical framework to explain carbon taxation policy outcomes

Theory	Key actors	Influential factors
Electoral preference	Public Business community	Collective preferences
Public choice Blame avoidance	Policy makers	Policy makers' preferences
New institutionalism	Institutions	Electoral systems Concentration or diffusion of authority
Partisanship	Parties	Parties' ideological preferences

Source: Author.

5. RESULTS: POLITICS DO MATTER

5.1. Electoral incentives and collective preferences: a critical influence on both the return and the withdrawal of carbon taxation to/from the French political agenda

Electoral incentives have been decisive in both the rise and the fall of the French carbon tax project. French policy makers' sudden embrace of carbon taxation may have been prompted by three different motives. First, the civil society policy entrepreneur, Nicolas Hulot, played a critical role in advancing a carbon tax proposal in the Ecological Pact, as this resulted in the commitment by most of the candidates to the 2007 presidential elections to implement such a policy tool once they took office. Second, the rise of carbon taxation on the political agenda coincided with a rise in citizens' concern about climate change, in view of the 15th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) to be held in Copenhagen in December 2009: between 2007 and 2009, two out of three French people considered global climate change to be a very serious problem (Table 7). Third, and probably echoing the high salience of the climate change issue within the electorate, the score of the French green party *Europe Ecologie* in the 2009 European parliamentary elections reached its highest level in history—15.82%. This combination of rationales prompted President Nicolas Sarkozy to raise France to the role of leader in terms of climate action, at both EU and international levels; the main policy expression of this leadership was the introduction of a carbon tax to curb France's diffuse CO_2 emissions.

However, such a favourable climate to the implementation of carbon taxation rapidly decayed due to the first effects of the economic downturn and to the increased awareness that no multilateral agreement on climate change mitigation could possibly be reached in Copenhagen.

> *"After the failure in Copenhagen, politicians were allowed to act in a cowardly manner or, in this case, not to act at all. In the carbon tax explanatory statement, we wrote that it was supposed to strengthen the leadership position of France and Europe so as to succeed in the negotiations in Copenhagen. Once we acknowledged that Copenhagen was a failure with respect to initial European demands, because of the US, Japan, Russia and emerging countries, it was not worth shooting ourselves in the foot to save the planet."*
>
> High-level civil servant, Ministry of Finance

Immediate concerns such as the erosion of household purchasing power or unemployment began to prevail, to the detriment of long-term environmental issues: between 2009 and 2010, the number of French citizens who considered global climate change as "not very serious" or "not a problem" more than tripled (Table 7). When the carbon tax project was communicated to the public, it was therefore perceived as an unfair policy tool, as it was expected to intensify the effects of the economic crisis: two out of three French people were opposed to the carbon tax project when it was introduced to public debate in September 2009 (TNS Sofres, 2009).

"The effects of the financial crisis were significant. I have seen a clear difference in decision makers' attitudes since the economic downturn. Before the crisis, we could still capture policy makers' attention, on the basis of Nicholas Stern's reasoning. Nowadays, this same reasoning has become counter-productive: asking for a financial effort amounting to 1 to 2% of GDP today for a benefit reaching 5 to 20% of GDP in 2050 is not appealing to policy makers any more. A politician needs a return to growth within six months. Implementing something that costs you 1% of GDP today and that saves the planet in 2050 does not sell politically. And everybody knows that a politician needs to be re-elected."

Member of the Expert Commission

In light of the questioning of Nicolas Sarkozy's leadership and policy making at both international and domestic levels, with the Copenhagen disappointment and strong public and business opposition resulting in the crushing defeat of the right-wing UMP party in the regional elections, the French Government eventually followed collective preferences and withdrew the carbon tax project in March 2010.

"I was in charge of this issue when Jean-Louis Borloo decided to follow the path of carbon taxation around June 2009. Before that, my predecessor did the hard work, which was the promotion of this policy instrument among the Minister's team. For two years, in 2007 and 2008, he fought without success for the adoption of carbon taxation. I think it must have been hard for him because the issue did not come out when he was in charge within the cabinet. I took office in May-June 2009, at the time of the European elections. And what happened? The greens achieved a high score, which did not benefit the socialists. At this time the Minister took the political decision to pull out all the stops on the carbon tax, and from this moment everything went really fast. Within a few months we were to build a real green fiscal device so as to integrate it within the financial bill. This might have been why we failed; we went too fast and people were not ready. The results of the European elections prompted us to think that we had a real electoral demand for an ambitious climate policy."

High-level civil servant, Ministry of Ecology

Table 7. The evolution of the attitudes of French citizens towards climate change (2007-2010)

In your view, is global climate change a very serious problem, somewhat serious, not very serious, or not a problem? (in %)					
Survey date	Very Serious	Somewhat serious	Not very serious	Not a problem	DK / Refused
Spring 2010	46	39	9	5	0
Spring 2009	68	28	3	1	0
Spring 2008	72	24	3	1	0
Spring 2007	68	27	4	1	0

Source: Pew Global Attitudes Project, 2010.

5.2. Policy makers' preferences shaped the design of the French carbon tax and contributed to its demise

Policy makers' preferences played a minor role in the choice of carbon taxation over other policy tools such as command-and-control measures or cap-and-trade. The tax option was indeed chosen at an early stage of the policy process as a result of its promotion by economists and members of civil society, both before the presidential elections, with the Ecological Pact making it one of its main policy proposals, and after President Sarkozy took office, with the *Grenelle Environment* deliberative process deciding to study the conditions of the implementation of the carbon tax without debating other policy instruments. In retrospect, this lack of debate on other policy options, and in particular on a system of tradable permits, was deplored by many policy makers, which confirms the assumption that the more visible the costs of a particular policy, the greater the political costs to the legislator. This is why the French Government tried its best to redefine the terminology of the policy tool so as to frame the issue in a less controversial way. However, although the terminology used by the Commission of Experts and the Parliament left out the word "tax", defining the tool as respectively a "climate-energy contribution" and a "carbon contribution", both the media and politicians alike referred to a carbon tax.

"I am a bit frustrated by the Expert Commission's report, in the sense that we should have had a broader upstream debate on the type of policy instrument we were to implement, in particular on cap-and-trade versus carbon taxation. We did not have this discussion while it seemed economically relevant. Before applying a solution, we need a broader reflection on the type of economic-incentive instrument on the one hand, and on the relevance of the strictly domestic implementation of such a tool on the other."

High-level civil servant, Ministry of Foreign Affairs

The expression of policy makers' preferences was quite significant in the design of the carbon tax, and was influential in the final policy outcome. Both the Ministry of Ecology and the Ministry of Finance were involved in the carbon tax policy-and decision-making process. As one would expect, both ministries had competing preferences regarding the features of the carbon tax, as each administration tends to design policy tools according to its own cognitive framework and its associated rationales. Until the President's arbitrations in September, the design in terms of revenue use remained controversial between these administrations, which expressed three types of preferences. First, the Minister for Ecology Jean-Louis Borloo, driven by his personal interest linked to his political career—he was foreseen as the next potential Prime Minister in the upcoming cabinet reshuffle—pleaded for a lump sum to households to increase social acceptance of the tax together with his popularity. Second, the economists leading the Public Policy Department of the Ministry of Finance wanted to implement the tax with an optimal design in terms of expected environmental and macroeconomic outcomes; they therefore favoured the reduction of social contributions for the tax's revenue recycling mechanism and opposed the financial compensation to households. And third, in order to limit public expenditure, most directorates within the Ministry of Finance (in particular the General Directorate of the Treasury and the Budget Directorate) strongly opposed the lump sum, as they hardly conceived that a tax providing no revenues and disincentives to consumption could be implemented.

"Bercy [i.e. the Ministry of Finance] is always doubtful about proposals for new tax concepts that come from other administrations for essentially two reasons: first, they want to be the only administration in charge of the tax system, and second, as they see it, a tax is aimed primarily at feeding the general State budget. Bercy wants to maintain full control of the design of tax instruments. This might seem trivial, but in the daily administrative routine, it creates unexpected obstacles."

High-level civil servant, Ministry of Ecology

Although at first Nicolas Sarkozy appeared to be driven by "good policy motives"[13], his final arbitrations on the features of the carbon tax seemed somewhat guided by whether he was getting a good deal for his constituents: in order to lessen the direct costs imposed by the policy tool on certain sectors and households, the French President introduced multiple exemptions[14] on the one hand, and arbitrated in favour of direct compensation to households on the other. This reminds us of the "throwing good money after bad" blame avoidance strategy, which consists in providing resources in order to prevent a politician's major constituencies from suffering losses. The decision to decrease the tax rate and base in view of expert recommendations demonstrated that the political will to initiate the transition of the French economy towards low-carbon sources of energy, as initially announced by Nicolas Sarkozy, was particularly weak. All in all, it seems that the rationale for the introduction of carbon taxation was budgetary rather than environmental, as the tool was unofficially considered as a way to finance the withdrawal of the business tax, which represented a €11 billion revenue shortfall.

"The rationale behind green taxation is behavioural change; it is not budgetary. But a tax is almost always perceived as a possibility of new financial resources. It goes without saying that convincing both politicians and the public that a carbon tax is an economic-incentive instrument is a difficult task."

High-level civil servant, Ministry of Ecology

"We have in France a real rationale for increasing green taxation, the level of which is relatively low compared to other European countries. Yet policy makers do not consider green taxation as a price signal but as 'great, we're going to get more revenues!' Because growth in government expenditures exceeds growth in GDP, France's debt is constantly increasing; and as soon as a green tax is considered, the government tends to divert it from its initial purpose."

Member of the Expert Commission

13. When presenting the carbon tax project on 10 September 2009, Nicolas Sarkozy vowed to lead the fight to "save the human race" from global warming. He said his aim was to change French habits in order to prepare for a post-oil economy, to reduce the consumption of fossil fuels and to tax people for actions that were harmful to society. (The Guardian, 10 September 2009)

14. The following were totally or partially exempted from the carbon tax: electricity, ETS firms, energy-intensive industries, road freight transport, agriculture and fisheries, air transport, fuel for water freight transport, household coal consumption, households connected to a heating network, and overseas departments until 30 June 2010.

5.3. The French carbon tax policy-making process: a mirror image of an election strategy and institutional conflicts

In relation to the cyclical attention paid by voters to the climate issue, electoral and institutional rules have both prompted French policy makers' embrace of carbon taxation and hastened its demise.

France's disproportional electoral system tends to produce single-party majority governments. This kind of system increases transparency and government accountability, producing an incentive for governments to please voters and to be more responsive to small changes in their preferences. Following this model, we assume that the introduction of the carbon tax was merely an election strategy. Indeed, considering the high salience of the climate change issue during 2009, which was electorally expressed by the French green party's high score in the European elections (Table 8), the French Government gambled on taking ambitious action to mitigate climate change by adopting a tax on carbon emissions, in order to maximise the vote gains for its party in the upcoming elections. Yet voters' preferences eventually shifted, expressing growing opposition to the carbon tax project, and led to the severe defeat of the Government's party in the regional elections: considering that adopting ambitious environmental policies did not allow the Government's party to capture green votes, Nicolas Sarkozy decided to withdraw the project. France's electoral system therefore shapes policy outcomes in such a way that it generates incentives that influence the policy preferences of vote-maximising parties.

Table 8. Environmental voting in presidential and European elections in France between 2002 and 2012

Election type	Election date	Votes	Percentage	Swing (%)
Presidential	2012	828,345	2.31	+0.74
European	2009	2,802,950	16.28	+8.87
Presidential	2007	576,740	1.57	-3.68
European	2004	1,271,394	7.41	-2.31
Presidential	2002	1,495,724	5.25	+1.93

Source: French Ministry of Internal Affairs, 2012

> *"Following the ruling of the Constitutional Court, we worked on an option that would take into account the judges' demands. When the regional elections came, right-wing representatives and the Government's party suffered a severe defeat. Considering that it had earned no votes on ecological issues, the Government decided to withdraw the carbon tax."*
>
> High-level civil servant, Ministry of Finance

Institutional rules also significantly affected the outcome of the French carbon tax. France is a unitary state with a unique semi-presidential system. In theory, although the President is directly elected for terms of five years and has the power to select the Prime Minister (dual executive), the cabinet is accounTable to Parliament, which also has to approve all government legislation (parliamentary checks). This institutional organisation has evolved over time, according to personalities and circumstances. Yet one change has been continuous: the President has indeed gained substantial executive and legislative powers with regard to Parliament, a redefinition of the presidential function that reached its peak during Sarkozy's term. Contrary to what had been set out in the French Constitution, it was not the Fillon government that determined and led the nation's policy[15], but President Sarkozy, who set the specific tasks of governmental policy making by sending annual mission statements directly to the ministries. This "presidentialisation" of the government resulted in the marginalisation of the Prime Minister: the President not only set a policy objective and arbitrated, but he also personally managed most of the policy issues, in particular when these became politically significant or highly visible in the media. Such "hyper-presidentialism", or horizontal concentration of authority, was undoubtedly beneficial to the return of carbon taxation to the political agenda and to its political backing, at least at first. Indeed, the carbon tax project was integrated into the financial bill, which constitutes an important parliamentary check, and a major channel of expression for the opposition.

> *"To speak bluntly, financial law is a huge parliamentary counter-power in the French democracy. Other than financial laws, have you ever seen other bills that the executive power was not able to pass? In France, Parliament is quite weak, but the legislative process associated with financial laws remains its main prerogative."*
>
> Member of the Expert Commission

The adoption of the budget is indeed a key moment in parliamentary life, in which at least two thirds of the representatives of each House, the National Assembly and the Senate participate. This kind of parliamentary check is particularly organised around two constitutional provisions. On

15. Article 20, Constitution of the 5th Republic (1958).

the one hand, the 1974 constitutional revision, extending the right of reference to the Constitutional Court to 60 deputies and 60 senators, has simultaneously increased the role of the constitutional judge and the powers of the parliamentary opposition. Although the review of the constitutionality of ordinary laws—such as the financial bill—with respect to the rules and principles endowed with constitutional value is legal to the extent that the judge limits himself to verifying the conformity of the law with higher norms, it inevitably takes on a political aspect as it is exercised almost exclusively in response to requests from the opposition. Therefore, the right of reference of representatives to the Constitutional Court is often, to a large extent, the expression of political defiance, which may constitute a parliamentary veto point if the constitutional judges decide to partially or totally rule out articles of the law. On the other hand, a new financial law[16] adopted in 2001 has provided Parliament with a real power of arbitration with respect to the control of financial bills introduced by the executive. In particular, this organic law extended representatives' right of amendment: since the implementation of the organic law in 2006, the examination of financial laws has resulted in a substantial increase—+266% in the first year following the reform—of the number of proposed, discussed and adopted amendments (Sénat, 2006). Although in practice the right of parliamentary amendment does not result in a significant variation of budgetary provisions, it may bring changes to fiscal measures. With respect to the financial bill for 2010, 172 amendments were proposed on the carbon tax-related articles[17], 28 of which were adopted (Assemblée Nationale, 2009; Sénat, 2009). Most adopted amendments led to the introduction of additional partial or total exemptions, which ultimately provided the Constitutional Court with a strong rationale to rule out Articles 5, 6 and 7. With regard to financial laws, authority is thus more diffuse, as the parliamentary rights of amendment and reference to the Constitutional Court eventually led to substantial veto points that blocked the implementation of carbon taxation.

16. Loi organique relative aux lois de finances (LOLF).

17. Article 5, introduction of a carbon tax and a tax on road freight transport; Article 6, creation of a lump sum payment aimed at redistributing the carbon tax revenue to households; and Article 7, partial refund of the carbon tax to farmers.

5.4. The expression of partisan ideologies in the carbon tax design and legislative debate: towards the final policy failure

Finally, partisan ideologies have played a significant part in blocking policy change towards the adoption of carbon taxation, as the clash between left-wing and right-wing parties on the policy tool paved the way for the reference to the Constitutional Court of representatives from the opposition party. Confirming Harrison and Sundstrom's assumption, although partisan ideologies were not influential in the decision whether or not to implement a carbon tax, they substantially affected the design of the policy instrument. Parties' preferences have shaped policy design in three ways.

First, the decision not to include electricity in the tax base reflected the right-wing party's preference for nuclear energy over renewables: although an amendment aimed at including electricity in the tax base was presented by green and left-wing representatives, it was eventually rejected. Second, by setting the tax rate at €17 per tonne of carbon, Nicolas Sarkozy merely followed the business community's preferences expressed during the Commission of Experts, confirming the right-wing party's ideological preference for businesses and markets. Similarly, such an ideological preference was reflected in the proliferation of reduced rates, rebates and exemptions, which resulted in a heavier taxation of households than of businesses. Third, right-wing ideology also shaped the features of the revenue use mechanism. The project provided that firms were to be compensated through the withdrawal of the business tax. The withdrawal of the investment part of the business tax was likely to favour the most emission- and capital-intensive industries, which benefited from free CO_2 allowances under the EU ETS and which were therefore exempted from the domestic carbon tax. The Government's project thus not only favoured businesses, but especially the biggest ones. Regarding the compensation to households, the opposition party claimed that the project of the Fillon government would have placed a disproportional burden on low-income, rural and suburban households, as it limited the redistribution criteria to households' composition and access to public transport, without including mitigation mechanisms targeted towards the most vulnerable households (Bricq, 2011)., Although France's socialist party have absorbed new social movements such as the environment within their ranks, social justice concerns make them wary of the regressive impacts of carbon taxation: as a result, opposition

party leaders such as Ségolène Royal rejected the Government's tax project and strongly communicated against it, while left-wing representatives unsuccessfully tried to introduce an amendment adding an income criterion to household compensation.

"The political opposition could have supported the project, but it did not simply because its role is to criticise the Government and its projects. Obviously this happens everywhere, but the opposition strongly opposed the carbon tax project on the grounds that France's fiscal system was unfair, that the Government's fiscal policy—namely the 'tax shield'[18]—was unfair and that the carbon tax was merely an additional injustice completing this overall fiscal policy. Even if the tax comprised good elements, the opposition could not appreciate it independently from the bad fiscal strategy developed by the Government since 2007. In simple terms, the political opposition did not support the carbon tax because the 'tax shield' was unfair."

High-level civil servant, Ministry of Finance

"The green cheque for households was an intricate and unfair feature. Laughing, we would say that we could benefit from the 'tax shield' and the green cheque. That is, a high-income Parisian household, living in a well-insulated building, getting to work by metro, bus or suburban train, which by the way are financed by national solidarity, could receive financial compensation. […] In my opinion, the 'tax shield' killed the carbon tax project. That is, we could only have delivered this reform in a context of great trust in fiscal justice; yet the 'tax shield' had considerably eroded such trust, and citizens saw the fiscal policy only in a negative light, so that the carbon tax could not possibly be adopted."

Left-wing representative

Figure 1 provides a mapping of different actors' coalitions (CSx) either supporting Solution 1 (S1 = Experts' carbon tax), or Solution 2 (S2 = Government's carbon tax), or Solution 3 (S3 = Parliament's carbon tax) or Solution 4 (S4 = status quo). These policy solutions are positioned on the map according to two criteria: their environmental efficiency (X axis) and their political cost (Y axis). This mapping also shows the influence of each of the above-mentioned political factors on the evolution of the French carbon tax project between its political embrace at the beginning of 2009 and its final withdrawal in March 2010.

6. CONCLUSIONS

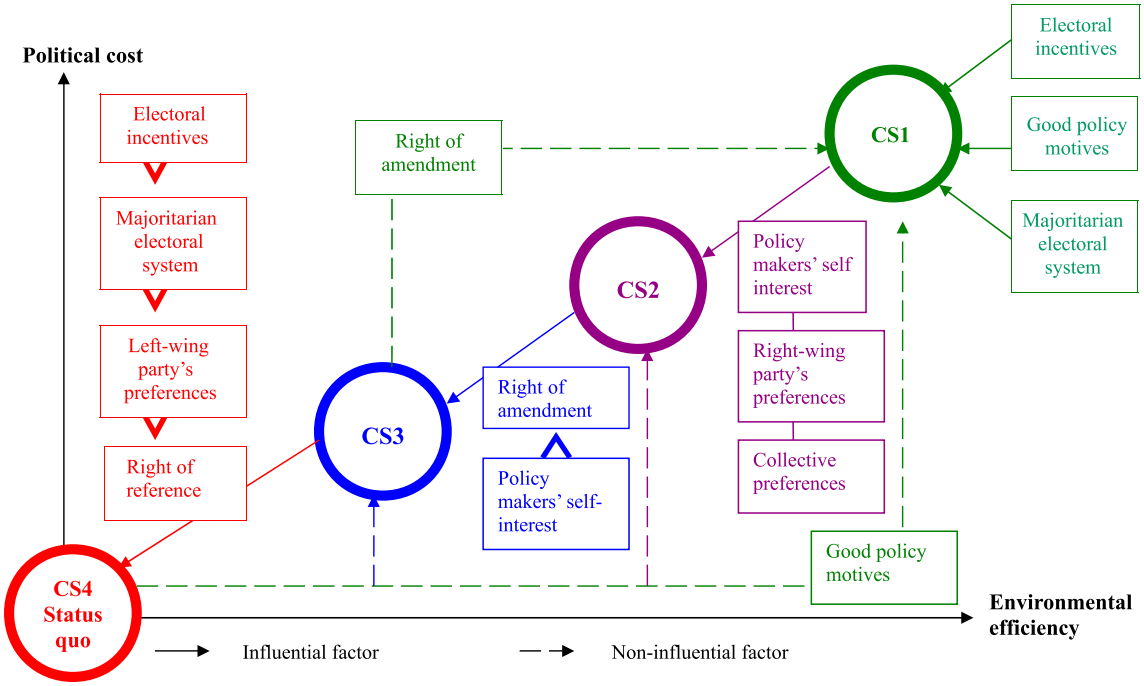
Although carbon taxation has gained substantial weight in the policy makers' toolbox of national measures available to steer climate policy objectives, this paper, by taking France's failed carbon tax as an example, demonstrated that political factors such as electoral incentives, policy makers' preferences, institutional rules, and partisan ideologies, are critical in explaining the gap between the academic ideal and policy practice, as they shape the design of the instrument and eventually affect its policy outcome. While electoral incentives and policy makers' preferences helped to put carbon taxation back on the political agenda from the beginning of 2009, these same factors downgraded the project with respect to experts' recommendations several months later. Parties' ideological preferences and institutional rules, resulting in additional exemptions and a disproportionate fiscal burden on households, then paved the way for the Constitutional Court's censure of the carbon tax-related articles.

However, the results outlined in this paper show several limitations, which reveal the need for further investigative research. With regards to the sample of actors interviewed, this research lacks crucial testimonies from high-level decision makers, such as the Junior Minister of Ecology and the cabinet directors of the Minister of Ecology and the Minister of Finance, which would have enabled further identification of French politicians' preferences with respect to climate mitigation policy options. This research also found that voters' attitudes towards carbon taxes were very influential in the final political delivery—their apparent support at the beginning of the policy process, but not at the end, and their scepticism about the potential benefits of the carbon tax –, suggesting the need for further comparative research on the determinants of public attitudes towards carbon taxation.

In 2009, the ruling of the Constitutional Court, followed by the crushing defeat of the Government's party in the regional elections, resulted in the removal of carbon taxation from the mainstream political agenda in France. As a result, the 2012 pre-electoral debates left out the potential greening of taxation. Yet after almost four years of the most serious financial and economic crisis Europe has seen in 80 years, the question of more efficient and fairer fiscal policy seems more relevant than ever before. In the European Union,

18. Implemented in 2007, the tax shield ensured that the highest income households paid no more than 50% of their annual income in tax. It was perceived as a symbol of the injustice of the fiscal policy led by the Fillon government.

Figure 1. Mapping the political influences on the French carbon tax policy process and outcome



CS1: Expert Commission, General Council of Sustainable Development (Ministry of Ecology), Public Policy Department (Ministry of Finance), green representatives and a small number of right- and left-wing Representatives
CS2: Ministry of Finance, Ministry of the Budget, Minister of Ecology and his cabinet, Prime Minister, President
CS3: Right-wing representatives, Government
CS4: Green, left-wing and right-wing Representatives

numerous Member States have engaged in fiscal reforms, by introducing increasing tax rates and new taxes, or removing others. In France, the new political majority's agenda and discussion of broader fiscal reform processes could pave the way for the reintegration of carbon taxation into the agenda.

But how can carbon taxation be politically feasible, thus sparing France a fourth policy failure? This paper has shown the critical influence of adverse collective preferences on the final policy outcome of carbon taxation in France; in particular, while aiming at improving the political feasibility of the carbon tax, the restrictive and unadapted features of the recycling mechanism paved the way for never-ending debates on equity and fairness and eventually worsened the social acceptance of the carbon tax. In light of the difficulty to consensually resolve the equation of equity, the lump-sum feature should be discarded by future projects: two options are therefore laid out before policy makers to deliver carbon taxation.

On the one hand, carbon taxation could be embedded in a wider set of fiscal policies designed to increase the fairness of the fiscal system; such a package should include a reform of the income tax system (see in particular Spencer, Sénit & Drutschinin, 2012) and of environmentally harmful subsidies (see for instance Chancel & Saujot, 2012). The Swedish experience shows that the introduction of a carbon tax within a wider political project aimed at making the tax system fairer and more efficient, has better ensured both the social acceptance and the political delivery and sustainability of the measure. Indeed, Sweden's 1991 fiscal overhaul, which comprised—among others—a reform of the income tax system, a 50% cut in general energy taxes and the introduction of a carbon tax to finance such a reform, resulted in a slight decrease of the overall tax burden from 52.2% of GDP in 1990 to 45.8% of GDP in 2010 and smoothed out the transition (OECD, 2011). Outside of an overhaul of the tax system on the other hand, the introduction of carbon taxation could be coupled with the decrease of other fiscal measures weighing both on firms and households, such as

employee and employer social security contributions, the value-added tax, the domestic tax on the consumption of energy products (TICPE), or the tax on complementary health insurances[19], options which call for further prospective research.

However, if a lump-sum was to be contemplated by a future government, a comprehensible and intelligently designed redistribution mechanism should be introduced to efficiently offset the regressive effects of the carbon tax: in addition to household composition and access to public transport, redistribution criteria should include income. An income ceiling above which high-income deciles would not receive the compensation should be set, so as to target this revenue surplus to specific measures towards the most vulnerable households (i.e. tax credits for energy-efficient products, subsidised loans, etc.).

Finally, an intelligible marketing strategy must be developed to address the information asymmetries and lack of understanding among the general public. Most importantly, the establishment of a strong and independent communication institution should be contemplated to overcome lack of public trust in the government and to build public support for a future scheme: by holding regional forums and issuing reports, an entity of this kind would provide all citizens with an independent and reliable source of information on climate change causes, effects and solutions, and in particular on the economics of a carbon price.

19. By increasing the rates of complementary health care services, the tax on complementary health insurances deprives low-income households of a full access to health care and is therefore highly inequitable.

INTERVIEWS

Edward ARKWRIGHT, Caisse des dépôts et consignations, 29 September 2011
Martine BILLARD, Assemblée Nationale, 24 June 2011
Jean-Christophe BOCCON-GIBOD, Ministère de l'écologie, 18 July 2011
Jean-Pierre BOMPARD, CFDT, 28 September 2011
Gaby BONNAND, CFDT, 10 October 2011
Xavier BONNET, Ministère de l'économie, 2 May 2011
Dominique BUREAU, Ministère de l'écologie, 21 February 2011
Emeric BURIN DES ROZIERS, Ministère de l'écologie, 18 July 2011
Gaël CALONNEC, Agence de l'environnement et de la maîtrise de l'énergie, 13 October 2011
Gilles CARREZ, Assemblée Nationale, 19 July 2011
Henri CATZ, CFDT, 30 September 2011
Matthieu CHABANEL, Cabinet du Premier Ministre, 13 May 2011
Loïc CHARBONNIER, Ministère de l'écologie, 30 June 2011
Pierre-Franck CHEVET, Ministère de l'écologie, 8 July 2011
Raymond COINTE, Ministère de l'écologie, 29 March 2011
Christian de PERTHUIS, Chaire Economie du climat, 9 March 2011
Daniel DELALANDE, Ministère de l'écologie, 24 March 2011
Béatrice DELEMASURE, Ministère de l'écologie, 7 April 2011
Renaud DENOIX DE SAINT MARC, Conseil Constitutionnel, 11 July 2011
Benjamin FREMAUX, Ministère de l'économie, 6 July 2011
Elodie GALKO, Ministère de l'agriculture et de la pêche, 18 May 2011
Benjamin GALLEZOT, Cabinet de la Présidence de la République, 12 May 2011
Patrick GANDIL, Ministère de l'écologie, 11 April 2011
Jean-Pierre GIRAN, Assemblée Nationale, 24 May 2011
Thierry-Xavier GIRARDOT, Secrétariat général du gouvernement, 13 September 2011
Eric GIRY, Ministère de l'agriculture, 28 February 2011
Matthieu GLACHANT, Cerna, 6 May 2011
Olivier GODARD, Ecole Polytechnique, 4 November 2010 and 18 July 2012
Marc GUILLAUME, Conseil Constitutionnel, 9 September 2011
Jean-Charles HOURCADE, Cired, 23 December 2011
Christian JACQUOT, Ministère de l'agriculture et de la pêche, 19 April 2011
Franck JESUS, Agence de l'environnement et de la maîtrise de l'énergie, 20 May 2011
Thierry KALFON, Ministère de l'écologie, 9 September 2011
Fabienne KELLER, Sénat, 3 March 2011
Jean-Bernard KOVARIK, Ministère de l'écologie, 14 June 2011
Jean-Christian LE MEUR, Ministère de l'écologie, 25 July 2011
Henri LAMOTTE, Ministère de l'économie, 31 March 2011
Elisabeth LAMURE, Sénat, 29 June 2011
Jean LAUNAY, Assemblée Nationale, 19 May 2011
Frédéric LEHMANN, Ministère de l'économie, 20 July 2011
Mathilde LEMOINE, HSBC, 17 March 2011
Matthieu LOUVOT, Cabinet de la Présidence de la République, 14 September 2011
Claude MARTINAND, Ministère de l'écologie, 14 March 2011
Christian MASSET, Ministère des affaires étrangères et européennes, 18 April 2011
Philippe MAUGUIN, Ministère de l'agriculture et de la pêche, 23 March 2011
Françoise MAUREL, Ministère de l'écologie, 21 September 2011
Benoît MELONIO, Ministère de l'écologie, 9 June 2011
Jean-Jacques MIRASSOU, Sénat, 27 April 2011
Jean-François MONTEILS, Ministère de l'écologie, 19 September 2011
Michèle PAPPALARDO, Ministère de l'écologie, 25 February 2011
Benoît PIGUET, Ministère de l'écologie, 6 October 2011
Nathanaël PINGAULT, Ministère de l'agriculture et de la pêche, 11 February 2011
Boris RAVIGNON, Cabinet de la Présidence de la République, 15 June 2011
Michel ROCARD, 22 February and 1 March 2012
Laurence ROSSIGNOL, Parti socialiste, 1 June 2011
Philippe THIEBAUD, Ministère des affaires étrangères et européennes, 8 March 2011
Arnaud TOMASI, Ministère de l'écologie, 30 May 2011
Philippe TOURTELIER, Assemblée Nationale, 6 April 2011
Dominique VOYNET, Sénat, 21 June 2011
Marc WOLF, Ministère de l'économie, 7 July 2011

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